

Refinement of the NTT Group Medium-Term Management Strategy

October 25, 2021

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Background of the Re-Examination of the Medium-Term Management Strategy

Our Vision



To resolve social issues through our business operation, NTT Group works together with our partners, as "Your Value Partner."

Contribute to
Realization of
Smart World
/Society 5.0

Towards a sustainable society/SDGs

SUSTAINABLE
DEVELOPMENT
GOALS
17 GOALS TO TRANSFORM OUR WORLD



Partners

Social Issue Resolution
through business operation
**Digital Transformation
× CSR**

Collaboration

Collaboration

R&D
Capabilities

Human
Resources

Brand
Image

ICT
infrastructure

Financial
Base

Customer
Base

NTT Group

As a Public Utility and a Private Company

Corporate Image to Strive For



Accelerate the transformation into an open, global and innovative new NTT, to become “Your Value Partner”



Future Changes in the Environment

Society/Economy

- Advancement of digitalization/DX
- Increasing the importance of economic security
- Expansion of AI/robotics usage
- Pluses and minuses of digitalization (surveillance capitalism)

During and After COVID-19

- Acceleration of the division of the world
- Co-existence with the threat of infectious diseases
- Advancement of a remote/decentralized society
- Social advancement of diverse kinds of personnel

Environment/Resources, Energy

- Increasing scale of natural disasters worldwide
- Realizing carbon neutrality by 2050

Technology

- Breaking the existing paradigm, with new technologies:
Beyond 5G/6G, Quantum, Genome, Etc.

Directionality of NTT Group's Transformation



Social/Economic Directionality

NTT Group's Directionality

**Society During
COVID-19 and
Post-COVID-19**



**A New Management Style
Suitable for a Decentralized
Network Society**

**Advancement of
Digitalization/DX**



**Enhance Domestic and
Global Business**

**Realization of a
Well-Being Society**



**Enhancement of
Corporate Value through
ESG Initiatives**

**Contribution to the Achievement
of a Sustainable Society**

Pillars of the Refinement of the Medium-Term Management Strategy

New Strategic Framework



① Transformation to a New Management Style

- **New style premised on remote work**

② Enhance Domestic/Global Business

- **Growth and strengthening of the newly formed DOCOMO Group**
- **Promotion of the IOWN development/rollout plan**
- Enhance competitiveness in global business
- Promote B2B2X model
- Strengthening of new businesses

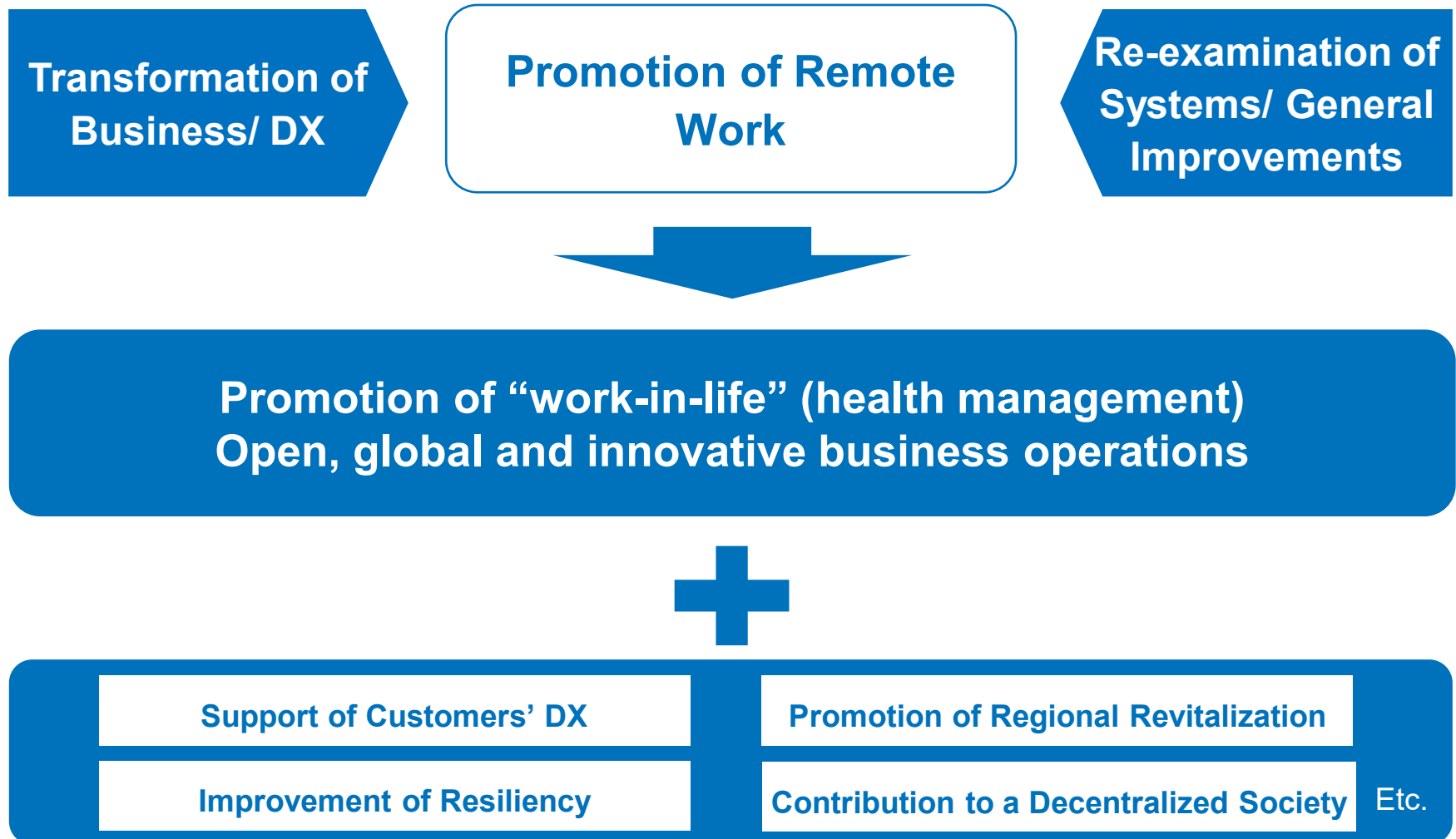
③ Enhancement of Corporate Value

- **New Environmental and Energy Vision**
- Disaster countermeasure initiatives
- Enhancement of returns to shareholders

Initiatives to Achieve the Strategy

Transformation to a New Management Style (1/4) **NTT**

Transformation to a New Style Premised on Remote Work



Transformation to a New Management Style (2/4)



■ Transformation of Business/ DX

① Introduction of Cloud-Based Systems/ Zero-Trust Systems

Development of an IT environment that enables employees to work from anywhere

Completion in FY2022⁽¹⁾
Completion in FY2023⁽²⁾

(1) Staff and sales teams. (2) All.

② Automation/Standardization of Business Processes (Sales, Maintenance, Development, Etc.)

Promote the conversion into a Connected Value Chain that includes partner companies

Automated Processes
20 in FY2021⇒
Over 100 in FY2025

Expand customer reach through digital marketing (SMEs)

FY2025
Revenues: ¥140 billion

Contribute to the DX of society as a whole by offering the PF leveraged in our own DX to customers as well (Smart Infra Platform, etc.)

Completion in All
Ordinance-Designated
Cities in January 2023

③ Enhancement of Governance in Consideration of Conduct Risks

Identifying more than 170 risks and implementing measures such as building appropriate relationships with stakeholders, accurately managing the life cycle of services and other items, and improving crisis management capabilities

From FY2021

④ Promotion of Paperless Operations (Including Invoices/ Purchase Orders)

Paper usage of NTT Group to be reduced to zero in principle* (FY2020: 6,000t)

By 2025

Transformation to a New Management Style (3/4)



■ Re-Examination of Systems/ General Improvements

⑤ Re-Examination of Systems to Promote Business Transformation/DX

Systematizing information security that is appropriate for remote work

Re-examination of the office environment (increase the amount of space per person in the office by 1.5x, and enhance the space for idea creation and co-creation)

From FY2022

Development of core personnel for promoting DX (advanced personnel for data utilization, etc.)

FY2023: 2,400 persons

⑥ Active Promotion of Women, External Personnel and Foreigners

Advancement of the promotion of female managers and directors
Expansion of various kinds of support and training programs

New Manager Appointments: 30% in FY2021

Managers: 15% in FY2025

Directors: 25-30% in FY2025

Active recruitment of foreigners and external personnel, and development of global management personnel (expansion of overseas personnel development program)

Mid-Career Hire Ratio*: 30% in FY2023

FY2025 Total Number: 200 persons

* External personnel

⑦ Introduction of Job-Based Personnel System (Released from Job Year-Based Placement)

Expansion of job-based personnel system for all managers

October 2021

Promotion of autonomous career development (personnel self-selection)

FY2022

Transformation to a New Management Style (4/4)



■ Promotion of Work-in-Life, and Open, Global and Innovative Business Operations

⑧ Promotion of Work-in-Life (Health Management) through the Workplace-Residence Proximity

Employees' work will be premised on remote work, and they can choose their own workplace (no need for relocations and unaccompanied assignments, recruitment of remote-based employees, expansion of satellite offices, etc.)

FY2022
260 or more
locations*

Transformation from a "highly centralized organization" into an autonomous, decentralized "network-like organization"

From FY2022

* Satellite offices

⑨ Decentralization of the Organization (Including Head Officers and Back-Offices)

Decentralization of the organization from major metropolitan areas to regional areas (major urban areas)

From FY2022

Further acceleration of community-based regional revitalization businesses towards local primary industries

From FY2021

⑩ Promotion of the Development of Information Infrastructure

Promote regional urban development and the introduction of new social infrastructure development (IOWN introduction plan, etc.)

Contributing to the development of resilient infrastructure and disaster mitigation against increasingly large natural disasters

Growth and Strengthening of the Newly Formed DOCOMO Group



■ Challenge of the New DOCOMO Group

New DOCOMO Group Medium-Term Strategy

Expansion of enterprise business

Expansion of the Smart Life Business

Strengthening the telecommunications business

Strengthening global business

Strengthening IT

Strengthening R&D

Promoting ESG



**As the synergistic effect of integrating NTT DOCOMO, NTT Communications and NTT Comware,
Create profits of ¥100.0 billion in FY2023, and over ¥200.0 billion in FY2025**

■ Enterprise business

- Integrate all enterprise business under the New DOCOMO Group
- Support all corporate customers with one stop through building up sales organization and enhancing FMC services/solutions
- Expand enterprise sales to over ¥2trillion in F/Y 2025

■ Smart Life business

- Through seamlessly linking membership base, data usage and services with a variety of handsets, co-create new values and lifestyles with partners
- Boosting existing businesses like *finance/payment* and *video/entertainment*, plus expansion into new domain will lead the growth of the new DOCOMO Group
- Make the majority of revenues of the new DOCOMO Group in F/Y2025 with smart life and enterprise businesses

■ Telecommunications business

- Quick expansion of 5G, and integration of network of DOCOMO and Communications realizes a higher-quality, economical network, enabling inexpensive, easy-to-use fixed/mobile services
- We realize with partners rates/services that meet diverse needs as well as reform of sales channels, and create customer experience beyond their expectations
- Maintain mid-term profit in telecommunications business/Realize a shift to the growth trajectory

■ Global business

- **Develop Global Businesses Through converging Capabilities of DOCOMO and NTT Communications and Linkage with NTT Data, and NTT Ltd.**

■ IT

- **Strengthen the software development capability to quickly provide new services to customers, and to accelerate DX of the whole group**

■ R&D

- **Lead the Open Innovation, and Change the World with Partners**

■ ESG

- **Pursue Business and ESG Comprehensively, and Contribute Toward Creation of Sustainable Society**

IOWN Rollout Plan

■ Contribution to the realization of a sustainable society by IOWN as a game-changing technology

[Legend]	
■ Actions	Black: related to Communications
◆ PoC	Green: related to Smart City
▲ Commercialization (planned)	Blue: related to Maps/Cars
• Exhibit	Red: Photonics-electronics Convergence Technology

FY		2021-22	2023-25	2026-30
Rollout Plan		Field Testing of Technologies	Advanced services for early adopters	Deploying to specific applications/areas Expanding the target
		<ul style="list-style-type: none"> ■ Establishment of the IOWN Integrated Innovation Center ■ Strengthening manufacturing technologies of photonics-electronics convergence devices (Establishment of NTT Electronics Cross Technologies Corp.) ◆ Cloud gaming for eSports (Low-latency connection) ◆ Real-world sports viewing remotely (Ultra-realistic video transmission/ Low-latency connection) 	<ul style="list-style-type: none"> ■ ITER ■ Osaka/Kansai Expo (6G/IOWN exhibition, demonstration) ◆ Traffic flow management ◆ Quantum cryptographic communication ◆ Super White BOX (Next-generation computing platform) • Space data center, etc. 	<ul style="list-style-type: none"> ▲ Seamless communication services ▲ Photonics-electronics convergence devices for mobile equipment ▲ Concatenated loop topology (Reliability/Flexibility/Extendability)
		<p>◆ Next-generation advanced office, “Urbannet Nagoya Nexta Building” (PoC of DTC for urban development)</p> <p>▲ Underground installation management with high-precision visualization (joint management with other utility companies)</p>	<p>▲ Smart city projects (Phase 1)</p> <p>▲ Level 3 autonomous driving of agricultural machinery</p> <p>▲ Connected car safe driving support</p>	<p>▲ (Phase 2)</p> <p>▲ Other smart city projects</p> <p>▲ Autonomous driving/ Precise group control of robots</p>
		Collection and analysis of massive sensor data	High-speed spatiotemporal searching for tens of millions of cars	Event-driven, real-time AI analytical processing technology
		Prediction of wireless communication quality affected by hand-over/masking	Integrated resource control for immediate responses to demand changes (including wireless communications)	Centimeter-level understanding of vehicle position and precise prediction of traffic volume in cities and mountain areas
Technological Components	DTC			
	CF			
Disaggregated Computing		Super White BOX: Step 0 (Optical direct path)	Super White BOX: Step 1 (Optical backplane)	Super White BOX: Step 2 (Full optical)
	APN	<p>Direct optical path (Hundreds of Gbps/ Non-dynamic routing)</p> <p>Post-quantum cryptographic communication</p>	<p>Direct optical connection (Hundreds of Gbps/ Semi-dynamic routing)</p> <p>High-precision clock distribution</p> <p>Optical transceivers for APN</p> <p>On-board co-packaged optical transceiver</p>	<p>Remote optical path switching</p> <p>Core network for seamless communication</p> <p>Direct optical connection (1Tbps/ On demand)</p> <p>Photonics-electronics convergence processor</p>

Enhance competitiveness in global business (1/2)

■ Strengthening Digital Business Consulting as One NTT

From FY2021 to FY2023

NTT DATA

• Strengthen industry-specific consulting capabilities

- Form a Global One Team across six industries* to gain and develop the capabilities of industry-specific solutions

* Healthcare, banking, insurance, automotive, retail, telecom

• Further expansion of digital offering capabilities

- Strengthen app modernization, data analysis, automation and other areas utilizing cloud technology, through acquisitions, etc.

• Governance reform based on EMEAL integration

- In addition to Simplification of the organization, strengthen monitoring and communication, and appropriate risk management

Primary KPIs (for FY2023)

Cost of Sales Ratio **76%**

SG&A Ratio **16%**

Consulting Business Sales Ratio **25%**

Market Share in Key Countries/Industries **Over 2%**

Promote Joint Sales and Marketing Based on the One NTT Value Proposition
(Begin Smart City solutions, starting in North America)

NTT Ltd.

• Sales structure that accelerates sales of high value services

- Formulation of account plans for target clients, increase in specialist sales staff members and introduction of new sales incentives that focus on high value services

• Further cost reductions

- Further optimization of G&A and other areas by leveraging DX and outsourcing
- Prioritization of services and resource concentration based on future portfolio

• Continued investment in existing services

- Continued investment in market-leading IT infrastructure platform (data centers, IP backbone)

• Development of new solutions

- Expansion of cloud-related services and edge/IoT-related services

High Value Services Sales Ratio **Over 50%**

G&A Costs **(12)%***

* Compared to FY2020

Global HRM

Branding

Partnering

Overseas Operating Income Margin: FY2020: 3%

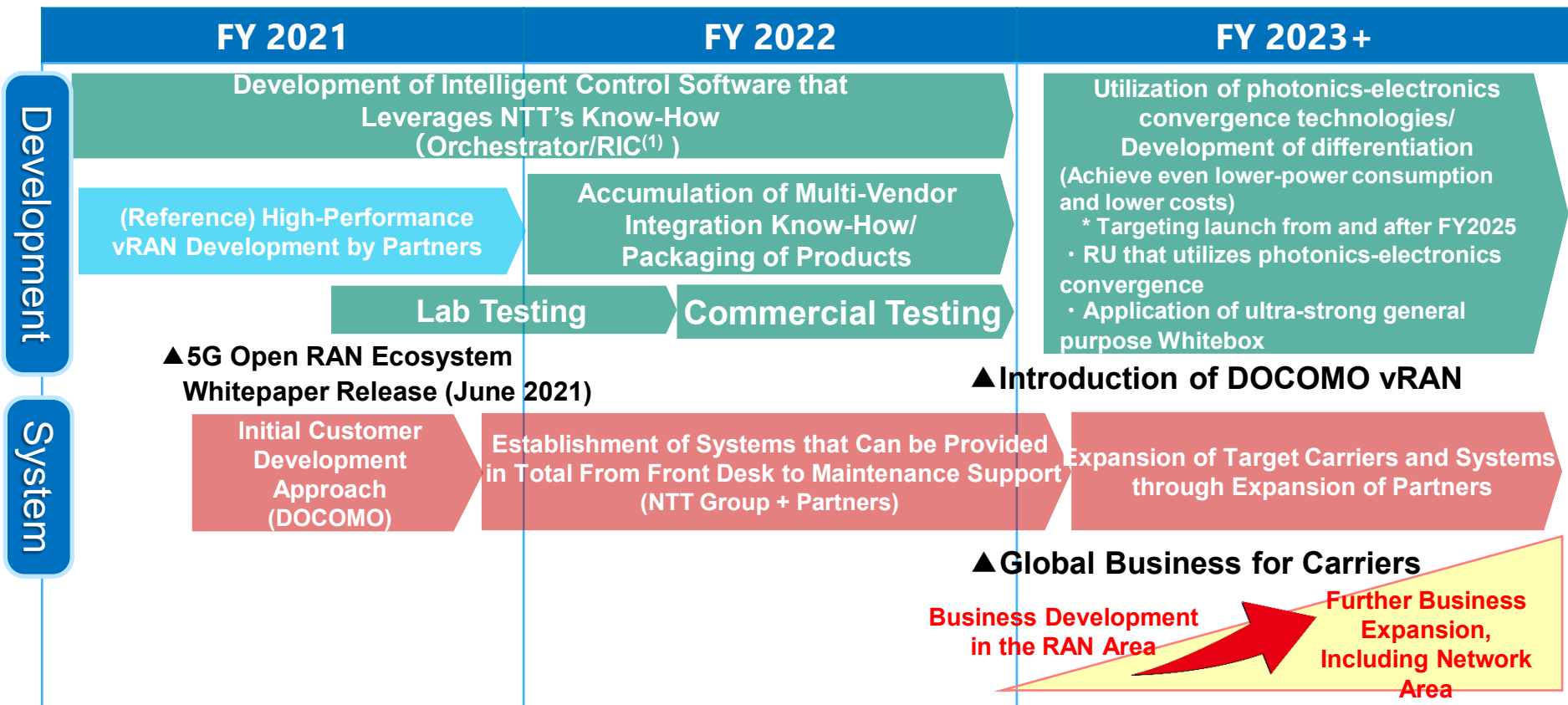
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FY2023: 7%

Enhance competitiveness in global business (2/2)

■ Target Global Business with O-RAN/vRAN

- In collaboration with partners (NEC, Fujitsu and others), from the end of FY2022, will expand global business in the RAN area, and will provide services for multi-vendor integration, management/intelligent control software, construction, maintenance and operation, etc.
- From FY2023, will expand from the RAN area to the network area, to further promote openness and expand business areas as the foundations of future IOWN business



**Addressing
Environmental Issues**

**Improving
Economic Growth**

Paraconsistent

NTT **Green** Innovation toward 2040

**Achieving Zero Environmental Impact and
Improving Economic Growth at the Same Time**

**Reduction of Environmental
Impact through Business
Activities**



**Creation of Breakthrough
Innovation**

NTT is Innovating for a Sustainable Environment

2030

**80% Reduction in Greenhouse Gas Emissions
(compared to FY2013)**

**Mobile
(NTT DOCOMO)**

Data Centers

Carbon-Neutral

2040

Carbon-Neutral

- Targets of the Above Reduction Objectives
GHG Protocol: Scope 1 (our own direct greenhouse gas emissions) and Scope 2 (indirect emissions associated with the purchase of electricity, heat and steam that are provided by other companies)
Mobile : 15 companies in the NTT DOCOMO Group (as of September 28, 2021)
- NTT Group's Reduction Target (Scope 1+2): Upgraded to SBT's 1.5 °C level

Towards the Achievement of Carbon Neutrality

- **Increased use of renewable energy:** Reduce greenhouse gas emissions **by 45%**⁽¹⁾
- **Lower energy consumption with IOWN technologies:** Reduce greenhouse gas emissions **by 45%**⁽²⁾

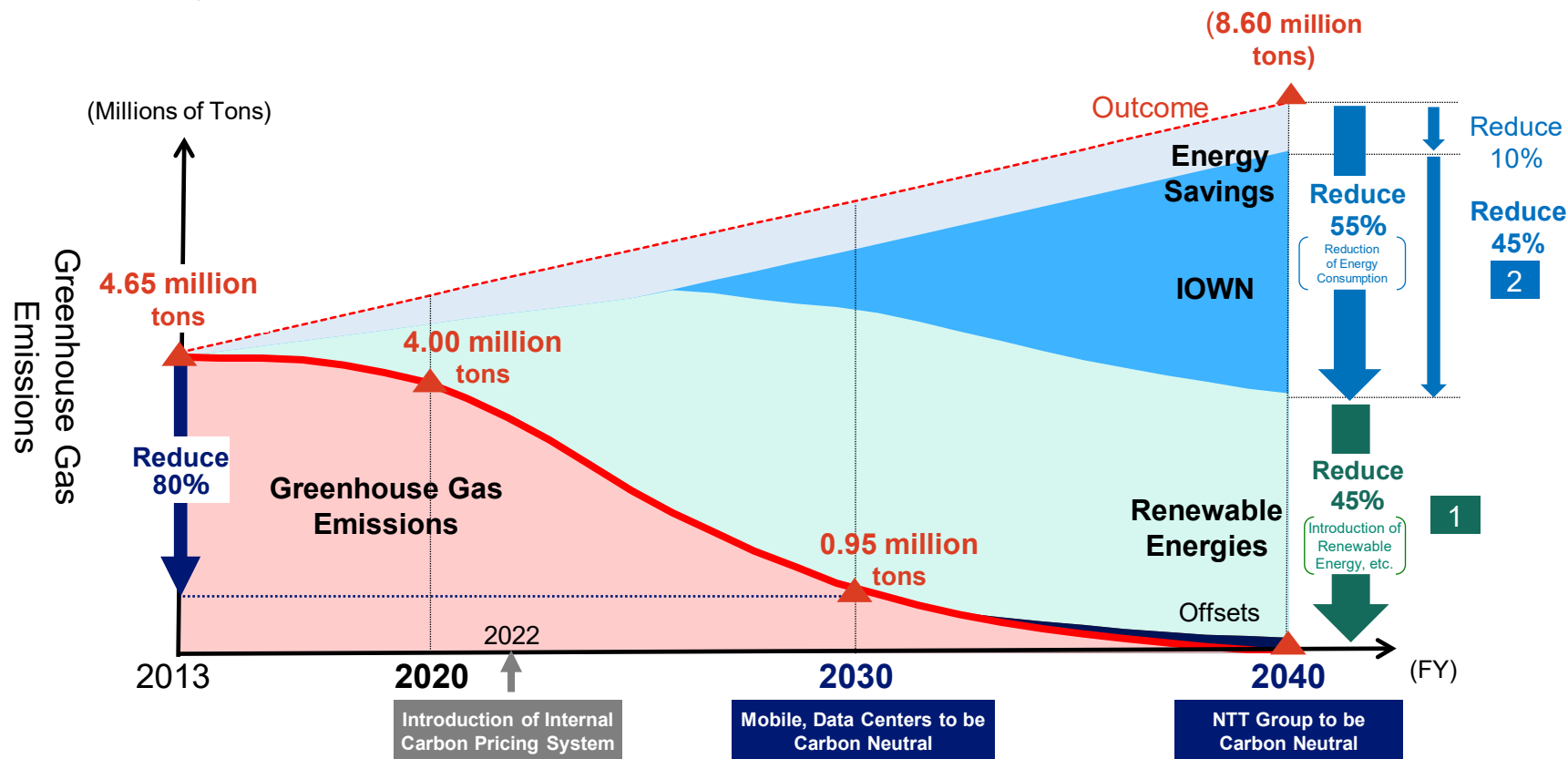


Illustration of NTT Group Greenhouse Gas Emission⁽³⁾ Reductions (Domestic + Overseas)

(1) 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).

(2) 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%

(3) GHG Protocol: for Scope 1 and 2

NTT's Contributions to Reducing Society's Environmental Impact



■ Expanding adoption of IOWN technologies from the telecommunications field into other industries

- Contribute to the **reduction of greenhouse gases**⁽¹⁾ in Japan and the world
 - > Japan ⇒ Reductions: over 0.02 billion tons; Reduction Rate: over 4%
 - > World ⇒ Reductions: over 0.3 billion tons; Reduction Rate: over 2%
- Further **accelerate DX**⁽²⁾ (e.g. of digital twin computing)
- Promote greenhouse gas reduction across the entire supply chain

■ Providing new services that contribute to carbon neutrality

■ Strengthening development and expanding introduction of NTT Group's Renewable Energy Plan

- Promotion of local energy production for local consumption

(1) Conditions for Reduction Estimates

- Target: beginning in FY2040
- Adoption Rate of IOWN for Electric Semiconductors, etc. (Photonics-electronics Convergence Technologies, etc.): approximately 50%
- CO₂ Emission Factor: Japan • • • 0.185kg-CO₂/kWh; World • • • 0.130kg-CO₂/kWh

(2) CO₂ Reduction Potential: approximately 50% (2030; Target: World, calculated based on GeSI and IEA estimates)

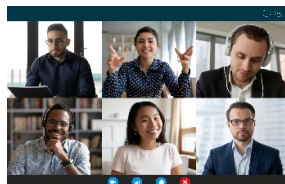
(Reference) NTT's Main Initiatives

Green by ICT

Contributions to Reducing Society's Environmental Impact

Reduction of Environmental Impact through Business Activities

➤ Reducing society's environmental impact



- ✓ Further acceleration of DX and promotion of Remote World
- ✓ Promotion of regional urban development and the introduction of new social infrastructure development
- ✓ Promotion of greenhouse gas reduction across the entire supply chain
- ✓ Provision of new services that contribute to carbon neutrality
- ✓ Contribute to local production and consumption of energy, through smart grids based on battery farms
- ✓ Expansion of green electricity retail

Creation of Breakthrough Innovation

➤ Creation of innovative environmental energy technology



- ✓ Use of 4D digital platform for future predictions / optimal use of urban assets*
- ✓ Optimal operation of fusion reactors (ITER/QST)
- ✓ Lightning charging
- ✓ Applied genome-editing technology for "Green" (Collaboration)

* Energy, transportation, logistics, etc.

Green of ICT

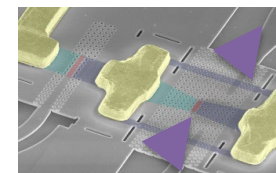
Reducing NTT's Own Environmental Impact

➤ Introduction of IOWN and Expansion of Renewable Energy



- ✓ Reduction of energy consumption through the introduction of IOWN
- ✓ Expansion of the development and usage of renewable energy
- ✓ Introduction of an internal carbon pricing system
- ✓ Issuance of green bonds

➤ Achievement of Ultra-Low Power Consumption



- ✓ Photonics-electronics Convergence Technologies (IOWN All Photonic Network)
- **Creation of Decentralized Technology**
 - ✓ Photonic disaggregated computing
 - ✓ Space integrated computing network

Refined Medium-Term Targets

Refinement of Medium-Term Financial Targets



Target	Current Target	New Target	(Reference) FY2021 Plan
EPS	Approx. ¥320 (FY2023)	¥370 (FY2023)	¥302
Overseas Sales ^{(1), (2)}	\$ 25B (FY2023)	— (FY2023)	\$ 19B
Overseas Operating Income Margin ⁽¹⁾	7% (FY2023)	7% (FY2023)	6%
Cost Reductions ⁽³⁾ (In Fixed-Line/Mobile Access Networks)	At least ¥(800.0) billion (FY2023)	At least ¥(1,000.0) billion (FY2023)	¥(840.0) billion
ROIC	8% (FY2023)	8% (FY2023)	7.4%
Capex to Sales ⁽⁴⁾ (Domestic Network Business)	13.5% or less (FY2021)	13.5% or less (FY2021)	13.5%

(1) Includes results from the global holding company, its subsidiaries and its affiliates.

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

(2) In addition to the change in accounting for some of the income, the impact of COVID-19 is also significant, so no target is set.

(3) Figures above show cumulative reductions since FY2017. (4) Excludes NTT Communications' data centers and certain other items.

This document is a translation of the Japanese original. The Japanese original is authoritative.

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* “FY” in this material indicates the fiscal year ending March 31 of the succeeding year.

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