

## ANNUAL REPORT 2022



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## 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.

## Editorial Policy

This is an integrated report that combines information that is important to shareholders and investors, including not only such information as growth strategies and financial results but also sustainability-related information. The report focuses on explanations of NTT Group's initiatives targeting increases in corporate value over the medium to long term. The report is intended to help readers better understand NTT Group, which is accelerating its self-transformation to become "Your Value Partner" and working to increase corporate value by contributing to the realization of a sustainable society.

## Legend

In this Annual 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" refers to NTT DATA CORPORATION, "NTT Urban Solutions" refers to NTT Urban Solutions, Inc., and "NTT Anode Energy" refers to NTT Anode Energy Corporation.

## Other Materials

### Presentation Materials

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

### Securities Report

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

### Shareholders' Meeting Materials

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

### Sustainability Report

<https://group.ntt/en/csr/data/report.html>

# CEO Message



島田 明

**Akira Shimada**

President and Chief Executive Officer  
Representative Member of the Board



My name is Akira Shimada, and I was appointed as President and CEO of NTT in June this year.

As the successor to former CEO Jun Sawada, I will advance our business operations by continuing on the path of the NTT Group's transformation undertaken thus far. As the future economic situation and business environment remain unclear, we hope to create a path forward by responding to changes, or, at times, by pre-empting changes and transforming ourselves.

The NTT Group, which continues to dynamically transform itself, will work to its utmost ability to deliver new experiences and value to our customers.

Q

Now that former CEO Sawada has passed you the torch, how will you run the NTT Group going forward? Please tell us about your policies.

I will steadily implement reforms to make the NTT Group grow even more. The NTT Group's business has been changing. Forty years ago when I joined Nippon Telegraph and Telephone Public Corporation, we only had our telephone business, but now voice related service revenues account for just 15% of our operating revenues. I will take swift action to reconfigure our resources and add new ones with a firm focus on global changes.

A major policy on business restructuring was decided during President Sawada's term. The concrete implementation of the policy and the creation of results is just beginning. I believe that our mission for the time being is to be sure the policy yields results. In order to produce those results, it is important to create an organization and structure that will generate innovative outputs one after another, and I will strive for management to achieve that.

Q

I think that the process of implementing a policy poses different challenges than the process of creating one. Can you tell us about your past experiences and the work that has left a lasting impression on you?

I think one of the unique aspects of my experience is that I have had a variety of careers, including in sales, development, corporate planning, finance, and general affairs. My experience also includes working overseas for about eight years. When you work on the same team alongside people with different backgrounds and nationalities, diversity and inclusion generate new innovations and help provide services that exceed customers' expectations. I still fondly recall the many such experiences I have had.

One of my most memorable experiences was the establishment of the international communications business at NTT Europe. It was a great opportunity to learn about the physical aspects of network construction, such as where to place nodes when starting up from scratch with no facilities such as data centers. For example, water is the archenemy of communications. Water leak detectors are therefore necessary for air conditioning equipment installed with communication facilities, and we had discussions on how to install them. I believe that reliable services are created through the consistent and diligent completion of such steady work.

### Business Strategy

Q

The NTT Group is currently undergoing a major transformation. I would first like to ask about the new DOCOMO Group. NTT DOCOMO became a wholly owned subsidiary, and a new structure including NTT Communications and NTT COMWARE was launched in July. What are the aims of this and what results do you expect it will lead to?

The aim is to strengthen our enterprise business, improve network efficiency, and enhance our software development capabilities. With this new structure, I believe that the DOCOMO Group will have an enhanced system for enterprise business. Solutions are the forte of NTT Communications, while NTT DOCOMO's strength is its mobile services. Because software development capabilities are also needed to provide services, we will combine the strengths of the three companies, including NTT COMWARE, and thereby greatly increase the competitiveness of the NTT Group's enterprise business.

I believe that the future growth drivers for the DOCOMO Group will be enterprise business and smart life business. Firstly, for enterprise business, we will build a sales structure enabling provision of one-stop services to all customers, and aim to achieve revenue of over two trillion yen in fiscal year ending March 31, 2026. For the smart life business, in addition to further growth in finance, payment, and marketing solutions, we will work on electricity, medical, and XR businesses as new areas, and double profits in fiscal year ending March 31, 2026 compared to fiscal year ending March 31, 2022.

Moreover, due to the circumstances during the establishment of NTT DOCOMO, both NTT DOCOMO and NTT Communications own their own core networks, which has of course meant there are double the facilities and operations. We must eliminate this kind of waste. We will promote integration not only to reduce costs, but also to improve customer service.

Q

Moving onto the next question, it was announced in May that the businesses of NTT DATA and NTT Ltd. will be integrated in order to strengthen the competitiveness of our global business. In terms of the investment ratio of the new overseas operating company, NTT owns 45% while NTT DATA owns 55%. Please explain the approach to global business, including on this point.

The investment ratio for the overseas operating company was set with NTT DATA at 55% in order to clearly establish NTT DATA's leadership. This is the result of consideration on our ideal business models. NTT DATA has a market-oriented business model that includes consulting for customers, while the business model of NTT Ltd. is selling components such as data centers and communication networks. NTT DATA's business model offers the greatest business opportunities, so we decided to put the company in the lead position in order to highlight its strengths in providing total solutions to customers.

This business integration will create a unique ICT and SI company unlike anything else in the world with full stack coverage, from industry-specific apps and system integration to data centers, networks, and other infrastructure. There are also of course customers that require components, and their needs differ from country to country. It is therefore important that NTT Ltd.'s services are ranked among the top in the world. For example, our data centers are ranked third in the world, even amidst the expansion of the overall market. This means that we can meet all needs.





Q

You are pursuing a two-pronged approach of not only providing full-stack services, but also having strong services that are recognized worldwide.

That being said, I believe that a large amount of capital investment is needed to actively develop infrastructure business such as data centers. What are your thoughts on this?

Market demand is still strong in many parts of the world, so the NTT Group will firmly expand its provision capabilities. We will expand our investment in the data center business both on an aggregate basis (total self-investment and use of third-party capital) and on a self-investment basis. We will invest about 300 billion yen (including about 180 billion yen of self-investment) in fiscal year ending March 31, 2023 compared to our investment of about 180 billion yen (including about 145 billion yen of self-investment) in fiscal year ending March 31, 2022. In addition, we will capture demand by promoting utilization of NTT DATA's customer base and sales capabilities, as well as the provision of data centers with direct cable connections by leveraging its position as a network operator, as unique strengths

of the NTT Group. Moreover, we will of course increase our own investment in key data centers that are expected to generate significant demand, but we will also combine this with the use of third-party capital to rapidly scale up the business.

We are naturally conscious of the need to improve our balance sheet efficiency. For example, we expect the balance of credit receivables, etc. to reach 720 billion yen by the end of fiscal year ending March 31, 2023. We will also achieve our ROIC target and meet the expectations of our investors.

#### Corporate Value / Sustainability

Q

What do you want to emphasize and what in particular do you want to work on as you proceed with the various business reforms you have mentioned so far?

The main theme is “Making NTT Group continue to dynamically transform itself and deliver new experiences and value to our customers.” I would like to promote three initiatives to achieve this.

The first is to create better customer experiences (CX) through better employee experiences (EX). In order to create new value, experiences, and excitement for our customers (meaning CX), we need to mobilize the collective strength of the NTT Group's approximately 330,000 employees and have each of them take on challenges with a sense of excitement. My mission is to firstly build a solid EX structure and loop this to CX to make our customers happy.

The second initiative is to decarbonize through technology. The decarbonization of society is a matter of utmost urgency. I believe it is the mission of those of us living in the present to ensure that our descendants can live sustainably on the planet. The NTT Group has set a goal of achieving carbon neutrality by 2040. In order to realize it, we are working to drastically reduce our power consumption through the promotion of IOWN, and to develop and expand our use of renewable energy.

The third initiative is to ensure connection of infrastructure and critical IT systems even in the event of major disasters. Looking into the past, disasters have occurred that were beyond anything we imagined. Preparation is the key to staying connected. We therefore need to flex our imaginations and continuously anticipate and consider disaster scenarios. There can be no way forward if we think something is just “good enough.”



Q

I think that all these initiatives are highly significant for society as well.

What kind of results can we achieve from an investor's perspective in taking on the challenge of these three initiatives?

The promotion of these three initiatives is an opportunity to contribute to the realization of a sustainable society and also provides a chance for the NTT Group to generate revenue. It is also connected to themes such as ESG and non-financial capital. It is of course important to contribute to society, but I believe it is also necessary to show both internally and externally how our efforts are linked to the enhancement of corporate value. For example, NTT DATA is working to digitize valuable materials held by the Vatican Library and Koyasan University. In addition to the social significance of contributing to research and culture around the world, we are turning this into a business by providing solutions for the long-term preservation of valuable documents and collections through digital archiving. We will continue to disclose information on these themes and unique initiatives that are of great interest to investors, along with the NTT Group's approach, indicators, and other information.

It is also vital to utilize technology to more efficiently promote such initiatives. We have already had cases of the use of drones for early-stage recovery after disasters. I believe that by promoting initiatives utilizing technology in various fields, we can not only achieve our goals while avoiding unnecessary costs, but also generate opportunities to propose new services to our customers. I am aware that an issue for the NTT Group is our tendency to provide nearly perfect services that take too much time. I believe it is important to make our processes agile and improve them through interaction with customers.

Q

How would you like to shape the NTT Group going forward?

I want to make it a "company that connects data."

In addition to making additions to our existing business areas, we must also link completely new business areas to our existing businesses. I believe that data is the key to this. It is important for us to create new added value by leveraging our strong ability to accumulate and analyze information. For example, in our efforts to support the medical field and primary industries such as agriculture, livestock, and fisheries with ICT technology, we can acquire a variety of new data and structure it for analysis purposes, thereby connecting data and creating new value.

We need to apply our technology and know-how to many fields and collaborate with our partners in various fields to solve problems. I want to further expand our business base as we create new businesses and advance solutions to social issues, which is the mission of the NTT Group.

Q

Lastly, I would like to ask you about your approach to shareholder returns.

The enhancement of shareholder returns is among NTT's most important management issues. Our medium-term business strategy is to pursue ongoing increases in dividend payments, and flexible share buybacks are conducted to improve capital efficiency.

In fiscal year ending March 31, 2023, we plan to increase dividends for the 12th consecutive year, and the dividend per share will be 9.6 times higher than in fiscal year ending March 31, 2004. In addition, with regard to share buybacks in FY2022, we repurchased shares in the amount of about 360 billion yen in September.

I will continue to strive to further enhance the corporate value of the NTT Group.

I would like to ask for the continued support of our shareholders and investors.



# NTT at a glance

## Who we are

NTT Group is a leading company in the telecommunications business. We operate in a wide range of domestic and overseas markets by utilizing the customer base and expertise in communication networks and ICT that we have cultivated over our history.

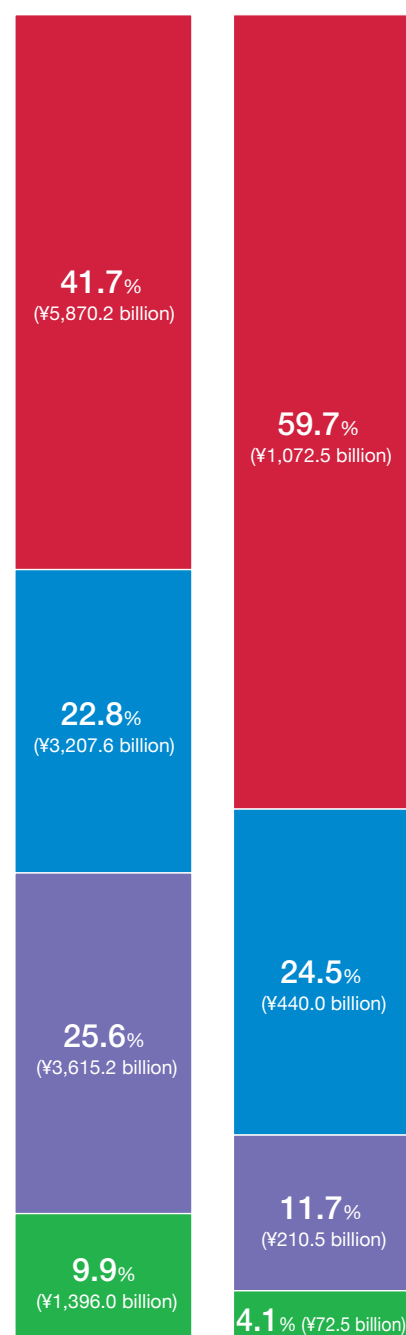
## What we do

As “Your Value Partner”, we aim to work together with our partners to solve social issues through our business activities. We work to make the world a place where all people can enjoy the benefits of ICT so that they may be able to live and work more comfortably and happily.



Operating Revenues\* (FY2021) **¥12,156.4 billion**  
Operating Profit\* (FY2021) **¥1,768.6 billion**

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



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

## Consolidated Financial Highlights (IFRS)

(Unit: Billions of yen)

	FY2019	FY2020	FY2021
Operating revenues	11,899.4	11,944.0	12,156.4
Operating profit	1,562.2	1,671.4	1,768.6
Profit attributable to NTT	855.3	916.2	1,181.1
Total assets	23,014.1	22,965.5	23,862.2
NTT shareholders' equity <sup>*1</sup>	9,061.1	7,562.7	8,282.5
Earnings per share (EPS) (yen) <sup>*2 *3</sup>	231.21	248.15	329.29
Ratio of profit attributable to NTT (ROE) (%)	9.3	11.0	14.9
ROIC (%)	6.6	7.2	7.5
Cash flows from operating activities <sup>*4</sup>	2,995.2	3,009.1	3,010.3
Cash flows from investing activities	(1,852.7)	(1,424.5)	(1,699.2)
Free cash flows <sup>*4</sup> (Cash flows from operating activities + Cash flows from investing activities)	1,142.5	1,584.5	1,311.1
Cash flows from financing activities	(1,041.3)	(1,689.5)	(1,438.1)

\*1 NTT shareholders' equity does not include the portion attributable to non-controlling interests.

\*2 EPS is calculated based on the average number of shares outstanding during the fiscal year, excluding treasury stock, and BPS is calculated based on the number of shares outstanding at the end of the fiscal year, excluding treasury stock.

\*3 NTT conducted a two-for-one stock split of its common stock with an effective date of January 1, 2020. The figures reflect the impact of this stock split.

\*4 Amount excluding the impact of the last day of the previous fiscal years having been a non-business day

## Reference &lt;Business Segment Review&gt;

To allow for the strategic utilization of resources and assets as well as swift decision-making across NTT Group, the Group has reviewed its corporate organization, such as by making NTT DOCOMO a wholly owned subsidiary in December 2020 and making NTT Communications and NTT Comware subsidiaries in January 2022. This brought NTT Group's segments from five to four from the fourth quarter of fiscal year 2021.

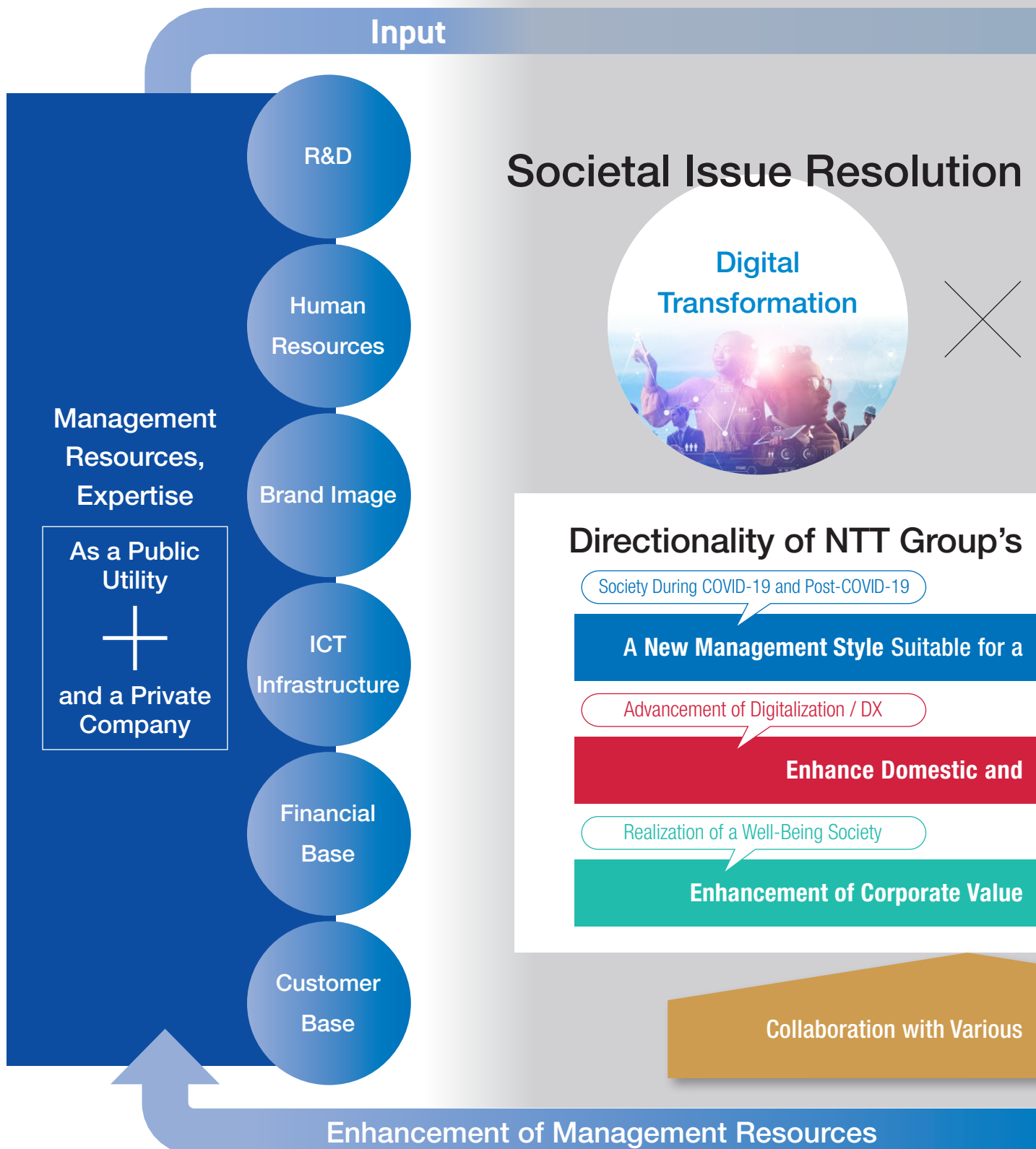
Fiscal year ended March 31, 2022 NTT consolidated    Operating revenues 12,156.4/Operating profit 1,768.6    (Unit: Billions of yen)

Business Segments Prior to Change	Mobile Communications Business Business Segment	Regional Communications Business Business Segment	Long Distance and International Communications Business Segment	Data Communications Business Business Segment	Other Businesses Business Segment	Inter-segment Transaction Elimination
	DOCOMO	East    West	Communications    Ltd	Data	COMWARE    Real Estate, Energy, and Other Businesses	
Business Segments After Change	<div> <div>DOCOMO</div> <div>Communications</div> <div>COMWARE</div> </div> <div>Operating revenues 5,870.2</div> <div>Operating profit 1,072.5</div> <div>Integrated ICT Business Business Segment</div>	<div> <div>East</div> <div>West</div> </div> <div>3,207.6</div> <div>440.0</div> <div>Regional Communications Business Business Segment</div>	<div> <div>Ltd</div> <div>Data</div> </div> <div>3,615.2</div> <div>210.5</div> <div>Global Solutions Business Segment</div>	<div> <div>Real Estate, Energy, and Other Businesses</div> </div> <div>1,396.0</div> <div>72.5</div> <div>Other Businesses (Real Estate, Energy and Others)</div>	(1,932.5)  (27.0)  Inter-segment Transaction Elimination	

# Value Creation Process

## Cycle to Realize Ongoing Improvements of Corporate Value

The Company's attributes include a solid customer base in Japan and overseas, global brand power, human resource capabilities, and world-class research and development capabilities. We will leverage these to sustainably increase our corporate value in a manner unique to NTT through digital transformation together with our partners.





## Contribute to Realization of Smart World/Society 5.0

### SUSTAINABLE DEVELOPMENT GOALS



Toward a sustainable society/SDGs

## Outcome

through Business Operation

CSR

## Transformation

Decentralized Network Society

Global Business

through ESG Initiatives

Partners

### Medium-term Financial Targets

New Targets  
(Announced in  
October 2021)

Prior Targets

(FY2022 Targets)

#### EPS

**¥370**  
(FY2023)

Approx **¥320**  
(FY2023)

<¥340>

#### Overseas Operating Profit Margin<sup>\*1</sup>

**7%**  
(FY2023)

**7%**  
(FY2023)

<7.0%>  
(Expected to achieve target one  
year early)

#### Cost Reductions<sup>\*2</sup> (in fixed-line/mobile access networks)

at least  
**¥(1,000.0) billion**  
(FY2023)

at least  
**¥(800.0) billion**  
(FY2023)

<¥(930.0) billion>

#### ROIC Return on invested capital

**8%**  
(FY2023)

**8%**  
(FY2023)

<7.6%>

### Major sustainability targets

(FY2022 Targets)

#### Greenhouse Gas Emissions<sup>\*3</sup>

**Carbon neutral**  
(FY2040)

<3.075 million tons or less>  
(Down 34% from FY2013)

#### B2B2X earnings

**¥600 billion**  
(FY2023)

<¥600 billion>  
(Expected to achieve target one  
year early)

#### Ratio of women newly promoted to management positions

**Continue at 30% every year**

<30%>

<sup>\*1</sup> The scope of aggregation is the subsidiaries (NTT DATA International Business, NTT Ltd., NTT Communications International Business, etc.) belonging to NTT, Inc. when the Medium-Term Management Strategy was established. Calculation of overseas operating profit margin excludes temporary expenses, such as M&A-related amortization costs of intangible fixed assets.

<sup>\*2</sup> Figures show cumulative reductions since FY2017.

<sup>\*3</sup> Target: GHG protocol Scope 1 + 2

## About Medium-Term Management Strategy

In November 2018, we announced NTT Group's medium-term management strategy, "Your Value Partner 2025." Based on the vision of working together with our partners to solve social issues through our business activities as "Your Value Partner," we have been making progress with our digital transformation as an enterprise with both public and corporate elements.

To respond to future changes in the operating environment, such as the advancement of digitization and DX, in October 2021, we refined the NTT Group medium-term management strategy announced in November 2018 in order to accelerate our transformation into an open, global, and innovative new NTT.

Based on social and economic trends, we have been advancing nine initiatives in accordance with the three frameworks of: transformation to a new management style, enhancement of domestic and global business, and enhancement of corporate value.

### ● Directionality of NTT Group's Transformation and New Strategic Frameworks

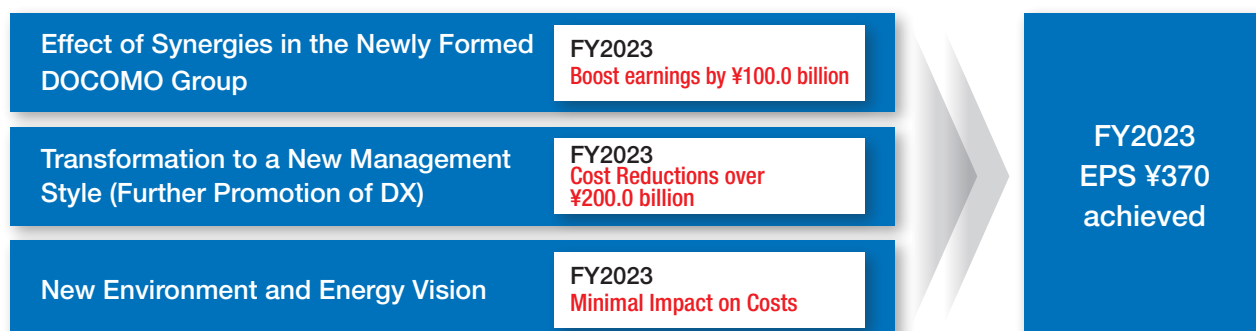
Social/Economic Directionality	NTT Group's Directionality	New Strategic Framework	Initiatives to Achieve the Strategy
Society During COVID-19 and Post-COVID-19	A New Management Style Suitable for a Decentralized Network Society	Transformation to a New Management Style	<ul style="list-style-type: none"> <li>• New style premised on remote work</li> </ul>
Advancement of Digitalization/DX	Enhance Domestic/Global Business	Enhance Domestic/Global Business	<ul style="list-style-type: none"> <li>• Growth and strengthening of the newly formed DOCOMO Group</li> <li>• Promotion of the IOWN development/rollout plan</li> <li>• Enhance competitiveness in global business</li> <li>• Promote B2B2X model</li> <li>• Strengthening of new businesses</li> </ul>
Realization of a Well-Being Society	Enhancement of Corporate Value through ESG Initiatives	Enhancement of Corporate Value	<ul style="list-style-type: none"> <li>• New Environmental and Energy Vision</li> <li>• Disaster countermeasure initiatives</li> <li>• Enhancement of returns to shareholders</li> </ul>

### Contribution to the Achievement of a Sustainable Society

With regard to our medium-term management strategy, NTT has consistently positioned EPS as one of its main financial indicators to achieve steady profit growth and enhance shareholder returns, and it has set a target of 370 yen for the fiscal year ending March 31, 2024. To achieve this target, we will:

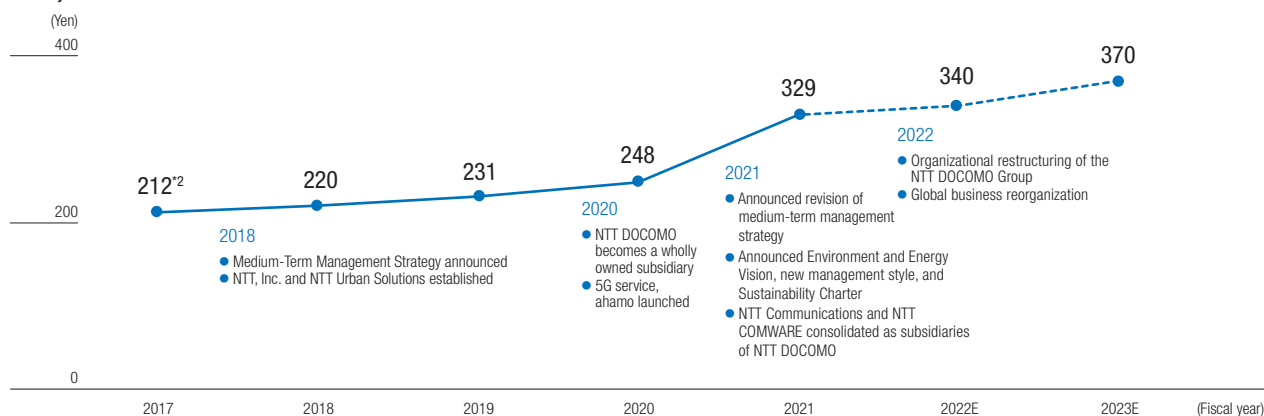
- Strengthen domestic and global operations and generating synergies (boost earnings by approximately ¥100.0 billion in the fiscal year ending March 31, 2024)
- Further promote DX and other initiatives as part of our transformation to a new management style to achieve ongoing cost reductions (over ¥200.0 billion in the fiscal year ending March 31, 2024), thus achieving the target primarily through profit growth.

### ● Initiatives for Accomplishing the ¥370 EPS Target



## Changes in EPS, Consolidated Operating Revenues, Profit

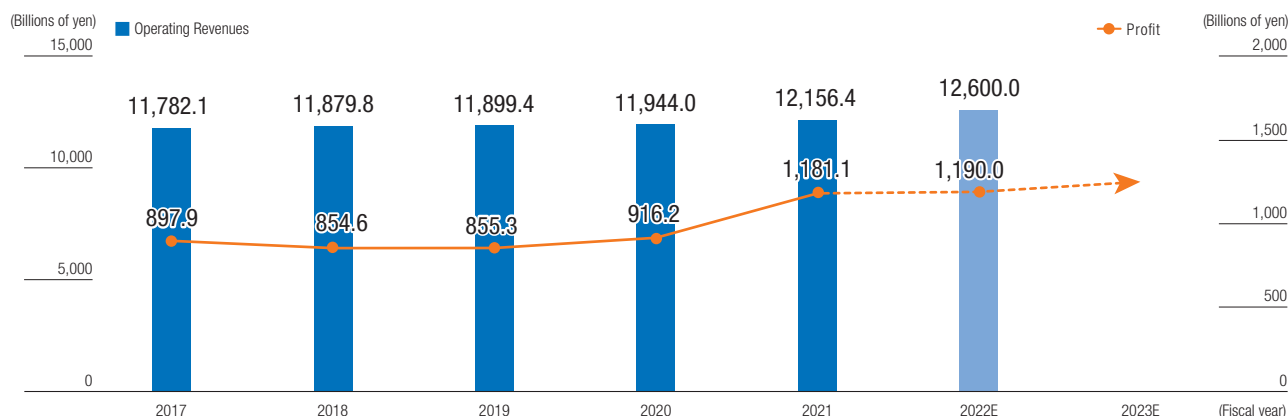
### Major Initiatives and EPS<sup>\*1</sup>



<sup>\*1</sup> A 2-for-1 stock split of common stock, effective January 1, 2020, is taken into account for EPS.

<sup>\*2</sup> Excluding the impact of the arbitration award received from Tata Sons Limited.

### Operating Revenues/Profit



<sup>\*</sup>The profit displayed is profit attributable to NTT less profit attributable to non-controlling interests.

## Medium-term Financial Targets/Progress

	Initial Target <Announced November 8, 2018>	Current Target <Announced October 25, 2021>	FY2021 Results	Earnings Forecast for FY2022	Attainment Levels
EPS	Approximately ¥320 (FY2023)	¥370 (FY2023)	¥329	¥340	Initial target scheduled to be achieved two years ahead of schedule
Overseas operating profit margin <sup>*1</sup>	7% (FY2023)	7% (FY2023)	6.3%	7.0%	Targets expected to be achieved a year ahead of schedule
Cost reductions <sup>*2</sup>	At least ¥(800.0) billion (FY2023)	At least ¥(1,000.0) billion (FY2023)	¥(840.0) billion	¥(930.0) billion	Initial target scheduled to be achieved two years ahead of schedule
ROIC	8% (FY2023)	8% (FY2023)	7.5%	7.6%	Making steady progress
Capex to sales <sup>*3</sup>	13.5% or less (FY2021)	13.5% or less (FY2021)	13.1%	—	FY2021 Target achieved

<sup>\*1</sup> The scope of aggregation is subsidiaries of NTT, Inc. at the time the medium-term plan was established (NTT Data's overseas operations, NTT Ltd., NTT Communications' overseas operations, etc.).

Overseas Operating Income excludes temporary expenses, such as M&A-related depreciation costs of intangible fixed assets.

<sup>\*2</sup> Fixed-line/mobile access networks. Figures show cumulative reductions since FY2017.

<sup>\*3</sup> Domestic network business (excluding NTT Communications data centers, etc.)

# Growth and Strengthening of the Newly Formed DOCOMO Group

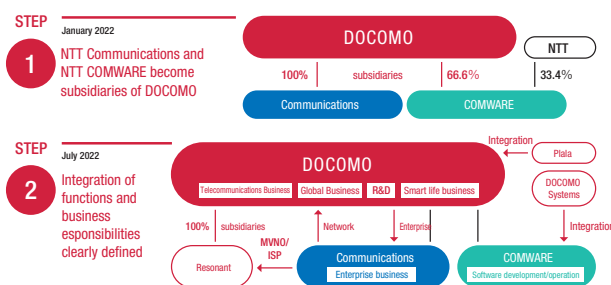
## A New DOCOMO Group Structure for Becoming an Integrated ICT Company

The new DOCOMO Group, formed when NTT Communications and NTT Comware were made into subsidiaries in January 2022, launched a new structure in July 2022 to integrate functions and clarify business responsibilities.

In terms of our enterprise business, we will integrate it into NTT Communications to strengthen our sales structure across both large corporations and regional and small-to-medium-sized corporations, as well as expand our wired-and-wireless convergence services and solutions. In our Smart Life Business, NTT DOCOMO and NTT Plala's video businesses will be integrated to enhance content and strengthen cost competitiveness.

Through the three major synergies of the expansion of enterprise businesses, the development of a more competitive network, and strengthening the power of service creation and development and promoting DX, this Group

will target earnings of ¥100.0 billion in the fiscal year ending March 31, 2024, and more than ¥200.0 billion in the fiscal year ending March 31, 2026. Such ongoing increases in earnings are anticipated to drive the rapid growth of the new DOCOMO Group.



### FY2022 Initiatives for Achieving the Medium-term Management Strategy

Enterprise Business	<ul style="list-style-type: none"> <li>Expand growth areas such as mobile and cloud solutions</li> <li>Leverage DOCOMO Communications' strengths to provide value to customers as a one-stop service, from large corporations to small- and medium-sized enterprises</li> </ul>	<p><b>Implement a combined mobile-fixed line-cloud service</b> Provide a one-stop service that allows all customers to combine mobile, fixed-line, and cloud services as they please</p> <div> <p><b>Mobile-Fixed Line Voice Call Service Packages</b> (Provided late October 2021)</p> </div> <div> <p><b>Speeding up and centralizing mobile access and cloud connectivity</b> (Provided late March 2022)</p> </div>
Smart Life Business	<ul style="list-style-type: none"> <li>Additional expansion of financial, billing, and marketing solutions</li> <li>Expand new domains such as Denki, medical, and XR</li> </ul>	<p><b>Business expansion initiatives</b> Obtain additional growth through utilization of membership base and data</p> <div> <p><b>Expansion of Marketing Solutions</b></p> </div> <div> <p><b>Increased growth of financial business</b></p> </div> <div> <p><b>Provision of DOCOMO Denki</b></p> </div>
Consumer Communications Business	<ul style="list-style-type: none"> <li>New 5G services and expansion of customer base will place the company on a growth trajectory</li> <li>Maintain and increase profits through structural reform of sales channels and network</li> </ul>	<p><b>Customer base expansion</b> Expand customer base by promoting billing plans that satisfy a diverse array of customer needs and cross-selling lifestyle-related services</p> <div> <p><b>Enhancement of paid plans</b></p> </div> <div> <p><b>Number of 5G contracts</b> (Unit: 10,000)</p> </div>

# Enhance Competitiveness in Global Business

## Integration of NTT DATA and NTT Ltd.

In May 2022, it was announced that global business for business users conducted by NTT DATA and NTT Ltd. will be consolidated under the NTT DATA umbrella, and that both companies will operate their businesses in a more integrated

manner.

An overseas operating company will be jointly established in October 2022, with NTT owning 45% and NTT DATA owning 55%.

### The goals of global business integration

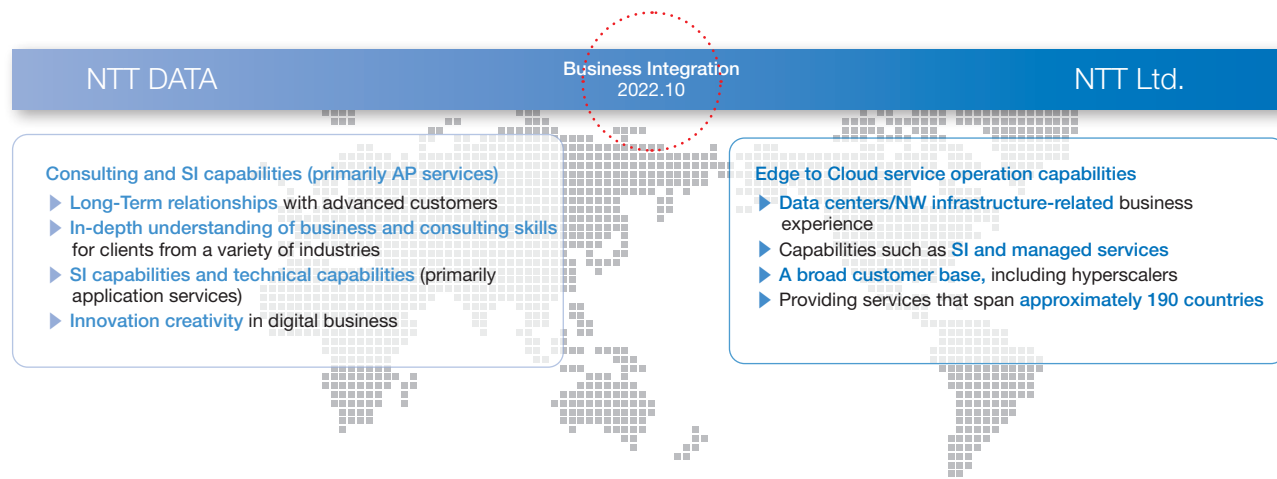
(1) Enhancing global governance	<ul style="list-style-type: none"> <li>Integrate NTT Group's global human resources, providing autonomous management under leadership with expertise in global governance</li> <li>Achieve a stable profit structure by expanding business portfolio</li> </ul>
(2) Strengthening global business capabilities for business users	<ul style="list-style-type: none"> <li>Business consulting and a full stack of service operations, from IoT devices to cloud computing</li> <li>Aim to be a valued partner that can implement a digital platform capable of being leveraged by multiple customers and industries</li> </ul>

We will combine NTT DATA's system integration capabilities (the power to create), primarily in consulting and application development, with NTT Ltd.'s Edge to Cloud service operation capabilities (the power to connect), primarily in data centers, networks, and managed services, to provide Edge to Cloud services that leverage data and a number of points of contact with customers to create a new social platform that transcends corporate and industry boundaries.

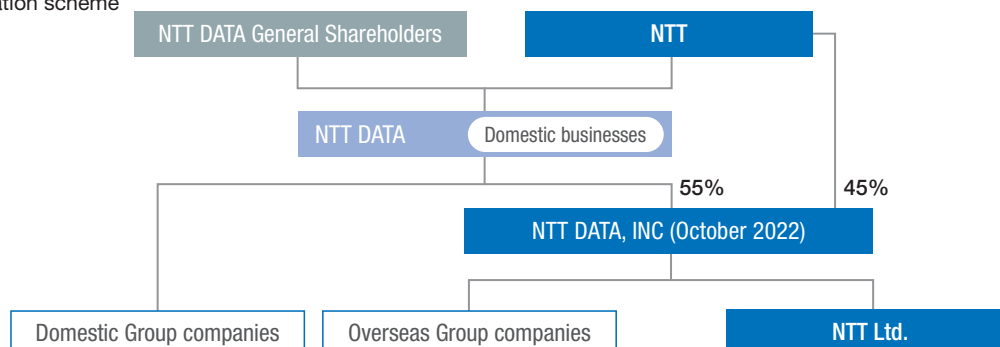
We will not limit ourselves to consulting and application development, but also develop the integrated service lineup

necessary for DX that encompasses the domain of connectivity so that we can meet the increasingly diverse and sophisticated needs of our customers on a global level. Over the long term, we will also develop innovative services that utilize IOWN technology at a global scale.

Furthermore, integrating NTT Group's global human resources will allow for prompt decision-making tailored to business and customer characteristics in overseas regions, as well as strengthen global governance.



### Business integration scheme





# Transformation to a New Management Style

To transform to a new management style, NTT will advance process reform, DX, system revision, and workplace environment cultivation initiatives in order to promote remote work and facilitate work-in-life (health management), and thereby realize work processes that are more open, global, and innovative. In terms of process reform and DX

initiatives, we will introduce a cloud-based system to install IT infrastructure that will enable any employee to work in any location at any time. At the same time, we will digitize processes to facilitate automation and standardization while expanding the application of digital marketing sales approaches.

### Transformation to a New Style Premised on Remote Work



## Key Initiatives and Results

### Implementing zero-trust system

- Development of an IT Environment that Enables Employees to Work From Anywhere(Staff/Sales): Scheduled to complete introduction in FY2022 (NTT Communications, NTT DATA, NTT: complete; NTT East/West, NTT DOCOMO: scheduled to be completed in FY2022)

### Promotion of female managers

- % of new manager appointments: 29.1% (FY2021 target: 30%) (Six companies: NTT Docomo, NTT Communications, NTT East, NTT West, NTT Data, NTT Holdings)
- Increase the ratio of female directors, Audit & Supervisory Board Members, and executive officers to more than 30%

### Promotion of work-in-life (health management) through the workplace-residence proximity

- Remote work ratio: 74% (FY2021 average)
- Creating an environment that offers greater choice of work location
  - Remote work that does not require approval on a case-by-case basis, elimination of restrictions on residential areas for employees who can work remotely, and sharing costs and other expenses associated with commuting to work from remote locations (FY2022 onward)
  - Expand the number of organizations that support remote work through DX (establish security requirements at major contact centers, begin introducing tools to prevent peeping)
  - Satellite offices: 496 sites (March 31, 2022)

### Decentralization of the organization

- Decentralizing of organization from metropolitan areas to regional areas (core cities)
  - Trial run for dispersing the organization across regions is scheduled to begin at the holding company (starting in October 2022)
  - From the standpoint of resilience, we will aim for sustainable business operations by opening offices in Takasaki City and Kyoto City and promoting staggered work hours
  - Introduce a working style based on telework in which employees engage in head office operations while residing in a distant location
  - Introduce a "hometown double work" program to contribute to the revitalization of local communities and areas associated with the Company while continuing current assignments

## Strengthening of New Businesses

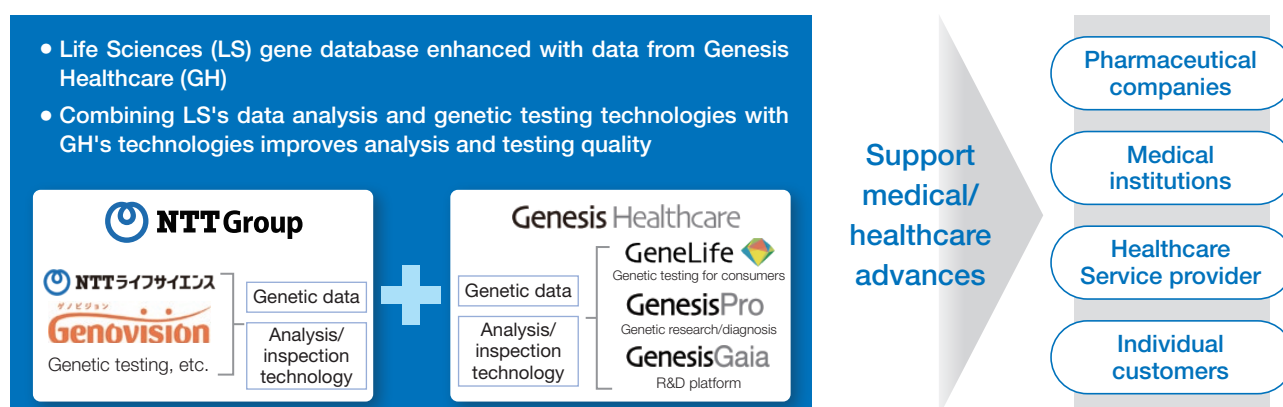
### Capital alliance formed with Genesis Healthcare Co.

In the healthcare and medical business domain, NTT Group is working to achieve Smart Healthcare that leads to a well-being society by promoting comprehensive DX, from healthcare to medical care, through the use of data for individual consumers, as well as by supporting the advancement of medical care in a data-driven manner.

Genesis Healthcare is a pioneer in genetic testing and research in Japan. In addition to "GeneLife," a genetic test for general consumers, the Company offers "GenesisPro," a genetic analysis service commissioned by medical institutions, and "GenesisGaia," a bioinformatics and data science (genome AI) service for pharmaceutical companies

and research institutions.

The two companies agreed to enter into a capital and business partnership with the aim of accelerating the acquisition, analysis, utilization, and distribution of medical and healthcare data, including genetic data, by leveraging and complementing each other's broad knowledge base and expertise. They also aim to contribute to the creation of a healthy society that respects humanity and recognizes diversity rooted in genetics, as well as one where each person can benefit from personalized, optimized precision services.

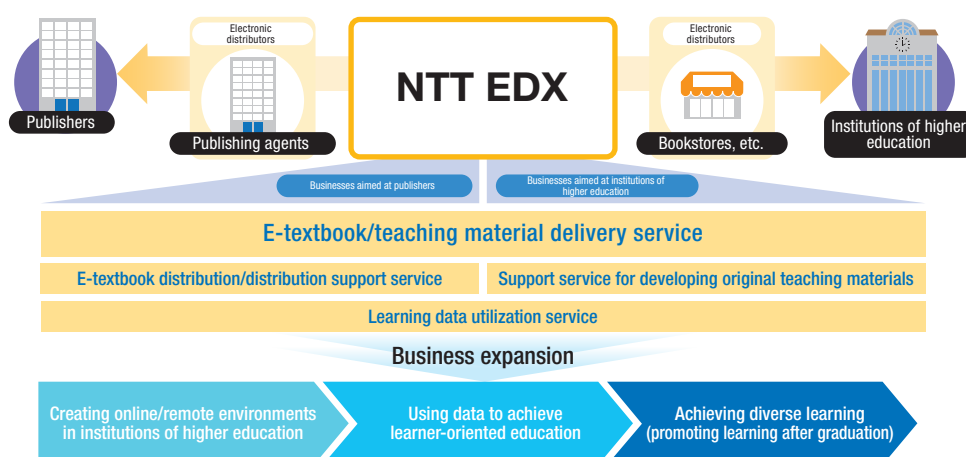


### NTT EDX, a company working to advance higher education, newly established

NTT West, Dai Nippon Printing, and NTT East have been working together to accumulate know-how in the digitization of education using ICT, with the aim of enhancing cooperation with publishers of textbooks and teaching materials and expanding the effectiveness of their collaborative efforts.

For previous efforts, we provided individual solutions to institutions of higher education, but we deemed it necessary to provide this service as a platform service so that we can provide more advanced functions at a reasonable price,

and to expand the service to institutions of higher education nationwide as soon as possible. In addition, a number of institutions of higher education, publishers of textbooks and teaching materials, and bookstores that have sold textbooks for many years have requested that we commercialize this service and make students' education more convenient and resolve issues related to textbooks and teaching materials. We established our joint venture to address these requests.



## Message from our CFO

### Achievement of the medium-term financial targets and sustainable enhancement of corporate value by resolving social issues through business operation

Senior Executive Vice President  
and Chief Financial Officer

**Takashi Hiroi**



#### Contribution to Realizing a Sustainable Society and Profit Growth

The NTT Group aims to contribute to the realization of a sustainable society by promoting its own transformation in response to the direction of society and the economy, and solving various social issues through its business operation. Under the three frameworks of “transformation to a new management style,” “enhancement of domestic and global business,” and “enhancement of corporate value” in the NTT Group Medium-Term Management Strategy which was announced to have been revised in October 2021, we are accelerating specific initiatives to simultaneously contribute to the realization of a sustainable society and achieve profit growth, as well as to achieve our medium-term financial targets.

In regard to our FY2021 consolidated financial results, our operating revenues and operating profit increased year on year, mainly due to an increase in SI revenue from NTT DATA, which took advantage of strong growth in demand for digitization. Profit exceeded ¥1 trillion for the first time, mainly due to an increase in operating income and the impact of taking a

minority interest in NTT DOCOMO, which was made a wholly owned subsidiary. In addition, with regard to the three key indicators set for contributing to the realization of a sustainable society, our greenhouse gas emissions toward carbon neutrality in FY2021 were 2.9 million tons (a 38% reduction compared to FY2013), B2B2X revenue was 544.1 billion yen (the target for FY2022 was 600 billion yen), and ratio of women newly promoted to management positions was 29% (the target for FY2022 was 30%). These results indicate that we are making steady progress with our initiatives.

As we confront a number of risks, such as the increasingly tense global situation and the impact of COVID-19, we intend to make FY2022 the year for steadily developing measures through expanded synergy within the new DOCOMO Group, growing our overseas business, and further promotion of digital transformation (DX). In order to further promote sustainability, we will also incorporate the above three indicators into the performance indicators for officer compensation from FY2022.

For more information on specific initiatives, see [here](#)  **P44-**

#### FY2021 Results and Earnings Forecast for FY2022

	FY2020 Results	FY2021 Results	YoY	Earnings Forecast for FY2022	YoY
Operating revenues	¥11,944.0 billion	¥12,156.4 billion	+¥212.5 billion (+1.8%)	¥12,600.0 billion	+¥443.6 billion (+3.6%)
Operating profit	¥1,671.4 billion	¥1,768.6 billion	+¥97.2 billion (+5.8%)	¥1,820.0 billion	+¥51.4 billion (+2.9%)
Profit	¥916.2 billion	¥1,181.1 billion	+¥264.9 billion (+28.9%)	¥1,190.0 billion	+¥8.9 billion (+0.8%)

\*The net income displayed is net income attributable to NTT less net income attributable to non-controlling interests.

## Medium-term Financial Targets/Progress

Good progress is generally being seen for the financial targets set forth in the NTT Group Medium-Term Management Strategy.

EPS, the most important indicator, was achieved in FY2021 two years ahead of the original financial target (announced in FY2018; same below) of approximately ¥320 in FY2023 (+50% compared to FY2017). We will achieve the new EPS target of ¥370 for FY2023 (a 75% increase over FY2017) primarily through profit growth by steadily implementing our Medium-Term Management Strategy, in addition to share buybacks.

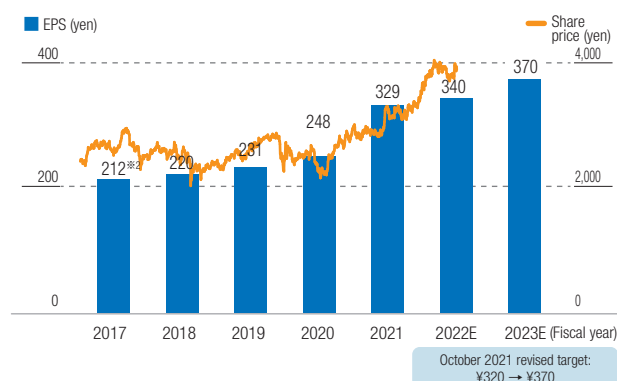
With regard to cost reductions, we also achieved our initial financial target of -¥800 billion or more by FY2023 in FY2021, two years ahead of schedule. To achieve the new target of -¥1

trillion or more in FY2023, we will accelerate additional efforts to promote DX.

ROIC improved by 0.3% year on year to 7.5% in FY2021 and is on track to reach the 8.0% target in FY2023. In addition, Capex to Sales for the domestic network business was 13.1% in FY2021, allowing us to achieve our target of 13.5% or less in FY2021.

Finally, the overseas operating profit margin improved by 3.3% year on year to 6.3% in FY2021, primarily due to the impact of structural reforms as well as the increase in NTT DATA's revenue. We plan to attain 7.0% in FY2022, aiming to achieving our target of 7.0% by FY2023 one year ahead of schedule.

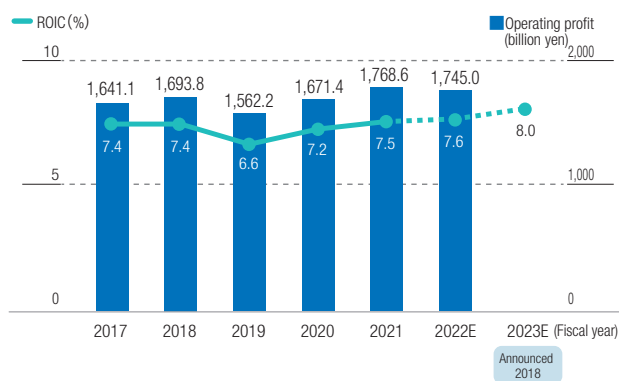
### EPS Growth and Share Price



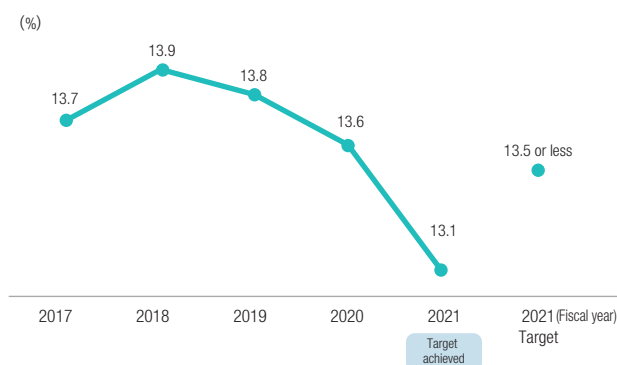
\*1 For EPS, a 2-for-1 stock split of common stock, effective January 1, 2020, is taken into account.

\*2 Excluding the impact of the arbitration award received from Tata Sons Limited.

### ROIC and Operating Profit

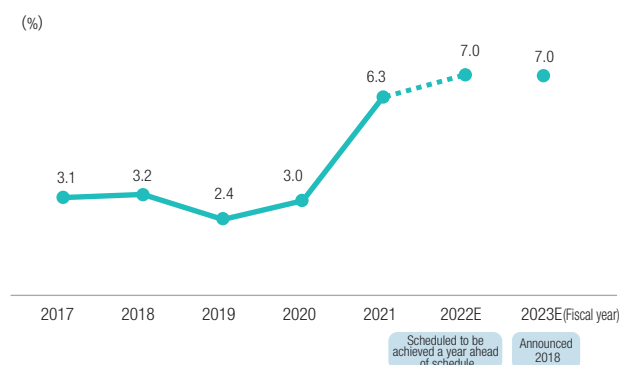


### Capex to sales (Domestic network business)



\*Excluding NTT Communications data centers, etc.

### Overseas operating profit margin



It is essential to grow and strengthen the new DOCOMO Group in order to achieve our EPS target of ¥370, and the drivers of this growth are the Enterprise Business and Smart Life Business. Under the new structure, NTT DOCOMO and NTT Communications have integrated their enterprise businesses, which has finally made it possible to create a sales structure that can be compatible with the characteristics

of all types of customers, from large corporations to small- and medium-sized enterprises. Using this sales structure as a base, we believe that the key to future growth will lie in the ways we can provide new services that combine mobile, fixed-line, cloud, and other services. In addition to revenue growth, we expect the enterprise businesses to become a driver of profit growth through efforts for fundamental cost

## Message from our CFO

efficiencies, such as integrating and standardizing back office and other business processes. In the Smart Life Business, NTT DOCOMO will further expand its financial business and develop marketing solutions by leveraging its customer base of approximately 90 million customers and data, one of its strengths, which will contribute significantly to profit growth.

In May 2022, to reinforce the competitiveness of our global operations, we announced the integration of NTT Data's global operations and NTT Ltd. The two companies will cooperate to provide new value by combining NTT Data's consulting and app development capabilities with NTT

Ltd.'s expertise in high-value-added services, such as data centers, networks, and managed services. In addition, by bringing the NTT Group's global human resources together, we will achieve prompt decision-making that is compatible with business and customer characteristics in each overseas region and enhance our global governance. As of FY2023, the final fiscal year of our medium-term financial target, we expect higher integration costs due to the effects of synergy, but we will increase synergy effects to approximately ¥30 billion in FY2025 afterwards.

## Capital Allocation

NTT Group's businesses provide it with a steady cash flow. With this cash flow, in addition to investing in growth opportunities, we are working to enhance shareholder returns through continuous dividend increases and flexible share buybacks, while also ensuring a sound financial position by reducing interest-bearing debt.

### Growth area investment and asset efficiency

We recognize that active investment in growth areas is an essential component of sustainable development of the NTT Group. Between FY2019 and FY2021, we invested approximately ¥380 billion in 5G, the foundation of our telecommunications services, with the goal of achieving a population coverage rate of 90% or higher by the end of FY2023. We are also investing in new areas such as healthcare, medical, and XR to create new services that take advantage of the high-speed, high-capacity, and low latency features of 5G. In our data center business which is continuing to see extremely high demand, we are accelerating construction of data centers in various regions of the world. We are quickly responding to the expanding data center market by actively expanding our own investments, as well as utilizing third-party capital from Century Tokyo Corporation, Macquarie Asset Management, and others.

At the same time, investments in existing businesses will be streamlined, and overall capital expenditures will be carefully controlled so that they do not exceed current levels by a significant amount.

We are also working to secure cash and improve capital efficiency while reducing assets through disposal of inefficient assets and idle facilities, as well as curbing investments through facility sharing. NTT DOCOMO announced that it will sell up to 6,002 of its telecommunication towers to JTOWER Corporation in March 2022. Such efforts will enable NTT DOCOMO to reduce tower maintenance and operation costs and promote the development of 5G networks.

### Enhancing Shareholder Returns

The enhancement of shareholder returns is among the NTT Group's most important management issues. Our basic policy is to pursue ongoing increases in dividend payments, and flexible share buybacks are conducted to improve capital efficiency.

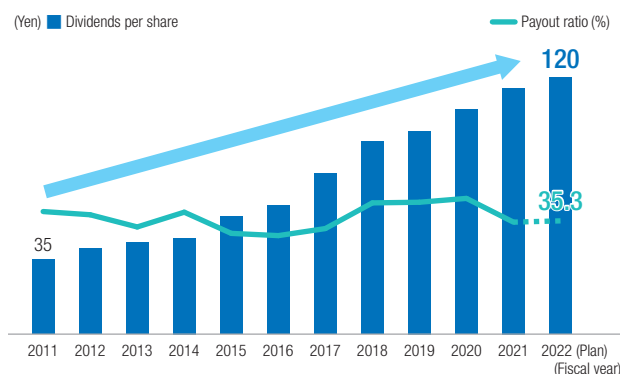
The planned dividend for the fiscal year ending March 31, 2023 is ¥120 per share, a ¥5 increase year-over-year which will make for the 12th consecutive year of dividend increases. The planned payout ratio is 35.3%.

With regard to share buybacks, we resolved to buy back up to ¥400 billion's worth of shares in FY2022, and bought back ¥360.3 billion's worth of shares on September 15.

In addition, in November 2021, we canceled approximately 280 million shares of our treasury stock acquired thus far. The cumulative number of shares canceled to date has led to an approximately 30% decrease in the total number of issued shares, and has significantly contributed to improving the balance of supply and demand for our shares.

The Company's total shareholder return, which accounts for dividends and stock price fluctuations, was 455% over the past 10 years, outperforming the TOPXDVNET index, which is calculated post-tax and including dividends.

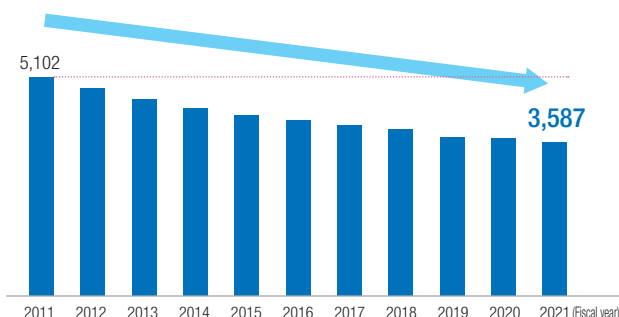
### Dividends





### ● Average Number of Shares During Period (Excluding Treasury Stock)

(Millions of shares)

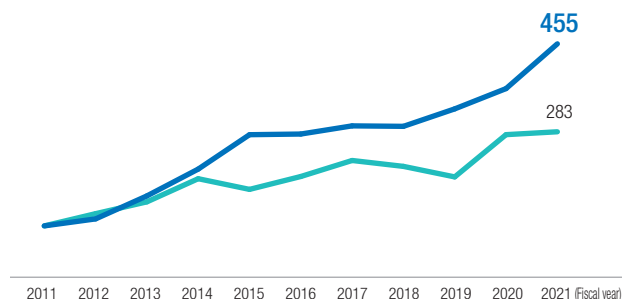


\*Dividends per share and Average Number of Shares Issued have been adjusted to reflect the two-for-one stock split carried out on July 1, 2015, and two-for-one stock split carried out in January 1, 2020.

\*U.S. GAAP were applied for fiscal years up to and including the fiscal year ended March 31, 2018, while International Financial Reporting Standards (IFRS) have been applied for fiscal years from and including the fiscal year ended March 31, 2019.

### ● TSR

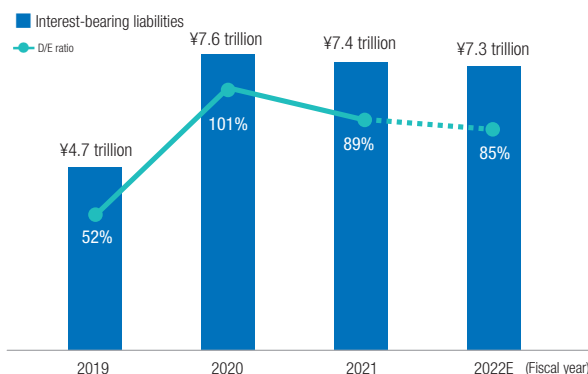
(%) — NTT  
— TOPXDVNET



### Interest-bearing liabilities

The NTT Group's policy is to ensure sound finances based on the entire Group's stable profitability and ability to generate cash flows. Interest-bearing liabilities were ¥7.3643 trillion at the end of FY2021, down ¥260.1 billion year on year, and the debt-to-equity ratio was 88.9%, indicating a sound state. For our rating level as well, we have obtained a stable single-A rating due to our sound financial state, and believe we are able to raise funds while keeping borrowing costs low. As for fundraising, NTT Group Green Bonds have been issued to achieve our new environment and energy vision, "NTT Green Innovation toward 2040," which was announced in September 2021. We are committed to and will continue to boldly advance efforts to make a sustainable society a reality, including in terms of finances.

### ● Interest-bearing liabilities, D/E ratio



For more information on Green Bonds, see here P51

## ■ Enhancing Dialogue with Investors, Analysts, and Shareholders

Due to the spread of COVID-19, we have also taken the opportunity to foster dialogue by holding online meetings and using other forms of indirect communication. We will continue to have a cycle in which feedback obtained through communication with everyone is taken seriously, incorporated into NTT Group's management strategies in a timely manner, and channeled into enhancing corporate value. In addition, the NTT Group's business is undergoing significant changes, including the reorganization of the DOCOMO Group and global business, so we will continue our efforts

to communicate information to everyone. Moreover, we will consider enhancing disclosure of non-financial information, such as investments in intellectual property acquisition and human capital, which have been attracting increasing interest from investors recently, as important information that will enhance the NTT Group's corporate value.

We look forward to continuing meaningful dialogue with you as we work toward achieving sustainable growth of the NTT Group.

# Societal Issue Resolution by NTT Group's Technology



Senior Executive Vice President and  
Chief Technology Officer

**Katsuhiko Kawazoe**

## ■ Using Technology to Address Societal Issues

Providing customers with reliable telecommunications services is the most important role for NTT Group to fulfill. For NTT, it is necessary not only to prevent serious failures, but also to strive for additional technological innovation as we look toward the future.

As IoT becomes more widely used and the services that are essential to our daily lives diversify, the amount of traffic continues to grow, and we are approaching various limits in terms of data volume, latency, and power consumption.

The innovative technology that will break through these limits and usher in fundamental change is the IOWN concept in which NTT Group is engaged. While NTT Group initially

aimed to commercialize the concept around 2030, a number of social issues have emerged, including the aforementioned rapid increase of network load, the global situation regarding carbon neutrality, the expansion of traffic due to a spike in remote usage spurred by COVID-19, and soaring oil prices. For these reasons, NTT Group will move its 2030 target forward and aim for practical implementations at an earlier date. After we have put some technologies to practical use by the end of FY2022, we would like to show everyone the results of our IOWN-related efforts at the 2025 World Exposition in Osaka, Kansai in particular, as well as implement these innovations at NTT Group facilities by 2026.

## ■ The Value that IOWN Provides and Collaborating with Our Partners

Additional utilization of optical technology is important for implementing the IT infrastructure with both high performance and low power consumption that IOWN is aiming for. We will introduce optical technology, which can handle signals while using less power than electricity, not only for transmission, but also for processing. This will enable us to achieve advanced fusion of light and electricity (photoelectric merging technology), in which optical technology is applied in extremely close proximity to the parts where operations are performed. Incorporating this technology into semiconductors will fundamentally solve the aforementioned issues. Photoelectric merging technology is an area in which NTT excels, given the optical-related technologies it has amassed. At present, Japanese companies possess significant technology and manufacturing capabilities in

the semiconductor value chain. However, we have not yet achieved the kind of presence a global stakeholder should have. Our goal is for Japan to spearhead IOWN in collaboration with our global partners and become an indispensable global player in the semiconductor value chain.

Established in the United States in 2020, the IOWN Global Forum has already attracted more than 100 members from Europe, the United States, and Asia. This forum is unique in that it is not limited to the IT and telecommunications industries, but also encompasses the automotive, plant, and financial industries, as well as academic institutions. We believe that we can work hand in hand with the members of the forum to create a value chain that utilizes IOWN in every industry.

## ■ Investing in Intellectual Property Acquisition, Human Capital, and More

NTT has traditionally accumulated research and development of technologies for the next generation. R&D expenditures for FY2021 were ¥248.0 billion, but this figure is limited to expenses spent from the basic and fundamental research phase through R&D for practical applications. For example, we invest in the development phases of the series of processes for creating new services and providing them to our customers, and we naturally promote ICT utilization and DX initiatives in addition to R&D. If we take these into account as well, I am proud to say that NTT Group's investment in intellectual property is on par with that of the world's largest companies.

I believe that investors are interested in whether these investments in intellectual property acquisition will lead to further enhancement of NTT Group's corporate value. We intend to further strengthen information disclosures as we communicate our R&D activities and results so that investors can gain a better understanding of our activities.

Of course, investment in human capital is essential as well if we wish to continue producing research results. We need the best talent in the area, and we would love to have them join NTT Group. For example, Dr. Brent Waters, who joined

NTT Research, Inc. in 2019, is the No. 1 expert in the world of cryptography, and he was honored at Crypto 2022, one of the leading international conferences on cryptographic research, in August. He received the sole Best Paper Award at this year's conference. More than 20% of the papers recognized at the conference originated from the NTT Group. The NTT Group is the leader in the world of encryption technology. With the emergence of quantum computers, the possibility of conventional encryption technology being breached has increased dramatically, but NTT Group's encryption technology can offer security that is free from breaches. Encryption technology is also closely intertwined with security, and we believe that we can make strong contributions in this domain as well.

Going forward, we will need excellent researchers not only in encryption technology, but also in the energy and other fields. To this end, we will aim to make NTT Group more attractive, not only in terms of compensation, but also in terms of prestige, the research environment, and many other aspects so that people wish to work here.



# Research & Development

## R&D that helps to enhance corporate value

**We will continue to advance research and development so that the fruits produced by IOWN can be quickly delivered far and wide to everyone.**

Executive Vice President,  
Head of Research and Development Planning

**Atsuko Oka**



ICT is making remarkable progress, developing a wide range of services and leading various transformations. ICT is also changing styles of living and working, creating a new common sense. Individuals can now easily send out information, and diverse values are spreading. At the heart of these changes is DATA (information). The world is transforming into a data centric society where data create values and all activities are decided in a data-driven approach.

Due to this, the volume of data continues to expand rapidly. To process data, large amounts of computing resources are being deployed. As a result, power consumption is dramatically increasing. It is expected that the amount of data will continue to grow in the future. Efforts to reduce power consumption are being made in various areas, but we are approaching to the limits.

To address this issue, NTT announced the IOWN initiative in 2019. This is an initiative for creating a next-generation communication infrastructure characterized by ultra-high capacity, ultra-low latency, and ultra-low power consumption, utilizing innovative optical technologies. Optical technologies have been widely used in the field of communications, so-called optical fiber. Compared to electricity, optical technologies consume very little power

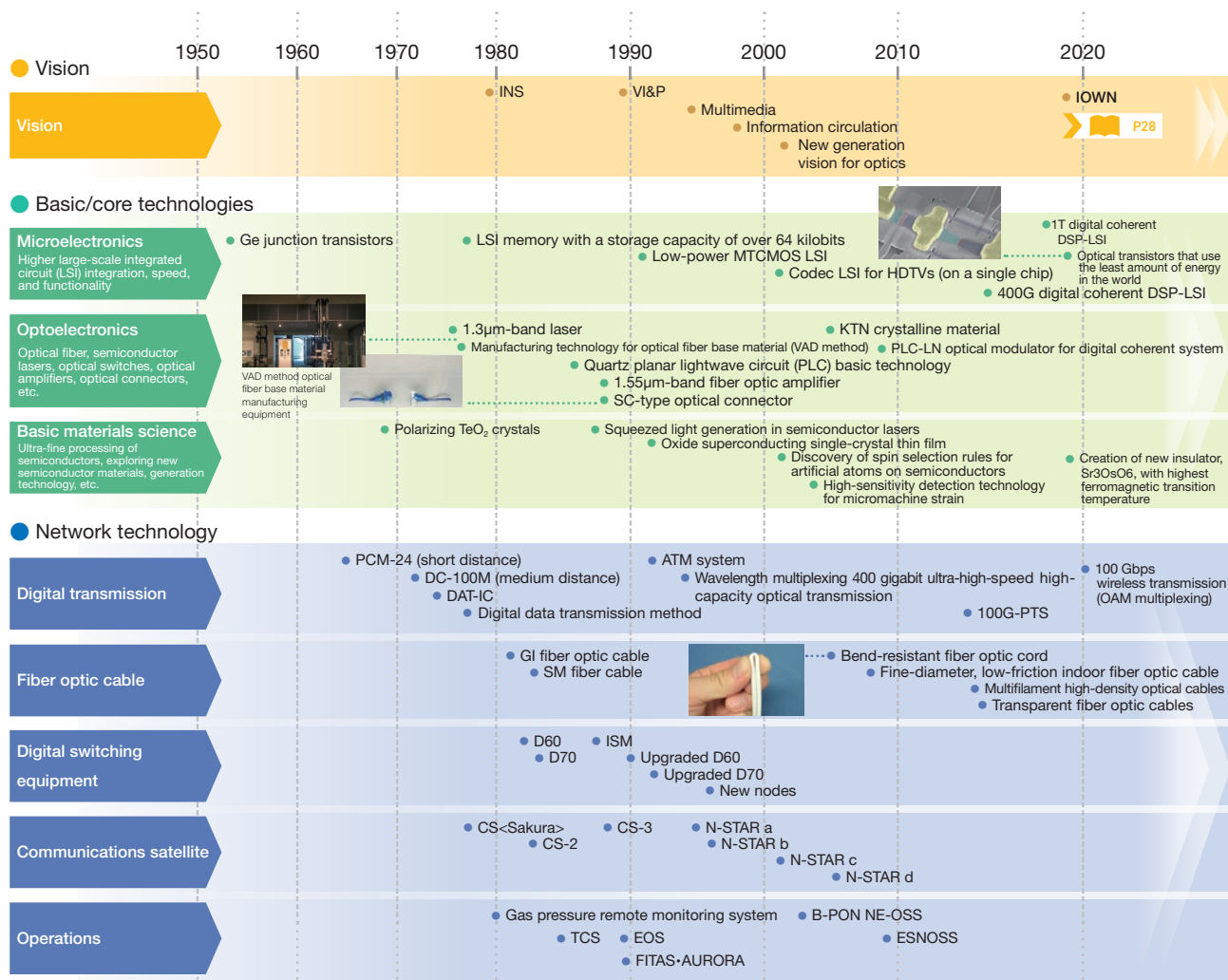
regardless of the communication distance and speed (frequency). The IOWN initiative brings about changes in computing as well as communication by utilizing optical technologies.

IOWN will create a wide variety of services and new value not only in the telecommunications field, but also in transportation, medicine, finance, education, and many other fields. Collaboration with partners in each field is imperative for the realization of IOWN. It is also essential to make IOWN products available to the public as quickly as possible. To achieve this, NTT will soon provide the IOWN testing environment, jointly develop IOWN-compatible services with partners and aim to commercially deploy these services. At the 2025 World Exposition in Osaka, Kansai, we will showcase a unique experience, the beginning of the new era powered by IOWN, to the people around the world. I hope you will look forward to the progress of IOWN initiatives which paves the way to the next generation.

## NTT R&D: History and Initiatives

At NTT, approximately 2,300 researchers have conducted a broad, diverse range of research, from basic research to R&D that underpins business development, giving rise to world-leading technologies and services and contributing to the development of society, industry, and academia. Beginning with the creation of networks to support telephone services that connect people, we have brought about an evolution in networks to create high-speed broadband optical and wireless networks that connect people to information, and this culminated in the information-based society of today.

Creation of new networks is also supported by the fruits of research and the development of basic and core technologies such as optoelectronics, microelectronics, and basic materials science, which transcend the limits of conventional signal speeds and transmission capacity.

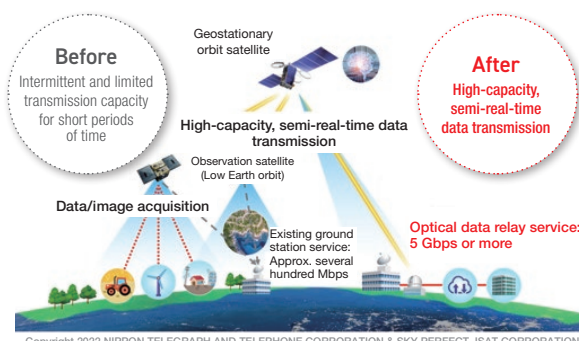


The results we have achieved in research and development in various fields, such as the communications technology and basic technology that we have cultivated, have developed into photoelectric merging technology, among others, which has culminated in IOWN.

## Space integrated computing network

To establish sustainable economic and social activities, it will become ever more important to effectively maximize the use of stratospheric and near-Earth space as an ICT infrastructure platform in a diverse array of fields such as energy, environment and climate change, disaster prevention, marine infrastructure, and security.

Based on the "Space Integrated Computing Network Concept," NTT will take on the challenge of building new infrastructure, beginning with an optical wireless communication network to be constructed in space and a mobile network to be constructed in the stratosphere.





# The Bible of IOWN

An in-depth analysis of IOWN!  
I will answer the questions  
we have received from our shareholders  
and investors!

Head of NTT IOWN Integrated  
Innovation Center  
**Hidehiro Tsukano**

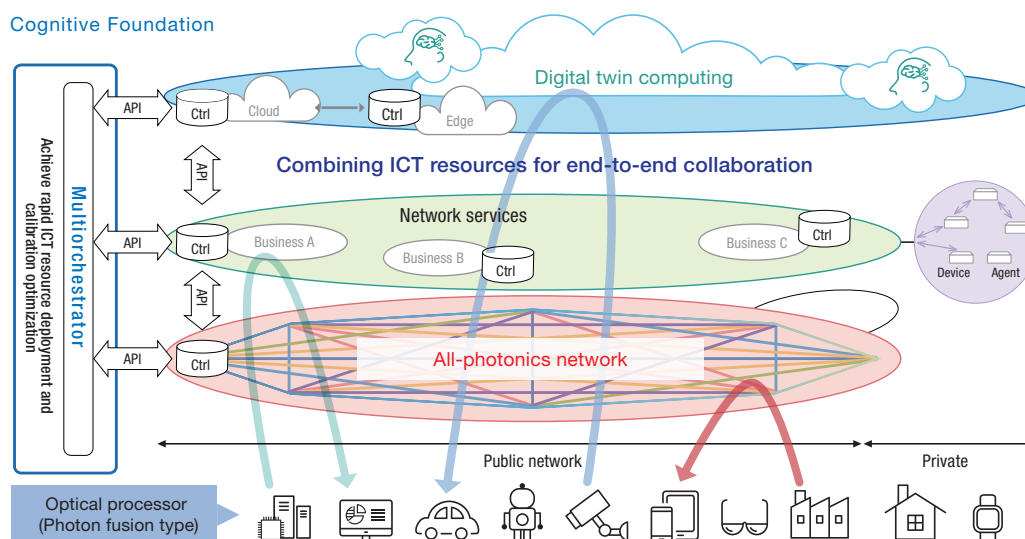


Our next-generation communication platform concept being developed with the goal of practical application in 2030

## IOWN (Innovative Optical and Wireless Network)

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 main components: an All-Photonics Network (APN), which applies optical

technology; a Digital Twin Computing (DTC), which enables advanced, real-time interaction between objects and people in cyberspace; and a Cognitive Foundation (CF), which deploys various ICT resources efficiently, including the aforementioned.



Low power consumption	High quality and high capacity	Low latency
<b>Power efficiency:</b> <b>100 times higher*</b>	<b>Transmission capacity:</b> <b>125 times higher*</b>	<b>End-to-end delay:</b> <b>1/200*</b>
<p>Transmission media: <b>Optical fiber cables</b></p> <p>Transmission systems: <b>Light (wavelength) throughput</b></p> <p>Information processing platform: <b>Photonics-electrics convergence devices</b></p> <p>Various information communication services are provided using 1/100th of power consumption</p>	<p>• Wavelength (optical signal)</p> <p>Independent Light → Light → Light</p> <p>Light/Light</p> <p>Wavelengths</p> <p>Optical fiber</p> <p>1000</p> <p>In an instant (0.3 sec), 10,000 two-hour movies can be downloaded (with 5G, one movie can be downloaded in three seconds)</p>	<p>• Transmission per wavelength</p> <p>• No queueing</p> <p>• No data compression</p> <p>Wavelengths A: High-capacity video (uncompressed)</p> <p>Wavelengths B: No latency</p> <p>Speech</p> <p>Video is transmitted in real-time without the latency experienced with digital TV or satellite broadcast</p>

\* Target power efficiency for the photonics part

\* Target transmission capacity per fiber optic cable

\* Latency target value in video traffic not requiring compression in the same prefecture



## Q1

## Why is IOWN necessary? What benefits does it offer?

The development of digital technology has brought about a number of technological innovations, such as ultra-high definition images, but we believe that we must change our mindset to achieve further evolution. With IOWN, we believe it is important to try to grasp phenomena and information as they are through a more diverse set of values and perceptions, as opposed to filtering them through human-only values. Dr. Jakob von Uexküll, a German biologist, proposed the concept of the "self-centered world" ("Umwelt" in German), which states that all living things have a species-specific perceptual system, and that each has a world based on its own species-specific perception and acts as its own subject. The IOWN concept is based on the idea that different subjects see things in different ways, and that the information being conveyed and the processing method will vary according to the values of each subject. Thus, it aims to convey and process every bit of information in accordance with the values of each subject.

While dramatically low latency, enormous bandwidth, and very small latency fluctuations are required to make



A flower as seen by a human (left)/A flower as seen by a bee (right)

these new ideas a reality, the current internet is reaching its limits in terms of both transmission and processing power. Furthermore, power consumption continues to increase in tandem with the enormous amount of information being processed, and the increase in CO<sub>2</sub> emissions has become a serious global issue.

NTT Group's vision of a high-capacity, low-latency, low-power-consumption infrastructure that can handle information as-is requires an end-to-end, full-stack redesign and optimization that breaks away from individually designed layers, from networking to computing.

The key to this is "photoelectric merging" technology.

Conventionally, optical signals and electronic signals have had their roles completely separated into "transmission" and "processing," respectively, and the task of converting the two types of signals is inefficient and consumes a lot of power. If we tightly integrate optics and electronics, we can apply optical technology to the entire system, down to the processor level, and we can rethink the architecture (structure) from a full stack perspective.

### Limitations of Increasing Resolution



### The Latency Problem



### The Energy Consumption Problem



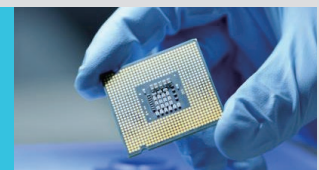
### The CO<sub>2</sub> Emissions Problem



"Transmission"  
via optical  
technology



"Processing"  
via electronic  
technology



Close coupling of light and electrons (photoelectric merge-type processing)

## Research & Development – R&D that helps to enhance corporate value

### The Bible of IOWN

#### Q2

What are the areas in which NTT is particularly strong or enjoys an advantage?

I think the optics-related knowledge that NTT has accumulated over the years is a big advantage. What everyone is probably most familiar with is internet connection services using fiber optic cables, but NTT has long been researching the possibility of not only using fiber optic cables as a transmission medium, but using optics as a basis for transmission equipment and information processing. The results of these research projects are being put on a development track that brings them closer to commercialization, with the goal being practical applications.

In terms of recent achievements, the core of “photoelectric merging technology” is the ability to perform optical-electrical and electrical-optical conversion at ultra-high speeds and with ultra-low power consumption. In LSI, the input/output (I/O) consumes the most electricity, and the impact of replacing this with light is quite significant. Moreover, with electricity, power consumption increases rapidly as the distance over which signals are transmitted increases, but with light, power consumption does not increase very quickly. Thus, by utilizing light through photoelectric merging technology, it is possible to achieve not only ultra-high speeds, an original characteristic of light, but also ultra-low power consumption.

A typical example is the optical transistor developed by

NTT in 2019, the first in the world to combine ultra-high speeds with ultra-low power consumption. A transistor is a conversion device that can output an electrical signal in its proper form by providing it with a control signal. Converting signals is called switching. Conventional light-switching devices are huge and cost several hundred billion yen, but now that optical transistors have been created, they have been reduced to the size of a piece of chewing gum.

In addition, the research and development of optical transistors involves not only signal processing technology, but also the creation of optical modulators. This requires know-how regarding stabilization at high accuracy so as not to disturb the spectrum of a certain wavelength, which is an analog technology that is part of a cottage industry. The fact that we are now able to connect long distances with light is largely due to utilization of our technology.

To cope with the increase in data volume and power consumption, a structural evolution from electronic processing to optical transmission is essential, and the breakthrough in the technology supporting this structural evolution hinges on the higher precision, smaller size, and lower cost of optical transistors. Therein lies NTT’s advantage.

#### Q3

How will IOWN technology be implemented? What sorts of business models can you envision?

IOWN will be available in a variety of domains, but here are two easy-to-understand scenarios.

First, let’s consider the interior of a data center, disaggregated computing. A personal computer has a similar structure, but a server has an interface, a CPU, memory, and storage. The current trend is for the CPU to issue instructions, temporarily store information in memory, and then store the information resulting from its calculations in storage. The CPUs used to be run by electrical signals, but by directly connecting accelerators such as GPUs and DPUs via light and linking them with different wavelengths, it is no longer necessary for each server to have its own CPUs and memory. CPUs are located in one chassis and memory in another, and connecting them via light makes it possible to create a situation in which it appears as if a very large amount of CPUs and memory are installed on a single server. This allows for a scalable computing infrastructure with ultra-low power consumption, high-speed processing, and the ability to add as many parts as required.

One potential business model in this case would involve selling optical transistors. In addition to the optical transistors themselves, products that incorporate photoelectric merging technology and optical modulators into computer motherboards and semiconductor packages are also a possibility. Essentially, we would be selling key components.

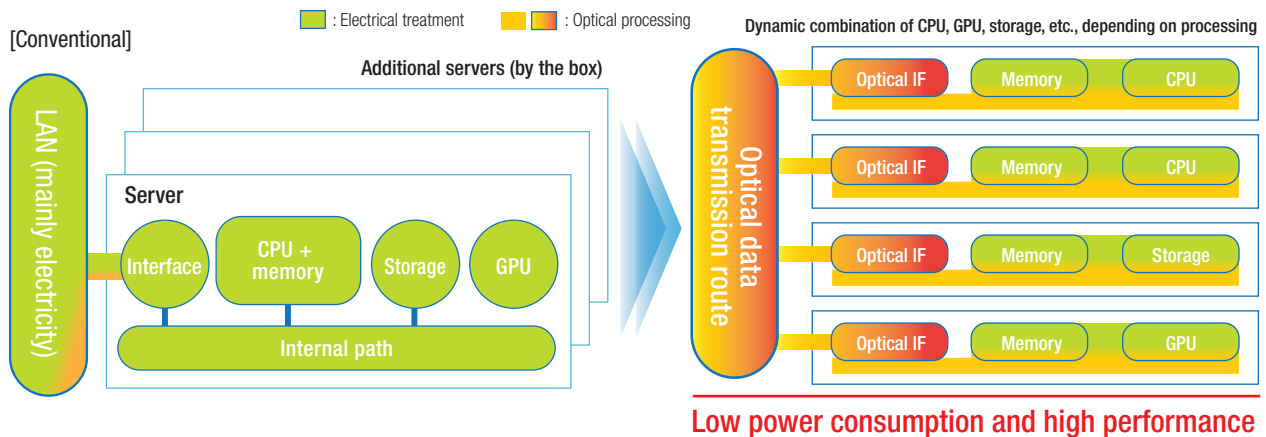
Next, we will expand the scope somewhat to include all-photonics networks, which utilize light between networks, and areas outside the data center. Optical transmission technology used in the core of relay systems that connect cities and in metro networks that extend throughout cities can be expanded to the end user’s neighborhood, which would allow for flexible configuration of ultra-high-capacity optical paths, such as a “one wavelength per person” model, for each application. It would be like having a dedicated, on-demand, one-to-one optical line with no video compression and almost no delay in transmission and reception.

APNs could be used for the mobile fronthaul portion that links base stations and mobile antennas. In urban areas, the

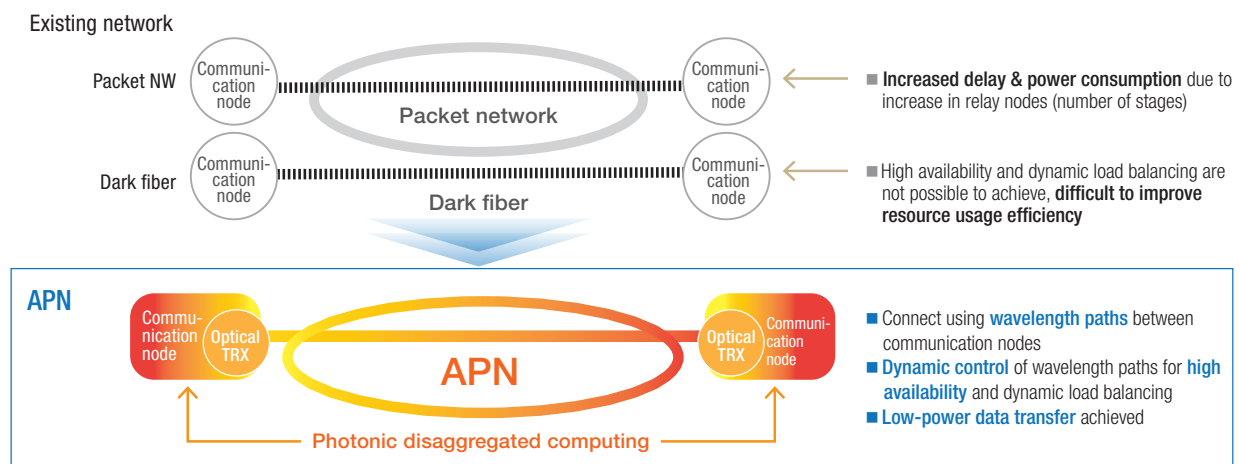
population changes depending on whether it is day or night, so traffic volumes will inevitably vary. For this reason, load

balancing, which dynamically constructs optical paths, can be used to reduce power consumption.

### ● Photonic disaggregated computing



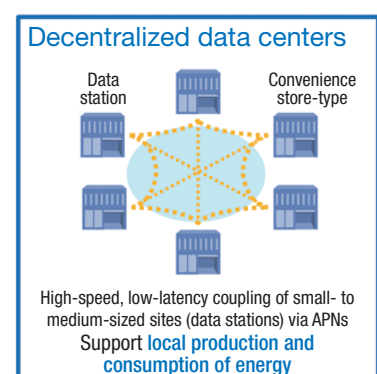
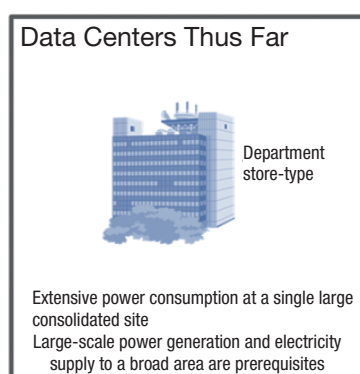
### ● All-photronics network (APN) characteristics



APNs can also be used as lines linking data centers. These days, it is difficult to set up large data centers that require enormous amounts of power. In the future, small- and medium-sized data centers will be dispersed over a broad area, and it will be necessary to connect these distributed data centers using light so that they can operate at a level comparable to that of large-scale data centers. Large-scale data centers require enormous amounts of electricity, but if spread out, they can also make use of renewable energy generated close to their locations, thus enabling local production for local consumption of energy.

Potential business models for cases in which APNs are provided include: acting as an infrastructure service provider, such as providing

mobile fronthaul and networks between data centers; a data center business that provides distributed data centers connected by APNs; and a product business selling optical transceivers to be installed in data centers edges.



## Research & Development – R&D that helps to enhance corporate value

### The Bible of IOWN

Q4

What are some use cases you currently have in mind?

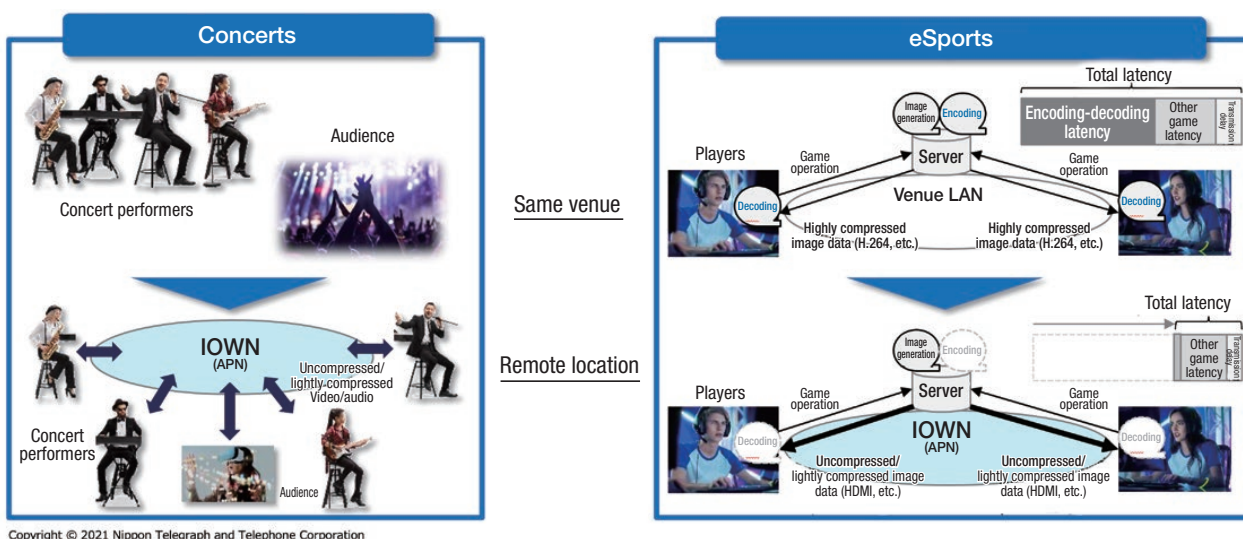
While (1) providing interconnect solutions for data center operators and (2) providing mobile networks for mobile operators have already been introduced, (3) providing networks for events (live broadcasts, cloud-based e-sports broadcasts) is another potential use case.

We have already conducted demonstration tests for cloud-based e-sports event broadcasts. Competitive games via the cloud are fought in real time, and it will be essential to exchange large amounts of 8k video data with a delay of

less than 20 ms. A delay of a few milliseconds compared to a delay 10 times that amount will result in a different attack timing. It is impossible to fight within a game in an environment where the timing of attacks is off due to delay. The delay in the demonstration test was 20 ms, but we are making efforts to lower this to a few milliseconds, and we are currently developing a system that can control the delay in 1-μs increments to enable synchronization.

#### ● Virtual reproduction of real life (concerts, eSports)

- Reproduction of events offering two-way exchange of high-definition video and audio within a virtual space
- Low-latency data exchange allows for those at remote locations to have the same experience as those at the venue



## IOWN GLOBAL FORUM Linking Companies and Academic Institutions Across the Globe

In response to the interest from such organizations, we established IOWN Global Forum, Inc., a new industry forum based in the United States, together with Intel Corporation and Sony Corporation in January 2020. This forum has grown to boast membership by 101 organizations as of August 2022.

IOWN Global Forum's objective is to accelerate the adoption of a new communication infrastructure that will bring together an all-photonic network infrastructure including silicon photonics, edge computing, and wireless distributed computing to meet our future data and computing requirements through the development of new technologies, frameworks, specifications, and reference designs.



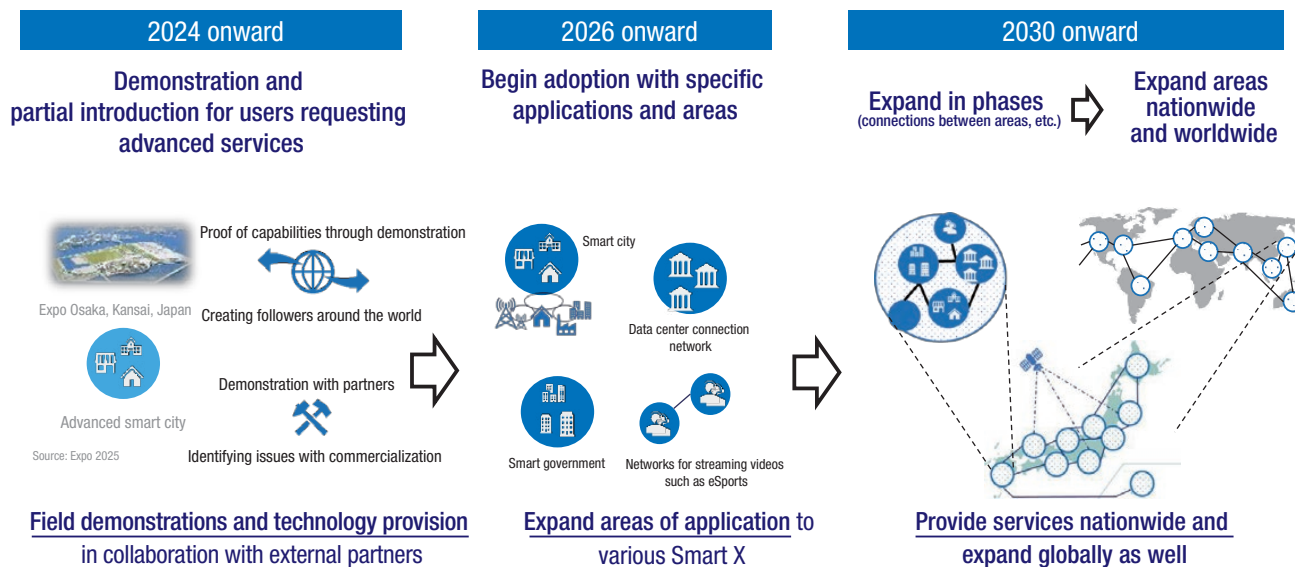
## Q5

## What are your schedule and milestones going forward?

We hope to conduct early demonstrations of the aforementioned use cases, receive feedback from customers, and further refine the IOWN technology. Then, starting around 2024, we will proceed with field demonstrations and limited introductions to users and areas that have a need for advanced services, such as smart cities and critical infrastructure. Around 2026, we will expand the scope of application, though it will still be limited to specific uses and areas. After 2030, we will expand the service nationwide and even globally by connecting areas where it has already been implemented.

Also, an important event coming up in the near future is the Osaka Kansai Expo 2025. We hope to convey a part of our IOWN-based worldview in an easy-to-understand manner, combining some of the IOWN technologies we have mentioned thus far with existing technologies as well. In doing so, we hope to present a new kind of value through partnerships with various companies and organizations, which will lead to these technologies subsequently being implemented throughout society.

## ● IOWN Expansion Roadmap



IOWN is a very broad concept, and many of its aspects may be difficult to understand. IOWN is an innovative concept based on light that communicates and processes things as-is and helps to create a new smart society with low energy consumption and sustainability that is not possible with our current internet. Of course, there are still a great many issues to be resolved, but we are determined to work hard and show everyone the results of our efforts.



## Research & Development – R&D that helps to enhance corporate value

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

# Intellectual property strategy

We believe that for NTT Group to both grow and contribute to society, it is essential to protect the results of our intellectual property investments properly and utilize them while respecting the intellectual property of others.

## NTT Intellectual Property Center Activity Policy

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

The NTT Intellectual Property Center has established an Activity Policy to provide security and safety to NTT Group's businesses, which is on the verge of expanding globally under the slogan of "Your Value Partner," and to support its growth. The Center formulates intellectual

property strategies, provides appropriate protection for the results obtained through intellectual property investments, and promotes the use of intellectual property while respecting that of others.

IOWN, which is generating significant expectations and interest both at home and abroad, is not something that NTT Group can achieve on its own. Through an array of activities in line with our Activity Policy, we will support collaboration with our partners to address various social issues from a global perspective.

## Formulating and Advancing Our Intellectual Property Strategy

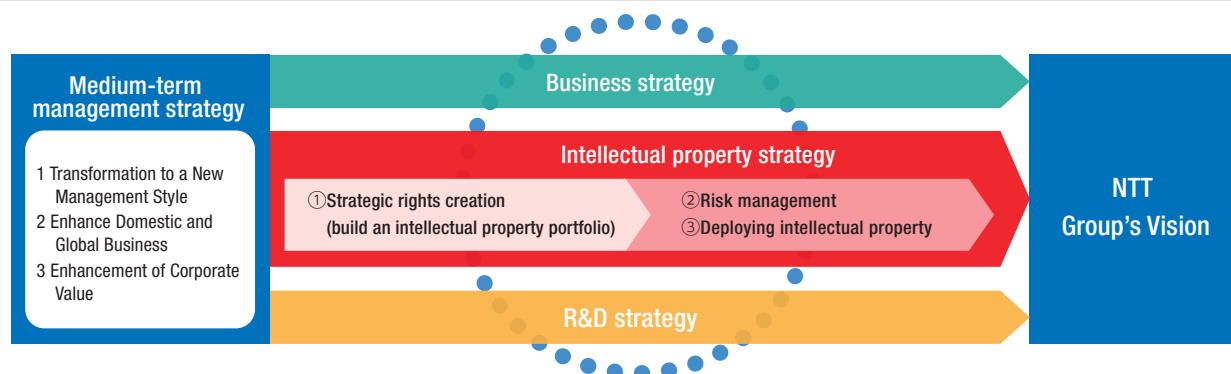
The NTT Intellectual Property Center is NTT Group's core organization for managing intellectual property. The Center aims to secure competitive advantages by proactively and appropriately protecting and managing intellectual property rights (i.e., patents), or internal expertise, from the results of R&D, the source of all business activities.

NTT aims to share the benefits of its R&D by broadly licensing out its technologies that help advance industry and technologies can be standardized and used throughout

society. When deploying the results of R&D in their operations, each company in NTT Group respects the intellectual property rights of other companies.

With our intellectual property strategy as the basis of these activities, we take a three-pronged approach to formulating and advancing our business strategies and R&D strategy, based on our medium-term business strategy and vision: (1) develop strategic intellectual property rights, (2) manage risks, and (3) deploy the intellectual property we own.

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





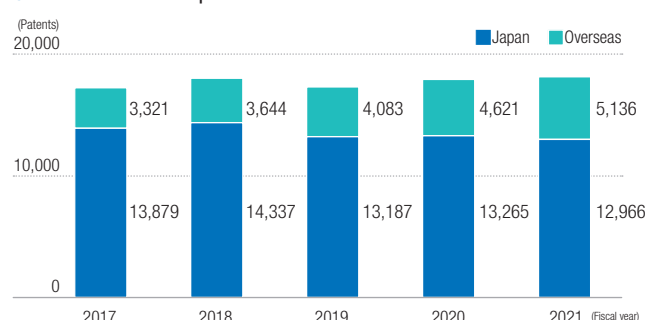
## Intellectual Property Portfolio

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

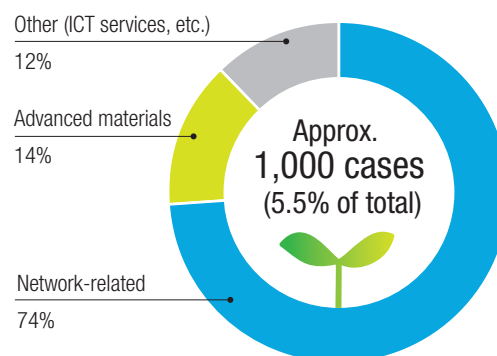
The NTT Intellectual Property Center is not only responding to NTT Group's global business by strengthening overseas patent applications, but also working to obtain rights to

a wide range of energy reduction technologies, such as photonics-electronics convergence technologies that will advance carbon neutrality, which IOWN aims to achieve by FY2040.

### Number of NTT patents held



### Number of patents held by NTT in energy reduction-related technologies



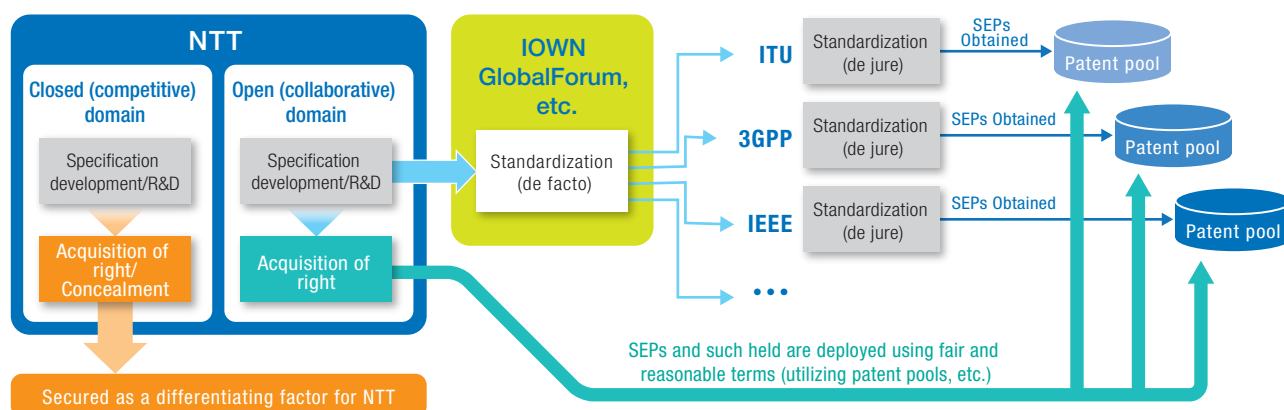
## Open & Closed Strategy (Initiatives related to Standard Essential Patents)

IOWN will not be achieved via a limited number of companies whose core business is information and communications technology. In fact, companies and organizations in various fields active around the world have gathered at the IOWN Global Forum to discuss use cases and technical specifications for making IOWN a reality. In these discussions, it is important to clarify open (cooperative) and closed (competitive) areas while working toward the same goal. In open areas, for example, it is essential to define technology standards to achieve stable communication between devices from different vendors (standardization).

While NTT laboratories play a central role in proposing NTT technologies as standards, the NTT Intellectual Property

Center is working to enhance its Standard Essential Patents (SEP) in coordination with these activities. SEPs are patents that must be used in the manufacture and sale of products and provision of services that conform to certain standards. The NTT Intellectual Property Center provides a secure platform for handling standardized technology rights by participating in and establishing patent pools, whereby companies and organizations in collective possession of SEPs manage patent royalties and other conditions, thereby maintaining relationships of trust with other companies and contributing to the safe and secure business operations of NTT Group.

### Open & Closed Strategy Summary

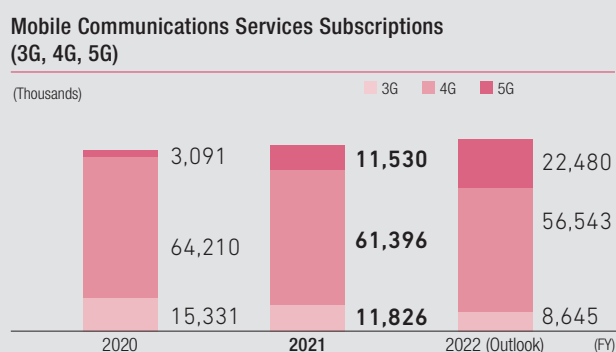
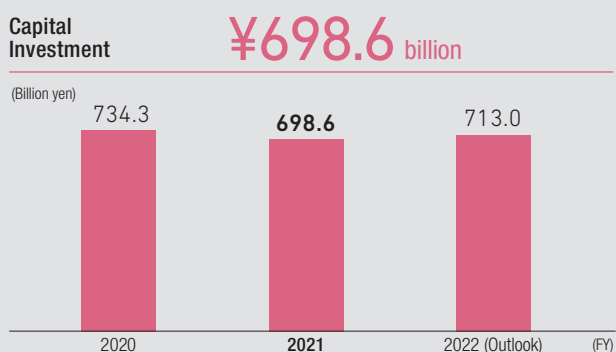
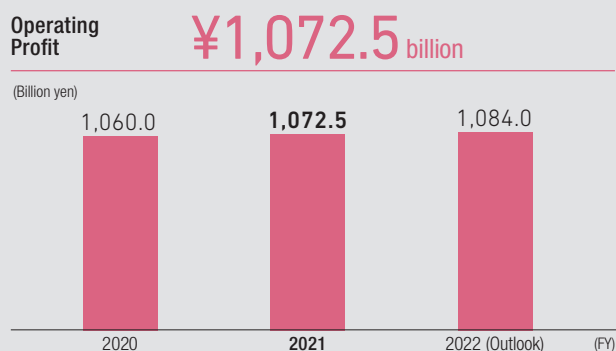
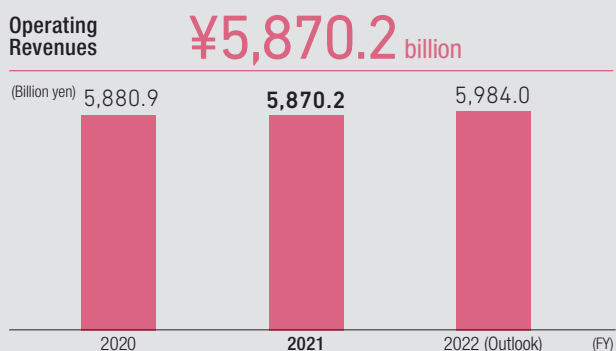


# Integrated ICT Business



In the Integrated ICT Business, in addition to promoting sales of 5G services and “docomo Hikari,” etc., for corporate business, we promoted initiatives for “docomo Business,” a corporate business brand unifying NTT DOCOMO, NTT Communications, and NTT Comware, to support all corporate customers with one-stop service. In the smart life area, we promoted collaborations with various businesses and worked to provide new added value.

## Results for the Fiscal Year Ended March 31, 2022



## TOPICS

### Launched SmartPRO®, a Data Collection Service that Improves the Accuracy of Clinical Trial Evaluations

SmartPRO® (hereinafter "the Service"), which increases the accuracy of clinical trial evaluations conducted by pharmaceutical companies and research institutions, was launched on May 20, 2022.

This service is an ePRO<sup>2</sup> that digitizes subjective evaluations (hereinafter "PRO"<sup>1</sup>) obtained directly from subjects and patients, and allows subjects and patients to relay their condition, such as "pain" or "feeling ill," from their own smartphones. Pharmaceutical companies and research institutions can view and download patient and subject PROs on the Service. In addition, a logbook function that allows subjects and patients to record all health-related data after the clinical trial as well will be

provided as part of the Service by the end of FY2022. We will also consider new healthcare services that contribute to improving subjects' and patients' quality of life by safely and securely utilizing the data collected by the Service.

Through the Service, we will strive to achieve Smart Healthcare that uses digital technology to contribute to the development of healthcare.

<sup>\*1</sup> A PRO (Patient Reported Outcome) is a subjective evaluation of progress and symptoms obtained directly from subjects or patients during clinical trials.

<sup>\*2</sup> An ePRO (electric patient-reported-outcome) are PROs that are filled out and collected electronically.

### Launched XR World®, a Multi-device Metaverse

XR World®, a multi-device metaverse where visitors can casually enjoy communication in a virtual space full of excitement and surprises, became available on March 31, 2022. XR World is a service that allows customers to enjoy a wide range of entertainment content<sup>\*1</sup>, including music, animation, and dance, as well as sports, education, and sightseeing, while communicating with one another through avatars in a virtual space. This service can be enjoyed for free<sup>\*2</sup> with the exception of some content, and can be used within a web browser without the need to

install an application<sup>\*3</sup>. This means users can easily experience the metaverse from a smartphone, tablet or PC without a dedicated HMD (head-mounted display).

<sup>\*1</sup> The service began offering different genres of music on March 31, 2022, and it will gradually expand to include other genres.

<sup>\*2</sup> Basic services are free of charge, but some content is available for a fee.

<sup>\*3</sup> Implemented using HIKKY Corporation's VR content development engine, "Vket Cloud."

### Launch of Stand-alone 5G Service

DOCOMO has launched standalone "5G SA"<sup>\*1</sup> as an optional service for customers who subscribe to DOCOMO's 5G-compatible rate plans beginning August 2022.

DOCOMO will support the use of 5G SA smartphones, and in addition to the Sub-6 band (3.7 GHz/4.5 GHz band), will begin providing support for the 28 GHz millimeter wave frequency band. The communication speed<sup>\*2</sup> reaches a maximum of 4.9 Gbps for receiving and 1.1 Gbps for sending, with both maximum values exceeding 1 Gbps.

We will continue to develop new services and technologies through 5G SA, such as making the service even faster and providing services and corporate solutions that make use of network slicing technology<sup>\*3</sup>, a 5G SA feature, as part of our goal to make our customers' lives more convenient and enriched.

<sup>\*1</sup> A service that combines 5G-Core (5GC), which is a 5G-dedicated core network facility, and 5G base stations.

<sup>\*2</sup> The maximum speed is the maximum value based on technical standards and does not indicate actual communication speed. The service is provided on a best-effort basis, and actual communication speed will vary depending on the communication environment and network congestion. For more information, please check the DOCOMO website <https://www.docomo.ne.jp/area/5g/> (in Japanese only).

<sup>\*3</sup> A feature unique to 5G SA that enables virtual network partitioning. This enables the provision of an optimal network that meets various needs in a flexible manner.

## Key Initiatives

### ■ Transform our business portfolio to become an integrated ICT company and achieve sustainable growth

Enterprise Business	<ul style="list-style-type: none"> <li>Expand growth areas such as mobile and cloud solutions</li> <li>Leverage DOCOMO Communications' strengths to provide value to customers as a one-stop service, from large corporations to small- and medium-sized enterprises</li> </ul>
Smart Life Business	<ul style="list-style-type: none"> <li>Further growth in finance/payment and marketing solutions</li> <li>Expand new areas such as electricity, medical, XR, etc.</li> </ul>
Consumer Communications Business	<ul style="list-style-type: none"> <li>Shift to a growth trajectory with new services and expansion of customer base through 5G</li> <li>Maintain and increase profits through structural reform of sales channels and networks</li> </ul>



# Regional Communications Business

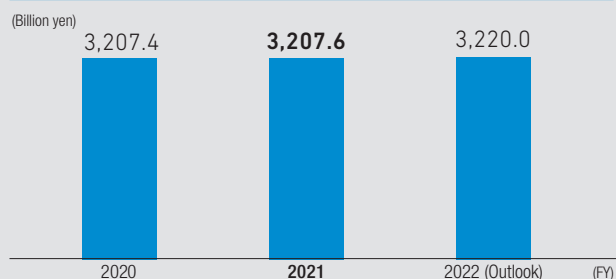


In the Regional Communications Business Segment, we deployed the Hikari Collaboration Model, which provides wholesale fiber-optic access services to various service providers, while also strengthening our solutions business with the aim of revitalizing local communities and regional economies.

## Results for the Fiscal Year Ended March 31, 2022

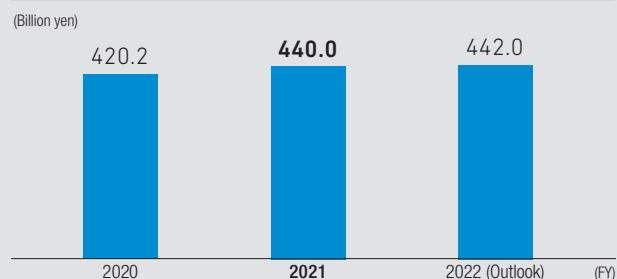
### Operating Revenues

**¥3,207.6 billion**



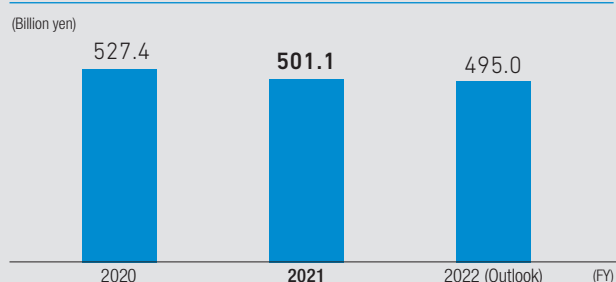
### Operating Profit

**¥440.0 billion**

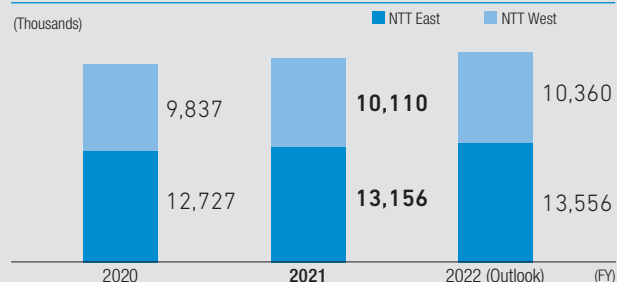


### Capital Investment

**¥501.1 billion**



### Number of FLET'S Hikari Contracts (including Hikari Collaboration)



\*FLET'S Hikari (including Hikari Collaboration) includes FLET'S Hikari Cross, FLET'S Hikari Next, FLET'S Hikari Light, FLET'S Hikari Lightplus and FLET'S Hikari WiFi Access provided by NTT East, FLET'S Hikari Cross, FLET'S Hikari Next, FLET'S Hikari Mytown Next, FLET'S Hikari Light and FLET'S Hikari WiFi Access provided by NTT West, and the "Hikari Collaboration Model" wholesale provision of services provided by NTT East and NTT West to service providers.

## TOPICS

### Establishment of New Company, NTT DX Partner

In January 2022, NTT East established a new company, NTT DX Partner, which will provide support for business reform centered on DX consulting, create and provide a cloud-based digital platform, and analyze customers' various operations and client data. NTT DX Partners will also utilize NTT East Group's DX promotion know-how and assets to provide one-stop support, ranging from DX consulting to implementation and promotion of digital

platforms, in a collaborative, joint development style. This will contribute to customers' success and address local and social issues that arise as well.



### QUINTBRIDGE Opens

In March 2022, NTT West opened QUINTBRIDGE, a co-creation space originating in Kyobashi, Osaka, to promote open innovation and help revitalize the overall market.

QUINTBRIDGE will support business co-creation and human resource development and aims to become a place where companies, startups, local governments, universities, and others can "learn, connect, gather, and create with one another." In business co-creation, we do not stop at formulating ideas, but work with partners to help these business ideas take shape and implement them in local communities, as well as provide various programs (interactive pitch programs, acceleration

programs, etc.) to support this effort.



QUINTBRIDGE

## Key Initiatives

### ■ NTT East - Regional Collaboration Initiatives -

Building a Private Network for a Smarter Community	<ul style="list-style-type: none"> <li>● Establish private networks according to usage</li> <li>● Provide services to meet multi-access needs</li> </ul>
Develop new businesses to solve regional social issues	<ul style="list-style-type: none"> <li>● Develop businesses to meet non-contact and labor-saving needs</li> <li>● Develop consulting business utilizing accumulated data and expertise</li> <li>● Generate new value through digitization</li> </ul>

### ■ NTT West -Deploying Problem-solving Solutions -

Becoming a company that continues growth as a social ICT pioneer	<ul style="list-style-type: none"> <li>● As a pioneer in using ICT to solve various issues brought about by changes in the social environment, contribute to societal development and sustainable growth (SDGs), and continue to transform into a company beloved and trusted by the community</li> </ul>
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Operations in Review

# Global Solutions Business

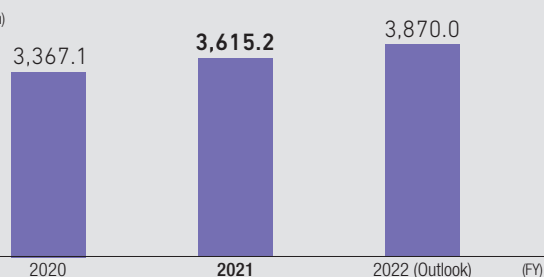
In the Global Solutions business, we worked to enhance our ability to provide services in growth areas, including the data center business and managed services, as well as to expand and provide various IT services in a reliable manner, such as digitization proposals and system integration in response to market changes.

## Results for the Fiscal Year Ended March 31, 2022

### Operating Revenues

**¥3,615.2 billion**

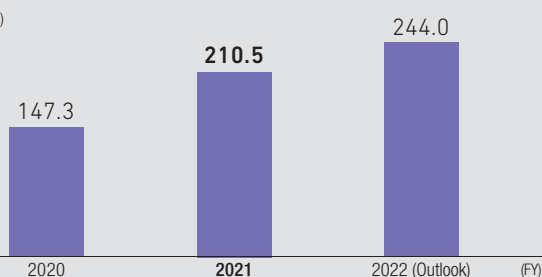
(Billion yen)



### Operating Profit

**¥210.5 billion**

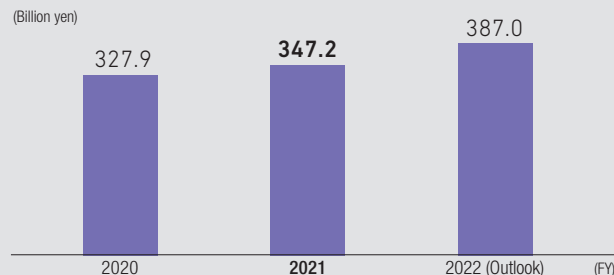
(Billion yen)



### Capital Investment

**¥347.2 billion**

(Billion yen)





## TOPICS

### Reorganization for Strengthening Global Business

NTT Corporation, the global holding company of the NTT Group, and its wholly owned subsidiary NTT Limited, which operates the global telecommunications business, will transfer from October 2022 to the NTT DATA umbrella to integrate the global businesses operated under NTT, Inc. and NTT Ltd. with the global businesses of the NTT DATA Group.

By bringing NTT Group's global human resources together, we will achieve prompt decision-making that is compatible with business and customer characteristics in each overseas region and enhance our global governance.

### Initiatives to Expand the Data Center Business

We aim to further expand our data center business through collaboration with partners and enhancing investment efficiency. As part of this, NTT Global Data Center Corporation and Tokyo Century Corporation have started cooperation in the operation of data center business in India. In addition, NTT and Macquarie Asset Management have agreed to enter into a strategic partnership for NTT's

data centers in Europe and North America, enabling rapid business expansion in these two key regions of the data center business.

We will continue to provide high-quality services to domestic and overseas companies by maximizing investment efficiency and making further growth investments in the data center business in the globally expanding DX market.

### Order Received for an Anti-Money Laundering System for Japan Post Bank

Development of an anti-money laundering system for Japan Post Bank began in July 2021, and service is slated to launch in 2024. The system will have four functions: monitoring, risk rating, screening, and customer management. It will combine strict transaction monitoring with the flexibility to adapt to regulatory changes to

prevent money laundering and financing of terrorism. This will secure the performance necessary for Japan Post Bank, which has the largest number of accounts and customers in Japan, to continue providing services for a large number of transactions.

## Key Initiatives

### ■ NTT DATA New Medium-Term Plan Overview

Based on the outlook of the business environment and the challenges it faces, NTT DATA has formulated a Medium-Term Management Plan for fiscal years 2022 through 2025.

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

#### Overall Strategy

- Create new services by fusing IT and connectivity
- Strengthen consulting capabilities rooted in foresight
- Evolving toward an asset-based business model
- Enhance system development technologies and ability to utilize advanced technologies
- Maximize human resource and organizational capabilities

# Other (Real Estate, Energy and Others)



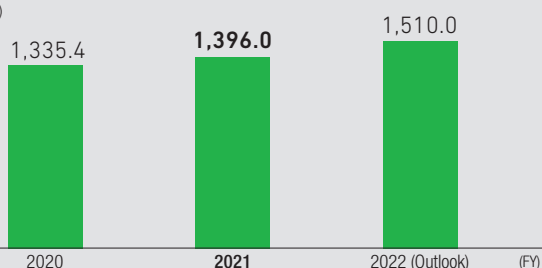
In the other (Real Estate, Energy and Others) category, with NTT Urban Solutions taking center stage, NTT Group worked to promote urban development that leverages its comprehensive capabilities and to provide smart energy services through NTT Anode Energy, among other initiatives.

## Results for the Fiscal Year Ended March 31, 2022

### Operating Revenues

**¥1,396.0 billion**

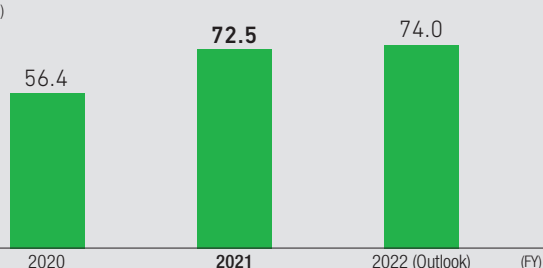
(Billion yen)



### Operating Profit

**¥72.5 billion**

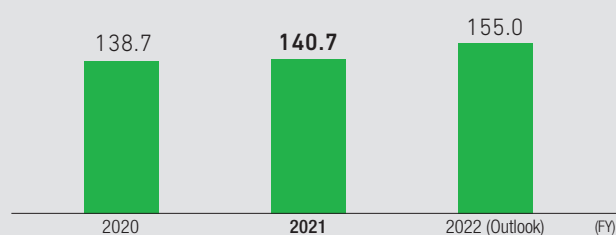
(Billion yen)



### Capital Investment

**¥140.7 billion**

(Billion yen)



## TOPICS

### Agreement on a Development Plan for the Hoenzaka-kita Specified Block (former location of NTT West's head office)

NTT West, NTT Urban Solutions, and NTT Urban Development have agreed on the basic development details for the Hoenzaka Kita Specified Block, an Osaka Urban Planning Specified Block that includes the former location of the NTT West's head office (3-15 Babamachi, Chuo-ku, Osaka City), based on an urban planning decision by Osaka City. This urban zone is located

between Osaka Castle Park and Remains of Naniwa-no-Miya Palace Park, and it offers a panoramic view of Osaka Castle and downtown Osaka. Taking advantage of the relocation of NTT West's head office, this uncommon location will be used to develop a pedestrian space featuring lush greenery and a high-class hotel with high-added value. (Scheduled to open in Spring 2025)

### Off-site PPA to Bring Renewable Energy to DOCOMO Buildings that House Network Equipment

By utilizing an off-site corporate PPA\* (hereinafter "off-site PPA") mechanism, starting April 2022, NTT DOCOMO and NTT Anode Energy (hereinafter "NTT AE") introduced power derived from renewable energy, procured from NTT AE's newly constructed solar power plant, into the NTT DOCOMO Okayama Building, which houses network facilities. This will be the first time for DOCOMO to implement an off-site PPA and is part of the company's efforts to reduce its greenhouse gas emissions to virtually zero by 2030. The new solar power plant, which will supply electrical power exclusively to DOCOMO, will ensure that the company has stable, long-term access to power even if Japan's energy market ever becomes unstable. Greenhouse gas emissions (including non-fossil certificates) at the NTT DOCOMO Okayama Building, where the new system will be installed, are expected to be reduced by approximately 10,000 tons per year.

DOCOMO and NTT AE will continue to make full use of NTT Group's assets to reduce greenhouse gas emissions and contribute to the carbon neutrality of society as a whole.

\*Corporate PPA (Power Purchase Agreement) is a scheme in which electricity users conclude contracts with power generation business operators to procure electricity derived from renewable energy sources over the long term. Off-site PPA, an abbreviation of Off-site Corporate PPA, involves the use of power generation facilities in locations removed from users (the NTT DOCOMO Okayama Building in this case) to supply them with electricity through the power grid.



NTT Anode Energy Power Plant (Tottori City)

## Key Initiatives

### Urban Development Vision

NTT Urban Solutions supports every city's goal of creating unique, vibrant urban environments based on the four values below. This will help to achieve the SDGs and bring about Society 5.0, which entails helping to balance economic development in local communities with solutions to social issues and creating a human-centered society where people can enjoy comfortable, stimulating, and high-quality lifestyles.

Community	Provide attractive spaces and offerings to create unique and vibrant communities
Innovation	Use cutting-edge technology to contribute to addressing issues in urban spaces, creating new industries, and improving corporate productivity.
Diversity	Develop an urban environment that accommodates the diverse lifestyles of people who gather, work, and live there
Resilience	Create cities where people can live with peace of mind with a reduced impact on the environment and disaster resilience

### Smart Energy Business

NTT Anode Energy will promote the smart energy business.

Green Power Generation Business	Strengthen capability to develop renewable energy power plants
Regional Grid Business	Expand the use of NTT's assets to enhance local production and consumption of renewable energy and resilience
Consumer Energy Business	Promote carbon neutrality among customers by offering decarbonization solutions
Construction/Maintenance Operations Business	Improve quality and efficiency by strengthening power engineering functions (construction, maintenance, and monitoring)



# Our Vision for a Sustainable Society

—NTT Group Global Sustainability Charter—

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

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

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

Through this concept, people are encouraged to find themselves within the "We" and to realize that we are supported by the connections between diverse people, things, and technologies. We look to implement various initiatives founded on the principles of altruistic co-existence through which people will seek to increase their happiness along with the happiness of others.

The "Self as We" concept casts light on the need to contribute to the realization of a sustainable society through initiatives for ensuring the positive coexisting of nature and humanity, improving prosperity for all people and cultures, and maximizing well-being for all.

## NTT Group Global Sustainability Charter (Revised November 2021)

### NTT Group Global Sustainability Charter

**NTT's Vision  
for a  
Sustainable  
Society**

**(Basic  
Philosophy)  
"Self as We"**

Coexistence with  
Nature

Improving  
Prosperity for  
All People and  
Cultures

Maximizing  
Well-being  
for All

Addressing Environmental  
Challenges

Addressing Social Issues

Addressing Human Rights  
and Diversity & Inclusion  
Challenges

### Complementary Policies, etc.

Environment and  
Energy Vision

A New  
Decentralized  
Network Society

Human Rights Policy

## Column

### Joining the UN Global Compact

Our company and NTT DATA have signed a statement of endorsement of the United Nations Global Compact (hereinafter UNGC) proposed by the United Nations, and they registered as participating companies in June 2022 and July 2022, respectively. UNGC is the world's largest sustainability initiative, in which the United Nations and the private sector (companies and organizations) join forces to forge a healthy global society. Companies and organizations that sign the UNGC must endorse the 10 principles\* related to the preservation of human rights, the elimination of unfair labor practices, environmental responsibility, and the prevention of

corruption, and they must make continuing efforts to enforce these principles. Going forward, we will comply with the 10 principles put forth by the UNGC and advance measures to further inculcate sustainability so that we can make a sustainable society a reality.

\*The 10 principles of the UN Global Compact, divided into the four areas of human rights, labor, environment, and anti-corruption, are all recognized by the international community as universal values that have been adopted and agreed upon worldwide.

<https://www.unglobalcompact.org/what-is-gc/mission/principles>

## Process for Selecting Material Issues

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



### STEP1 Identifying material issues

Using evaluation organizations like third party institutions, ISO26000 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 NTT should address on a global scale.

### STEP2 Setting priority

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

### STEP3 Confirming validity & approval

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

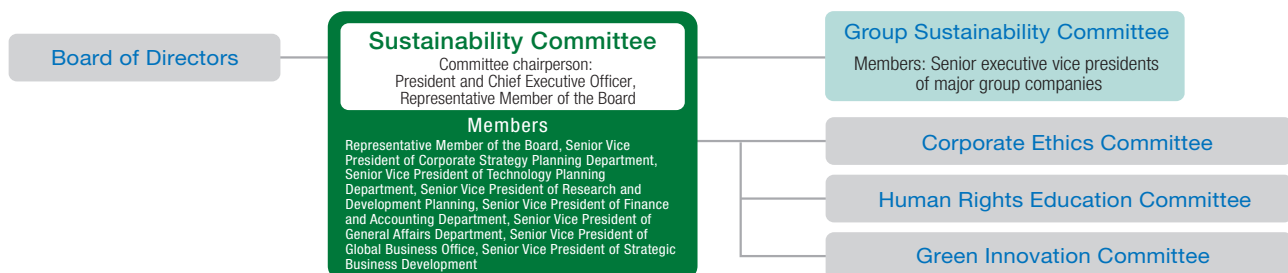
\*These are reviewed regularly (once/year) and revised when necessary.

## Organization for Implementation

In November 2021, NTT Group moved to a new organizational structure by establishing the “Sustainability Committee” under the Board of Directors, chaired by the Chief Executive Officer. The committee reviews and discusses strategies concerning sustainability, the status of implementation of activities, and information disclosure, and implements relevant initiatives. 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. Efforts toward sustainability throughout the entire Group are also implemented by holding Group Sustainability Committee meetings (with senior executive vice presidents of major group companies). The meetings are for sharing common challenges and successful examples from each Group company, and for monitoring progress on sustainability implementation with respect to PDCA cycles and further promoting a sense of unity throughout the group.

### ● New Organizational Structure (from November 10, 2021)



## Sustainability Initiatives










In FY2021, the Sustainability Committee met once and the NTT Group Sustainability Committee met three times to discuss (1) establishing various KPIs for sustainability, (2) promoting our environment and energy vision, (3) promoting respect for human rights, and (4) measures for encouraging acceptance of sustainability, the details of which were reported at the Board of Directors meeting.

## NTT Group Global Sustainability Charter

The NTT Group Global Sustainability Charter defines nine challenges and 30 activities based on three themes.

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

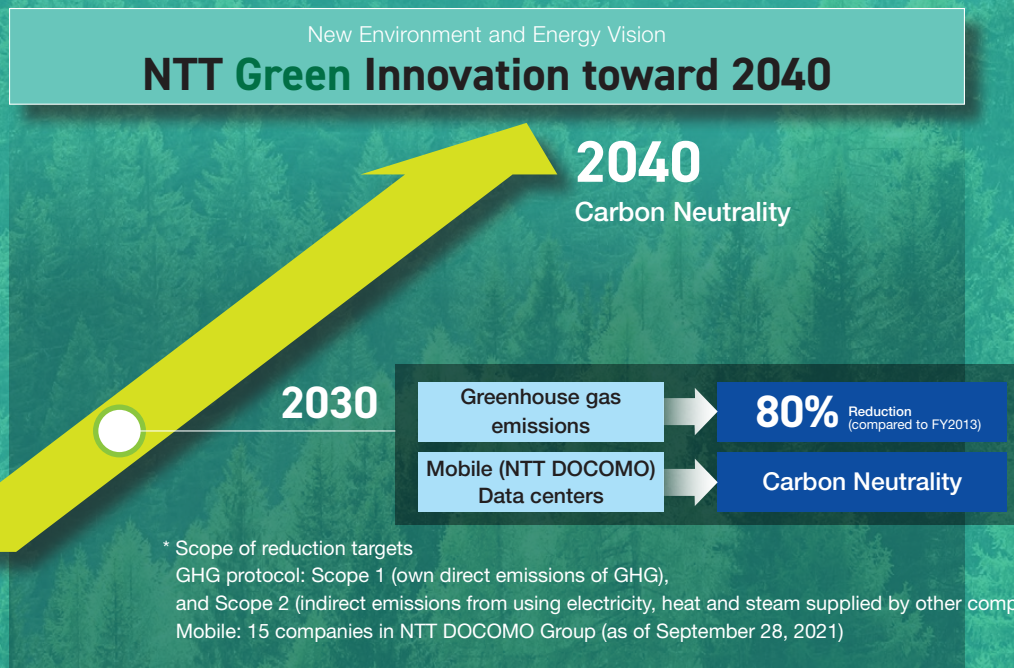


	Indicator	Medium-term targets	Fiscal year achieved	SDGs
	2040: Carbon neutrality for the entire NTT Group <sup>*1</sup> (2030: Greenhouse gas emissions reduced by 80%) <sup>*1</sup> : Greenhouse gas emissions, carbon neutrality: GHG protocol: Scope 1 and 2 emissions	80% reduction 100% reduction	2030 2040	
	2030: 100% EV adoption in Japan	50% 100%	2025 2030	
	2025: 2x power efficiency (compared to FY2017) 2030: 10x power efficiency (compared to FY2013)	2x	2025	
	2030: Recycling rate of waste <sup>*2</sup> 99% or above <sup>*2</sup> : Includes thermal (incineration)	99% or above	2030	
	Number of projects/amount expended/ number of participants in projects on biodiversity conservation	Publish results every year		
	Participation rate for corporate ethics policy training Cases of legal action for anti-competitive behavior, bribery 0 <sup>*</sup> Conduct risk indicators will be discussed in the future	100% 0	Every year Every year	
	B2B2X earnings	¥600 billion	2023	
	Number of patent applications	More than in the previous fiscal year	—	
	Development rate of 5G infrastructure maintenance	97%	2023	
	Number of major accidents 0	0	Every year	
	Stable service provision rate 99.99%	99.99% or above	Every year	
	Suspension of telecommunications services due to cyberattacks 0	0	Every year	
	Major personal data leaks 0	0	Every year	
	Human rights training and attendance 100%	100%	Every year	
	Number of confirmed cases of human rights violations	0	Every year	
	Ratio of direct dialogue with important suppliers 100%	100%	Every year	
	Ratio of women newly promoted to management positions	30%	Every year	
	Ratio of female managers	15%	2025	
	Ratio of female directors (directors + audit and supervisory board members + senior vice presidents)	25-30%	2025	
	Ratio of outside personnel	30%	2023	
	Remote work ratio	70%	2022	
	Number of accidents causing injury or death during construction work 0	0	Every year	
	Employee engagement (percentage of positive responses)	65%	Every year	
	Paper consumption reduction <sup>8</sup>	0	2025	

# Reducing Environmental Impact

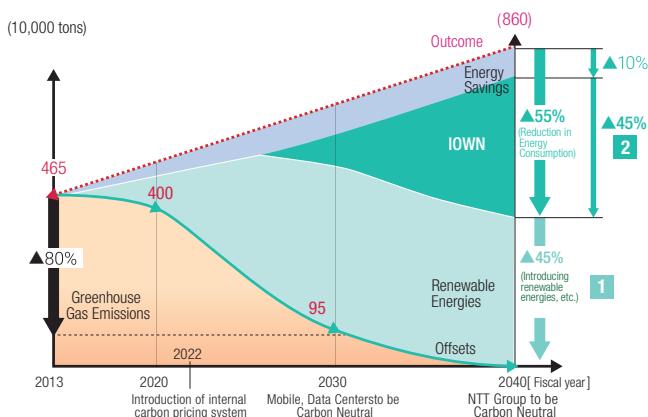
## —Achieving Carbon Neutrality—

NTT Group aims to simultaneously achieve zero environmental impact and economic growth by reducing the environmental impact of its business activities and coming up with breakthrough innovations. We have implemented a number of policies in accordance with the “NTT Green Innovation toward 2040” that NTT Group announced in September 2021, with the aim of achieving zero environmental impact.



### Illustration of NTT Group Greenhouse Gas Emission<sup>\*1</sup> Reductions (Domestic + Overseas)

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



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

<sup>\*2</sup> Estimated Introduction of Renewable Energy (including actual renewable energy through Non-Fossil Fuel Certificates) FY2020: 1.0 billion kWh; FY2030 to FY2040: around 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, etc.

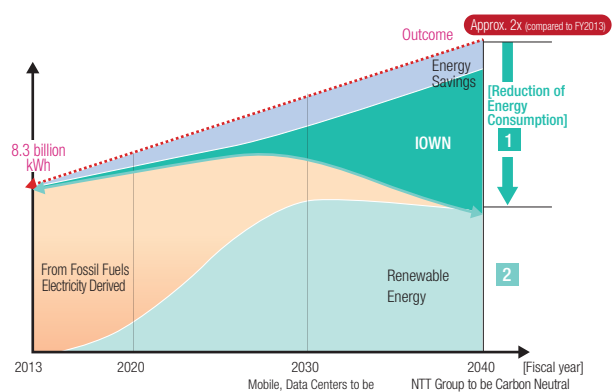
Approximately half of the domestic renewable energy usage is anticipated to be from energy sources owned by NTT (FY2030).

<sup>\*3</sup> Estimated Reduction of Energy Consumption through the Introduction of IOWN (Comparison to Outcome) → FY2030: (2.0) billion kWh ((15%); FY2040: (7.0) billion kWh ((45%))  
Percentage of Introduction of IOWN (Photonics-electronics Convergence Technologies, etc.) out of Total Energy Volume → FY2030: 15%; FY2040: 45%

### Illustration of Transition Trends in NTT Group's Energy Consumption (Domestic + Overseas)

Energy Consumption Outcome: will be approximately doubled by FY2040

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



<sup>\*1</sup> Estimated Introduction of Renewable Energy (including actual renewable energy through Non-Fossil Fuel Certificates) FY2020: 1.0 billion kWh; FY2030 to FY2040: around 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, etc.

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



## Specific Initiatives for Achieving Carbon Neutrality

In addition to the Green of ICT, which will curb the environmental impact of NTT Group by introducing IOWN technologies and increasing the use of renewable energy, we will also work on Green by ICT, which will contribute to reducing the environmental impact of society as a whole.

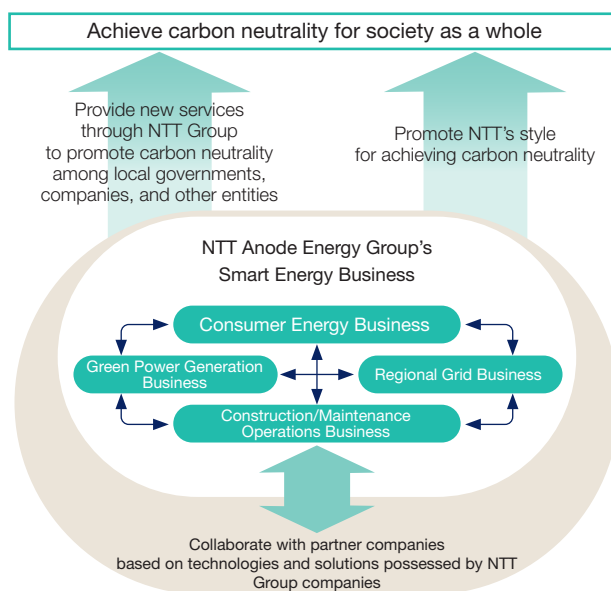
	Reduction of Environmental Impact through Business Activities	Creation of Breakthrough Innovation
<b>Green by ICT</b> Reducing society's environmental impact	<b>Reducing society's environmental impact</b> <ul style="list-style-type: none"> <li>▶ Further acceleration of DX and promotion of Remote World</li> <li>▶ Promotion of regional urban development and the introduction of new social infrastructure development</li> <li>▶ Promotion of greenhouse gas reduction across the entire supply chain</li> <li>▶ Provision of new services that contribute to carbon neutrality</li> <li>▶ Contribute to local production and consumption of energy, through smart grids based on battery farms</li> <li>▶ Expansion of green electricity retail</li> </ul>	<b>Creation of innovative environment and energy technology</b> <ul style="list-style-type: none"> <li>▶ Use of 4D digital platform<sup>TM</sup> for future predictions/optimal use of urban assets<sup>*1</sup></li> <li>▶ Optimal operation of fusion reactors (ITER/QST)<sup>*2</sup></li> <li>▶ Lightning charging</li> <li>▶ Applied genome-editing technology for "Green" (Collaboration)</li> </ul> <p><small>*1 Energy, transportation, logistics, etc. *2 ITER: International Thermonuclear Experimental Reactor QST: National Institutes for Quantum Science and Technology</small></p>
<b>Green of ICT</b> Reducing NTT's Own Environmental Impact	<b>Introduction of IOWN and Expansion of Renewable Energy</b> <ul style="list-style-type: none"> <li>▶ Reduction of energy consumption through the introduction of IOWN</li> <li>▶ Expansion of the development and usage of renewable energy</li> <li>▶ Introduction of an internal carbon pricing system</li> <li>▶ Issuance of green bonds</li> </ul>	<b>Achievement of Ultra-Low Power Consumption</b> <ul style="list-style-type: none"> <li>▶ IOWN All-Photonics Network</li> </ul> <b>Creation of Decentralized Technology</b> <ul style="list-style-type: none"> <li>▶ Photonic disaggregated computing</li> <li>▶ Space integrated computing network</li> </ul>

## Integrating Power-related Operations to Accelerate Expansion of Smart Energy Business

In July 2022, NTT FACILITIES' power engineering and other power-related operations, primarily design and maintenance of solar power plants and power supply facilities for telecommunications, were transferred and integrated into NTT ANODE ENERGY. Through this integration of power-related operations, NTT Anode Energy will promote four businesses: the green power generation business, regional grid business, consumer energy business, and construction and maintenance operations business. By linking these four businesses into a single integrated value chain, the company will develop a smart energy business.

- Green Power Generation Business:  
Development of renewable energy power plants
- Regional Grid Business:  
Promote expansion of the use of NTT Group's assets to enhance local production and consumption of renewable energy and resilience
- Consumer Energy Business:  
Promote carbon neutrality among customers by offering decarbonization solutions
- Construction/Maintenance Operations Business:  
Aim to improve quality and efficiency by enhancing power engineering functions (construction, maintenance, monitoring)

### Overview of NTT Anode Energy's Post-integration Smart Energy Business



## Introduction of NTT Group Internal Carbon Pricing System

To achieve carbon neutrality, a resolution was passed at the Executive Committee meeting in May 2022 to gradually implement an "Internal Carbon Pricing System" within Group companies. This system encourages reducing our impact on the environment by virtually converting CO<sub>2</sub> emissions into costs.

### Overview of Internal Carbon Pricing System to be Implemented by NTT Group

Internal carbon price	¥6,500/t-CO <sub>2</sub>
Scope of application/ Method	When it comes to decarbonization-related project decisions and procurement (product selection, etc.), decisions are made while taking CO <sub>2</sub> emission costs into consideration.

## Providing a Renewable Energy Menu in Data Centers (Started April 1, 2022)

NTT Communications is the first large-scale commercial data center in Japan to utilize renewable energy supplied by NTT Anode Energy to offer<sup>\*1</sup> a renewable energy menu that enables customers (subscribers who use cages or rooms) to select the electricity used by their ICT equipment<sup>\*2</sup>. In addition, information on the power plant and the amount of electricity used will be provided on an individual basis as a type of "environmental value" utilizing non-fossil certificates<sup>\*3</sup>.

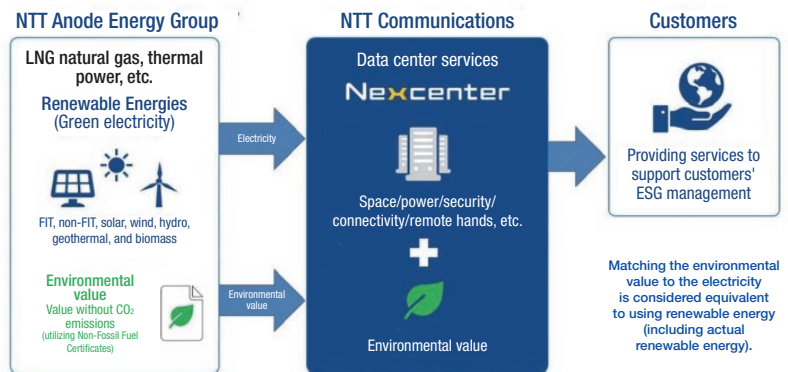
### Renewable Energy Menu for Customers

#### Actual renewable energy utilizing non-fossil certificates

- (1) Renewable energy that comes with a set of tracked non-fossil certificate information indicating the location of the power plant and the power source type (not possible to specify the power source type or FIT/non-FIT)<sup>\*4</sup>
- (2) In addition to (1), customers can specify the power supply type<sup>\*5</sup>.
- (3) In addition to (2) above, customers can specifically request non-FIT.

#### Providing Renewable Energy from New Power Plants

- (4) Off-Site PPA<sup>\*6</sup>
- (NTT Anode Energy will provide power plants with additional to meet individual customer requests)



### Target Data Centers (as of April 2022)

Yokohama Data Center No. 1, Saitama Data Center No. 1, Tokyo Data Center No. 5, Tokyo Data Center No. 8, Tokyo Data Center No. 11

<sup>\*1</sup>: Results of a survey of publicly available information about providing a menu that enables customers to select the type of renewable energy, and the provision of "environmental value" using non-fossil certificates according to the type of renewable energy, at large commercial data centers in Japan that receive extra-high voltage while providing renewable energy (survey conducted by NTT Communications/NTT Anode Energy, March 2022).

<sup>\*2</sup>: Provision of the service may entail equipment modification costs, such as power supply installation.

<sup>\*3</sup>: Certificates issued by separating the value from electricity originating from sources that do not emit CO<sub>2</sub>. This will achieve virtually 100% renewable energy.

<sup>\*4</sup>: FIT electricity refers to electricity generated from renewable energy sources and purchased by electric utilities under the feed-in tariff system established by the government (the Amended FIT Act). Because FIT electricity is financed by contributions imposed on electricity users (the public), its environmental value already belongs to the public. By contrast, non-FIT electricity that does not rely on the FIT system is viewed favorably because it contributes to the expansion of renewable energy implementation while reducing the burden on the public.

<sup>\*5</sup>: Electricity generated from solar energy, geothermal energy, and biomass can be specified. (As of April 2022)

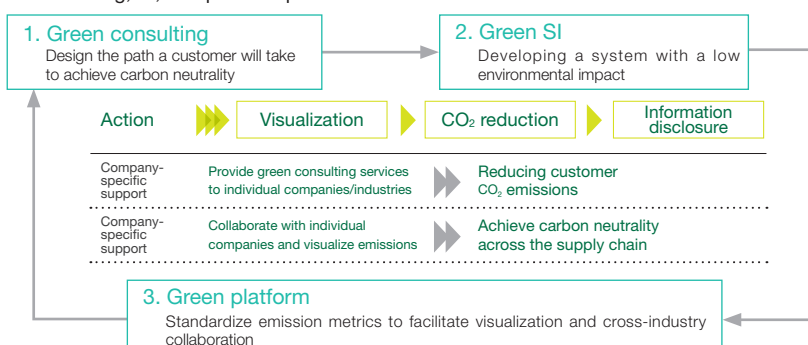
<sup>\*6</sup>: Off-site PPA (Power Purchase Agreement) is a scheme in which electricity users conclude contracts with power generation business operators to procure renewable energy over the long term. Off-site PPA, an abbreviation of Off-site Corporate PPA, involves the use of power generation facilities in locations removed from users to supply them with electricity through the power grid.

## Promoting the Green Innovation Business to support customers' CO<sub>2</sub> reduction efforts, from consultations to visualization

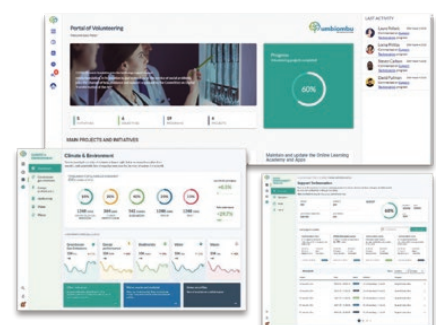
NTT DATA provides comprehensive consulting services that work closely with customers to analyze their internal and external environments, formulate green management and business strategies based on this analysis, and help them to execute on these strategies. Further, to automate the emissions visualization process, we will create a system that combines cloud services, low-code platforms, and edge environments featuring sensing and so on. The greenhouse gas emissions visualization platform provided by NTT Data

offers a "visualization process construction method" that facilitates the creation of calculation methods suitable for each company based on its business characteristics and the data it possesses. It also offers a "supplier-specific calculation method" that incorporates the emissions reduction efforts of suppliers into the same reductions at procuring companies. This allows for efficient and effective visualization of emissions specific to each company.

- Taking the lead in securing competitive advantages in green businesses for individual companies and carbon neutrality across industries through the three cores of consulting, SI, and platform provision



- Greenhouse gas emissions visualization platform (Example)



## Column

## Procurement Through NTT Group Green Finance

NTT Group has formulated the NTT Group Green Finance Framework with the goal of strengthening its commitment to Group-wide efforts to achieve a sustainable society and promoting them vigorously, including from a financial perspective. Since its establishment in June 2020 as the NTT Group Green Bond Framework, this framework has been revised in accordance with the Group's initiatives for making a sustainable society a reality.

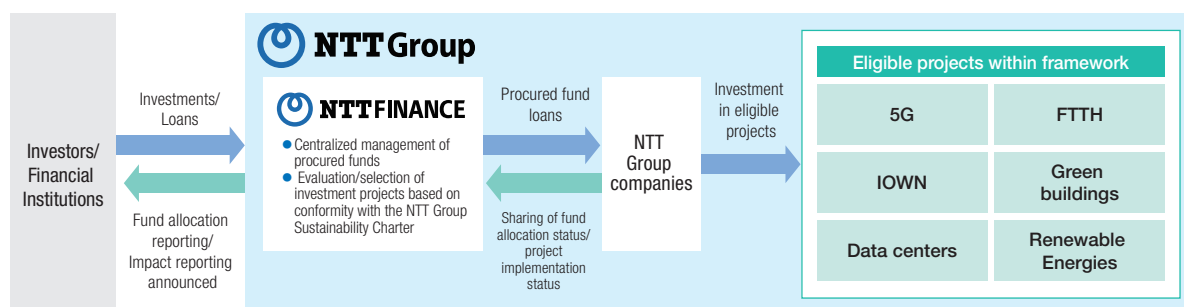
NTT FINANCE, the Group's core financial company, will issue green bonds or procure funds through green loans in accordance with the Green Finance Framework. The

funds raised will be invested in projects that contribute to solving environmental issues at Group companies.

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

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

(<https://www.ntt-finance.co.jp/eng/ir/greenbonds/index.html>)



#### Green Bond Issuance Status

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

#### Green Finance Framework Target Projects

Eligible projects:	Specific projects	Impact reporting item
5G-related investments	Development and installation of energy-saving 5G base stations/installation of commercial base stations and development of base stations capable of conserving electricity by automatically switching to sleep mode, such as during the evenings and time of low traffic	•Number of 5G base stations installed
FTTH-related investments	Construct and operate optical fiber networks (FTTH) as foundation for a remote world, to help reduce amount of electricity used compared with the Company's conventional equipment	•Number of subscribers (households)
R&D to make IOWN a reality	Roll out/aim to commercialize by 2030 photonics-based connections between bases at endpoint devices, such as handsets and computers, R&D to make possible an optical disaggregated computing architecture that should sharply reduce electricity usage through the use of photonics connections (optics inside LSI) when transmitting signals between chips on circuit boards	•Desired effects •R&D progress
Highly efficient and power-conserving data centers	Construction, renovation, acquisition, and operation of new and existing data centers with a Power Usage Effectiveness (PUE) of less than 1.5	•CO <sub>2</sub> emissions (t-CO <sub>2</sub> )
Green buildings	Construction, renovation, and acquisition of various environment-related building certifications and evaluations for properties to be acquired	•Green building building names, certification level, acquisition/re-acquisition period •CO <sub>2</sub> emissions (t-CO <sub>2</sub> )
Renewable energies	Construction, renovation, acquisition, and operation of renewable energy projects (solar power, wind power, etc.) NTT Group is involved in	•Generation capacity/generated electricity (GWh) •Amount of CO <sub>2</sub> reduced (t-CO <sub>2</sub> )

## TCFD

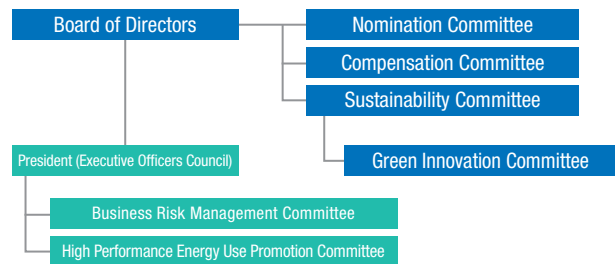
## Corporate Governance

NTT Group recognizes that environmental issues are one of the most important challenges for management, and items of particular importance such as creating environmental targets for the entire Group are decided based on discussions held with directors. An example that highlights this is NTT's environment and energy vision "NTT Green Innovation toward 2040" announced in September 2021—this was established following discussions with all directors, including outside directors, held three times throughout the fiscal year. The Board of Directors made the decision in November 2021 to include non-financial KPIs such as GHG emissions into the business plans of each Group company, with those attainment levels to be reflected in the compensation of directors as critical indicators. The supervision system for directors consists of the Sustainability Committee (chaired by the President) established in November 2021 directly under the Board of Directors, with the Green Innovation Committee established as an internal unit under the Sustainability Committee.

A system was created where 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, and other matters will be decided by the Executive Officers Meeting.

The role of the senior executives is to identify environmental issues and risks, and promoting businesses while taking into consideration these situations.



## Strategy

The NTT Group carried out scenario analysis based on its own processes for selecting key environmental issues. The results revealed various risks, particularly those related to policies, regulations and social demand aimed at transitioning toward a decarbonized society.

To combat these risks, the medium-term management strategy

was revised with a focus on addressing environmental issues as a key priority. These will be linked to businesses via activities such as "Enhancement of corporate value through ESG initiatives," "Reducing power consumption with innovation such as IOWN," and "Developing and expanding the use of renewable energy," to help develop a sustainable society.

## 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 2021
Physical Risk Scenario	Scenario in which physical risks materialize .....a future in which the average temperature has risen by 4°C	IPCC Sixth Assessment Report, Climate Change 2021: Summary for Policymakers (SPM) Based on Natural Science

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

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

<sup>1</sup> Degree of impact with 1.5°C scenario and 4°C scenario in FY2030 <sup>2</sup> Timeframes refer to Short-term (less than 3 years), Medium-term (3-6 years), Long-term (6 years or more). Degree of impact expressed in 3 levels (▲: Low; ▲▲: Medium; ▲▲▲: Large)

\*Estimated impact on annual profits:

(1) -¥16 billion if carbon pricing introduced

(2) Increased cost of renewable energy charges and implementation of renewable energy (approx. -¥10 billion)

(3) Repairs for damage caused by heavy rainfall and typhoons (FY2019: approx. -¥8 billion, FY2020: approx. -¥5 billion, FY2021: approx. -¥0.2 billion)

(4) Higher air conditioning costs as temperatures rise (-¥0.6 billion if outdoor temperatures rise 1 degree)

[Assumptions and basis for calculations]

(1) Carbon pricing (\$130/t-CO<sub>2</sub>) x FY2030 target emissions (reduction of 80% in FY2030 based on actual Scope 1 + 2 emissions of 4.65 million tons in FY2013)

<Carbon pricing: Estimated unit price for FY2030 on IEA World Energy Outlook 2021, Advanced economics: USD 130>

(2) Renewable energy charges in FY2030: ¥4.1/kWh, FY2021: ¥3.36/kWh

Estimate assumes certificates cost ¥1.0/kWh

(3) Estimated impact from repairs to damage caused by heavy rainfall and typhoons from FY2019 to FY2021

(4) Estimated air conditioning costs increase based on domestic electricity consumption in FY2021



## Risk Management

The NTT Group strives to minimize the impact of losses that could result from the materialization of risk by anticipating and preventing the occurrence of potential risks, and has established Risk Management Regulations with the aim of defining fundamental policies concerning risk management. The Business Risk Management Committee, chaired by the Senior Executive Vice President, and Group Business Risk Management Committee have also been established. The Committee takes a 2-pronged approach by analyzing risks from their degree of influence on business operations and frequency of occurrence, and identifies risks with the potential to have the greatest impact as material risks.

The degree of impact that climate change will have is also analyzed by the degree of influence on business operations and frequency of occurrence, and as such, measures to tackle climate change like reducing greenhouse gas emissions were identified as a material risk. Should the NTT Group's efforts to tackle climate change or disclosure of related information be viewed as lacking, there is the possibility that it could affect business management due to

an insufficient level of understanding amongst customers, partner shareholders, employees, the local community, and other stakeholders. Furthermore, there could also be an increase in costs if new laws and regulations are enacted or intensified, which has the possibility of impacting the NTT Group's business performance and financial conditions.

Given these risks, NTT Group formulated its NTT "Green Innovation toward 2040" environment and energy vision and is advancing initiatives to reduce its environmental impact to achieve carbon neutrality by 2040. Besides promoting renewable energy usage as part of its own efforts to promote green power, the company is also working to enhance its environmental energy initiatives by promoting IOWN research and development aimed at achieving extremely low power consumption, disclosing information in accordance with the TCFD (Task Force on Climate-related Financial Disclosures), and utilizing green bonds.

The Sustainability Committee, under the supervision and monitoring of the Board of Directors, discusses the creation and review of sustainability-related policies and the progress made with efforts to achieve carbon neutrality.




## Indicators and Targets

NTT Group has set the target of an 80% reduction in Scope 1 + 2 by fiscal 2030 (compared to fiscal 2013 levels), with the aim of becoming carbon neutral by the year 2040. This target was subsequently approved as the 1.5°C level by SBT in December 2021. Of electricity purchased during fiscal 2021, switching to renewable energy sources for more than 1.8 billion kWh (approx. 23% of purchased electricity, approx. 150% compared year-on-year) used by the entire Group reduced greenhouse gas emissions by 2.90 million tons, a reduction of 38% compared to FY2013 levels.

Scope 3 emissions in fiscal 2021 were 20.82 million tons, a 6% reduction compared year-on-year<sup>\*1</sup>.

Furthermore, in addition to these targets, various metrics like EP100 and EV100 were incorporated into Group company business plans, highlighting the commitment of the entire Group for tackling climate change.

<sup>\*1</sup> Estimated based on the Ministry of the Environment's "Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain."

Indicator		Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022	2025	2030	2040
 Moving toward a decarbonized society	1	Greenhouse gases <sup>*2</sup>				
		Entire NTT Group	3.99 million tons, 14% reduction (compared to FY2013)	2.90 million tons, 38% reduction (compared to FY2013)	80% Reduction (compared to FY2013)	Carbon-Neutral
		Mobile (NTT DOCOMO)	(incl.) 1.41 million tons	(incl.) 1.25 million tons		Carbon-Neutral
		Data centers	(incl.) 1.05 million tons	(incl.) 0.45 million tons		Carbon-Neutral
	2	Ratio of EV adoption in Japan	8%	15%	50%	100%
	3	Power efficiency per data transmission of telecommunications services	1.7x (compared to FY2017) 6.2x (compared to FY2013)	1.9x (compared to FY2017) 7.1x (compared to FY2013)	2x (compared to FY2017)	10x (compared to FY2013)
 A commitment to a resource-recycling future	4	Amount of contribution to the reduction of greenhouse gas emissions of all society	10.5x	11.3x		10x
	5	Recycling rate of waste	98.4%	97.8%		99% or above
 A future where people and nature are in harmony	6	Actively implementing initiatives through activities as part of ecosystem conservation efforts				

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

# Reinforcement of Disaster Countermeasures

—Ensuring the Stability and Reliability of Services—

## Policy and Approach

NTT Group has defined three key themes for disaster countermeasures—improving the reliability of communications networks, securing critical communications systems, and promptly restoring telecommunications services. We have been strengthening efforts based on these themes since the Great East Japan Earthquake. Specifically, we are taking measures to improve the reliability of our telecommunications infrastructure. To ensure that our telecommunications services operate without interruption at all times, we employ transmission trunk line multi-routing, have enacted blackout countermeasures for communications buildings and base stations, and are making communications buildings more disaster resistant. In addition, we are expanding the assortment of power supply vehicles and other disaster response equipment that we have positioned throughout Japan and are continuously conducting training to prepare for major natural disasters. Furthermore, we are making a daily effort to guarantee that, in the event of a disaster, we are able to immediately set up a Disaster Countermeasures Office, implement other emergency preparations, and make the necessary emergency and critical communications as a public institution as designated by the Basic Act on Disaster Control Measures. In recent years, natural disasters have been becoming more frequent and causing wider, bigger, and more lasting damage. 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 disaster-resistant facilities and transmission trunk line multi-routing  
24/7 network monitoring and control, etc.

#### Countermeasures strengthened since the Great East Japan Earthquake

- Enhanced disaster resistance (damage prediction, hazard map utilization)
- Stable provision of telecommunications services (improving trunk line reliability, etc.)
- Introduction of large-zone base stations to provide backup for broad disaster relief in densely populated areas

#### Additional efforts in light of the growing intensity of disasters in recent years

- Introduction of medium zone base stations with enhanced disaster resilience compared to existing base stations
- Looking into placing cables underground, wireless fixed-line phones, etc.



### Securing critical communications

Securing emergency service communications, e.g., 110 and 119, and critical communications  
Installing emergency-use public phones and providing safety status checking services

#### Countermeasures strengthened since the Great East Japan Earthquake

- Measures for securing critical communications
- Enhancements of disaster message services
- Early resolution of communications blackouts
- Further Information Station implementation

### Prompt restoration of telecommunications services

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

#### Countermeasures strengthened since the Great East Japan Earthquake

- Building up stock of disaster response equipment
- Exercises and practice for a major earthquake
- Enhancement of organization for disaster countermeasure operations
- Training of crisis management personnel and utilization of knowledge and skills

#### Additional efforts in light of the growing intensity of disasters in recent years

- Centralized management and operation of Group-owned power supply vehicles
- Advance launch of restoration system based on damage estimation made using AI
- Appropriate information dissemination (service availability, recharging spots, availability of public phones for disasters, etc.)
- Consultation about problems in disaster-stricken areas (113 on-site visits)

## Further Enhancing Our Ability to Respond to Severe Disasters

Considering our disaster response based on unexpected scenarios for possible future catastrophic disasters, such as a massive earthquake or eruption at Mt. Fuji

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

# Initiatives for Improving Network Reliability

## (1) Initiatives for Improving Disaster Resistance of Telecommunication Facilities

### Countermeasures for Earthquakes, Fires, and Floods

NTT's communications buildings and towers are designed to be sufficiently earthquake-resistant to avoid collapse even in the event of an earthquake with a seismic intensity of 7, and were built to our own strict standards to be able to withstand the worst disasters Japan has ever experienced.

For fires, communications buildings and other buildings were made noncombustible and fireproof, fireproof shutters and doors were installed in communication machinery rooms, and fireproof sealing was applied to through holes.

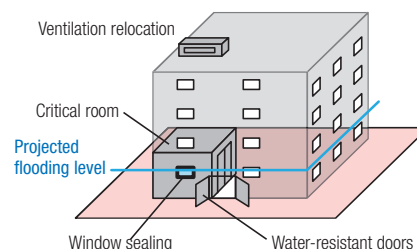
### Blackout Countermeasures at Communications Buildings and Base Stations

Communications buildings and wireless communications base stations are equipped with batteries, engines, and other auxiliary power supplies that can be used as a prolonged source of electricity in the event of a blackout.

Moreover, we are enacting the lessons learned from the Great East Japan Earthquake by implementing blackout countermeasures for engine generators and having batteries available for use around the clock at its roughly 1,900 base stations in important areas, such as those where municipal disaster response headquarters or city offices are located.

In addition, mobile power supply vehicles and portable

To prepare for tsunamis and floods, we have taken location-appropriate measures to prevent communications buildings from being flooded, such as replacing building doors with flood doors, closing windows and other openings, and reinforcing walls with concrete to withstand the water pressure from a tsunami.



power generators will be deployed in each area as backup to provide support over a wide area to disaster-stricken regions as the situation requires.

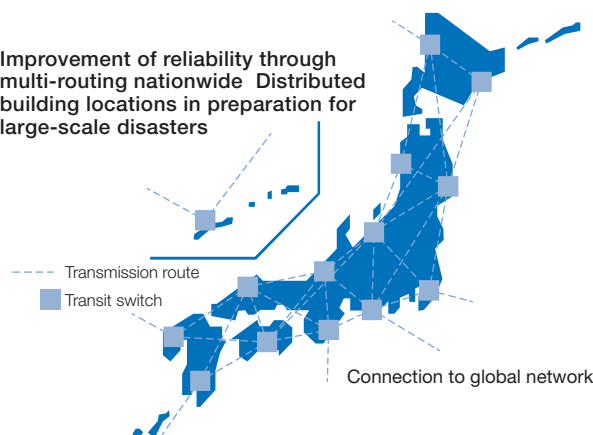


Large-scale power supply vehicle for powering communications buildings

### Transmission Trunk Line Multi-Routing and Distributed Location of Important Communications Buildings

Our nationwide network of trunk lines has been designed to secure communications and prevent disruption of services over the network as a whole by automatically diverting transmission through other routes when a certain route is damaged. Meanwhile, if communications buildings (important communications buildings) fitted with transit switches suffer disaster damage, communications via such buildings may be severed. Distributing important communications buildings in different locations helps avoid the risk of multiple buildings suffering disaster damage at the same time.

Improvement of reliability through multi-routing nationwide Distributed building locations in preparation for large-scale disasters



## (2) Initiatives for Stable Telecommunications Service Operation

### Real-time Network Monitoring and Control

The nationwide communications network monitors and controls operational status in real time, 24 hours a day, 365 days a year, and responds immediately to breakdowns and disasters.

To respond immediately to emergencies and other contingencies, the monitoring system is reinforced as required in response to social conditions.

### Improved Response to Disasters and Major Failures

To enable prompt and appropriate recovery measures in the event of a disaster or unexpected equipment failure, training and drills are conducted as required to train the personnel involved in network maintenance and operation.

Further, lessons gleaned from past disaster responses are deployed across the organization to implement measures to prevent recurrences, review action procedures, and ensure that basic operations are thoroughly implemented.





# Reinforcing Security

—Preparation for the Zero-Trust, Cloud-Native Era—

To resolve social issues through its business operations, NTT Group works together with its partners as “Your Value Partner.” Based on this approach, we are contributing to the healthy development of a digital economy and remote society by exercising our responsibility as a supplier of safe and secure ICT infrastructure to guarantee effective information security.

## Reinforcing Information Security

With the progressing digitalization of society and the economy and changes in international circumstances, security threats are becoming more serious and sophisticated, particularly cyber-attacks. Within this environment, NTT Group has a responsibility to protect ICT service infrastructure and customers’ basic rights, freedoms, and information assets, as well as to provide a sound foundation for the growth of the digital economy. Based on our medium-term management strategies formulated in 2018, we made it our mission in terms of security to contribute to the building and development of a free, open, and safe ICT platform for supporting the infrastructure of the digital economy. We also made it our vision to realize the digital transformation of both customers and NTT itself, and for that reason, we will be chosen by customers.

In order to realize these, we will strive to engage in research and development that leverages the scale of the Group, realize superior abilities for early detection and rapid response, cultivate human resources who share the values of sincerity and advanced skill, and transcend profit-focused principles to transmit pioneering knowledge to society. Furthermore, to achieve the transformation to a New Management Style outlined in the medium-term management strategy refined in October 2021, NTT Group is implementing security measures capable of facilitating the shift to remote work styles. As a member of the global community building the digital society, NTT Group will contribute to solving social issues through our security business.

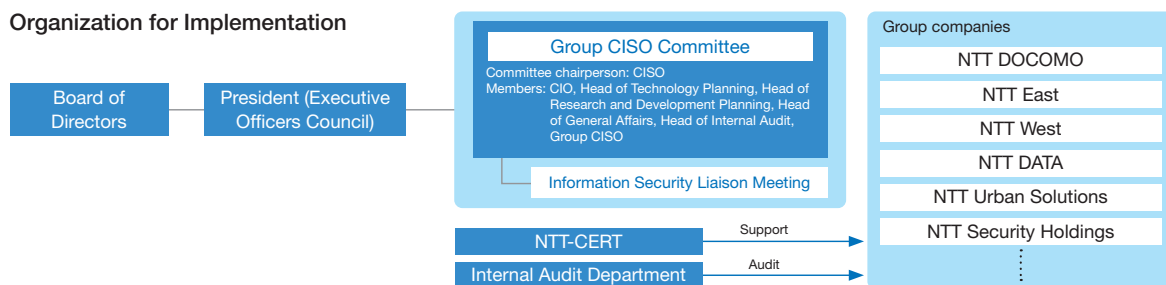
The concept of cybersecurity is no longer just an aspect of crisis management that reduces negatives to zeroes, but is now entering an era in which it is a positive driving force that offers stabilizing support for the prosperity that technology provides. As we progress through the era of Zero Trust and Next Zero Trust, NTT Group will continue to investigate the value of security as we confront never-ending cyber risks.

## NTT Group's Security Governance Goals

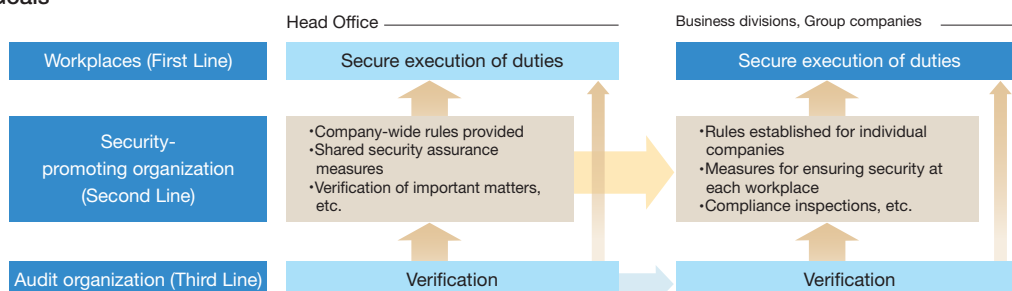
NTT Group enforces information security management under the charge of the Chief Information Security Officer (CISO), and is thorough in its information security management. We have also established a Group CISO Committee, and are working to formulate Group information security management strategies, plan and implement related measures, undertake human resources training, and otherwise engage in activities in collaboration with companies across the Group.

We are also advancing efforts to maintain and improve security defenses within the Group based on the idea of a “three-line organization.”

### Organization for Implementation



### NTT Group's Security Governance Goals



## TOPICS 1

### Advanced Security (1) Protection and Resiliency (Resiliency)

#### Resiliency: A Blend of Knowledge, Cutting-edge Technology, and People Power

The international sporting event held in Tokyo in 2021 was subjected to the largest cyberattack ever seen. However, there were no cyber incidents during the events that disrupted operations. Behind the victory was the expertise and cutting-edge technologies of NTT, who has been thinking about communication and information security for the last 30 years, combined with the capabilities of human beings armed with wisdom and resolve.

In particular, the following "4 T's" supported our efforts.

These are ingrained far and wide in NTT Group's overall cybersecurity resiliency maintenance and improvement.

<b>T1: Threat Intelligence &amp; Monitoring</b>	NTT meticulously evaluated case studies on past events as well as the latest threat information, thoroughly developing scenarios in advance, monitoring every item of threat information, whether it came from internal or external systems. The key was NTT's ability to put together information in partnership with global ICT service operators and security providers.
<b>T2: Total Security Solutions</b>	Within a complex ICT operation environment, NTT selected safe and secure equipment and organized a Cyber Hygiene environment. NTT also employed its proprietary technology Wide Angle MSS to detect and respond to risk factors early. This equipment and technology were put to use at the security operation center for the event, in collaboration with a wide range of specialists from both inside and outside the company.
<b>T3: Talent, Mind &amp; Formation</b>	The development of a prevention and maintenance mindset was also as important for security program personnel as learning advanced knowhow and technologies. NTT enhanced the staff's capabilities through preliminary training programs and red teams. At the event operation center, NTT clarified the roles for each team and how their movements should be coordinated, with a focus to maximize human capabilities.
<b>T4: Team 2020</b> (Stakeholder Management)	Everyone had to form one team because the event was so large. The strongest-ever defense would not have been possible without this. ICT service operators and providers inside and outside Japan, key infrastructure organizations, government, the Tokyo 2020 Organising Committee... NTT collaborated with all stakeholders to bring a wealth of wisdom and technological integration, leading the event to a success.

## TOPICS 2

### Advanced Security (2) Responding to Change (Agility)

#### Reinforcing the Security Business

The time has come to consider security even in cyberspace. Given the circumstances, we especially want to strengthen our threat analytics, which are the cornerstone of cybersecurity. For this reason, we reorganized NTT Security in April 2022 to strengthen its service development, client support, security governance and managed services.

We established NTT Security Holdings as a new wholly owned subsidiary. Practical development functions were transferred from NTT Laboratories, SE functions were transferred from NTT Communications, and operational functions from NTT were transferred to support the group's CISO functions.

In addition, security services will be merged and integrated with NTT Ltd.'s managed services, and consulting functions in each region will be transferred to NTT Ltd. These moves will strengthen NTT Ltd.'s managed services.

Further, in July 2022, NTT East, Trend Micro Incorporated, and Tokio Marine & Nichido Fire Insurance Co., Ltd. jointly established NTT Risk Manager Corporation, to develop a wide range of risk management businesses, with a focus on the cybersecurity domain.

#### Overhaul of Security-related Regulations

From FY2021 to FY2022, we have been proceeding with a company-wide overhaul of security-related regulations. We are taking steps to prepare not just for the zero-trust era, but beyond.

<b>(1) Clarification of governance targets</b>	<ul style="list-style-type: none"> <li>Clarify the scope of CISO responsibilities to include commercial services, customer SIs, and partners</li> </ul>
<b>(2) Utilization of risk-based management</b>	<ul style="list-style-type: none"> <li>Besides the minimum baseline to be followed by the Group as a whole, craft additional rules based on the risks faced by each company</li> <li>Adopt the National Institute of Standards and Technology (NIST) methodology as a risk-based approach</li> </ul> <p>*NTT Group actively provided comments during the NIST-Cyber Security Framework (CSF) revision process</p>
<b>(3) Rules based on the assumption of remote work</b>	<ul style="list-style-type: none"> <li>Give new consideration to system construction work</li> <li>Reinforce precautions and other procedures during normal operations</li> <li>Create a structure that takes the readers into consideration and prevent it from becoming a formality</li> </ul>



# Maximizing Well-being for All

## —Advocating Work-in-Life with Work Style Reforms—

Creating a society that recognizes diverse cultures, understands different values and coexists together is vital for maximizing well-being. We believe that our overall well-being is linked to respecting human rights based on the concept of altruistic coexistence (people seek to increase their happiness along with the happiness of others), as well as understanding and accepting differences, and being inclusive without casting them aside. The NTT Group formulated its D&I Statement last year.

### NTT Group D&I Statement

We aim to achieve sustainable growth by recognizing our differences as valuable strengths for our business. Our society is full of diversity and is constantly changing. We will continue to have events occur globally that will have an impact on our employees and the clients and communities we serve. NTT will continue to evolve our focus and programs to sustain our commitment to diversity and an inclusive culture at NTT. NTT will continue to evolve our focus and programs to sustain our commitment to diversity and an inclusive culture at NTT.

#### Our commitments:

- Based on international standards, we aim to be an organization where all individuals, regardless of their characteristics and values\*, 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 wellbeing of each individual, improve engagement, and realize work-in-life. 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.
- 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.

Further, to reflect diverse opinions in its business operations, NTT Group has set targets and is making efforts to secure and develop diverse human resources and foster a culture of diversity.

#### Diverse human resources

##### Ratio of female directors \*1

**17.7 %**  
(July 2022)

Target **New**  
25–30% by fiscal year  
ending March 31, 2026

##### Ratio of female managers \*1

**8.7 %**  
(FY2021)

Target  
15% by fiscal year  
ending March 31, 2026

##### Ratio of newly appointed female managers \*1

**29.1 %**  
(FY2021)

Target **New**  
30% from fiscal year  
ending March 31, 2022

##### Ratio outside personnel \*1

**32.5 %**  
(FY2021)

Target **New**  
30% by fiscal year  
ending March 31, 2024

#### Diverse work styles

##### Remote work ratio \*2,3

**77.3 %**  
(4Q FY2022)

Target  
70% by fiscal year ending  
March 31, 2023

##### Male employees taking leave for childrearing \*2,4

**63.1 %**  
(FY2021)

Target  
100% ratio of male employees taking  
time off for childrearing by the fiscal  
year ending March 31, 2023

##### Employee engagement \*5 Percentage of positive responses

**57 %**  
(FY2021)

Target  
Percentage of positive  
responses 65%

\*1 Targets and current conditions at six main companies (NTT, NTT East, NTT West, NTT Communications, NTT DATA, NTT DOCOMO)

\*2 Only NTT (holding company)

\*3 Work-from-home ratio (excluding essential workers)

\*4 Percentage of total number of male workers using paternity leave or leave for purposes of child raising (items disclosed by companies with \*Platinum Kurumin

Certification")

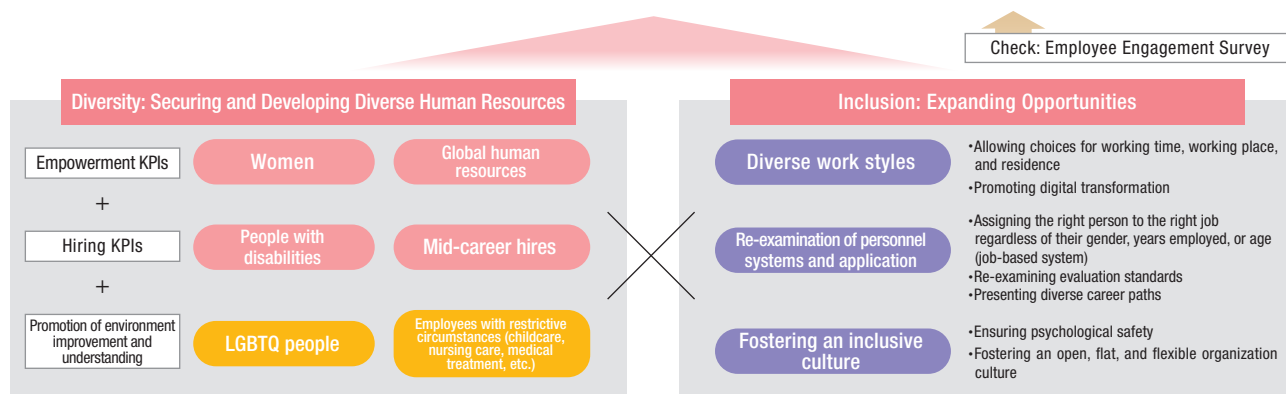
(Number of employees with children not yet enrolled in elementary school in the fiscal years ended March 31, 2021 and 2022 who took time off work for child raising ÷ number of employees who gave birth (or whose partners gave birth) in the fiscal years ended March 31, 2021 and 2022.)

\*5 Domestic Group companies



## Sustainable Corporate Growth

### Enhancing Work In Life, Well-Being, and Engagement



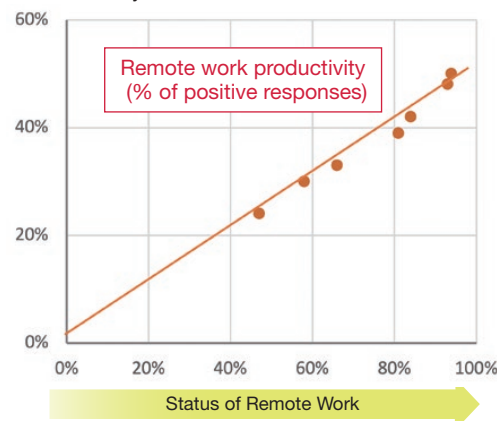
## Promotion of "Work-in-Life"

### Employee Opinion Survey on Work Styles

In line with the promotion of remote work, we regularly conduct the Employee Opinion Survey on Work Styles. In FY2021, we conducted the "Questionnaire on the Implementation of Remote Work" and received responses from approximately 113,000 Group employees in Japan.

The results showed that employees with a higher implementation rate of remote work tended to be more likely to respond that their productivity had increased.

### Remote Work Implementation Status and Productivity



### Introduction of the Remote Standard System

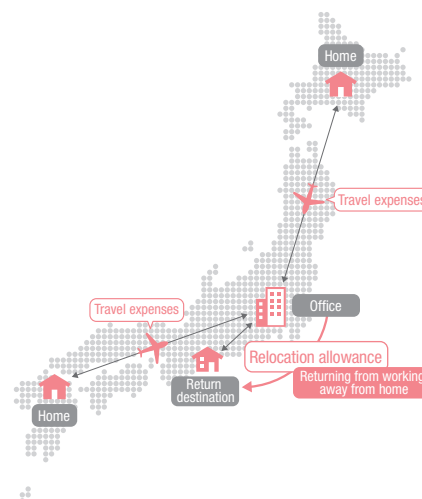
Changing workstyles will lead to more opportunities for a diverse array human resources to play an active role and increase their job satisfaction and ease of working. As a result, we believe this will make employees more engaged and lead to increased innovation. In particular, we are making efforts to promote changes in how employees work, with a focus on developing compensation and environments appropriate for a work style centered around remote work.

### Remote Standard

While we already introduced a system for remote work that does not place restrictions based on "time" or "place" in fiscal year 2020, in July 2022, we introduced the "Remote Standard" system to implement a work style that is not restricted by one's place of residence. Through this initiative, we aim to eliminate work styles that require relocation or solo transfer assignments.

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

We also increased the number of satellite office locations to 496 by the end of FY2021, with the goal of 260 or more by the end of FY2022, in order to establish places to work outside of the home and office.



### Initiatives for Diverse Work Styles (Balancing Work and Life)

To enhance work-in-life among its employees, the NTT Group promotes active participation in childcare. In accordance with the revision of the Act on Childcare Leave, Caregiver Leave, and Other Measures for the Welfare of Workers Caring for Children or Other Family Members, NTT Group revised its childcare leave system on April 1, 2022, prior to the revision of the Act, and enhanced the leave system for the period up to eight weeks after childbirth. In addition, to provide an opportunity for employees to understand the childcare leave system and receive support for taking this leave, supervisors who receive a report of a pregnancy or childbirth hold face-to-face sessions to explain the childcare leave system.

Starting in the fiscal year ending March 31, 2022, NTT has held seminars to encourage employees to participate in childrearing, and through panel discussions featuring explanations of the system and talks by employees who took

time off, strive to create a workplace culture that encourages childrearing. Other support tools include interview sheets and manuals that explain the system, a revised Communication Handbook that covers the necessary procedures for life events, and posters to encourage employees to take childcare leave.



## Employee Engagement

In FY2021, NTT Group revamped its existing Employee Satisfaction Survey, which focused on questions related to ease of working, and added questions related to job satisfaction. It also conducted a Group-wide Engagement Survey to quantify employees' attachment to and trust in the company to which they belong as an "engagement score." Approximately 132,000 Group employees in Japan responded.

By understanding current levels of engagement among NTT Group employees and the issues that need to be improved, and by taking action to make improvements, 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.

The survey method was based on the Group-wide system Experience PF (Qualtrics), which was adopted by approximately 100 Group companies in Japan. By surveying questions used widely around the world and NTT Group's original questions, it became possible to compare them with global standards and other companies in Japan, as well as identify and analyze issues for each individual organization.

Four indicators for measuring engagement have been established as NTT Group Key Performance Indicators (KPIs).

### NTT Group's Four KPIs

#### Willingness to make voluntary contributions

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

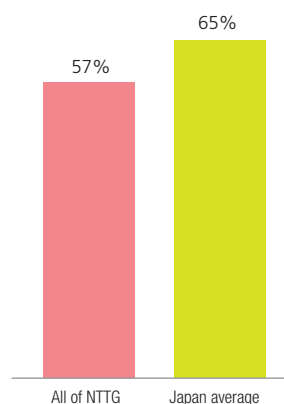
#### Attachment to and pride in the company

- ② I am proud to work at this company  
③ I would recommend our company as a great place to work to those I know

#### Job satisfaction

- ④ I gain a sense of personal accomplishment through my work

### The Average of the Four KPIs



NTT Group's employee engagement score (the average of the four KPIs) was 57%, 8% lower than the Japanese average of 65%, with the item showing the largest discrepancy being "④ I gain a sense of personal accomplishment through my work." The results of the assessment are published on the company's intranet, and every company and organization has begun analyzing the items that have a high correlation with engagement so that improvements can be made.

## Developing Human Resources and Improving the Company Environment

NTT Group has been working to review its personnel system to achieve self-guided career formation and place the right individuals in the right positions. For management positions, a job-based system was introduced in October 2021 to assign personnel more suitable for posts regardless of time at the company, age, years of experience, or other factors.

Further, for general staff, we will also promote a shift from company-driven career development to a system that allows employees to direct the development of their own careers. We will clarify the specifics and the level of knowledge and skills required in different fields of work, as well as create a system that enables employees to choose and advance their careers by taking the initiative to improve their expertise.

### Developing Senior Management Personnel

For future management candidates, we select various individuals regardless of age, gender, or field of expertise. Through education at the NTT University, which was started as a program for developing management candidates, we target diverse people who are full of desire to lead our transformation. (Training launched for approx. 150 employees in FY2022 (30% women))

## Mid-career Hiring Initiatives

To reflect a diverse array of perspectives in its business operations, NTT Group has set a mid-career hiring target rate of 30% for fiscal year 2023. Thanks to aggressive hiring of external personnel, we achieved our mid-career hiring

target rate of 32.5% for the six main companies in fiscal year 2021. Going forward, we will continue our efforts to hire external personnel to ensure a diverse workforce.

## Empowerment of Women in the Workforce

The NTT Group set a new target in fiscal year 2021 for incorporating diverse opinions into its decision-making process. In July 2022, the percentage of female directors was 17.7% (+6.3% year-on-year). With regard to fiscal year 2021 results, the percentage of new managers was 29.1% (+16.6% year-on-year), and the percentage of managers was 8.7% (+1.4% year-on-year).

On a non-consolidated basis, the holding company achieved its goal of having 34.6% of directors be women. Further, the percentage of female directors, corporate

auditors, and executive officers was over 30%.

The NTT Group endorses the goals of the Women's Empowerment Principles (WEPs), which establish action principles for actively supporting the advancement of women in the workplace for fiscal year 2022, and has signed a statement in which it pledges to act in accordance with these principles. In addition, in an effort to achieve sustainable growth for the company, the Group joined the 30% Club, which aims to increase the percentage of female officers.



In support of

### WOMEN'S EMPOWERMENT PRINCIPLES

Established by UN Women and the  
UN Global Compact Office

## Targets and Results

● Ratio of Women at the Six Main Companies<sup>\*1</sup>

		FY2019		FY2020		FY2021		FY2022		New Target
Officers <sup>*2</sup>		7.1% (11)	↗	10.6% (17)	↗	11.4% (20)	↗	17.7% (32)		25 - 30% (FY2025)
Managers	Manager Ratio	6.7% (1,378)	↗	7.3% (1,506)	↗	8.7% (1,830)		—		15% (FY2025)
	New Manager Appointment	—		—		29.1% (418)		—		30% (FY2021 onward)
General Employees		21.9% (10,867)	↗	22.7% (11,166)	↗	23% (11,436)		—		—

<sup>\*1</sup> Targets and current conditions at six main companies (NTT, NTT DOCOMO, NTT East, NTT West, NTT Communications, NTT DATA) <sup>\*2</sup> Officers refers to Board Members, Audit & Supervisory Board Members, and Senior Vice Presidents

### Initiatives for Skills and Career Development

NTT is stepping up initiatives to groom more female employees for decision-making management positions and positions for providing guidance.

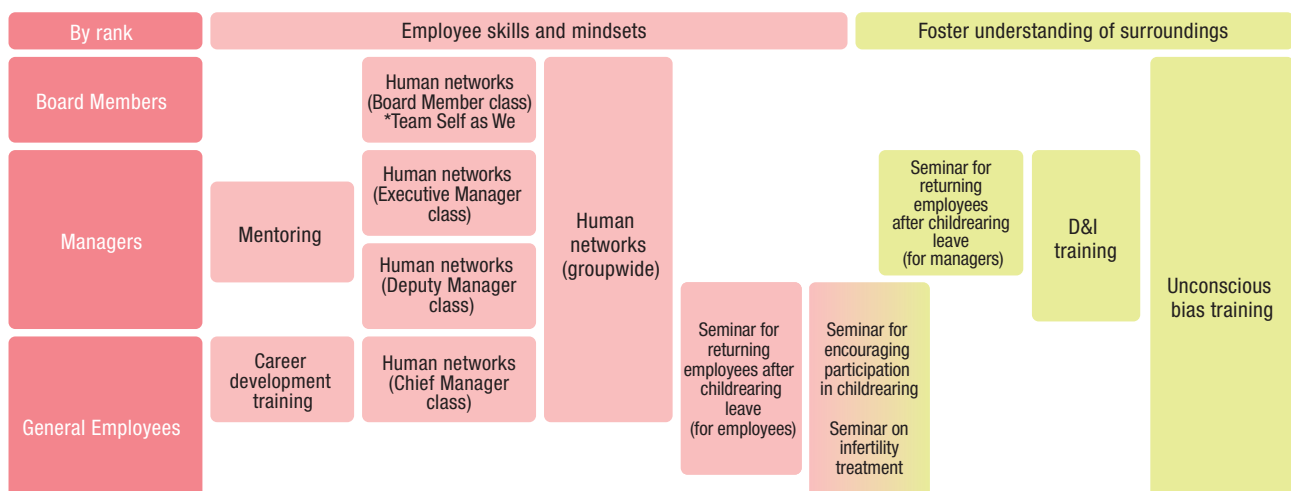
Specifically, for female employees interested in management positions, we are implementing women career development training programs Groupwide and programs for building up necessary leadership skills and awareness through dialogues with upper management and exchanges with other companies.

Moreover, we will expand training opportunities with the aim of increasing the ratio of women participating in internal and external training programs, mainly for managers. NTT Group also offers mentoring by female directors and a human network program for strengthening vertical and horizontal connections for women within the Group, spanning all positions and ranks. In addition to off-the-job training, we provide on-the-job training, including putting employees in tough assignments,

with the intention of training women with the skills, mindsets and experiences necessary for promotions.

### Fostering the understanding of supervisors and other people

Fostering understanding among supervisors and other people is also essential for empowerment of women in the workforce. For this reason, we implement for all genders unconscious bias training for supervisors and other people, D&I mindset change training, seminars for supervisors returning from maternity leave, seminars for active participation in childcare, and seminars on infertility treatment.positions for providing guidance.



## Initiatives for Employing People with Disabilities

### Increase in Employment Opportunities for People with Disabilities

In addition to direct hires, NTT Group established a special subsidiary in order to provide more opportunities for people who have disabilities. NTT Group currently employs around 3,700 people with disabilities, representing 2.47% (up 0.02% from the previous fiscal year) of its workforce as of June 2022. Examples of work that are performed by people with disabilities include web accessibility diagnosis, lectures for better understanding people with disabilities (barrier-free mindset seminars), production of hand-made paper from recycled paper, and office massages.

### NTT Art Contest

In fiscal year 2021, we held the “NTT Art Contest Depicting our ‘Connections’” as part of initiatives aimed at promoting activities for people with disabilities based on the concept of “Showcasing individuality with the power of art—Disability or not, everyone can make the world brighter.” We received 196 entries from Japan and abroad, and we held an award ceremony on December 3, which is International Day of Persons with Disabilities. The award ceremony showcased the 20 best entries and honored the top five contestants. In fiscal year 2022, we plan to hold the contest in collaboration with Japan Airlines Co., Ltd. which endorses the concept behind this contest, and expand the number of eligible entries.



Award ceremony held at the Avatar Robot Cafe DAWN ver.β on December 3, 2021



Grand Prize winner: “Airplane”

### Use of OriHime Remote-Controlled Robot

The NTT Group is using OriHime in a variety of scenarios.

- Sports:** Project for ICT x sports x regional co-creation  
E Cheer Up! Joint experiment
- Culture:** Collaborative agreement with a Kyogen comedy troupe about making DX a reality (Nomura Mansai II (Mansaku no Kai))
- Education:** OriHime and NTT R&D offer well-being classes at elementary schools
- Research:** At robot café DAWN, conduct experiments with remote robot control based on IOWN
- Reception/Show Case:** Introduction to NTT Group reception areas, showrooms, etc





## Initiatives for LGBTQ

### Systems

With respect to the approximately 200,000 employees of NTT Group companies in Japan, in April 2018 we began the application, in principle, of all systems for spouses to same-gender partners who have the equivalent of spousal relationships with employees.

Salary	Allowance for dependents, allowance for working away from home, expenses of returning home, relocation expenses (family relocation expenses)
Work	Special leave (marriage, bereavement), life plan leave, nursing care leave, short-term leave for nursing care, childcare leave, long-term care leave, shorter working hours to provide childcare or nursing care, limit on or exemption from overtime work, limit on nighttime work, shift work on an individual unit basis to provide childcare or nursing care, reemployment of employees who resigned due to childcare, nursing care, or the relocation of their spouse's job
Welfare	Congratulatory/condolence payments (special payments for marriage, condolence payments), company housing, NTT Benefits Package, M3PSP (health consultations with specialist physicians, "best doctor" referrals, and healthcare policy proposals)
Overseas Assignments	Family members included in the calculation of cost-of-living in their home country, spouses in receipt of empty home allowance, handling of relocation expenses of family members of employees working overseas

### Major Initiatives

NTT Group voices its approval of LGBTQ-related initiatives. To deepen understanding of LGBTQ issues, NTT Group stands with LGBTQ people by participating in the Tokyo Rainbow Pride parade and the DIVERSITY CAREER FORUM, one of the largest career forums in Japan related to diversity.

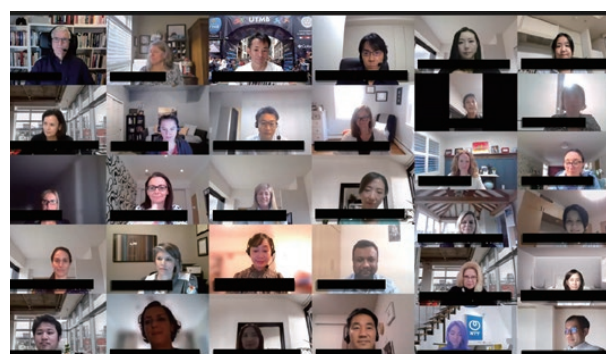
This fiscal year, we held an online ALLY meeting twice for the entire NTT Group, inviting external lecturers to give presentations and lead discussions. 21 companies in the NTT Group were awarded gold ratings in the PRIDE Index 2021, an evaluation index for LGBTQ initiatives in the workplace developed by the organization work with Pride, which indicates achievement in all five indicators of the certification criteria.



## Promotion of Global Diversity

Each year, we conduct Group training for senior managers of NTT Group in Japan and overseas, called Global Leadership Development Program Leadership Excellence and Accelerating Diversity (GLDP LEAD). This training is designed to foster leadership among managers aiming to move to higher positions.

This training is designed to foster leadership among managers aiming to move to higher positions. This training, in which more than half of the participants are female, emphasizes diversity and innovative culture as organizational capabilities of topmost importance. In the fiscal year ended March 31, 2021, 42 employees from nine countries underwent this training in an online format.



## Promotion of Health Management

### Policy and Approach

Health management is pursued as a key corporate strategy with the understanding that initiatives for maintaining and improving employee health also enhance motivation and productivity and ultimately lead to higher corporate earnings.

We also believe that giving due consideration for the health of our employees as well as their families will motivate and invigorate each of them and lead to the growth and development of the Group as a whole.

### Main Initiatives

Below, we introduce key initiatives being undertaken in NTT Group on various fronts to help employees maintain and improve their health.

#### —Promoting health activities and behavioral changes with "d Healthcare" at the core (health care 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.

#### Health measures linked to d Healthcare

##### (1) "Pulse Survey" for promoting self-care and line care <Improving convenience>

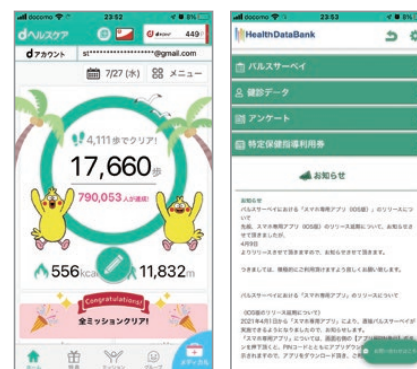
The Pulse Survey, a system that encourages employees to monitor and manage their own health conditions (self-care) and communicate with their superiors (line care) through basic medical interviews conducted on a periodic basis, is now available through "d healthcare," thus making it more convenient.

##### (2) Viewing the results of periodic health checkups (including physical examinations), etc. [Promoting Health Activities and Behavioral Change]

Results of health checkups and information about daily activities (life log) from the time one joined the company up to the present can be viewed, making it easy to keep track of how one's health is progressing.

##### (3) Stress checks <Improving convenience and promoting health activities and behavior change>

We enabled viewing of both the implementation of statutory stress checks and the results (including recommendations), improving convenience and expanding access to d healthcare.



Healthcare Portal Concept Image

#### —Data analysis for effective health promotion measures—

By collecting and analyzing a variety of data (PHR, work information, and more) held by the company, we can grasp factors related to mental illness and health issues (specific health guidance, etc.), implement highly effective health promotion measures, and support efforts to further improve employee health, which includes early detection and early treatment.

## 2022 Certified Health & Productivity Management Outstanding Organization (Large Enterprise Category [White 500])

We were chosen as a 2022 Certified Health & Productivity Management Outstanding Organization (Large Enterprise Category [White 500]) by the Ministry of Economy, Trade and Industry and the Nippon Kenko Kaigi. We will continue to strengthen our efforts to further encourage health management.

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



2022  
健康経営優良法人  
Health and productivity  
ホワイト500

## NTT Group Global Human Rights Policy

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

NTT is committed to respecting global human rights and believes it is an important corporate social responsibility. NTT Group will strive to correctly understand and recognize each country and region's laws, cultures, religions, and values. We aim to create a safe, secure, prosperous and sustainable society by fulfilling this responsibility. We also replaced NTT Group's existing Human Rights Charter with the new NTT Group Human Rights Policy. We included the NTT Group Global

Human Rights Policy, the Environmental Vision, and the New Management Style in the new NTT Group Global Sustainability Charter established in November 2021.

While supporting international covenants and treaties as a company with global operations, NTT Group internally and externally discloses its global human rights policy. This policy applies to all employees and board members on 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>

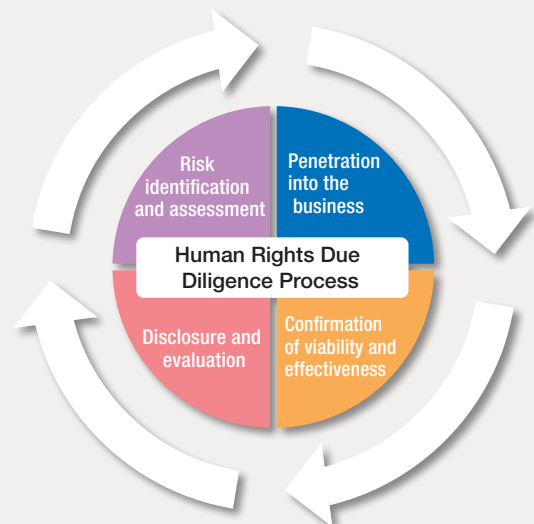
Web

### Due Diligence

Based on the UN Guiding Principles of Business and Human Rights, we will use the human rights due diligence process to identify, prevent, mitigate, and correct human rights issues globally. And we will strive to improve human rights awareness and human rights management throughout NTT Group.

In addition, due diligence will be conducted among the stakeholders in the entire business value chain, and a direct dialogue will be the basis of our efforts, especially with major suppliers.

The status will be disclosed on our website, in our Sustainability Report, and in our Human Rights Report to evaluate and improve the process continuously.



### Addressing Human Rights Issues of Particular Importance

NTT Group identifies serious human rights issues to monitor from the four following perspectives:

Theme 1		<p>Promotion of "Diversity &amp; Inclusion," a concept that recognizes diverse cultures and values (Prohibition of discrimination, respect for freedom and rights, fairness in the workplace, economic disparities and poverty)</p> <p>Aiming to create new value, NTT Group believes it is essential to respect the diverse values and individuality of its employees in order to address the diversifying needs of its customers.</p>
Theme 2		<p>Promotion of "Technology that is based on high ethical standards," which balances both high ethical standards and technology (Technology, data bias, privacy, personal data protection, and security)</p> <p>New technology will be necessary to strike a balance between people and nature. We believe it will therefore be necessary to pursue R&amp;D and the social implementation of technologies while maintaining a high level of ethics.</p>
Theme 3		<p>Promotion of "Healthy work in daily life" (Diverse work styles, prohibition of forced labor and child labor, workplace safety, freedom of association and the right to organize, living wage, enhanced benefits)</p> <p>We believe it is important to create safe and secure work environments and promote diverse work styles so that employees can work in physical and mental health with enthusiasm and motivation.</p>
Theme 4		<p>Promotion of "Appropriate expression, speech, and display" in consideration of human rights (Freedom of expression and respect for human rights in advertising and other presentations)</p> <p>As the Internet becomes more and more widespread, companies are required to be more appropriate in their communications than ever before. The NTT Group will take actions that absolutely refrain from discriminatory expressions, speech, and displays.</p>

## Value Chain Management

### Requests to Suppliers on Environmental and Social Concerns

With the increased globalization and complexity of supply chains in recent years, responding appropriately to global issues, such as disasters/pandemics, environment, human rights, and security, has become an important issue.

In light of this, we formulated the NTT Group Supply Chain Sustainability Promotion Guidelines in 2022 that 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 to guide our efforts as we work together with suppliers to create and maintain a safe and secure supply chain and achieve a sustainable society. The

guidelines also clearly and directly lay out the responsibility for suppliers to communicate the guideline details with their upstream suppliers and encourage them to comply and verify their compliance status. In addition, we have also published the NTT Group Green Procurement Standards as a supplement to our environmental guidelines and are requesting that continued efforts be made to reduce greenhouse gas emissions throughout the supply chain. We have published these Guidelines in Japanese and English, seeking to communicate to a broad range of the NTT Group's suppliers both in Japan and overseas, and we have incorporated them into supplier contracts to ensure compliance.

NTT Group Basic Procurement Policy	Basic procurement activity policy to achieve a sustainable society
NTT Group Supply Chain Sustainability Promotion Guidelines	Requests to suppliers regarding social issues established based on the Basic Procurement Policy
NTT Group Green Procurement Standards	Our latest environmental policies, target figures, specific laws and standards suppliers must reference, procurement evaluation items, etc.
Technical Requirements	Specific technical requirements, including reducing environmental impact, to procure products that take quality, safety, and the environment into consideration

### Supplier Engagement Initiatives

We assess social and environmental risks by conducting the Supply Chain Sustainability Survey that covers about 160 confirmation items, including the seven areas of human rights and labor, health and safety, the environment, fair trade and ethics, quality and safety, information security, and social contributions, to confirm the status of compliance with these guidelines and so on. The survey targets all of the NTT Group's critical suppliers that account for at least 90% of total procurement value, suppliers of essential components, and suppliers of non-substitutable products. Also, based on the results of these

surveys, NTT Group is promoting supplier engagement activities, including direct dialogues with suppliers.

Furthermore, in July 2022, the company took part in the Joint Audit Co-Operation (JAC), <sup>\*1</sup> which involves conducting CSR audits of ICT suppliers around the world. We were the first telecommunications operator in Asia to participate. Through these activities, NTT Group will help make a sustainable society a reality by building and maintaining a safe and secure supply chain.

<sup>\*1</sup> <https://jac-initiative.com/>



# Corporate Governance

—Reinforcement of Governance for Sustained Growth—

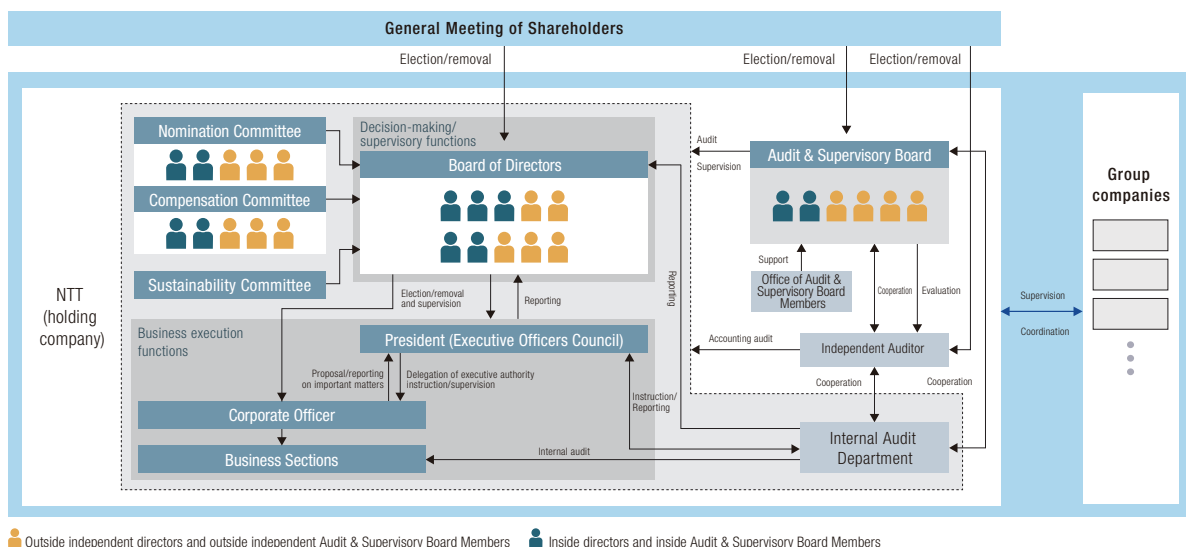
## Basic Views of Corporate Governance

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 a Board of Company Auditors (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 Members of the Board, including three outside independent Members of the Board, to further increase the objectivity and transparency of decisions relating to appointment and compensation. NTT has determined that governance functions based on a Board of Corporate Auditors (Audit & Supervisory Board) are sufficiently effective to achieve this purpose.

Governance Chart





## Members of our Board

\*As of the end of June 2022

**Jun Sawada**

Chairperson and Executive Director

**Akira Shimada**

President and Chief Executive Officer

**Katsuhiko Kawazoe**

Senior Executive Vice President

**Takashi Hiroi**

Senior Executive Vice President

**Akiko Kudo**

Member of the Board

**Ken Sakamura**

Outside Member of the Board

**Yukako Uchinaga**

Outside Member of the Board

**Ryoji Chubachi**

Outside Member of the Board

**Koichiro Watanabe**

Outside Member of the Board

**Noriko Endo**

Outside Member of the Board

## Members of the Audit &amp; Supervisory Board

\*As of the end of June 2022

**Keiichiro Yanagi**

Full-Time Audit &amp; Supervisory Board Member

**Kanae Takahashi**

Full-Time Audit &amp; Supervisory Board Member

**Kensuke Koshiyama**

Full-Time &amp; Outside Audit &amp; Supervisory Board Member

**Takashi Iida**

Outside Audit &amp; Supervisory Board Member

**Hideki Kanda**

Outside Audit &amp; Supervisory Board Member

**Kaoru Kashima**

Outside Audit &amp; Supervisory Board Member

## Skill Matrix

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

See the background and experience of the Members of the Board and Members of the Audit & Supervisory Board here



P98

## Board of Directors

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

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

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

With the objective of further strengthening the independence, objectivity, and accountability in decisions with respect to appointments and compensation of officers and related matters made by the Board of Directors, the Company has voluntarily established a Nomination Committee and Compensation Committee, each consisting of five Members of the Board, 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 challenge, 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.

### ● Breakdown of Agenda Items Presented to the Board of Directors

#### Corporate Governance

42%

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

#### Capital Policy

9%

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

Number of Agenda Items Presented to the Board of Directors in the fiscal year ended March 31, 2022  
(Number of Board of Directors' Meetings held in the fiscal year ended March 31, 2022: 15)

#### Management Strategy

49%

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

## Evaluation of the Effectiveness of the Board of Directors

### Overview of Evaluation

Participants	All 8 directors and all 5 corporate auditors
Evaluation Implementation	April 2021
Questionnaire Format	Anonymous surveys comprised 26 questions involving 4-level rankings as well as open-ended questions
Major Subjects	Roles and responsibilities of Members of the Board and of the Board of Directors itself, composition of the Board of Directors, operation of the Board of Directors, support systems for outside Members of the Board
Results Aggregation and Analysis Method	After aggregation by third-party organization and analysis by Board of Directors' organizing office, the results are shared and issues and improvement measures are discussed at Board of Directors' meeting

### Evaluation Results

The FY2021 evaluation results confirmed that the Board was sufficiently fulfilling its important role and responsibilities, with a majority of positive opinions for all of the questions.

In addition, as a result of the enhancement of governance-related issues, such as holding meetings to exchange opinions to stimulate strategic discussions, and enhancement of discussions on important issues such as sustainability, all members expressed positive opinions. Therefore, we have evaluated that the effectiveness of the Board of Directors is being ensured.

At the same time, regarding efforts to deepen understanding of increasingly complex proposals, while a certain degree of

recognition was received, there were also some opinions that there is still room for improvement, so we will continue efforts to achieve improvements by aiming for more efficient operation of the Board of Directors through enhancing supplementary explanations related to the background of the deliberation items in advance and further expanding opportunities for exchanges of opinions with the executives of the major subsidiaries.

## Audit & Supervisory Board

The Audit & Supervisory Board comprises four outside independent Audit & Supervisory Board Members (including one female member), who have experience and knowledge in a range of fields—as a lawyer, university professor, and Certified Public Accountant—and two internal Audit & Supervisory Board Members (including one female member). 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 Kensuke Koshiyama has experience developed through his work at the Board of Audit of Japan, while Auditor Keiichiro Yanagi is a certified member of the Securities Analysts Association of Japan, and Auditor Kaoru Kashima is a Certified Public Accountant, all of whom have considerable knowledge in the areas of finance and accounting.

## Activities of the Audit & Supervisory Board

For the fiscal year ended March 31, 2022, amid continued significant changes in management, including the strengthening of global business competitiveness, initiatives to integrate functions within the new NTT DOCOMO Group, the Audit & Supervisory Board conducted an efficient and effective audit in collaboration with the Internal Audit Department, Accounting Auditors and Group company corporate auditors on both audit matters required by law and on other matters such as the progress of the Medium-Term Management Strategy and initiatives to maintain and improve corporate governance, on the basis of the audit plan.

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

In the fiscal year ended March 31, 2022, Audit & Supervisory Board Members met to exchange ideas and opinions with Representative Members of the Board, independent outside Members of the Board and others 43 times. In particular, based on the results of the evaluation of effectiveness of the Audit & Supervisory Board for the fiscal year ended March 31, 2021, NTT significantly increased opportunities to exchange opinions with independent outside Members of the Board during audits of the management, and held discussions regarding management issues and responses, among other topics. In the fiscal year ended March 31, 2022, the Audit & Supervisory Board met 26 times (with Mr. Takao Maezawa, Ms. Kanae Takashi, Mr. Takashi Iida, Mr. Hideki Kanda and Ms. Kaoru Kashima each attending 26 out of 26 meetings).

Moreover, separate from meetings of the Audit & Supervisory Board, the Audit & Supervisory Board Members Preliminary Deliberation Meeting was held 40 times. These meetings provide a venue for the sharing of information. For example, at these meetings Audit & Supervisory Board Members receive explanations from corporate officers of matters to be discussed at the Executive Officers Meeting. Furthermore, the Audit & Supervisory Board Members work closely with the Accounting Auditors and the Internal Audit Department. The Audit & Supervisory Board Members exchanged opinions with Accounting Auditors 11 times and with the Internal Audit Department 10 times, and received explanations of audit plans and reports on the status of internal control systems and provided advice as needed.

In initiatives related to Group companies, in order to improve the Group audit structure and on the basis of materiality and risk approach, NTT aligned risk awareness between the Audit &

Supervisory Board Members of major Group companies and then conducted audits through the Audit & Supervisory Board Members of major Group companies. In the fiscal year ended March 31, 2022, the Audit & Supervisory Board Members held meetings to exchange opinions with the Representative Members of the Board and Audit & Supervisory Board Members of Group companies 53 times to inquire about and hold discussions on the status of progress on the Medium-Term Management Strategy, the status of corporate governments and initiatives to maintain and improve it, among other topics. In addition, the Audit & Supervisory Board Members of each Group company received reports and held meetings to exchange opinions on audit results for audit matters based on their unified risk awareness. In addition, the Audit & Supervisory Board is implementing initiatives that contribute to enhancing the auditing activities of the Audit & Supervisory Board Members of major Group companies, including holding liaison conferences for major Group companies and between the Audit & Supervisory Board Members of major Group companies to share risk awareness.

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

Furthermore, despite the continued spread of the COVID-19 pandemic, through the cooperation of related audit organizations and the active utilization of web conferencing for site visits, the effectiveness of the audit was not impaired.

### Opinion Exchange Meetings Held

Opinion exchange with Representative Members of the Board	43
Audit & Supervisory Board	26
Audit & Supervisory Board Members Preliminary Deliberation Meeting	40
Opinion exchange meetings with Accounting Auditors	11
Opinion exchange meetings with Internal Control Office	10
Opinion exchange meetings with Representative Members of the Board of Group companies	53

# Messages from Outside Independent Members of the Board

## Message



Outside Independent Member of the Board

### Ken Sakamura

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

I have been involved in the research and development of open architecture focused around TRON\* for over 40 years and contribute to making ubiquitous computing and the IoT a reality. Based on these experiences, I shared my thoughts at NTT's Board of Directors meetings, primarily in the area of technology, to push for the realization of the Medium-term Management Strategy.

In addition, besides offering advice on measures to be taken in light of the revised Corporate Governance Code from the neutral position of an outside director, I share my views on the selection of officers, succession planning, and the ideal compensation system as a member of the Nomination Committee and Compensation Committee. I also supervise management as it formulates strategies and executes its duties and make appropriate judgments and evaluations.

At the 37th Ordinary General Meeting of Shareholders, as an outside director, I answered a question from a shareholder about how to create new technologies going forward in Japan, a country that is behind when it comes to digital technology. I believe that there will be many opportunities to compete globally with technology originating in Japan, and IOWN can serve as a game changer. By offering advice and supervision, I hope to contribute to the continued growth of the NTT Group, which will continue to rise to the challenge of new technologies and develop new operating systems and information platforms that can help solve global issues.

\*TRON (The Real-time Operating system Nucleus): An OS originating in Japan that boasts a market share of over 60% in the IoT field. It is recognized as a standard by the Institute of Electrical and Electronics Engineers (IEEE) of the United States.



Outside Independent Member of the Board

### Yukako Uchinaga

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

I became the first female Board Member at IBM Japan, which I joined right out of university. While at IBM Japan, I established the NPO Japan Women's Innovative Network to promote diversity management at companies. I have also been involved in business administration for five years as CEO of Berlitz Corporation and have served on the Board of Directors of a number of publicly traded companies, providing advice from a managerial perspective.

If Japanese companies are to overcome this era of significant global upheaval, innovation that transcends conventional values is essential. I believe that utilizing human resources with diverse values and creating new business models based on mutual understanding and respect, as well as promoting diversity and inclusion (D&I) to invigorate the organization, is an important catalyst for innovation and serves as an effective management strategy.

NTT Group has taken a major step toward advancing D&I, including the launch of a remote work standard that allows greater freedom of residential location. I greatly appreciate that the company has a clear vision when it comes to employee diversity and work styles and has linked this vision to improving employee motivation and hiring excellent personnel. I expect it to become a leader in the promotion of D&I in Japan. I will help to enhance corporate value by drawing on my past experience to offer highly effective supervision and support for appropriate risk-taking from an independent and objective standpoint.





Outside Independent Member of the Board

## Ryoji Chubachi

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

I joined Sony as an engineer and worked in development before becoming involved in the company's management in the midst of rapid globalization and digitalization. Later, as President of the National Institute of Advanced Industrial Science and Technology (AIST), a national research institute, I have been working to bring about innovation and serve as a bridge to the industrial world, with the mission of "bringing technology to society."

During my time at Sony, the company's founder, Masaru Ibuka, taught me that on a scale of 1 to 10, if the amount of effort required to come up with an idea is considered a 1, mass production requires 10 times the effort, and making it into a profitable business requires another 10 times the effort. The changes in technology are becoming more complex, sophisticated, and diverse with each passing day. It is important not only to create innovations that will serve as a source of growth for the company, but also to collaborate with different companies, universities, and research institutions on practical applications.

NTT Group is engaged in a wide range of R&D activities, from basic research to practical applications. We are convinced that IOWN technology, which we aim to achieve by 2030, is an important technology that will contribute to enhancing Japan's industrial competitiveness, as it is a revolutionary next-generation network that is also eco-friendly.

I hope that NTT Group's medium- to long-term plans are in line with the demands of society and that we will continue our sustainable growth as a company. I will make the most of the knowledge and experience I've accrued thus far to contribute to NTT Group's development and enhance its corporate value.



Outside Independent Member of the Board

## Koichiro Watanabe

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

I worked at The Dai-ichi Life Insurance Company in the management planning, human resource development, public relations, and research departments, among others. After becoming president in 2010, I implemented various reforms to respond to global changes and needs in a flexible manner, such as converting the company into a joint stock corporation, making us the first major life insurance company to do so.

The world is constantly changing, and responding to these changes requires reform. Reform will inevitably bring about friction, but my motto is "change creates friction, and friction creates progress." Overcoming this friction will usher in significant development.

NTT Group has always reinvented itself, and I believe that we are now in a period of significant change that will mark a milestone in our history. All of the initiatives in the revised Medium-term Management Strategy, including shifting toward a new management style, achieving carbon neutrality, and strengthening domestic and global operations, are reforms that will have a significant impact. I am confident that we will achieve great progress after adapting to these changes and overcoming friction.

I am aware that NTT Group has many issues to tackle during this transition period. By providing advice on these issues and supervising appropriate decision-making and business execution based on our past experience, I will help NTT Group to sustain growth and enhance its corporate value over the medium to long term.



Outside Independent Member of the Board

## Noriko Endo

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

I am engaged in research projects on energy policy and economic security at Keio University. The aim is to help solve the issues confronting Japan in a drastically changing security environment, such as geopolitical risks and security governance. I am also involved in public policy deliberations concerning nuclear energy, science and technology, commerce and trade, space, and public finance.

As a leading company group in Japan, NTT Group is expanding the use of renewable energy and promoting IOWN-related research and development, with the goal of becoming carbon neutral by 2040. I deeply appreciate the company's commitment to pursuing sustainability for itself and society by tying together business activities aimed at corporate growth and initiatives to reduce the environmental impact to zero.

I believe that one of my key roles as an Outside Independent Member of the Board is to encourage the medium- to long-term growth of NTT Group. As an editor of economic media and a researcher of industrial, science, and technology policy, I have been exposed to situations where the competitive environment for companies is drastically changing and business models are transforming due to a transformation in the industrial structure brought about by technological innovation. I will apply my knowledge to advise the NTT Group so that it can achieve growth in the global marketplace, as well as oversee the execution of NTT Group's business operations.



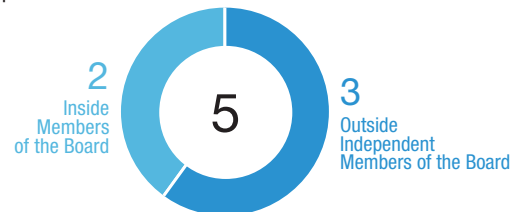
## Nomination Committee and Compensation Committee Composition and Activities

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 Members of the Board, of which a majority (three) are Independent Outside Members of the Board, as preliminary review institutions of the Board of Directors, thereby increasing the effectiveness of governance. Furthermore, from and after August 6, 2021, a majority of committee membership consisted of Independent Outside Members of the Board, increasing independence. From and after November 10, 2021, the Company decided to separate and transfer the functions of the existing Appointment and Compensation Committee into the separate Nomination Committee and Compensation Committee based on their applicable functions, and further delineated the authority and role of each committee. 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. In each committee, resolutions are made with the approval of the majority of the attendance of more than half of

the committee members.

In the fiscal year ended March 31, 2022\*, the Appointment and Compensation Committee met six times, the Nomination Committee twice, and the Compensation Committee once. In addition, members of each committee held meetings to exchange opinions, where active discussions were held, regarding the form of the compensation system, the appointment of Members of the Board and officers, succession plans, and measures in consideration of amendments to the Corporate Governance Code, among other topics.

### ● Nomination Committee and Compensation Committee Composition



\* During the fiscal year ended March 31, 2022, the membership of each committee consisted of Jun Sawada (former Representative Member of the Board, President), Akira Shimada (former Representative Member of the Board, Senior Executive Vice President), Katsuhiko Shirai (former Outside Member of the Board), Sadayuki Sakakibara (former Outside Member of the Board) and Ken Sakamura (Outside Member of the Board), with Jun Sawada (former Representative Member of the Board, President) serving as chairperson to oversee the proceedings of each committee.

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

## Board Member Compensation

### Board Member Compensation Determination Policy and Process

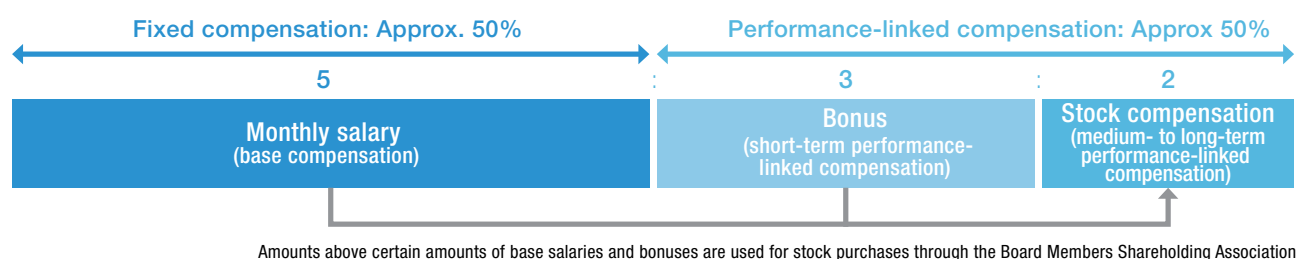
Regarding the composition and level of compensation for Members of the Board of NTT under the Determination Policy, in order to secure objectivity and transparency, NTT established the Compensation Committee, comprising five Members of the Board, including three Independent Outside Members of the Board.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

judgements from an outside perspective while also taking a bird's-eye view of the Company's overall performance.

Compensation of individual Members of the Board (excluding outside Members of the Board) consists of a monthly salary (base salary) and a bonus (compensation related to performance over the short term), NTT stock purchase through Board Members Shareholding Association and 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 compensation (medium- to long-term performance-linked compensation):** Members of the Board make contributions of a certain defined amount or more every month for the purchase of NTT shares through the Board Members Shareholding Association. Purchased shares are to be held by the Members of the Board throughout their terms of office. For the 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.

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 base salary only, for the same reasons as those cited above with respect to outside Members of the Board.



#### ● Bonus Performance Indicators

Performance Indicators*	Evaluation weight	Evaluation method	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
EPS	35%	Year-on-year improvement	¥248	¥329

Performance Indicators*	Evaluation weight	Evaluation method	Target of Fiscal year ended March 31, 2022	Result of Fiscal year ended March 31, 2022
Operating profit	35%	Achievement of targets	¥1.73 trillion	¥1.7686 trillion
ROIC	9%		7.4%	7.5%
Capex to Sales	6%		13.5%	13.1%
Overseas sales	6%		19,000 (Millions of dollars)	18,878 (Millions of dollars)
Overseas operating profit margin	6%		6.0%	6.3%

\*In addition to the above, the degree of achievement for number of B2B2X projects is also evaluated.

In light of the new NTT Group Sustainability Charter being established on November 10, 2021, we plan to make changes to the performance indicators for bonuses in fiscal year 2022 and beyond, which includes adding three new sustainability indicators with the goal of achieving the three themes of a sustainable society.

Position	Performance Indicators	Evaluation weight	Evaluation method
Financial indicators	EPS (earnings per share)	35%	Year-on-year improvement
	Operating profit	35%	
	Overseas operating profit margin	10%	
	ROIC	5%	
Sustainability indicators	Greenhouse gas emissions	5%	Achievement of targets
	B2B2X earnings	5%	
	Ratio of women newly promoted to management positions	5%	

## Stakeholder Engagement

NTT Group provides products and services to diverse stakeholders around the world, and its value chain continues to expand globally and grow in complexity. Along with these changes, our stakeholders' needs and expectations are also becoming increasingly diverse, and we must accurately understand and reflect them in our business activities through stakeholder engagement.

### Customers (Corporations/Individuals)

All customers, both corporate and individual, who use services provided by NTT Group

NTT Group's Approach	Methods of Engagement (examples)	Why We Engage
As we strive to be chosen as "Your Value Partner", each individual employee will strive for an even higher awareness of sustainability to provide safe, secure services that are high in quality and convenient from the customer's standpoint.	<ul style="list-style-type: none"> <li>▶ Establish customer information service points</li> <li>▶ Conduct customer satisfaction surveys</li> <li>▶ Utilize website and social media</li> </ul>	NTT Group endeavors to enhance customer satisfaction and become "Your Value Partner" for our customers by understanding their needs and standpoints in order to provide higher quality services and products.

### Shareholders and Investors

Individual and institutional investors including the shareholders and creditors of NTT Group

NTT Group's Approach	Methods of Engagement (examples)	Why We Engage
We will return profits to shareholders while maintaining a sound financial standing and enhancing our corporate value. We will also endeavor to disclose information related to the Group in a timely, appropriate, and fair manner.	<ul style="list-style-type: none"> <li>▶ General Meeting of Shareholders, earnings reports</li> <li>▶ Explanatory presentation for individual investors</li> <li>▶ Explanatory presentation for institutional investors</li> <li>▶ Annual reports, etc.</li> </ul>	We disclose information necessary for the shareholders and investors to make investment decisions and receive appropriate evaluations from them through communication with them, and refer to their opinions in the Group's management.

### Employees (Employees, Their Families, and Retired Employees)

Employees who work at NTT Group and retired employees who support NTT Group's sustainability ideals

NTT Group's Approach	Methods of Engagement (examples)	Why We Engage
We will pursue various employee initiatives to create safe and healthy workplaces in which everyone can realize their full potential and be rewarded in their work and daily lives. We will also value communication with retired employees.	<ul style="list-style-type: none"> <li>▶ Conduct employee satisfaction surveys</li> <li>▶ Regular interviews</li> <li>▶ Dialogue between labor and management</li> <li>▶ Establish corporate ethics helplines</li> <li>▶ Hold sustainability conferences</li> </ul>	We create safe and healthy workplaces for our employees and support their daily lives so that each individual employee can realize their full potential and carry out their work with a strong awareness of CSR.

### Local Communities

People in local communities who are connected to us through the core businesses of NTT Group companies

NTT Group's Approach	Methods of Engagement (examples)	Why We Engage
We will advance alongside local communities by implementing social contributions and disaster countermeasures through our ICT business.	<ul style="list-style-type: none"> <li>▶ Support and collaboration through social contribution activities</li> <li>▶ Negotiations with local residents on construction work, system development, and other activities</li> <li>▶ Support through donations and sponsorships</li> </ul>	We seek to contribute to the further development of a flourishing and vibrant community and to understand and identify the issues faced by local communities in order to implement various contributions through our ITC business.



## Business Partners

Business partners who offer their cooperation in various ways as NTT Group provides its services

### NTT Group's Approach

We will seek to work together to create and implement services that address a variety of social issues.

### Methods of Engagement (examples)

- ▶ Set up inquiry forms
- ▶ Disclose procurement policies and guidelines
- ▶ Conduct supplier surveys
- ▶ Provide briefings for suppliers

### Why We Engage

By procuring products with due consideration to the environment and human rights, and by forging partnerships based on fairness, we will fulfill our social responsibilities as a company and achieve sustainable growth alongside our business partners.

## ICT Companies and Industry Associations

Other ICT companies and people in industry associations who are striving to develop Japan's information and telecommunications

### NTT Group's Approach

We will engage in discussions on the direction and initiatives for the information and telecommunications industry, not only in Japan but from a global perspective, and seek to address diverse social issues together.

### Methods of Engagement (examples)

- ▶ Participation in industry associations and related initiatives
- ▶ Participation in conferences

### Why We Engage

We will invigorate the entire industry and contribute to society by promoting development and progress in information and telecommunications.

## Central Government and Administrative Agencies

Central and local governments and administrative agencies that make policy decisions on information and telecommunications, employment and the economy, the environment, and other issues

### NTT Group's Approach

We will fulfill our responsibility as an information and telecommunications company by adhering to the policies of the central government, administrative agencies, and local governments.

### Methods of Engagement (examples)

- ▶ Response to laws and regulations
- ▶ Policy proposals
- ▶ Participation in joint projects between the government and private sector

### Why We Engage

We will respond to and comply with central and local government and administrative agency policies to carry out business activities in an appropriate manner, and contribute to resolving social issues faced by the Japanese people and local governments.

## NGOs, NPOs, and Experts

NGOs, NPOs, and experts who are positioned within NTT Group's domain of activities including sustainability

### NTT Group's Approach

We will contribute to creating a sustainable society by sharing the expert knowledge and experience of NGOs, NPOs, and experts, and by incorporating them into the telecommunications industry.

### Methods of Engagement (examples)

- ▶ Participation and collaboration with study groups and activities of each organization
- ▶ Dialogue
- ▶ Collaborative projects

### Why We Engage

NTT Group provides services that extend beyond telecommunications to broader domains, and gaining the specialized perspectives of NGOs, NPOs, and experts allows the Group to appropriately and effectively develop business activities.

# Financial Data Summary

Unit: Billions of yen

U.S. GAAP	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017
<b>Profit and loss (For the year)</b>						
Operating revenues	10,700.7	10,925.2	11,095.3	11,541.0	11,391.0	11,799.6
Operating expenses	9,498.8	9,711.5	10,010.8	10,192.8	9,851.2	10,156.7
Operating profit	1,202.0	1,213.7	1,084.6	1,348.1	1,539.8	1,642.8
Other income	(4.3)	80.5	(17.9)	(18.9)	(12.0)	112.8
Income before income taxes and equity in earnings (losses) of affiliated companies	1,197.6	1,294.2	1,066.6	1,329.3	1,527.8	1,755.6
Income tax expense	474.0	486.5	397.3	354.8	468.4	541.9
Equity in earnings (losses) of affiliated companies	(16.1)	(50.8)	5.9	5.8	(0.0)	5.6
Net income	707.6	756.9	675.2	980.2	1,059.4	1,219.3
Less— Net income attributable to non-controlling interests	185.7	171.4	157.1	242.5	259.2	309.6
Net income attributable to NTT	521.9	585.5	518.1	737.7	800.1	909.7
<b>Balance sheet (At year-end)</b>						
Property, plant and equipment	9,776.7	9,839.7	9,801.5	9,551.9	9,719.0	9,821.1
Total assets	19,549.1	20,284.9	20,702.4	21,035.9	21,250.3	21,675.8
Current liabilities	3,499.4	3,676.8	3,721.7	3,741.1	4,131.4	4,239.0
Total long-term liabilities	5,527.7	5,657.4	5,902.7	6,009.6	5,560.4	5,354.3
Capital stock (common stock plus additional paid-in capital)	3,765.6	3,765.0	3,784.7	3,817.5	3,800.0	3,791.6
Total NTT shareholders' equity	8,231.4	8,511.4	8,681.9	8,833.8	9,052.5	9,486.0
Non-controlling interests	2,290.6	2,413.5	2,368.0	2,406.3	2,455.3	2,546.6
Total equity	10,522.0	10,924.8	11,049.8	11,240.1	11,507.8	12,032.6
<b>Cash flows (For the year)</b>						
Net cash provided by operating activities	2,453.7	2,727.9	2,391.8	2,711.8	2,917.4	2,637.5
Cash flows from investing activities	(1,776.3)	(2,106.8)	(1,868.6)	(1,759.8)	(2,089.3)	(1,841.8)
Cash flows from financing activities	(745.2)	(622.4)	(678.0)	(707.6)	(981.5)	(931.7)
<b>Other financial data, performance indicators, etc.</b>						
Interest-bearing liabilities	4,036.0	4,200.0	4,406.7	4,163.3	4,088.2	3,854.8
D/E ratio (%)	49.0	49.3	50.8	47.1	45.2	40.6
Capital investment (For the year) <sup>(1)</sup>	1,970.0	1,892.8	1,817.5	1,687.2	1,700.0	1,674.8
Depreciation and amortization	1,899.2	1,880.3	1,828.0	1,766.3	1,462.2	1,339.4
Research and development expenses (For the year)	269.2	249.3	233.8	213.4	211.6	213.9
EBITDA <sup>(1)</sup>	3,244.2	3,204.2	3,063.4	3,277.9	3,183.3	3,215.8
EBITDA margin (%) <sup>(1)</sup>	30.3	29.3	27.6	28.4	27.9	27.3
Free cash flows	677.4	621.1	523.2	952.1	828.0	795.8
Employees (Thousands) (At year-end)	227	240	242	241	275	283
Weighted average number of shares outstanding <sup>(2)</sup>	4,847,523,076	4,599,032,856	4,374,720,036	4,211,565,656	4,093,356,288	3,991,825,514
Cash dividends, applicable to earnings for the year <sup>(2)</sup>	40	42.5	45	55	60	75
Dividend payout ratio (%)	37.2	33.4	38.0	31.4	30.7	32.9
ROE (%)	6.5	7.0	6.0	8.4	8.9	9.8
<b>EPS (Yen) <sup>(2)</sup></b>						
	107.67	127.31	118.43	175.17	195.47	227.89
<b>Capex to sales (%)</b>						
	18.4	17.3	16.4	14.6	14.9	14.2

(1)

- Capital investment: On an accrual basis for the acquisition of property, plant and equipment
- From the fiscal year ended March 31, 2017, the method for calculating EBITDA has been revised.

EBITDA = Operating income + Depreciation and amortization + Loss on sales of property, plant and equipment + Impairment loss

EBITDA margin = (Operating income + Depreciation and amortization + Loss on sales and disposal of property, plant and equipment + Impairment loss) / Operating revenues × 100

- Beginning on April 1, 2020, NTT Group has excluded all depreciation expenses related to right-of-use assets from EBITDA and depreciation, as a component of EBITDA. As a result of the change described above, EBITDA and depreciation, as a component of EBITDA, for FY2019 have been retroactively revised to be reduced by ¥10.9 billion.

(2) Adjusted for the 2-for-1 stock split with an effective date of July 1, 2015.



Unit: Billions of yen

IFRS	FY2017	FY2018	FY2019	FY2020	FY2021
<b>Profit and loss (For the year)</b>					
Operating revenues	11,782.1	11,879.8	11,899.4	11,944.0	12,156.4
Operating expenses	10,141.1	10,186.0	10,337.3	10,272.6	10,387.9
Operating profit	1,641.1	1,693.8	1,562.2	1,671.4	1,768.6
Finance Income and Costs	(53.2)	(11.9)	(3.3)	(19.0)	7.2
Share of Profit (Loss) of Entities Accounted for Using Equity Method	5.0	(10.1)	11.3	0.2	19.7
Profit before tax	1,740.5	1,671.9	1,570.1	1,652.6	1,795.5
Income taxes	533.8	533.2	458.8	524.7	539.5
Profit	1,206.7	1,138.7	1,111.3	1,127.9	1,256.0
Less— Non-controlling interests	308.8	284.1	256.0	211.7	74.9
Profit attributable to NTT	897.9	854.6	855.3	916.2	1,181.1
<b>Balance sheet (At year-end)</b>					
Property, plant and equipment	8,812.2	9,012.9	9,087.5	9,282.3	9,326.9
Total assets	21,541.4	22,295.1	23,014.1	22,965.5	23,862.2
Current liabilities	4,622.4	5,228.1	6,607.6	7,426.2	6,258.6
Non-current liabilities	5,353.4	5,262.3	4,943.9	7,336.3	8,585.5
Capital stock (common stock plus additional paid-in capital)	3,334.5	3,279.2	3,190.6	938.0	938.0
Total NTT shareholders' equity	9,050.4	9,264.9	9,061.1	7,562.7	8,282.5
Non-controlling interests	2,515.3	2,539.9	2,401.5	640.3	735.7
Total equity	11,565.7	11,804.8	11,462.6	8,203.0	9,018.1
<b>Cash flows (For the year)</b>					
Net cash provided by operating activities	2,541.3	2,406.2	2,995.2	3,009.1	3,010.3
Cash flows from investing activities	(1,746.2)	(1,774.1)	(1,852.7)	(1,424.5)	(1,699.2)
Cash flows from financing activities	(968.3)	(584.3)	(1,041.3)	(1,689.5)	(1,438.1)
<b>Other financial data, performance indicators, etc.</b>					
Interest-bearing liabilities	3,971.6	4,262.7	4,699.9	7,624.3	7,364.3
D/E ratio (%)	43.9	46.0	51.9	100.8	88.9
Capital investment (For the year)	1,697.9	1,697.0	1,806.6	1,728.3	1,687.6
Depreciation and amortization (For the year) <sup>(1)</sup>	1,346.9	1,333.6	1,465.3	1,507.2	1,561.2
Research and development expenses (For the year)	208.6	211.3	224.9	232.6	248.0
EBITDA <sup>(1)</sup>	3,237.1	3,241.4	2,968.6	3,111.6	3,247.1
EBITDA margin (%) <sup>(1)</sup>	27.5	27.3	24.9	26.1	26.7
Free cash flows	795.1	632.0	1,142.5	1,584.5	1,311.1
Employees (Thousands) (At year-end) <sup>(3)</sup>	283	308	319	325	334
Weighted average number of shares outstanding <sup>(4) (5)</sup>	3,991,825,514	3,882,137,457	3,699,278,775	3,691,993,269	3,586,788,697
Cash dividends, applicable to earnings for the year <sup>(4)</sup>	75	90	95	105	115
Dividend payout ratio (%)	33.3	40.9	41.1	42.3	34.9
ROE (%)	10.2	9.3	9.3	11.0	14.9
<b>Medium-term financial targets</b>					
EPS (Yen) <sup>(4)</sup>	224.93	220.13	231.21	248.15	329.29
Overseas operating profit margin (%) <sup>(6)</sup>	3.1	3.2	2.4	3.0	6.3
Cost reductions <sup>(7)</sup>	—	(220.0)	(500.0)	(670.0)	(840.0)
ROIC (%)	7.4	7.4	6.6	7.2	7.5
Capex to sales (%) (Domestic network business <sup>(8)</sup> )	13.7	13.9	13.8	13.6	13.1

(3) Past figures have been retroactively revised as a result of expanding the scope of the personnel counted at certain overseas subsidiaries.

(4) EPS amounts reflect the two-for-one stock split with an effective date of January 1, 2020 as approved by the Board of Directors on November 5, 2019.

(5) Shares of the Company held by the officer compensation BIP trust are included in the treasury stock deducted when calculating the weighted average number of shares outstanding.

(6) Includes results from the global holding company (NTT, Inc.) and its subsidiaries and affiliates. Operating Profit excludes temporary expenses, such as M&amp;A-related depreciation costs of intangible fixed assets.

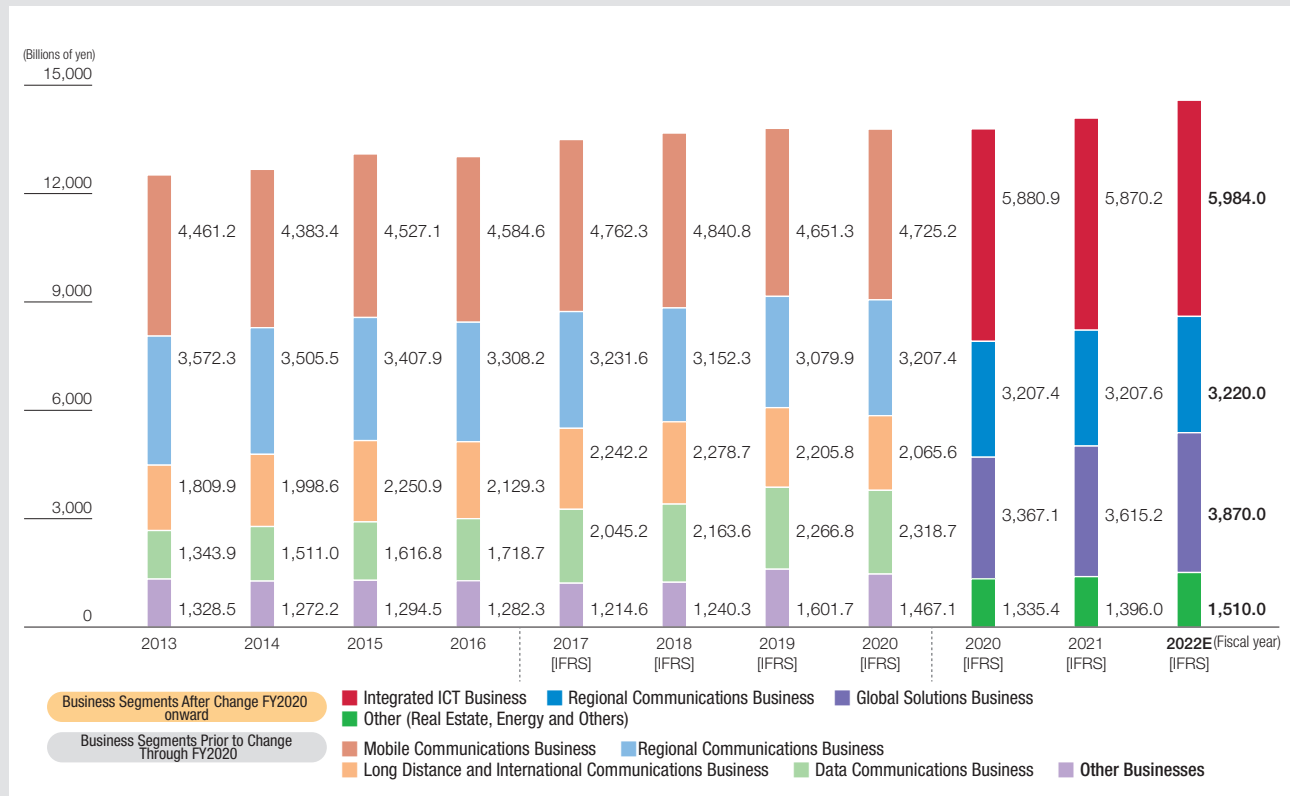
(7) Cumulative reductions from FY2017.

(8) Excludes NTT Communications' data centers and certain other assets.

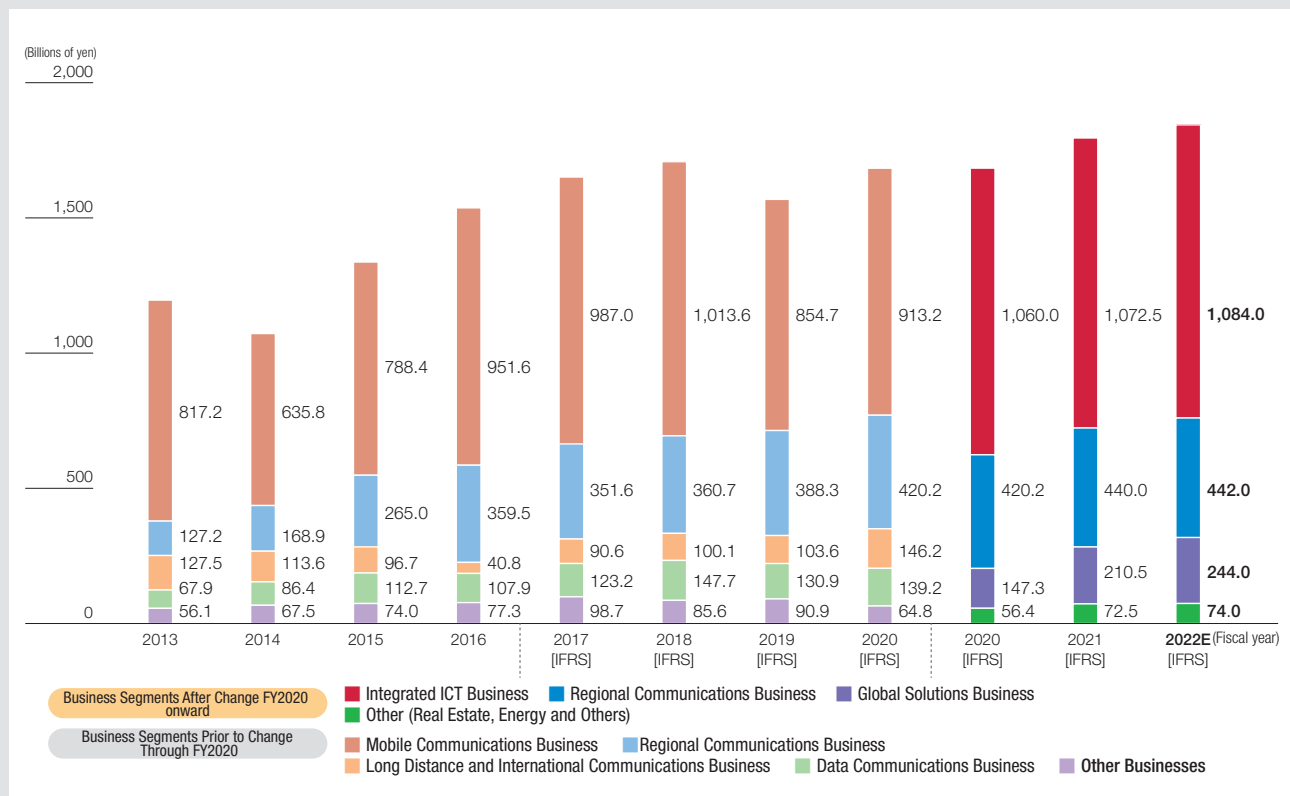
## Financial Data Summary

### Business Segment Data

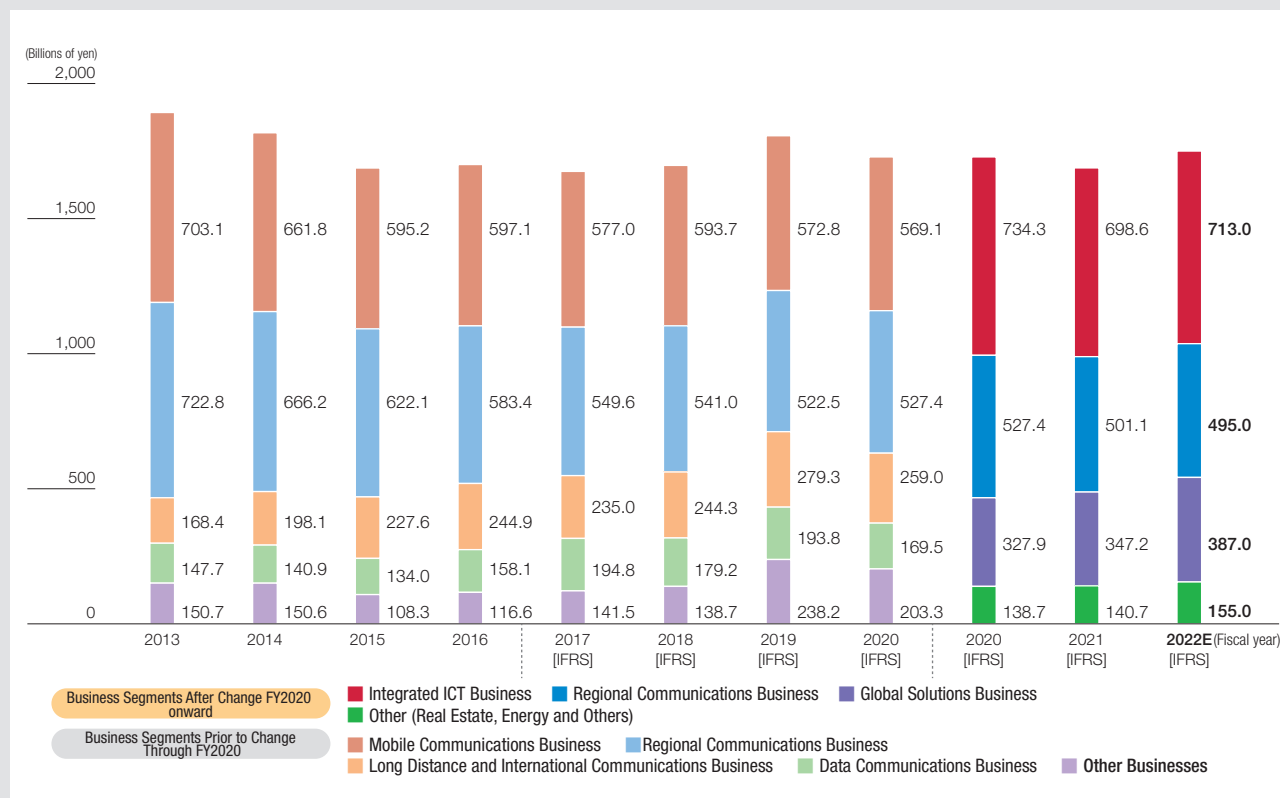
#### Operating revenues



#### Operating profit



## Capital Investment



•Revenues from segment operations include intersegment transactions.

•Beginning with the fourth quarter of FY2021, NTT Group's segments were changed from the previous five segments Mobile Communications, Regional Communications, Long-distance and International Communications, Data Communications, and Other Businesses to the four segments of Integrated ICT, Regional Communications, Global Solutions, and Other (Real Estate, Energy and Others). As a result of this change, the FY2020 figures have been reclassified based on the new segments.

## Financial Data Summary

Unit: Billions of yen

Consolidated Data (IFRS)	Years Ended March 31	
	FY2020	FY2021
<b>NTT Consolidated Financial Results</b>		
Operating revenues	11,944.0	12,156.4
Fixed voice-related service	934.7	916.1
Mobile voice-related service	1,126.8	1,102.5
IP/packet communications service	3,477.5	3,444.8
Sales of telecommunications equipment	674.1	694.7
System integration services	3,829.8	3,988.7
Other	1,901.0	2,009.6
Operating expenses	10,272.6	10,387.9
Personnel expenses	2,461.4	2,566.1
Expenses for purchase of goods and services and other expenses	5,875.3	5,839.4
Depreciation and amortization	1,507.2	1,561.2
Impairment losses	25.7	38.1
Goodwill	2.7	0.2
Other	23.0	37.8
Expenses on disposal of fixed assets	156.9	132.1
Taxes and dues	246.1	251.0
Operating profit	1,671.4	1,768.6
Profit before taxes	1,652.6	1,795.5
Profit attributable to NTT	916.2	1,181.1
<b>NTT Consolidated Financial Position</b>		
Total assets	22,965.5	23,862.2
Current assets	5,326.4	5,716.6
(incl.) Cash and cash equivalents	935.7	834.6
(incl.) Trade and other receivables	3,534.6	3,605.0
Non-current assets	17,639.1	18,145.6
(incl.) Property, plant and equipment	9,282.3	9,326.9
Liabilities and Equity	22,965.5	23,862.2
Liabilities	14,762.4	14,844.1
Current liabilities	7,426.2	6,258.6
(incl.) Trade and other payables	2,356.7	2,500.3
Non-current liabilities	7,336.3	8,585.5
(incl.) Long-term liabilities	4,455.7	5,717.5
(incl.) Defined benefit liabilities	1,731.6	1,561.0
Total equity	8,203.0	9,018.1
<b>Interest-Bearing Liabilities (Consolidated)</b>		
Interest-bearing liabilities	7,624.3	7,364.3
<b>Capital Investment</b>		
Capital investment	1,728.3	1,687.6
Integrated ICT Business Segment	734.3	698.6
Regional Communications Business	527.4	501.1
Global Solutions Business Segment	327.9	347.2
Others (Real Estate, Energy and Others)	138.7	140.7
<b>(Ref.) Capital investment by group<sup>*1*2</sup></b>		
Former NTT DOCOMO Group (excluding former NTT Communications/NTT Comware Group)	569.1	548.1
NTT Communications Group	97.8	101.9
NTT East Group	268.7	251.6
NTT West Group	258.6	249.5
NTT DATA Consolidated (Before Global Business Integration)	169.5	176.7
NTT Ltd. Group	155.5	169.7
NTT Urban Solutions Group	92.1	78.8

\*1 The results for the former NTT DOCOMO Group prior to the consolidation of NTT Communications and NTT Comware as subsidiaries (implemented on January 1, 2022) are provided as a reference.

\*2 Figures reflect NTT DATA consolidated figures on a conventional basis, excluding the impact of the global business integration scheduled to be implemented in October 2022.



Unit: Billions of yen

Business Segments (IFRS)	Years Ended March 31	
	FY2020	FY2021
<b>Integrated ICT Business Segment</b>		
Operating revenues	5,880.9	5,870.2
Fixed voice-related service	187.4	176.0
Mobile voice-related service	1,132.8	1,109.9
IP/packet communications service	2,372.1	2,304.3
Sales of telecommunications equipment	605.2	629.0
System integration services	486.0	525.2
Other	1,097.4	1,125.7
Operating expenses	4,820.9	4,797.6
Personnel expenses	462.8	470.7
Expenses for purchase of goods and services and other expenses	3,478.5	3,430.0
Depreciation and amortization	750.6	779.9
Impairment losses	0.4	1.7
Expenses on disposal of fixed assets	67.9	52.6
Taxes and dues	60.8	62.7
Operating profit	1,060.0	1,072.5
<b>Regional Communications Business</b>		
Operating revenues	3,207.4	3,207.6
Fixed voice-related service	950.3	932.0
IP/packet communications service	1,544.1	1,598.6
Sales of telecommunications equipment	69.5	67.7
System integration services	292.7	219.3
Other	350.8	389.9
Operating expenses	2,787.2	2,767.6
Personnel expenses	675.4	657.4
Expenses for purchase of goods and services and other expenses	1,447.4	1,457.6
Depreciation and amortization	422.9	421.3
Impairment losses	14.1	14.5
Expenses on disposal of fixed assets	88.3	78.2
Taxes and dues	139.3	138.5
Operating profit	420.2	440.0
<b>Global Solutions Business Segment</b>		
Operating revenues	3,367.1	3,615.2
System integration services	3,364.2	3,592.9
Other	3.0	22.3
Operating expenses	3,219.8	3,404.7
Personnel expenses	1,150.5	1,263.7
Expenses for purchase of goods and services and other expenses	1,742.5	1,791.5
Depreciation and amortization	296.9	309.1
Impairment losses	9.7	19.4
Expenses on disposal of fixed assets	6.5	5.5
Taxes and dues	13.6	15.5
Operating profit	147.3	210.5
<b>Others (Real Estate, Energy and Others)</b>		
Operating revenues	1,335.4	1,396.0
System integration services	46.8	40.5
Other	1,288.7	1,355.4
Operating expenses	1,279.0	1,323.5
Personnel expenses	245.5	248.8
Expenses for purchase of goods and services and other expenses	889.0	914.1
Depreciation and amortization	106.1	118.9
Impairment losses	2.5	2.5
Expenses on disposal of fixed assets	3.5	4.9
Taxes and dues	32.5	34.3
Operating profit	56.4	72.5

## Financial Data Summary

Unit: Billions of yen

Group Summary (IFRS)	Fiscal Year	
	FY2020	FY2021
<b>NTT DOCOMO Group (including NTT Communications/NTT Comware Group)</b>		
Operating revenues	5,880.9	5,870.2
Telecommunications services	3,707.5	3,605.8
Mobile communications services	2,752.5	2,658.3
Fixed-line communications service and other telecommunications services	955.0	947.5
Equipment sales	605.2	629.0
System integration services	486.0	525.2
Other	1,082.2	1,110.2
Operating expenses	4,820.9	4,797.6
Personnel expenses	462.8	470.7
Expenses for purchase of goods and services and other expenses	2,933.3	2,875.3
Depreciation and amortization	750.6	779.9
Impairment losses	0.4	1.7
Communication network charges	606.0	617.4
Expenses on disposal of fixed assets	67.9	52.6
Operating profit	1,060.0	1,072.5
Profit before taxes	1,072.6	1,082.4
Profit attributable to NTT	749.6	752.1
<b>Former NTT DOCOMO Group (excluding NTT Communications/NTT Comware Group) <sup>*1,2</sup></b>		
Operating revenues	4,725.2	4,713.8
Telecommunications services	3,127.9	3,046.6
Mobile communications services	2,741.2	2,645.6
Optical-fiber broadband service and other telecommunications services	386.7	401.0
Equipment sales	575.7	618.0
Other	1,021.6	1,049.2
Operating expenses	3,812.0	3,785.9
Personnel expenses	290.9	296.3
Expenses for purchase of goods and services and other expenses	2,397.9	2,350.1
Depreciation and amortization	606.1	622.1
Impairment losses	0.2	0.2
Communication network charges	458.6	473.3
Expenses on disposal of fixed assets	58.2	43.9
Operating profit	913.2	927.9
Profit before taxes	915.6	930.9
Profit attributable to NTT	629.0	648.0
<b>NTT Communications Group <sup>*2</sup></b>		
Operating revenues <sup>*3</sup>	1,070.4	1,047.6
Cloud computing platforms	102.8	104.7
Data networks	391.1	392.2
Voice communications	221.8	203.6
Applications & content	74.1	76.3
Solution services	255.1	246.8
Other	25.4	24.0
Operating expenses	933.1	912.5
Personnel expenses	126.6	126.4
Expenses for purchase of goods and services and other expenses	671.5	648.3
Depreciation and amortization	115.7	120.1
Impairment losses	—	—
Expenses on disposal of fixed assets	9.0	7.5
Taxes and dues	10.3	10.1
Operating profit	137.3	135.1
Profit before taxes	148.7	145.0
Profit attributable to NTT	115.7	100.5

<sup>\*1</sup> The results for the former NTT DOCOMO Group prior to the consolidation of NTT Communications and NTT Comware as subsidiaries (implemented on January 1, 2022) are provided as a reference.

<sup>\*2</sup> The scope of aggregation for each of the figures presented for the former NTT DOCOMO Group and NTT Communications Group is internal management figures after eliminating internal transactions between the former NTT DOCOMO Group and NTT Communications and their subsidiaries. Such figures are not audited and are provided for reference only.

<sup>\*3</sup> The following are the main services included in each line item: - Cloud computing platforms: "Data center services" and "Private cloud services (Enterprise cloud, etc.)" - Data networks: "Closed network services (Arstar Universal One, etc.)" and "Open network services (OCN, etc.)" - Voice communications: "Telephone services" and "VoIP services (050 plus, etc.)" - Applications & content: "Application services (Mail services, etc.)" - Solution services: "System integration services"

Unit: Billions of yen

	Fiscal Year	
	FY2020	FY2021
<b>NTT East Group <sup>*1</sup></b>		
Operating revenues	1,726.1	1,718.0
Fixed voice-related service	500.7	493.8
IP/packet communications service	884.8	912.8
Sales of telecommunications equipment	27.9	27.0
System integration services	144.6	111.9
Other	168.0	172.4
Operating expenses	1,462.1	1,439.0
Personnel expenses	353.3	344.0
Expenses for purchase of goods and services and other expenses	755.2	744.4
Depreciation and amortization	225.0	221.7
Impairment losses	13.6	13.9
Expenses on disposal of fixed assets	39.9	40.4
Taxes and dues	75.0	74.6
Operating profit	264.0	279.0
Profit before taxes	263.3	281.5
Profit attributable to NTT	180.4	196.4
<b>NTT West Group <sup>*2</sup></b>		
Operating revenues	1,505.9	1,513.5
Fixed voice-related service	456.4	444.2
IP/packet communications service	660.3	687.4
Sales of telecommunications equipment	42.0	41.2
System integration services	149.7	109.2
Other	197.5	231.5
Operating expenses	1,350.1	1,352.7
Personnel expenses	322.1	313.7
Expenses for purchase of goods and services and other expenses	716.8	736.8
Depreciation and amortization	198.2	199.9
Impairment losses	0.5	0.6
Expenses on disposal of fixed assets	48.3	37.8
Taxes and dues	64.2	64.0
Operating profit	155.8	160.9
Profit before taxes	154.4	158.3
Profit attributable to NTT	105.2	110.5
<b>NTT DATA Consolidated</b>		
Net sales	2,318.7	2,551.9
Public and Social Infrastructure	540.5	582.4
Financial	607.6	633.1
Enterprise and Solutions	590.9	652.9
North America	429.4	475.7
EMEA and LATAM	454.2	550.9
Eliminations or Corporate	(303.9)	(343.0)
Cost of sales	1,734.1	1,875.9
Gross profit	584.6	676.0
Selling, general and administrative expenses	445.4	463.4
Operating profit	139.2	212.6
Profit before taxes	130.5	215.8
Profit attributable to NTT DATA	76.8	143.0

<sup>\*1</sup> The scope of aggregation for each of the figures presented for NTT East Group is internal management figures after eliminating internal transactions between NTT East and its subsidiaries. Such figures are not audited and are provided for reference only.

<sup>\*2</sup> The scope of aggregation for each of the figures presented for NTT West Group is internal management figures after eliminating internal transactions between NTT West and its subsidiaries. Such figures are not audited and are provided for reference only.

## Financial Data Summary

Unit: Billions of yen

	Fiscal Year	
	FY2020	FY2021
NTT Ltd. Group <sup>*1</sup>		
Operating revenues	1,058.8	1,054.7
High value-added services	387.4	456.2
Data centers	127.9	173.9
Managed services	120.7	147.9
Networks	59.3	54.3
Other (cloud communications, etc.)	79.5	80.1
Other (sales of telecommunications equipment, etc.)	671.5	598.5
Operating expenses	1,049.6	1,048.3
Personnel expenses	265.1	289.2
Expenses for purchase of goods and services and other expenses	694.8	650.9
Depreciation and amortization	87.4	93.5
Impairment losses	0.7	10.7
Expenses on disposal of fixed assets	0.5	1.8
Taxes and dues	1.1	2.3
Operating profit	9.2	6.3
Profit before taxes	(2.4)	(4.6)
Profit attributable to NTT T Urban Development	(13.6)	4.9

<sup>\*1</sup> The scope of aggregation for each of the figures presented for NTT Ltd. Group is internal management figures after eliminating internal transactions between NTT Ltd. and its subsidiaries. Such figures are not audited and are provided for reference only.

## Operational Data

	End of FY2012	End of FY2013	End of FY2014
Mobile Communications Services Subscriptions (Thousands of subscriptions)			
5G	—	—	—
LTE (Xi)	11,566	21,965	30,744
FOMA (3G)	49,970	41,140	35,851
Fixed-Line Broadband Services Subscriptions (Thousands of subscriptions) <sup>*1</sup>			
FLET'S Hikari	17,300	18,050	18,716
Hikari Denwa	15,169	16,256	17,108
Telephone Subscriber Lines + INS-Net (in thousands) <sup>*2</sup>			
Telephone subscriber lines	25,042	23,000	21,286
INS-Net	3,724	3,366	3,058
FLET'S ADSL / FLET'S ISDN (in thousands)			
FLET'S ADSL	1,848	1,483	1,219
FLET'S ISDN	127	109	95
NTT Group Major ISPs (Thousands of subscriptions) <sup>*3</sup>	11,611	11,466	11,586
Hikari TV / FLET'S TV Transmission Services (Thousands of subscriptions)			
Hikari TV	2,453	2,823	3,014
FLET'S TV Transmission Services <sup>*1</sup>	1,003	1,161	1,345
	FY2012	FY2013	FY2014
Mobile Aggregate ARPU (Yen) <sup>*4*5*6</sup>			
New			
Mobile ARPU (5G + LTE (Xi) + FOMA)			
Hikari ARPU			
Old			
Mobile ARPU (5G + LTE (Xi) + FOMA)	—	—	—
docomo Hikari ARPU	—	—	—
Voice ARPU	1,760	1,490	1,280
Packet ARPU	2,720	2,880	2,820
Smart ARPU	420	—	—
ARPU of FLET'S Hikari (Yen) <sup>*4</sup>			
NTT East	5,860	5,660	5,490
NTT West	5,880	5,830	5,680

<sup>\*1</sup> The number of subscriptions for FLET'S Hikari, Hikari Denwa, and FLET'S TV transmission services includes wholesale services provided to service providers by NTT East and NTT West.

<sup>\*2</sup> The number of telephone subscriber lines is the total of individual lines and central station lines (including the Subscriber Telephone Line Plan). "INS-Net" includes INS-Net 64 and INS-Net 1500. In terms of the number of channels, transmission rate, and line use rate (base rate), INS-Net 1500 is in all cases approximately 10 times greater than INS-Net 64. For this reason, one INS-Net 1500 subscription is calculated as ten INS-Net 64 subscriptions (including subscriptions to the INS-Net 64 Lite Plan).

<sup>\*3</sup> "NTT Group Major ISPs" includes WAKWAK and InfoSphere, in addition to OCN and Plala.



Unit: Billions of yen

	Fiscal Year	
	FY2020	FY2021
<b>NTT Urban Solutions Group *<sup>1</sup></b>		
Operating revenues	447.7	446.5
Operating expenses	410.3	407.6
Personnel expenses	88.5	89.1
Expenses for purchase of goods and services and other expenses	266.8	259.4
Depreciation and amortization	39.7	41.2
Impairment losses	—	2.0
Expenses on disposal of fixed assets	—	—
Taxes and dues	15.3	15.9
Operating profit	45.1	46.6
Profit before taxes	40.4	41.5
Profit attributable to NTT T Urban Development	26.2	26.0
<b>NTT Urban Development Consolidated</b>		
Operating revenues	143.9	141.5
Operating expenses	122.0	116.0
Personnel expenses	12.0	7.5
Expenses for purchase of goods and services and other expenses	70.4	65.1
Depreciation and amortization	26.5	27.7
Impairment losses	—	2.0
Expenses on disposal of fixed assets	—	—
Taxes and dues	13.1	13.7
Operating profit	27.4	31.2
Profit before taxes	22.6	26.3
Profit attributable to NTT T Urban Development	14.1	16.5

\*1 The scope of aggregation for each of the figures presented for NTT Urban Solutions Group is internal management figures after eliminating internal transactions among NTT Urban Solutions and its subsidiaries. Such figures are not audited and are provided for reference only.

	End of FY2015	End of FY2016	End of FY2017	End of FY2018	End of FY2019	End of FY2020	End of FY2021
	—	—	—	—	14	3,091	11,530
	38,679	44,544	50,097	55,872	61,664	64,210	61,396
	32,285	30,336	26,273	22,581	18,648	15,331	11,826
	19,259	20,053	20,533	21,078	21,658	22,564	23,266
	17,374	17,759	18,032	18,244	18,503	18,692	18,782
	19,943	18,797	17,538	16,363	15,144	14,102	13,123
	2,776	2,539	2,331	2,138	1,942	1,767	1,604
	1,053	919	780	602	483	381	286
	85	77	70	62	54	47	40
	11,411	11,231	11,057	10,945	11,517	11,430	11,360
	3,052	3,023	3,016	3,001	2,983	2,947	2,952
	1,432	1,521	1,615	1,716	1,828	1,916	1,995
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
							4,150
							590
	—	—	—	4,360	4,230	4,280	4,210
	50	190	340	440	510	570	600
	1,210	1,250	1,370	—	—	—	—
	2,910	2,990	2,970	—	—	—	—
	—	—	—	—	—	—	—
	5,510	5,250	5,080	4,910	4,790	4,690	4,570
	5,470	5,280	5,100	4,930	4,820	4,740	4,620

\*4 Please see page 88 for the ARPU calculation method and other details.

\*5 The ARPU calculation method was changed in the fiscal year ended March 31, 2016. Accompanying this change, the new method has been applied retroactively to the ARPU figures for the fiscal year ended March 31, 2014, and the fiscal year ended March 31, 2015. A subsequent change to the ARPU calculation method was instituted in the fiscal year ended March 31, 2019, that entailed the integration of Voice ARPU and Packet ARPU.

\*6 Starting in FY2021, Mobile ARPU has included OCN Mobile-related revenues and subscriptions.

## ■ Reference Materials

### ARPU (Average monthly Revenue Per Unit): Average monthly revenue per subscriber (user)

Average monthly revenue per unit, or ARPU, is used to measure average monthly operating revenues on a per subscriber (user) basis. In the case of NTT Group's regional communications business, ARPU is calculated by dividing revenue items included in the operating revenues of NTT Group's Regional Communications Business Segment (i.e., fixed-line (telephone subscriber lines plus INS-Net subscriber lines) and FLET'S Hikari) by the number of Active Subscribers to the relevant services. In the case of the integrated ICT business, ARPU is calculated by dividing communications services revenue items included in operating revenues from NTT Group's Integrated ICT Business Segment, such as revenues from 5G mobile phone services, LTE (Xi) mobile phone services, FOMA mobile phone services and docomo Hikari services (with certain exceptions), by the number of Active users to the relevant services. The calculation of these figures excludes revenues that are not representative of monthly average usage, such as telecommunications equipment sales, activation fees and universal service charges. NTT believes that its ARPU figures calculated in this way provide useful information regarding the monthly average usage of its subscribers. The revenue items included in the numerators of NTT Group's ARPU figures are based on its financial results comprising its IFRS results of operations.

### Method of calculating ARPU

#### ■ NTT East and NTT West

NTT separately computes the following two categories of ARPU for the fixed-line business conducted by each of NTT East and NTT West, using the following measures:

- Aggregate Fixed-line ARPU (Telephone Subscriber Lines + INS-Net Subscriber Lines): Calculated based on revenues from monthly charges and call charges for Telephone Subscriber Lines and INS-Net Subscriber Lines, which are included in operating revenues from Voice Transmission Services (excluding IP Services), and revenues from FLET'S ADSL and FLET'S ISDN, which are included in operating revenues from IP Services.
  - FLET'S Hikari ARPU: Calculated based on revenues from FLET'S Hikari (including FLET'S Hikari optional services), which are included in operating revenues from IP Services and Supplementary Business, revenues from monthly charges, call charges and device connection charges for Hikari Denwa, which are included in operating revenues from IP Services, and revenues from "FLET'S Hikari" optional services, which are included in Supplementary Business revenues.
- (1) FLET'S Hikari includes FLET'S Hikari Cross, B FLET'S (service of which ended at the end of January 2021), FLET'S Hikari Next, FLET'S Hikari Light, FLET'S Hikari Lightplus and FLET'S Hikari WiFi Access provided by NTT East, FLET'S Hikari Cross, FLET'S Hikari Next, FLET'S Hikari Mytown Next, FLET'S Hikari Light and FLET'S Hikari WiFi Access provided by NTT West, and the "Hikari Collaboration Model" wholesale provision of services provided by NTT East and NTT West to service providers. FLET'S Hikari optional services include wholesale services provided to service providers by NTT East and NTT West.
  - (2) Revenues from interconnection charges are excluded from the calculation of Aggregate Fixed-line ARPU (Telephone Subscriber Lines + INS-Net Subscriber Lines) and FLET'S Hikari ARPU.
  - (3) For purposes of calculating Aggregate Fixed-line ARPU (Telephone Subscriber Lines + INS-Net Subscriber Lines), the number of subscribers is that for fixed-line services (telephone subscriber lines or INS Net subscriber lines).
  - (4) In terms of number of channels, transmission rate, and line use rate (base rate), INS-Net 1500 is in all cases roughly ten times greater than INS-Net 64. For this reason, one INS-Net 1500 subscription is calculated as ten INS-Net 64 subscriptions.
  - (5) For purposes of calculating FLET'S Hikari ARPU, the number of subscribers is determined based on the number of FLET'S Hikari subscribers (including FLET'S Hikari Cross, B FLET'S (service of which ended at the end of January 2021), FLET'S Hikari Next, FLET'S Hikari Light, FLET'S Hikari Lightplus and FLET'S Hikari WiFi Access provided by NTT East, FLET'S Hikari Cross, FLET'S Hikari Next, FLET'S Hikari Mytown Next, FLET'S Hikari Light and FLET'S Hikari WiFi Access provided by NTT West), and "Hikari Collaboration Model" wholesale services provided by NTT East and NTT West to service providers.
  - (6) Number of Active Subscribers used in the ARPU calculation of NTT East and NTT West is as below:  
FY Results: Sum of number of Active Subscribers for each month in the applicable period  
$$\text{Active Subscribers} = \frac{(\text{number of subscribers at end of previous month} + \text{number of subscribers at end of current month})}{2}$$

## ■ NTT DOCOMO

NTT computes ARPU for NTT DOCOMO as follows:

- Aggregate ARPU = Mobile ARPU + “Hikari” ARPU.

(1) • Mobile ARPU: Mobile ARPU-related revenues (basic monthly charges, voice communication charges and packet communication charges) / Number of active users

- “Hikari” ARPU: “Hikari” ARPU-related revenues (basic monthly charges and voice communication charges) / Number of Active Users

(2) Number of Active Users used in the ARPU calculation of NTT DOCOMO is as below.

Sum of number of Active Users for each month during the applicable period  
 Active Users = (number of users at end of previous month + number of users at end of current month)/2.

(3) The number of “users” used to calculate ARPU is basically total number of subscriptions, excluding the subscriptions listed below:

Number of active users = subscriptions

- Subscriptions of communication module services, “Phone Number Storage,” “Mail Address Storage,” “docomo Business Transceiver” and wholesale telecommunications services and interconnecting telecommunications facilities that are provided to MVNOs; and
- Data Plan subscriptions in the case where the customer contracting for such subscription in his/her name also has a subscription for 5G, Xi or FOMA services in his/her name.

Revenues from communication module services, “Phone Number Storage,” “Mail Address Storage,” “docomo Business Transceiver,” and wholesale telecommunications services and interconnecting telecommunications facilities that are provided to MVNOs, and the impact of “d POINTs”-related revenues, among others, are not included in NTT DOCOMO’s ARPU calculation.

# Consolidated Statement of Financial Position

Unit: Millions of yen

	End of FY2020 (As of March 31, 2021)	End of FY2021 (As of March 31, 2022)
<b>ASSETS</b>		
Current assets		
Cash and cash equivalents	935,727	834,564
Trade and other receivables	3,534,555	3,604,959
Other financial assets	41,732	88,441
Inventories	315,437	408,362
Other current assets	498,106	574,922
Subtotal	5,325,557	5,511,248
Assets held for sale	816	205,344
Total current assets	5,326,373	5,716,592
Non-current assets		
Property, plant and equipment	9,282,286	9,326,888
Right-of-use assets	639,627	694,612
Goodwill	1,056,187	1,213,009
Intangible assets	1,765,858	1,951,824
Investment property	1,182,713	1,236,490
Investments accounted for using the equity method	411,033	429,806
Other financial assets	1,515,922	1,426,157
Deferred tax assets	993,858	970,432
Other non-current assets	791,635	896,431
Total non-current assets	17,639,119	18,145,649
Total assets	22,965,492	23,862,241
<b>LIABILITIES AND EQUITY</b>		
Current liabilities		
Short-term borrowings	3,168,613	1,646,806
Trade and other payables	2,356,705	2,500,341
Lease liabilities	193,915	189,495
Other financial liabilities	28,334	29,566
Accrued payroll	509,416	544,455
Income taxes payable	115,965	210,964
Other current liabilities	1,053,196	1,129,851
Subtotal	7,426,144	6,251,478
Liabilities directly associated with assets held for sale	18	7,161
Total current liabilities	7,426,162	6,258,639
Non-current liabilities		
Long-term borrowings	4,455,724	5,717,465
Lease liabilities	553,836	655,729
Other financial liabilities	137,620	135,686
Defined benefit liabilities	1,731,645	1,561,049
Deferred tax liabilities	81,420	137,474
Other non-current liabilities	376,042	378,067
Total non-current liabilities	7,336,287	8,585,470
Liabilities	14,762,449	14,844,109
Equity		
NTT shareholders' equity		
Common stock	937,950	937,950
Retained earnings	7,068,008	7,293,915
Treasury stock	(704,793)	(226,459)
Other components of equity	261,542	277,050
Total NTT shareholders' equity	7,562,707	8,282,456
Non-controlling interests	640,336	735,676
Total equity	8,203,043	9,018,132
Total liabilities and equity	22,965,492	23,862,241



## Consolidated Statement of Profit or Loss

Unit: Millions of yen

	FY2020 (Fiscal year ended March 31, 2021)	FY2021 (Fiscal year ended March 31, 2022)
Operating revenues	11,943,966	12,156,447
Operating expenses		
Personnel expenses	2,461,410	2,566,127
Expenses for purchase of goods and services and other expenses	5,875,302	5,839,441
Depreciation and amortization	1,507,153	1,561,183
Expenses on disposal of fixed assets	156,869	132,073
Impairment losses		
Goodwill	2,702	228
Other	22,997	37,824
Taxes and dues	246,142	250,978
Total operating expenses	10,272,575	10,387,854
Operating profit	1,671,391	1,768,593
Finance income	31,785	63,471
Finance costs	50,830	56,250
Share of Profit (Loss) of Entities Accounted for Using Equity Method	229	19,711
Profit before tax	1,652,575	1,795,525
Income taxes	524,719	539,531
Profit	1,127,856	1,255,994
Profit attributable to NTT	916,181	1,181,083
Profit attributable to Non-controlling interests	211,675	74,911
Earnings per share attributable to NTT		
Basic earnings per share (yen)	248.15	329.29

## Consolidated Statement of Comprehensive Income

Unit: Millions of yen

	FY2020 (Fiscal year ended March 31, 2021)	FY2021 (Fiscal year ended March 31, 2022)
Profit	1,127,856	1,255,994
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	241,404	(25,482)
Share of other comprehensive income of entities accounted for using the equity method	(922)	(2)
Remeasurements of the defined benefit plans	121,455	131,032
Total of items that will not be reclassified to profit or loss	361,937	105,548
Items that may be reclassified subsequently to profit or loss		
Cash flow hedges	(2,012)	(50,748)
Hedges cost	(16,555)	14,434
Foreign currency translation adjustments	81,356	167,688
Share of other comprehensive income of entities accounted for using the equity method	7,029	(835)
Total of items that may be reclassified to profit or loss	69,818	130,539
Total other comprehensive income (net of taxes)	431,755	236,087
Total comprehensive income	1,559,611	1,492,081
Comprehensive income attributable to NTT	1,275,214	1,373,364
Comprehensive income attributable to non-controlling interests	284,397	118,717

# Consolidated Statement of Changes in Equity

Fiscal year ended March 31, 2021

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		
As of March 31, 2020	937,950	2,252,672	6,499,942	(653,369)	23,908	9,061,103	2,401,524	11,462,627
Comprehensive income								
Profit	—	—	916,181	—	—	916,181	211,675	1,127,856
Other comprehensive income	—	—	—	—	359,033	359,033	72,722	431,755
Total comprehensive income	—	—	916,181	—	359,033	1,275,214	284,397	1,559,611
Transactions with owners and other transactions								
Dividends of surplus	—	—	(358,470)	—	—	(358,470)	(152,543)	(511,013)
Transfer to retained earnings	—	109,983	11,416	—	(121,399)	—	—	—
Purchase and disposal of treasury stock	—	1,290	—	(51,424)	—	(50,134)	—	(50,134)
Changes in ownership interest in subsidiaries without loss of control	—	(2,366,079)	—	—	—	(2,366,079)	(1,891,495)	(4,257,574)
Share-based compensation transactions	—	3,043	—	—	—	3,043	—	3,043
Put options granted to non-controlling interests	—	(2,364)	—	—	—	(2,364)	(2,124)	(4,488)
Other	—	1,455	(1,061)	—	—	394	577	971
Total transactions with owners and other transactions	—	(2,252,672)	(348,115)	(51,424)	(121,399)	(2,773,610)	(2,045,585)	(4,819,195)
As of March 31, 2021	937,950	—	7,068,008	(704,793)	261,542	7,562,707	640,336	8,203,043

Fiscal year ended March 31, 2022

Unit: Millions of yen

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

# Consolidated Statement of Cash Flows

Unit: Millions of yen

	FY2020 (Fiscal year ended March 31, 2021)	FY2021 (Fiscal year ended March 31, 2022)
<b>Net cash provided by operating activities</b>		
Profit	1,127,856	1,255,994
Depreciation and amortization	1,507,153	1,561,183
Impairment losses	25,699	38,052
Share of loss (profit) of entities accounted for using the equity method	(229)	(19,711)
Losses on retirement of property, plant and equipment and intangible assets	79,873	60,936
Gain on sales of property, plant and equipment and intangible assets	(12,308)	(30,208)
Income taxes	524,719	539,531
Decrease (increase) in trade and other receivables	24,097	828
Decrease (increase) in inventories	(64,263)	(86,559)
Decrease (increase) in other current assets	(48,086)	(10,421)
Increase (decrease) in trade and other payables / accrued payroll	270,146	137,551
Increase (decrease) in other current liabilities	50,690	37,198
Increase (decrease) in defined benefit liabilities	(17,727)	(15,936)
Increase (decrease) in other non-current liabilities	39,408	5,304
Other	(2,413)	(61,066)
Subtotal	3,504,615	3,412,676
Interest and dividends received	70,636	79,703
Interest paid	(41,856)	(47,858)
Income taxes paid	(524,331)	(434,264)
Net cash provided by operating activities	3,009,064	3,010,257
<b>Cash flows from investing activities</b>		
Purchase of property, plant and equipment, intangible assets, and investment property	(1,795,430)	(1,758,045)
Proceeds from government grants	266	38,110
Purchase of investments	(375,161)	(125,838)
Proceeds from sale or redemption of investments	41,974	187,198
Proceeds from loss of control of subsidiaries	57,127	15,936
Acquisition of subsidiaries, net of cash acquired	(30,755)	(121,747)
Net increase (decrease) loan receivable	672,683	26,343
Other	4,764	38,891
Cash flows from investing activities	(1,424,532)	(1,699,152)
<b>Cash flows from financing activities</b>		
Net increase (decrease) in short-term borrowings	1,165,623	(1,860,107)
Proceeds from increases in long-term borrowings	2,674,593	1,716,162
Repayments of long-term borrowings	(524,880)	(401,905)
Repayment of lease liabilities	(195,783)	(208,232)
Payments for acquisition of interests in subsidiaries from non-controlling interests	(4,249,407)	(16,791)
Dividends paid	(358,470)	(396,963)
Dividends paid to non-controlling interests	(152,275)	(17,485)
Purchase of treasury stock	(250,244)	(253,685)
Proceeds from sale of treasury stock	200,026	58
Other	1,269	818
Cash flows from financing activities	(1,689,548)	(1,438,130)
Effect of exchange rate changes on cash and cash equivalents	7,169	25,862
Net increase (decrease) in cash and cash equivalents	(97,847)	(101,163)
Cash and cash equivalents at the beginning of the year	1,033,574	935,727
Cash and cash equivalents at the end of the year	935,727	834,564

# 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, 2022 increased 1.8% from the previous fiscal year to ¥12,156.4 billion. This increase was due to such factors as an increase in system integration revenues as a result of capturing significant demand for digitalization both domestically and overseas and an increase in other business revenues as a result of the expansion of the smart life area in the Integrated ICT Business.

Operating revenues for each service category for the fiscal year ended March 31, 2022 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, 2022 decreased 2.0% from the previous fiscal year to ¥916.1 billion, accounting for 7.5% of total operating revenues. This decrease was due to a continued decline in the number of subscriptions for telephone subscriber lines and INS-Net caused by the increased popularization of mobile phones and IP telephones, and an increase in free or low-priced communications services offered by providers of over-the-top content.

#### ■ 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, 2022 decreased 2.2% from the previous fiscal year to ¥1,102.5 billion, accounting for 9.1% of total operating revenues. This decrease was primarily due to the effects of wholesale voice service price reductions.

#### ■ IP/Package Communications Services

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

In the fiscal year ended March 31, 2022, revenues from IP/packet communications services decreased 0.9% from the previous fiscal year to ¥3,444.8 billion, accounting for 28.3% of total operating revenues. This decrease was due to a decrease in revenues due to the enhancement of customer returns through the introduction of ahamo and other billing plans, despite an increase in revenues due to a net increase in fiber optic lines.

#### ■ Sales of Telecommunications Equipment

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

In the fiscal year ended March 31, 2022, revenues from telecommunications equipment sales increased 3.1% from the previous fiscal year to ¥694.7 billion, accounting for 5.7% of total operating revenues. This increase was mainly due to an increase in the number of equipment units sold in the Integrated ICT Business Segment as a result of the number of customers at DOCOMO shops recovering from the decrease that had occurred in the previous fiscal year due to the spread of the COVID-19 and other factors.

#### ■ 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, 2022, revenues from system integration increased 4.1% from the previous fiscal year to ¥3,988.7 billion, accounting for 32.8% of total operating revenues. This increase was mainly due to factors such as capturing increased demand for digitalization both domestically and abroad in the Global Solutions Business Segment.

#### ■ Other Operating Revenues

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

In the fiscal year ended March 31, 2022, revenues from other services increased 5.7% from the previous fiscal year to ¥2,009.6 billion, accounting for 16.5% of total operating revenues. This increase was due to an increase in revenues as a result of the expansion of the smart life area in the Integrated ICT Business Segment and an increase in revenues in the Regional Communications Business Segment as a result of an increase in revenues from subsidiaries, including the contact center business, among other factors.

### Operating expenses

Operating expenses in the fiscal year ended March 31, 2022 increased 1.1% from the previous fiscal year to ¥10,387.9 billion. The reasons for the increase are discussed below.

#### ■ Personnel Expenses

Personnel expenses in the fiscal year ended March 31, 2022 increased 4.3% from the previous fiscal year to ¥2,566.1 billion. This increase was mainly due to the increase in personnel expenses as a result of the expansion of businesses in the Global Solutions Business Segment.

#### ■ Expenses

In the fiscal year ended March 31, 2022, expenses for purchase of goods and services and other expenses decreased 0.6% from the previous fiscal year to ¥5,839.4 billion. This decrease was mainly due to a decrease in sales-related costs in the Integrated ICT Business Segment, partially offset by an increase in revenue-linked costs in the Regional

Communications Business Segment and the Global Solutions Business Segment.

### ■ Depreciation and Amortization Expenses

Depreciation and amortization expenses in the fiscal year ended March 31, 2022 increased 3.6% from the previous fiscal year to ¥1,561.2 billion. This increase was mainly due to an increase in 5G-related equipment in the Integrated ICT Business Segment.

### Operating Profit

As a result of the foregoing, operating profit for the fiscal year ended March 31, 2022 increased 5.8% from the previous fiscal year to ¥1,768.6 billion.

### Finance Income and Costs

Finance income and costs for the fiscal year ended March 31, 2022 was ¥7.2 billion compared to ¥(19.0) billion for the previous fiscal year.

### Share of Profit (Loss) of Entities Accounted for Using Equity Method

Share of profit (loss) of entities accounted for using the equity method for the fiscal year ended March 31, 2022 was ¥19.7 billion compared to ¥0.2 billion for the previous fiscal year.

### Profit before tax

As a result of the foregoing, profit before taxes for the fiscal year ended March 31, 2022 increased 8.7% from the previous fiscal year to ¥1,795.5 billion.

### Income taxes

In the fiscal year ended March 31, 2022, income taxes increased 2.8% from the previous fiscal year to ¥539.5 billion. Effective tax rates for the fiscal year ended March 31, 2021 and for the fiscal year ended March 31, 2022 were 31.75% and 30.05%, respectively.

### Profit attributable to NTT

As a result, profit for the fiscal year ended March 31, 2022 increased 11.4% from the previous fiscal year to ¥1,256.0 billion. Profit attributable to NTT (excluding the profit attributable to non-controlling interests) for the fiscal year ended March 31, 2022 increased 28.9% from the previous fiscal year to ¥1,181.1 billion.

## ■ Financial Position and Cash Flows

### 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, 2022 amounted to ¥3,010.3 billion. This was mainly due to “adjusted profit after non-cash items” (profit plus non-cash items such as depreciation and amortization and losses on retirement of property, plant and equipment and intangible assets) reaching ¥2,896.5 billion.

Further, this was an increase of ¥1.2 billion from ¥3,009.1 billion in the fiscal year ended March 31, 2021. This increase was due to, in comparison to the prior fiscal year, “adjusted profit after non-cash items” increasing by ¥156.1 billion while cash outflows increased by ¥154.9 billion, primarily due to changes in assets and liabilities resulting from operating activities, including decreases in operating debt.

### ■ Investment Cash Flows

Cash flows used in investment activities during the fiscal year ended March 31, 2022 amounted to ¥1,699.2 billion. Cash flows used in investing activities were primarily used in purchase of property, plant and equipment, intangible assets and investment property, which amounted to payments of ¥1,758.0 billion for the fiscal year of ended March 31, 2022.

This was an increase in payments of ¥274.6 billion from ¥1,424.5 billion in the fiscal year ended March 31, 2021. This increase was due to, among other factors, a decrease of ¥646.3 billion in proceeds from collections of loan receivables and an increase of ¥145.2 billion in proceeds from sale of investments, despite a decrease of ¥158.3 billion in payments for investments.

The decrease in purchase of property, plant and equipment, intangibles assets and investment property for the fiscal year ended March 31, 2022 resulted from, among other factors, a decrease due to streamlining existing investments, mainly in the Integrated ICT Business Segment and Regional Communications Business Segment, despite an increase in 5G investments and data center investments. For the fiscal year ended March 31, 2022, capital investments amounted to ¥1,687.6 billion on an accrual basis, of which ¥698.6 billion was invested in the Integrated ICT Business Segment and ¥501.1 billion was invested in the Regional Communications Business Segment.

### ■ Financing Cash Flows

Cash flows used in financing activities during the fiscal year ended March 31, 2022 amounted to ¥1,438.1 billion.

Among financing activities for the fiscal year ended March 31, 2022, expenditures for shareholder returns amounted to ¥668.1 billion. This was due to the payment of ¥414.4 billion in dividends and expenditures of ¥253.7 billion in purchase of treasury stock.

Further, net outflows for borrowings were ¥545.9 billion. This consisted of ¥1,860.1 billion in repayments of short-term borrowings, ¥1,716.2 billion in proceeds from an increase in long-term borrowings and ¥401.9 billion in repayments of long-term borrowings.

Issuances of green bonds during the fiscal year ended March 31, 2022 amounting to ¥492.0 billion contributed to the increase in long-term borrowings. The proceeds from the green bonds were allocated to projects that contribute to the resolution of environmental issues (5G-related investments, FTTH-related investments, research and development for achieving IOWN, and renewable energy).

Furthermore, cash flows from finance activities represented



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

a decrease in payments of ¥251.4 billion from ¥1,689.5 billion in comparison to the fiscal year ended March 31, 2021. This decrease was due to, among other factors, a decrease of ¥4,232.6 billion in payments for acquisition of interests in subsidiaries from non-controlling interests in comparison to the prior fiscal year, partially offset by a decrease of ¥3,861.2 billion in proceeds in borrowings.

### Financial Position

Assets as of the fiscal year ended March 31, 2022 increased by ¥896.7 billion from the fiscal year ended March 31, 2021 to ¥23,862.2 billion, due to an increase in goodwill and intangible fixed assets resulting from new investments, among other factors.

Liabilities as of the fiscal year ended March 31, 2022 increased by ¥81.7 billion from the fiscal year ended March 31, 2021 to ¥14,844.1 billion, due to, among other factors, an increase in operating debt and other debt, as well as an increase in income taxes payable, partially offset by a decrease in interest-bearing debt. The balance of interest-bearing debt was ¥7,364.3 billion, a decrease of ¥260.1 billion from ¥7,624.3 billion as of the fiscal year ended March 31, 2021.

Shareholders' equity for the fiscal year ended March 31, 2022 increased by ¥719.7 billion from the fiscal year ended March 31, 2021 to ¥8,282.5 billion, due to an increase in profit, partially offset by decreases from dividend payments and share buy-backs. The ratio of interest-bearing debt to shareholders' equity was 88.9% (compared to 100.8% at the fiscal year ended March 31, 2021). In addition, equity, the sum of shareholders' equity and non-controlling interests, increased by ¥815.1 billion from the fiscal year ended March 31, 2021 to ¥9,018.1 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 fiscal year ended March 31, 2022, NTT Group had cash and cash equivalents balance at the end of the fiscal year of ¥834.6 billion, a decrease of ¥101.2 billion compared to the balance of ¥935.7 billion as of the fiscal year ended March 31, 2021. Cash equivalents represent a temporary cash surplus used to repay debts and make capital investments, among other factors, and are used as working capital. Accordingly, the balance of cash equivalents fluctuates each fiscal year depending on particular financing and working capital requirements.

In addition, as of the fiscal year ended March 31, 2022, NTT Group had undrawn credit line under commitment line contracts with banks of ¥318.5 billion.

# Consolidated Subsidiaries

(As of March 31, 2022)

Company	Location	Common stock	Voting rights ratio	Main line(s) of business
Consolidated Subsidiaries		Unit: Millions of yen	%	
<b>Integrated ICT Business</b>				
NTT DOCOMO, INC. <sup>1) 2) 3) 4)</sup>	Chiyoda Ward, Tokyo	949,680	100.00	Provision of mobile communications services and smart life area services
NTT Communications Corporation <sup>1) 2) 3)</sup>	Chiyoda Ward, Tokyo	230,979	100.00	Provision of inter-prefectural communications services, international communications services, and internet-related services
NTT COMWARE CORPORATION <sup>3)</sup>	Minato Ward, Tokyo	20,000	100.00	Development, production, operation, and maintenance of information communications systems and software
NTT Plala Inc.	Toshima Ward, Tokyo	12,321	100.00	Provision of internet connection and video distribution services
<b>Regional Communications Business</b>				
Nippon Telegraph and Telephone East Corporation <sup>1) 2) 3)</sup>	Shinjuku Ward, Tokyo	335,000	100.00	Provision of intra-prefectural communications services in the eastern part of Japan
Nippon Telegraph and Telephone West Corporation <sup>1) 2) 3)</sup>	Miyakojima Ward, Osaka City	312,000	100.00	Provision of intra-prefectural communications services in the western part of Japan
<b>Global Solutions Business</b>				
NTT, Inc. <sup>1)</sup>	Chiyoda Ward, Tokyo	340,051	100.00	Governance and strategy formulation, and promotion of measures in the global business of NTT Group
NTT Ltd. <sup>1) 2) 3)</sup>	U.K.	USD8,271.57 million	100.00	Provision of IT services and communications and internet-related services for corporations
Dimension Data Holdings <sup>1)</sup>	U.K.	USD1,076.85 million	100.00	Provision of IT system building and maintenance support for corporations
NTT Security Corporation	Chiyoda Ward, Tokyo	25,250	100.00	Provision of professional security services
NTT America <sup>1)</sup>	U.S.A.	USD3,328.57 million	100.00	Provision of ICT services in North America
NTT EUROPE	U.K.	GBP100	100.00	Provision of ICT services in Europe
NTT Global Data Centers EMEA	Luxembourg	EUR403.21 million	100.00	Provision of data center-related services in Europe
NTT Cloud Communications International Holdings	France	EUR177.24 million	100.00	Provision of teleconference, web conference, and video conference services
NTT Global Data Centers Americas	U.S.A.	USD424.29 million	100.00	Provision of data center-related services in North America
NTT Global Networks	U.S.A.	USD513.53 million	100.00	Provision of network services
NETMAGIC SOLUTIONS	India	INR16,610.93 million	100.00	Provision of data center-related services in India
NTT Global Data Centers EMEA UK	U.K.	GBP93.00 million	100.00	Provision of data center-related services in the U.K.
NTT Managed Services Americas Intermediate Holdings	U.S.A.	USD714.27 million	100.00	Provision of managed services in North America
Transatel	France	EUR5.86 million	80.70	Provision of mobile connectivity services for IoT
NTT Security AppSec Solutions	U.S.A.	USD10	100.00	Provision of security services
Symmetry Holding	U.S.A.	USD216.45 million	100.00	Provision of managed services in North America
Spectrum Holdings <sup>1)</sup>	British Virgin Islands	USD4,101.93 million	100.00	Management of subsidiaries of Dimension Data Holdings plc in Europe and North America
NTT America Holdings II <sup>1)</sup>	U.S.A.	USD822.86 million	100.00	Provision of ICT services in North America
Dimension Data Commerce Centre <sup>1)</sup>	Isle of Man	USD782.67 million	100.00	Management of subsidiaries of Dimension Data Holdings plc in Europe and North America
NTT DATA CORPORATION <sup>1) 2) 3) 4) 5)</sup>	Koto Ward, Tokyo	142,520	54.22	Provision of data communications system services and network system services
NTT DATA <sup>1)</sup>	U.S.A.	USD5,543.51 million	100.00	Consulting, system design, and development in North America
NTT DATA Services <sup>1)</sup>	U.S.A.	USD2,114.29 million	100.00	Consulting, system design, and development in North America
NTT DATA Europe & Latam <sup>1)</sup>	Spain	EUR856.73 million	100.00	Consulting, system design, and development
NTT Data International <sup>1)</sup>	U.S.A.	USD5,565.42 million	100.00	Management of subsidiaries of NTT DATA CORPORATION in North America
<b>Other (Real Estate, Energy and Others)</b>				
NTT Urban Solutions, Inc. <sup>1) 3)</sup>	Chiyoda Ward, Tokyo	108,372	100.00	Contact point for urban solutions business, and integrated management of urban solutions-related information
NTT URBAN DEVELOPMENT CORPORATION	Chiyoda Ward, Tokyo	48,760	100.00	Real estate acquisition, development, construction, leasing, and management
NTT FACILITIES, INC.	Minato Ward, Tokyo	12,400	100.00	Design, management, and maintenance of buildings, equipment, and electric power facilities
NTT Anode Energy Corporation <sup>3)</sup>	Chiyoda Ward, Tokyo	7,924	100.00	Development of smart energy solutions and energy management system
NTT FINANCE CORPORATION <sup>3) 5)</sup>	Minato Ward, Tokyo	16,771	100.00	Provision of billing and collection of charges for communications and other services, and credit card transaction settlement services
NTT Advance Technology Corporation <sup>1) 3)</sup>	Shinjuku Ward, Tokyo	5,000	100.00	Technology transfer, technical consulting, and design and development of systems

(Note) 1. In the Main line(s) of business column, the name of the segment is provided.

2. Figures in parentheses in the Voting Rights Held column indicate the indirect ownership ratio and are included in the total. In addition, for overseas subsidiaries, additional paid-in capital (APIC) is included.

3. \*1: Applies to specified subsidiaries.

4. \*2: During the period under review, the company entered into an agreement concerning the continued use of the results of basic research and development that we conducted, and it paid for the comprehensive services that we provide in relation to this basic research and development.

5. \*3: During the period under review, 21 of the companies subject to consolidated accounting entered into agreements with us concerning Group management that aimed to maximize each Group company's profits while respecting its autonomy and independence, as well as paid compensation for comprehensive services provided to promote Group management.

6. \*4: The ratio of net sales (excluding sales between consolidated subsidiaries) to consolidated net sales exceeds 10/100.

7. \*5: Annual securities reports are submitted.

8. There were 952 consolidated subsidiaries and 141 affiliates (accounted for using the equity method) in FY2021.

# Career Summaries of Members of the Board and Audit & Supervisory Board Members

(As of June 30, 2022)

## Outside Member of the Board

### Jun Sawada

Chairman of the Board

Years Served as Member of the Board: ..... 8  
Shares Owned: ..... 41,500

#### Brief Career Summary

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

### Akira Shimada

Representative Member of the Board President

Chief Executive Officer (CEO)

Years Served as Member of the Board: ..... 10  
Shares Owned: ..... 26,808

#### Brief Career Summary

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

### Katsuhiko Kawazoe

Representative Member of the Board

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

Years Served as Member of the Board: ..... 2  
Shares Owned: ..... 13,300

#### Brief Career Summary

April 1967: Joined the Company  
August 2003: Senior Research Engineer of the Cybersecurity Laboratories of the Cyber Communications Laboratory Group of the Company  
October 2007: Senior Research Engineer of the Cyber Solutions Laboratories of the Cyber Communications Laboratory Group of the Company  
July 2008: Vice President of Research and Development Planning of the Company  
July 2014: Head of the Service Innovation Laboratory Group of the Company, Service Evolution Research Laboratory of the Company  
July 2016: Head of the Service Innovation Laboratory Group of the Company  
June 2018: Senior Vice President, head of Research and Development Planning, and Member of the Board of the Company  
June 2020: Executive Vice President, Head of Research and Development Planning of the Company  
June 2022: Senior Executive Vice President, Representative Member of the Board of the Company (present post)

### Takashi Hiroi

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

Years Served as Member of the Board: ..... 5  
Shares Owned: ..... 12,000

#### Brief Career Summary

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

### Akiko Kudo

Member of the Board  
Senior Vice President

Years Served as Member of the Board: ..... —  
Shares Owned: ..... 2,900

#### Brief Career Summary

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

### Ken Sakamura

Outside Member of the Board

Years Served as Member of the Board: ..... 3  
Shares Owned: ..... 1,700

#### Brief Career Summary

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

### Yukako Uchinaga

Outside Member of the Board

Years Served as Member of the Board: ..... —  
Shares Owned: ..... 0

#### Brief Career Summary

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

### Ryoji Chubachi

Outside Member of the Board

Years Served as Member of the Board: ..... —  
Shares Owned: ..... 0

#### Brief Career Summary

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

### Koichiro Watanabe

Outside Member of the Board

Years Served as Member of the Board: ..... —  
Shares Owned: ..... 0

#### Brief Career Summary

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

## Outside Audit &amp; Supervisory Board Member

## Noriko Endo

## Outside Member of the Board

Years Served as Member of the Board: ..... —  
Shares Owned: ..... -600

## Brief Career Summary

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

## Keiichiro Yanagi

## Audit &amp; Supervisory Board Member

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

## Brief Career Summary

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

## Kanae Takahashi

## Audit &amp; Supervisory Board Member

Years Served as Audit & Supervisory Board Member: ..... 2  
Shares Owned: ..... -6,500

## Brief Career Summary

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

## Kensuke Koshiyama

## Audit &amp; Supervisory Board Member

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

## Brief Career Summary

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

## Takashi Iida

## Outside Audit &amp; Supervisory Board Member

Years Served as Audit & Supervisory Board Member: ..... 8  
Shares Owned: ..... 7,700

## Brief Career Summary

April 1974: Registered as attorney-at-law (Daini Tokyo Bar Association) (registration up-to-date)  
Joined Mori Sogo Law Offices (currently Mori Hamada & Matsumoto)  
April 1991: Deputy Chairman of the Daini Tokyo Bar Association  
April 1997: Executive Governor of the Japan Federation of Bar Associations  
April 2006: Chairman of the Daini Tokyo Bar Association  
April 2006: Vice President of the Japan Federation of Bar Associations  
January 2012: Established Kowa Law Office (present post)  
June 2012: Corporate Auditor (Part-Time) for Shimadzu Corporation  
June 2013: Corporate Auditor of JAFCO Co., Ltd. (currently JAFCO Group Co., Ltd.)  
June 2013: Outside Director of Alps Electric Co., Ltd. (currently ALPS ALPINE CO., LTD.) (present post)  
June 2014: Outside Audit & Supervisory Board Member of the Company (present post)

## Hideki Kanda

## Outside Audit &amp; Supervisory Board Member

Years Served as Audit & Supervisory Board Member: ..... 3  
Shares Owned: ..... 0

## Brief Career Summary

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

## Kaoru Kashima

## Outside Audit &amp; Supervisory Board Member

Years Served as Audit & Supervisory Board Member: ..... 3  
Shares Owned: ..... 0

## Brief Career Summary

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

## Executive Officers

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

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

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

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

Atsuko Oka  
Executive Vice President  
Head of Research and Development  
Planning

Shinichi Yokohama  
Executive Vice President Head of Security and Trust  
CISO (Chief Information Security Officer)

Hideaki Ozaki  
Senior Vice President Head of Global Business

Kazuhiko Nakayama  
Senior Vice President Head of Finance and Accounting

Akiko Kudo  
Member of the Board Senior Vice President  
Head of Strategic Business Development

Takashi Taniyama  
Senior Vice President Head of Corporate Strategy Planning

Kei Ikeda  
Senior Vice President Head of Technology Planning

Kyoko Yamamoto  
Senior Vice President Head of General Affairs

Makiko Sekine  
Senior Vice President Head of Public Relations

Natsuko Fujiki  
Senior Vice President Head of Internal Audit

# Stock Information (As of March 31, 2022)

## ● Corporate Information

Company name	NIPPON TELEGRAPH AND TELEPHONE CORPORATION
Date of establishment	April 1, 1985
Head office	Otemachi First Square, East Tower, 5-1, Otemachi 1-Chome, Chiyoda-ku, Tokyo 100-8116, Japan
Common stock	¥937,950,000,000
Total number of shares authorized to be issued by NTT	6,192,920,900 shares
Total number of shares issued	3,622,012,656 shares
Aggregate voting rights	35,379,553
Number of shareholders (including holders of fractional shares)	888,337

## ● 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: 0120-584-400 (For NTT shareholders)  
0120-782-031 (Main number)

## ● Depository for NTT American Depositary Receipts (ADRs)

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

### Inquiries

JPMorgan Service Center  
P.O. Box 64504  
St. Paul, MN 55164-0504, U.S.A.  
TEL: 1-800-990-1135 (General)  
1-651-453-2128 (From outside the U.S.A.)

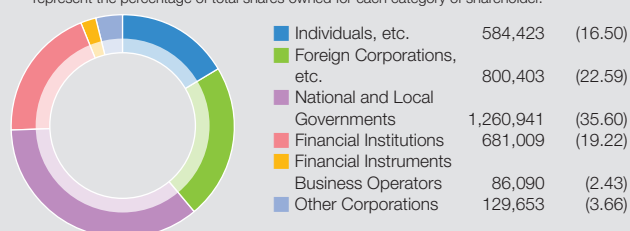
## ● Principal Shareholders

Name	Number of shares held (Thousands)	Ratio of the number of shares held to the total number of shares issued (%)
The Minister of Finance	1,260,901	35.59
The Master Trust Bank of Japan, Ltd. (Trust Account)	368,424	10.40
Custody Bank of Japan, Ltd. (Trust Account)	159,421	4.50
Toyota Motor Corporation	80,775	2.28
Moxley & Co. LLC	35,674	1.01
Nippon Life Insurance Company	27,200	0.77
Barclays Securities Japan Ltd.	25,876	0.73
State Street Bank West Client – Treaty 505234	25,278	0.71
JPMorgan Chase Bank 385632	24,783	0.70
NTT Employee Share-Holding Association	24,740	0.70

(Note) 1. Number of shares held is rounded down to the nearest thousand shares.  
2. NTT's holdings of treasury stock (79,490,430 shares) are not included in the above table.  
3. Equity ownership percentages do not include treasury stock. Furthermore, treasury stock does not include 1,089,760 shares of the Company held by the officer compensation BIP trust.

## ● Breakdown of Shares by Shareholder

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



(Note) 1. Percentages are calculated based on the total number of shares issued minus treasury stock. Treasury stock does not include the company's shares that are held by the Board Incentive Plan (BIP) Trust.  
2. The aforementioned other corporations include 57,000 shares in the name of Japan Securities Depository Center, Inc.

## ● Restrictions under the NTT Act

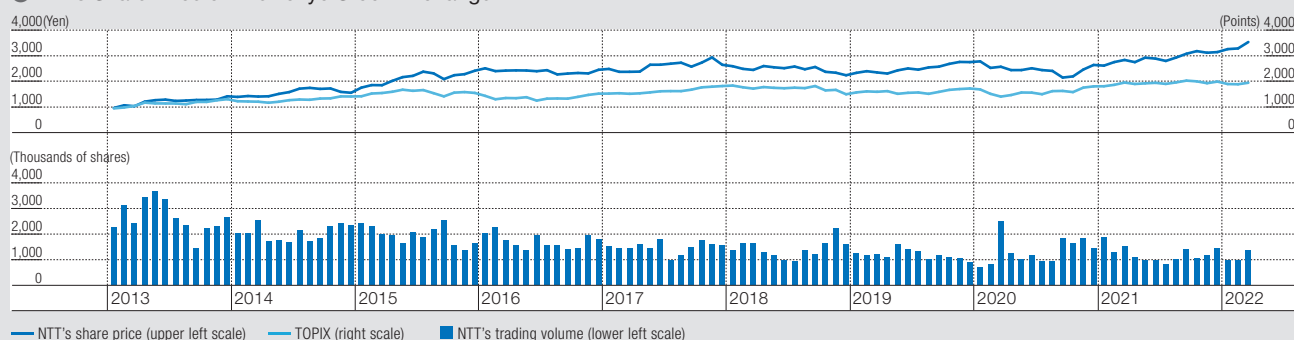
The NTT Act requires the government to own at least one-third of the total number of issued shares.\* Pursuant to the NTT Act, the proportion of voting rights of foreign nationals and foreign corporations is limited to less than one-third of the total voting rights.

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

As of the end of March 2022, 8,003,745 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 100-for-1 stock split of its common stock, with an effective date of July 1, 2015, and a 2-for-1 stock split of its common stock, with an effective date of January 1, 2020. NTT share prices have been adjusted to reflect the impact of these stock splits.





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