

NTT Communications Corporation

CSR Report 2020

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Creating communication methods that open up new possibilities for people and our world.

We aim to create a world that maximizes the potential of people, organizations, and societies, giving them the opportunity to shine. In such a world, every person can lead rich and contented lives, cooperating in harmonious freedom. This is why we'll keep striving to create innovative, user-friendly communication methods that optimize the flow of information in our society.

Our Core Beliefs

Take the Initiative

Everyone has the potential to create.

Break out of your comfort zone and start challenging yourself in small ways. This is the first step toward creating something no one has imagined before.

Inspire Each Other

Engage in honest discussion for a better tomorrow.

Be sincere when debating with those who share your goals and respect their viewpoints. This will inspire a group synergy that helps you achieve unprecedented results.

Respond to Society's Needs

Pay attention to society and your clients to create the future they need.

Ask yourself whether you're truly doing what's best for your clients and society. It's through answering and then surpassing their expectations that you can create the future they want to see.

Corporate Message

Connecting into Tomorrow

This message expresses our intention to constantly mediate between today and tomorrow, to continually create a desirable future while contributing to society today. The term "tomorrow" expresses our determination to spearhead into the future by creating innovative and unprecedented communication methods.

Tagline

Go the Distance.

This tagline expresses our commitment to seek out and offer new value by going beyond time and distance and creating innovative and unprecedented communication methods. There is also an underlying meaning to persevere, alluding to our resolution to surpass the expectations of our clients and society, be true to our core beliefs, and realize our mission with the integrity that we have embraced for a long time.

We will redefine values for a “new normal” in the wake of COVID-19 and reconnect people, businesses and society toward achieving the SDGs and realizing a sustainable future.

The NTT Communications Group established its new corporate mission of “Creating communication methods that open up new possibilities for people and our world” upon its 20th anniversary in 2019. We also implemented bold reforms as we underwent major changes in the wake of the global reorganization of the NTT Group as a whole, such as overhauling our organization to respond to the digital transformation of our customers and realizing a Smart World in which ICT is used to resolve social issues.

We are in the midst of an unprecedented period of social change triggered by the COVID-19 pandemic. In the resulting “new normal,” premised on a remote world (decentralized society), consumers, businesses and society need to embrace fundamentally different world views and values. Instead of solely focusing on efficiency and convenience, as we have in the past, greater emphasis must be placed on values such as adopting the consumer’s viewpoint, demonstrating resilience to change and contributing to the realization of a sustainable society.

To quickly respond to such changes, we will seek to redefine the values for a remote world and co-create with customers, partners and other stakeholders in the restoration of safe, secure and flexible connections between people, businesses and society for a sustainable future.

This aspiration is expressed by the term “Re-connect X,” which we have designated as our new business vision. Specifically, we will construct a new Smart Data Platform for sharing the use of data with our customers and partners to accelerate digital transformation. Our goal is to realize a Smart World by developing ICT solutions that

Toru Maruoka

President & CEO
NTT Communications Corporation

cater closely to social needs and applying them for diverse purposes, including manufacturing, education, work style reform and urban development. We will also rise to the challenge of creating new values by transcending business and industry boundaries and spearheading efforts to apply our business activities to CSR.

Looking ahead, we will continue to open up new possibilities by deploying our strengths in ICT to address social issues that arise in the “new normal” world. We will always heed the voices of our stakeholders and society as a whole as we seek to play a major role in achieving the SDGs and realizing a sustainable future.

Providing a Wide Range of Services that Sustain Society

As a DX Enabler™ helping customers accomplish their digital transformation (DX), we endeavor to deliver management solutions and to realize the Smart Society through ICT.

We enhanced our lineup of supportive services and expanded the areas we serve by integrating our global operations in July 2019. Our system and solutions have been upgraded to support our customers' global businesses.

Global Tier 1 Provider*1

As a world-leading provider, we want to deliver the world's highest level of infrastructure.

Global Network Services

190+ Countries/Regions
(as of March 31, 2020)

We provide global network services that extend across 190 countries and regions worldwide.

Global Business Support

70+ Countries/Regions
(as of March 31, 2020)

We support our customers' global businesses through bases in over 70 countries and regions.

Managed Service for Centralized Control of the Entire ICT Environment

Managed Services

Our managed service enables centralized control over not only the services offered by NTT Communications but also those by other companies and the existing systems, realizing a one-stop service for managing the operation of the entire ICT environment.

Personal Services

7,153,000

OCN Members
(as of March 31, 2020)

We provide the largest Internet connection service in Japan and promote society's conversion to ICT.

Global Data Center Service Offering the Highest Levels of Quality

20+ Countries/Regions **500,000m²+** Server Room Space

Our Nexcenter brand provides high-quality data center services across the globe by operating over 300 facilities based on unified standards, with more than 500,000 m² of server room space. We seek to unify our service specifications further, in collaboration with Group companies, in order to realize even greater customer convenience. Moreover, we are expanding our data center business, primarily in the United States, Europe, and the Asia-Pacific region including Japan, to respond more flexibly to the scope and speed of service that customers require.

Recognition for Our Global Network Services

Leaders*2
Gartner Magic Quadrant for Network Services, Global

Our one-stop global network services exist because of our advanced technological capabilities and wealth of know-how unique to a telecommunications carrier. NTT Communications was ranked among global leaders in the 2020 Magic Quadrant for Network Services, Global, chosen by U.S.-based Gartner Inc.

*1 Tier 1 Provider: An Internet service provider that controls its own worldwide broadband IP backbone and is capable of ensuring the quality of its network without depending on an upper tier provider.

*2: Gartner Magic Quadrant for Network Services, Global, Neil Rickard, Bjarne Munch, Danellie Young, February 20, 2020.

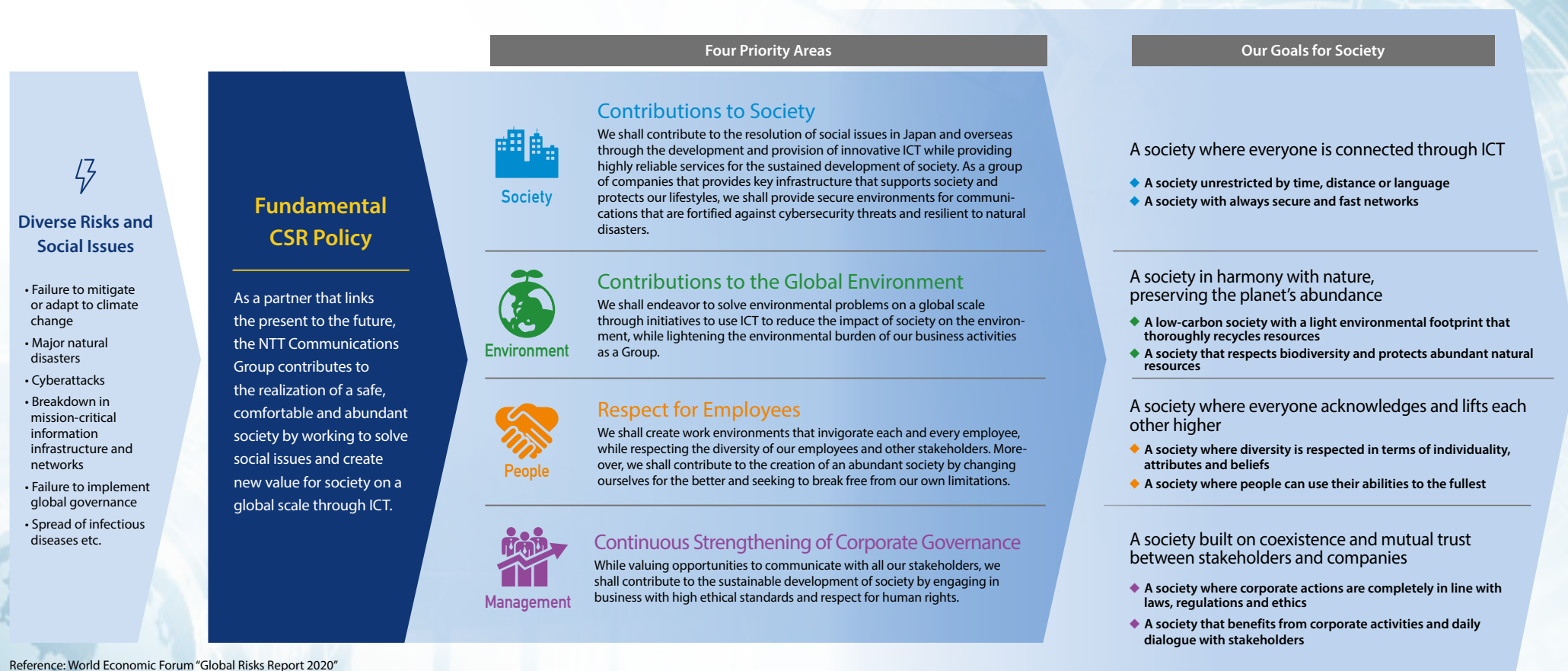
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Fundamental CSR Policy

The NTT Communications Group is committed to addressing social issues through ICT. We believe that it is essential to identify the diverse potential risks inherent within the global society and strive to avoid or mitigate such risks.

While we prepare for global risks as the responsibility of an ICT company that is sustained by stakeholders around the world, we also view this responsibility as an opportunity to focus on the four priority issues for realizing our goals for society.



Reference: World Economic Forum "Global Risks Report 2020"

Supporting the UN's
SDGs as the NTT Group

In fiscal 2016, the NTT Group announced its support for the UN's Sustainable Development Goals (SDGs). As a member of the NTT Group, we also began promoting efforts to contribute to the SDGs in fiscal 2016. We have been training employees to raise awareness of CSR and the SDGs and will seek to achieve these goals through business activities, including the CSR Priority Activities linked to them.

SUSTAINABLE
DEVELOPMENT GOALS



Identification and Improvement of Materiality

As economic and social conditions continue to evolve, we will engage in CSR activities that meet society's expectations by inviting outside experts to regularly verify and update priority areas and activities under the Fundamental CSR Policy. Since fiscal 2017, based on the relevant SDGs for each priority area, we have identified actions that could contribute to the realization of each goal while also promoting PDCA cycles in each priority activity.



Commitment to Our Business Areas

Contributions to Society

Establishing a Safe, Secure Infrastructure and Generating ICT Innovations as Our Social Mission

The concepts of "Digital," "Data," "Remote," and "Online" are essential for creating the value delivered by NTT Communications. Amid the COVID-19 pandemic, the social and economic significance of these concepts have grown exponentially, intensified by the advanced performance of data processing and telecommunications networks. Our lifestyles and business models now vitally depend on dramatic change. As a company that seeks to serve society by providing ICT as a social infrastructure, we are becoming more determined every day to fulfill our social mission by establishing a safe, secure infrastructure and generating innovations.

Amid nationwide school closures, we sought to support education by launching the One School Project, which uses a cloud-based educational platform to facilitate home-schooling, free of charge, reflecting our strong sense of responsibility for maintaining learning opportunities. With regard to the Tokyo 2020 Olympic and Paralympic Games*, which were postponed by a year, we are determined to do our utmost to fulfill our mission of providing the world's highest level of telecommunications services as a Gold Partner, under any necessary conditions.

Personal and social values are shifting at a global scale. And the concepts of "Digital," "Data," "Remote," and "Online" represent the vital aspects of communication as the backbone of this change. We will drive a digital transformation (DX) to contribute to society as a DX Enabler® toward achieving the SDGs and realizing a sustainable society.

Relevant SDGs



Hidemune Sugawara
Senior Executive Vice President

Continuous Strengthening of Corporate Governance

Continuously Strengthening Corporate Governance as a Stable Long-term Foundation for Realizing a Robust Networked Society

NTT Communications has sought to continuously strengthen its corporate governance by staying true to the NTT Group value of integrity as a company that consistently meets society's expectations even in uncertain times. In light of the heightened interest in ESG, promoting compliance as the foundation of stable business activities, including adherence to laws, social norms, and internal rules, and demonstrating meticulous risk management and respect for human rights must be addressed as top priorities. In our role as a provider of ICT infrastructure for society as a whole, we must ensure the reliability of our initiatives by maintaining and constructing a robust system of governance.

Furthermore, we have a vital responsibility for working alongside society to establish a Smart World in which social issues are solved through digital transformation (DX) as well as ensuring and strengthening information security against the threat of increasingly sophisticated and complex cyberattacks, as a precondition for a Smart World. Successfully ensuring the security of the Tokyo 2020 Olympic and Paralympic Games*, which have been postponed to next year, should be the culmination of our efforts.

Looking ahead, we will continue to build a firm foundation for corporate governance that pays due consideration for ESG and fulfill our social mission as a DX Enabler® seeking to resolve social issues by putting ICT to good use.

Relevant SDGs



Hiroki Kuriyama
Senior Executive Vice President

Contributions to the Global Environment

Handing Over a Rich Global Environment to the Next Generation

Companies are required to shoulder an even greater responsibility amid the rising global interest in environmental preservation and stringent new regulations. NTT Communications supports the SDGs as international objectives for realizing a sustainable society and upholds its Environmental Statement and Eco Strategy 2030 as guidelines for building a sustainable, green future. We have been aiming to raise the efficiency of society as a whole through ICT solutions and to lower our own carbon footprint to reduce environmental impact.

Furthermore, we are working to reduce environmental impact from various angles. For example, we are applying an AI analysis tool to predict the amount of steam generated by waste incineration plants toward achieving advances in the creation of renewable energy. We are also introducing the latest technology and streamlining operations to reduce energy use consistently and raise efficiency at telecommunications buildings and data centers, which consume an enormous amount of power, as a basic telecommunications infrastructure.

In 2020, we intend to broaden our contribution to the global environment by pursuing further advances, such as by actively introducing renewable energy, committing to the EV100**2 initiative, and addressing the plastic waste issue.

To hand over an abundant global environment to the next generation, we will continue to develop and practice unique environmental management as an ICT company and help reduce the environmental impact for customers, companies, and society as a whole.

Relevant SDGs



Mamoru Watanabe
Infrastructure Design Senior Vice President

*1 NTT Communications is a Gold Partner of the Tokyo 2020 Olympic and Paralympic Games in the telecommunication services category.

*2 International initiative promoting the use of electric vehicles by companies and developing the necessary social environment.

Respect for Employees

Supporting Lifelong Personal Development to Create a Virtuous Cycle Driving the Growth of Employees and Businesses

The driving force behind the NTT Communications Group's sustainable growth is the power of its people, including its own employees and those of its partners. In maximizing their abilities, we view our mission as remaining a company in which people want to continue working. We are developing an environment in which the personal growth of each employee leads to business growth and where business growth in turn opens even more opportunities for employee growth, thus creating a virtuous cycle that ensures the mutual happiness of employees and the company.

"Odyssey" is our new human resource development program, launched in April 2020. In addition to evaluating skills and experience gained through work, it helps employees learn from colleagues and discover new growth opportunities for career development. Moreover, the company's image of the ideal employee and the goals of employees themselves are visualized as a means of encouraging employees to help each other, as we provide multiple opportunities for them to seize the initiative and take on professional challenges. We will seek to develop a closer link between our business and human resource development plans to create a virtuous cycle in which employees and the company grow together.

In an era of major social transformation, the NTT Communications Group will continue to provide lifelong support for employee growth. We intend to create a corporate culture in which the growth of employees becomes a driving force for self-transformation toward realizing a better future.

Relevant SDGs



Kyoko Yamamoto
HR Senior Vice President

Pursuing the Endless Possibilities of ICT and Engaging in CSR Activities Unique to an ICT Company to Help Achieve the SDGs and Realize a Sustainable and Creative Future

Addressing the global issues and risks presented by the SDGs adopted at the UN summit meeting in September 2015, so that we can hand down a sustainable environment and society, is now more urgent than ever.

The Fundamental CSR Policy of the NTT Communications Group consists of four priority areas: society, the environment, human resources, and corporate governance, the last of which serves as the foundation of the first three. In each area, we seek to maximize the positive social impact of our business activities that involve deploying ICT across our entire value chain, while minimizing the risks and negative social impact, toward resolving social issues, creating new value for society, and contributing to the achievement of the SDGs.

Our cutting-edge ICT solutions including the Smart World, the Smart Data Platform for DX, may hold the key to resolving the complex, diverse issues faced by contemporary society. These include climate change, a declining birthrate, and an aging population as well as the need for information security and cybersecurity and the promotion of DX in the wake of COVID-19's enduring impact throughout society, while we also seek to create value for the future. Today, as every global sector is expected to unite in creating a better future under the banner of the SDGs and ESG, our ability to contribute to society by connecting industries and individuals across the world through our business activities holds a significant value for our employees.

The NTT Communications Group will consistently build infrastructure that supports the next generation, resolve increasingly complex and diverse social issues, and engage in sustainable initiatives to open future opportunities. Under our new corporate mission and core beliefs, we will make a concerted effort to meet public expectations and demands by practicing our corporate social responsibility and creating social value. In addition, we will seek co-creation and emergence by engaging with diverse stakeholders as we promote SDGs and ESG to realize a sustainable future in which safe, secure, and vigorous regional communities fulfill their dreams.

SUSTAINABLE DEVELOPMENT GOALS



Tomohiro Ando
Executive Vice President

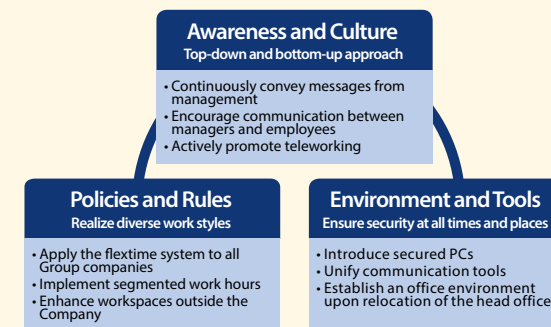


Supporting the "New Normal" with ICT Solutions

The world remains in the grip of the COVID-19 pandemic with no end in sight. Since the threat emerged in Japan, NTT Communications has been responding to resolve the ongoing social challenge as a leading ICT company. We have been exploring our course of action with our eyes firmly fixed on the transition to the "new normal." In this feature, we focus on NTT Communications' initiatives and future outlook.

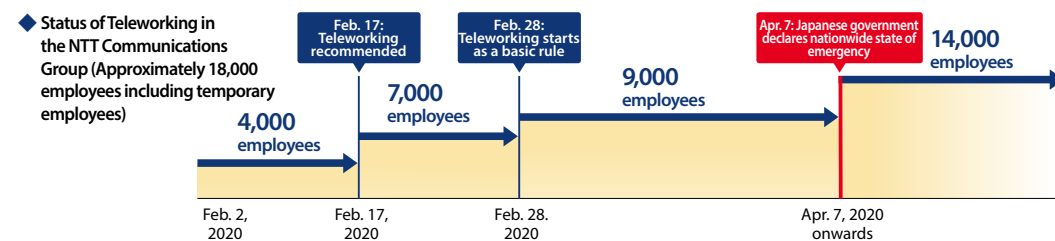
The Work Style Reform Triad that Led to Our Successful Shift to Teleworking

To prevent the spread of Covid-19, NTT Communications announced a Company-wide policy recommending that employees in principle work from home, starting on February 17, 2020. Under the strategy of not allowing a single member of the workplace to be infected, nearly 80% of our employees, excluding staff providing maintenance for telecommunications services, switched to teleworking almost at once. The transition went extremely smoothly as a result of our longstanding work style reform efforts. NTT Communications had been gradually diversifying its work system since 2002. We have been steadfastly promoting work style reform based on a "triad" approach of developing the environment and tools by taking full advantage of ICT, introducing policies and rules that enable diverse work styles, and cultivating awareness and culture through both a top-down and bottom-up effort. From October 2020, we abolished the "twice a week, 8 times a month" limit on working from home as well as the core time zone for the flextime system.



Challenges Arising from the Emergency

In 2018, we equipped all employees with secured PCs that enable them to work safely and comfortably. Standardizing the use of Office 365's Microsoft Teams and Exchange Online made it possible to execute operations as efficiently as during ordinary times before the pandemic. Moreover, 6,350 employees had taken part in the Telework Days 2019 campaign spearheaded by the Japanese government ahead of the Tokyo 2020 Olympic and Paralympic Games. This allowed us to identify the issues and key aspects of our internal systems, eliminating the need for any special measures upon our shift to teleworking apart from expanding network bandwidth. That is not to say there were no problems or concerns. In addition to labor management issues related to



personnel evaluation and employee health management, other issues have also emerged that led us to change business practices, including procedures for accepting physical mail and signatures requiring personalized seals as well as accounting rules for communication and commuting expenses. We also needed to allow temporary employees to work from home in the same way as full-time staff, an issue that became apparent because of the urgent impact of COVID-19. As of August 2020, NTT Communications is placing top priority on employee safety by maintaining teleworking as the basic rule while continuously exploring various strategies for resolving the above-mentioned issues.

Supporting Society as a Provider of ICT Infrastructure

Amid the COVID-19 pandemic, NTT Communications has sought to maintain lifelines and business continuity in everyday life to fulfill its responsibility as a designated public institution.

Under these circumstances, many companies began to introduce and utilize teleworking, and school closures became the norm, leading to a dramatic surge in Internet traffic that commanded significant attention. Since the increase was particularly conspicuous during daytime hours on weekdays, we sought to alleviate concern by visualizing traffic patterns and publicly releasing the information online.

Another notable phenomenon that accompanied the rise in Internet use during the COVID-19 pandemic was the increase in inquiries received by our call centers. NTT Communications had been encouraging customers seeking guidance on using the Internet to access the "CAVA" contact center provided by teleworkers, which unexpectedly contributed to alleviating congestion related to the centers.

In this way, NTT Communications has been responding to the COVID-19 pandemic by enhancing the stability of its services to fulfill its primary responsibility as a communications carrier while also pursuing unique activities that utilize its core business to resolve social issues. One major

example is the initiative we launched on February 28 to address school closures caused by COVID-19, in which we offered affiliated contents of the "Manabi Pocket" cloud-based educational platform free of charge. While this initiative for maintaining learning opportunities was initially scheduled to end on May 31, 2020, it was extended until the end of June with the cooperation of affiliated content suppliers. Applications exceeded 400,000 IDs, and we contributed to the education of students in elementary, junior high, and high schools and special needs schools across Japan. We intend to actively support society by deploying our resources as the need arises.

Sharing our Learnings from COVID-19 with Society

In what is being described as the "new normal," the expectations and responsibilities bestowed upon NTT Communications' ICT-based services and solutions are likely to increase. As new work styles premised on teleworking gain widespread support, new challenges such as the accompanying rise in Internet traffic and cyberattacks have emerged. The COVID-19 pandemic has unexpectedly provided us with valuable experience. We will draw on this to continue creating and improving our services to offer benefits to society and take the lead in creating a remote native society.

VOICE



Hiromasa Kobayashi
Manager, Human Resources

Promoting Teleworking for Diverse Customers

Since NTT Communications had been keen to embrace work style reforms, it experienced little confusion once teleworking began Company-wide. Many employees reported that working from home led to greater efficiency or made it easier to concentrate, thus reaffirming the merits. Meanwhile, aspects that are incompatible with today's corporate system and not easy to deal with have also come to light.

The effects of teleworking and the challenges faced in promoting this work style differ according to a company's size and industry. However, it has been pointed out that companies failing to offer diverse work styles will find it difficult to secure talented personnel and may see their competitiveness decline. When the pandemic comes to an end in the near future, we will make use of our latest expertise and experience to support customers facing various circumstances.

Social Contribution Activities Related to the Covid-19 Pandemic

Company	Target	Details	Period
NTT Communications	Customers seeking advice, customers who subscribe	Free use of "Manabi Pocket" contents provided by affiliated suppliers	Feb. 28 to Jun. 30
	All corporate and individual customers who subscribe	Extend payment date for services provided by Group companies	Feb. 28 to Jul. 31
	OCN Mobile users at or under 25 years of age	Free use of 10 GB of data transmission volume	Apr. 9 to Jun. 30
NTT Bizlink	Staff at universities, research institutions, and medical institutions in Japan	Secure remote video conference service	Apr. 24 to Jul. 31
	Customers seeking advice, customers who subscribe	<ul style="list-style-type: none"> Consultation desk for constructing teleworking and remote work environments Free use of "SMART" cloud-based teleconferencing service 	Feb. 26 to Jul. 31





Society

Contributions to Society

Helping More People around the World Connect Seamlessly with ICT in Their Daily Lives

New ICT is being created every day, and the paradigm of economic activity is constantly shifting. As a leading global ICT company, the NTT Communications Group seeks not only to produce highly dependable, high-quality communications infrastructure in its daily operations, but it is also focused on helping solve social issues by providing society and its customers with cutting-edge technologies. Moreover, we are constantly exploring ways to apply ICT for the benefit of society. By taking a multi-faceted approach in our core initiatives, we aim to help create a better future while prospering in unison with various communities throughout society.

CSR Priority Activities

- ◆ Innovation that supports a networked society
- ◆ Ensuring stable and reliable services as mission-critical infrastructure
- ◆ Robust network security for customers
- ◆ Continuous improvement in customer satisfaction
- ◆ Collaboration with suppliers
- ◆ Social contribution and fostering of communities

Targeted
SDGs



Case

9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE

Rugby Team Takes on the Challenge of Creating New Value to Fulfill its Mission of Contributing to Society

The value of a sports team is not decided solely by its performance in a game. The Shining Arcs rugby team, managed by NTT Communications, is working toward realizing a sustainable world by engaging in activities that meet public expectations, both on and off the pitch.

Enhancing Team Value by Focusing on Activities Off the Pitch

The Shining Arcs has upheld its contribution to society as one of its missions since its founding. Particularly in recent years, the team has focused on activities off the pitch with a view to adding to the two “Vs” of “Victory” and “Value.” In 2019, it became the first rugby team to declare its full commitment to the SDGs and has been planning and practicing unique activities by incorporating ideas from players. For example, in the TABLE FOR TWO Project, we calculate the calories burnt by players and estimate those burnt by Shining Arcs fans who come to cheer for the team during each game, and we donate the equivalent in monetary value to support the agricultural industry in developing countries. Additionally, we encourage the cooperation of supporters through social media posts. The Shining Arcs also participate in the deleteC Project, which aims to make cancer a curable disease, through a collaborative effort while educating the public about cancer treatments and donating the revenue from the sale of goods to medical research institutions. What is more, we engage in joint initiatives with other organizations. In the popular JICA Educational Program, for example, our non-Japanese players offer lectures on their culture, customs, and social issues to the general public. We have a similar partnership with JTB Corporation. We cooperate in their JTB Sports Tourism Program, a career education initiative through which we invite students on graduation trips to the club house, where they participate in workshops led by players and staff.



Players taking part in Urayasu Rugby Festa 2019 at the plaza in front of the Japan Railways Shin-Urayasu Station.

Becoming a Team the Local Community Loves and Depends on

Apart from these efforts, the Shining Arcs engage in social activities that are uniquely fitting for a sports team. These include paying school visits and participating in events 10 to 20 times a year, offering opportunities inside and outdoors for physical fitness while the players act as though they are trainers and distribute videos online pertaining to exercises the players have done during the COVID-19 pandemic. We also organize new projects to expand the scope of activities across the entire top league. The team's activities are shared via a dedicated page on the corporate website and are gradually winning public recognition. We intend to pursue these activities steadfastly in order to win an even greater place in the hearts of local citizens in our home base of Urayasu City, Chiba Prefecture, as a group to be depended upon.



Tasuku Kawahara
Rugby Staff, Human Resources

NTT Communications' / Actions toward the SDGs

The NTT Communications Group contributes to achieving the SDGs by making extensive use of ICT to provide innovative services while continuously taking on challenges with a firm eye on what lies ahead.



NO POVERTY

We assist the agricultural industries of developing countries with the help of our supporters by calculating the amount of donations based on players' performance and the number of spectators. We will work hand in hand with the local community to help eradicate poverty and hunger from the world.



ZERO HUNGER



GOOD HEALTH AND WELL-BEING

The team contributes to medical research by raising awareness and seeking donations for making cancer a curable disease through a collaborative effort. In addition, players serve as trainers and lecturers to promote various physical fitness programs targeting employees and the general public.



QUALITY EDUCATION

We actively organize programs in which our non-Japanese team members speak as lecturers. These offer a unique opportunity for participants to learn about the international community and state of global sports through rugby, which is only possible for an international-level sports team.

Contributing to the SDGs through Activities off the Pitch



PARTNERSHIPS FOR THE GOALS

We are striving to realize a sustainable society by actively working with individuals and organizations outside the Company, such as by supporting developing countries and medical research institutions by mobilizing fans and pursuing collaborative projects with JICA and other companies.

Contributions to the Global Environment

A Sustainable and Green Future that Nurtures Our Rich Earth



Environment



The reduction of CO₂ emissions has been hailed as a necessary means of addressing abnormal weather patterns around the world and to combat global warming. However, not enough has been done. With a pressing need to do more, the NTT Communications Group is moving proactively to deploy low-carbon technologies as a provider of services that utilize ICT equipment.

In order to leave future generations an abundant global environment, such as by promoting a closed-loop economy and by coexisting with nature, NTT Communications is also aggressively implementing a multitude of initiatives while fulfilling its responsibilities as a leading global ICT company.

CSR Priority Activities

- ◆ Realizing a low-carbon future
- ◆ Implementing closed-loop recycling
- ◆ Planning a future of co-existing with Nature

Targeted
SDGs



7 AFFORDABLE AND
CLEAN ENERGY



12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



13 CLIMATE
ACTION



14 LIFE
BELOW WATER



15 LIFE
ON LAND

Case

13 CLIMATE ACTION



Applying Deep Learning to Achieve Stability in Waste Power Generation at Incineration Plants

Expectations are rising for the use of ICT to bring about a low-carbon future. As a leading ICT company, we relentlessly strive to provide next-generation solutions one step ahead of the times.

Joint Verification Test with Kubota Corporation

The NTT Group has recently been collaborating with companies across wide-ranging industries to develop new solutions based on ICT. In 2016, we partnered with Kubota Corporation and established the Kubota & NTT Group Cooperation Council to create ICT innovations for agriculture and water infrastructure. Stabilizing waste power generation at incineration plants grew out of this collaboration as a promising project for applying deep learning, a core AI technology. This led to collaboration with NTT Communications. Waste power generation is expected to emerge as an alternative source of energy to fossil fuels. It uses heat generated when incinerating combustible waste to produce steam, which turns the turbine. Although low power generation efficiency is currently an issue, once we overcome this, the approach has the potential to support the effective use of waste incineration plants across Japan.

Real-time Prediction of Steam Produced at Waste Incineration Plants

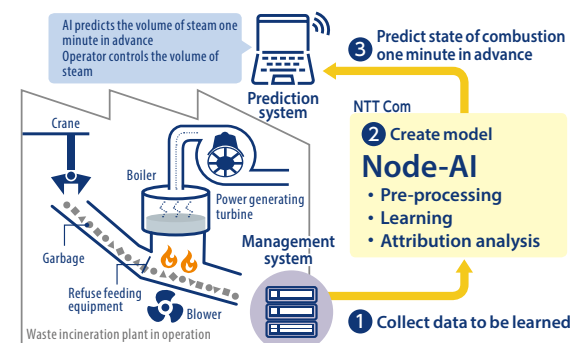
In September 2018, we began a verification test on using deep learning to predict the amount of steam produced at an incineration plant in operation. Increasing power generation efficiency requires controlling the volume of steam, which varies depending on the properties and shape of garbage. We used Node-AI, our proprietary AI-based analytical tool, to process key data narrowed down from about 300 parameters and generate a prediction model for the state of waste combustion one minute in advance. We applied this model to an incineration plant in operation to perform a verification based on time series analysis and causal analysis and were able to construct an infrastructure for consistently predicting the amount of steam, one minute in advance and on a real-time basis.

We will further improve the accuracy of predictions toward the ultimate goal of stabilizing waste power generation at incineration plants without relying on the skills of veteran workers. This is an important challenge for accelerating the achievement of advances and higher efficiency in the creation of renewable energy for the future.



Daiki Okuoka
First Sales Dept., West Japan
Sales Division

Real-time Prediction Model for the Volume of Steam



NTT Communications' / Actions toward the SDGs

The NTT Communications Group contributes to achieving the SDGs by making extensive use of ICT to provide innovative services while continuously taking on challenges with a firm eye on what lies ahead.

Contributing to SDGs by Realizing a Low-carbon Society through the Use of ICT



CLIMATE ACTION

From a global perspective, we will focus on improving the energy efficiency of ICT-related equipment and plant facilities that place a significant burden on the environment and strive to preserve the global environment to pass on a green, healthy planet to the next generation.



AFFORDABLE AND CLEAN ENERGY

Telecommunications buildings and data centers owned by NTT Communications use clean energy generated by environmentally friendly solar power. We are very focused on the use of renewable energy to stabilize waste power generation at incineration plants by using deep learning to automate control along with other efforts.



RESPONSIBLE CONSUMPTION AND PRODUCTION

We are effectively applying deep learning to facilitate the predictive maintenance of mechanical parts in order to reduce waste by determining the optimal timing for replacing parts. And these methods have potential for application in areas other than manufacturing.



People

Respect for Employees

Undertaking business with respect to employees while enabling them to succeed



While carrying out the responsibilities of companies, employees independently aim for their own happiness and development and are partners that grow with those companies. At the NTT Communications Group, we have measures in place to nurture talented employees with a keen awareness of globalization to grow together with our employees. Over the past few years, attention worldwide has focused on diversity in management as more emphasis is placed on supporting the wellbeing of employees and turning diversity into a competitive advantage. As more women join the workforce and new working styles are adopted, NTT Communications is trying out various new measures, including personnel exchanges around the world.

CSR Priority Activities

- ◆ Human resources development
- ◆ Respect for Diversity and Equal Opportunities
- ◆ Maintaining and improving employee health

Targeted
SDGs



Case

8 DECENT WORK AND ECONOMIC GROWTH



Promoting Group-wide Health and Productivity Management to Motivate Employees to Change their Own Behavior

Mental and physical disorders can lower concentration and motivation, consequently having a negative impact on overall business performance. Health and productivity management has therefore become a key issue for companies. We hope to invigorate the entire Group by promoting employee health.

Creating a Mechanism that Encourages Health Action by Individuals

Out of the eight major companies of the NTT Group in fiscal 2018, NTT Communications had the highest percentage of employees aged 40 or older who were at risk of developing lifestyle diseases. To address this situation, we have undertaken a variety of actions to raise employee awareness of health. Examples include our Group-wide seminars on weight loss methods, led by personal fitness trainers, and events for measuring visceral fat. While these measures led to raising employee awareness for a while, they were not effective enough to change the behavior of most. We therefore decided to focus on creating mechanisms that would encourage employees to take the initiative to act for fitness, guided by the clear goal of bringing employees currently at risk of developing mental and physical disorders up to a certain level of good health and preventing those who have reached one of those levels from falling back into risk.

Holding Com-Walk 2019 as a Group-wide Effort to Improve Health

One effective measure was the Com-Walk 2019 held in November 2019. We conducted a creative effort to get employees to take action on their own by using NTT Group's ICT services. Also, we designed programs to encourage teams to pursue fitness by designating award categories for organizations such as divisions and companies, including awards for participation rate and average step counts, in addition to award categories for individuals. Furthermore, we set a relatively high goal of 8,000 steps per day and raised the motivation of participants by allowing them to keep track of their ranking on a smartphone app at their own convenience.

Health awareness rose during the campaign, and we received feedback from employees indicating they had begun to moderate their drinking habits or switch to walking longer routes to work. We achieved a certain level of success with Com-Walk, and since it has been pointed out that employees are getting less exercise amid the COVID-19 pandemic, we intend to continue this campaign in the coming years.

If employees can maintain their mental and physical fitness, labor productivity will likely improve. We will therefore continue to pursue initiatives that support health management to become a company in which employees can continue to work in a healthy, cheerful, and vibrant way.

◆ Results of Com-Walk 2019

4,091 entries
Total
918,492,183 steps



The Finance Division received bags of Healthy Rice as the winner of the participation rate award.

NTT Communications' / Actions toward the SDGs

The NTT Communications Group contributes to achieving the SDGs by making extensive use of ICT to provide innovative services while continuously taking on challenges with a firm eye on what lies ahead.



GOOD HEALTH AND WELL-BEING

By continuously practicing health management, we can boost the mental and physical fitness of our employees and cultivate awareness. This will reduce the risks of lifestyle diseases and unexpected sick leaves and also lead to boosting concentration and motivation.



GENDER EQUALITY

Internal events open to all employees and temporary employees, including organization heads as well as managers of each company and organization, cultivate a sense of unity while also fostering awareness of gender equality among employees.

Contribution to SDGs through Health and Productivity Management



DECENT WORK AND ECONOMIC GROWTH

Establishing a workplace environment where employees can work in a healthy, cheerful, and vigorous manner will lower the employee turnover rate and maintain our workforce while also raising their productivity. This will cultivate the foundation for sustainable corporate development.



Akiko Kubo
Project Manager, Human Resources



Management

Continuous Strengthening of Corporate Governance Remaining Trustworthy and Mission-oriented

As we continue to provide global ICT services that have become embedded in social infrastructure, we must ensure that our management foundation covers all the required elements, which are diverse. They include an efficient and nimble business organization, an open corporate culture, and a risk management system capable of flexibly responding to emergencies such as accidents and natural disasters. At the NTT Communications Group, we take a thorough, Group-wide approach to ensuring efficient governance and solid compliance in order to continue contributing to the development of a sustainable society. In recent years in particular, we have been working diligently to prevent and thwart cybercrime, which has become a serious social problem.

CSR Priority Activities

- ◆ Thorough Compliance
- ◆ Respect for human rights
- ◆ Risk management
- ◆ Ensuring Information Security

Targeted
SDGs



Case

9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE

Supporting Efficient and Effective Corporate Governance with Auditing Solutions Based on Digital Technology

Continually strengthening corporate governance is essential for maintaining stable business activities and enhancing corporate value. This is why we practice efficient and effective risk management through our unique digital CAATs.

Raising the Quality of Internal Audits with a Pioneering Approach

Conventionally, internal audits, which are closely associated with sound corporate governance, have mostly relied on the expertise and discretion of auditors. To break away from this dependence on their skills as a DX Enabler®, we are committed to transforming our auditing in order to adopt a technology-driven approach for raising the quality of internal audits and minimizing management risk.

The turning point came in 2018, when we received an external evaluation by the IIA^{*1}, which provides a global standard for internal auditing. They revealed our new need for shifting to risk-based auditing, so we took the opportunity to revise the fundamentals of our auditing method, from conducting comprehensive cyclic auditing of all organizations based on uniform audit criteria to a method based on risk analysis with a focus on evaluating the effectiveness of high-risk processes. One method involves applying computer assisted audit techniques (CAATs), which uses big data and IT to implement a combined analysis of massive quantities of operational data.

Creating a Safe and Sound Workplace Environment

The most significant change associated with CAATs has been the exponential increase in the number of investigations—by approximately a thousand times due to the use of big data extracted from mission critical systems. By shifting from analyzing limited samples to total information, we reduced the risks of unaudited information. This assures fairness, transparency, and objectivity, and we also struck a balance between risk control enhancements and operational efficiency improvements. What is more, visualizing the analysis results using BI^{*2} tools has led to greater awareness of expense calculations and work management as well as restraining misconduct. It has also allowed us to make operational improvements at the worksite before major issues develop, thus effectively preventing risks from materializing.

The establishment of risk monitoring based on data analysis marks a significant step toward creating a safe and sound workplace environment for employees. Looking ahead, we will continue to respond to changing risks in the “new normal,” support the continuation of stable, long-term business activities, and further strengthen our corporate value.

^{*1} The Institute of Internal Auditors, a U.S.-based organization specializing in internal audits.

^{*2} Business Intelligence



Keiichi Nakamori
Internal Audit Dept., Legal and
Internal Audit Dept.

NTT Communications' / Actions toward the SDGs

The NTT Communications Group contributes to achieving the SDGs by making extensive use of ICT to provide innovative services while continuously taking on challenges with a firm eye on what lies ahead.

Contribution to SDGs through the Use of Digital Technology



Industry, innovation, and infrastructure

Simplified processes involved in cashless payments and advances in remote work have made it difficult to confirm the appropriateness of expense calculations. By using CAATs to analyze expense calculations, we can prevent latent risks from materializing and support sound operational reforms.



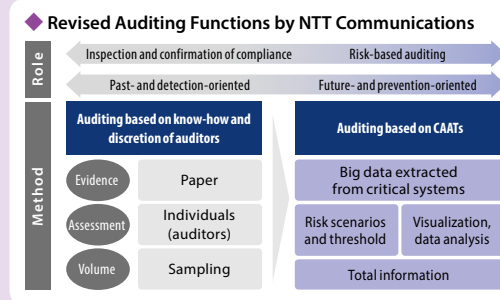
Good health and well-being










We can identify and prevent risks of overwork by using an entrance and exit system to effectively manage work patterns by matching entrance and exit logs with attendance sheets and visualizing the results. This will also help us maintain employee health and consequently improve labor productivity.



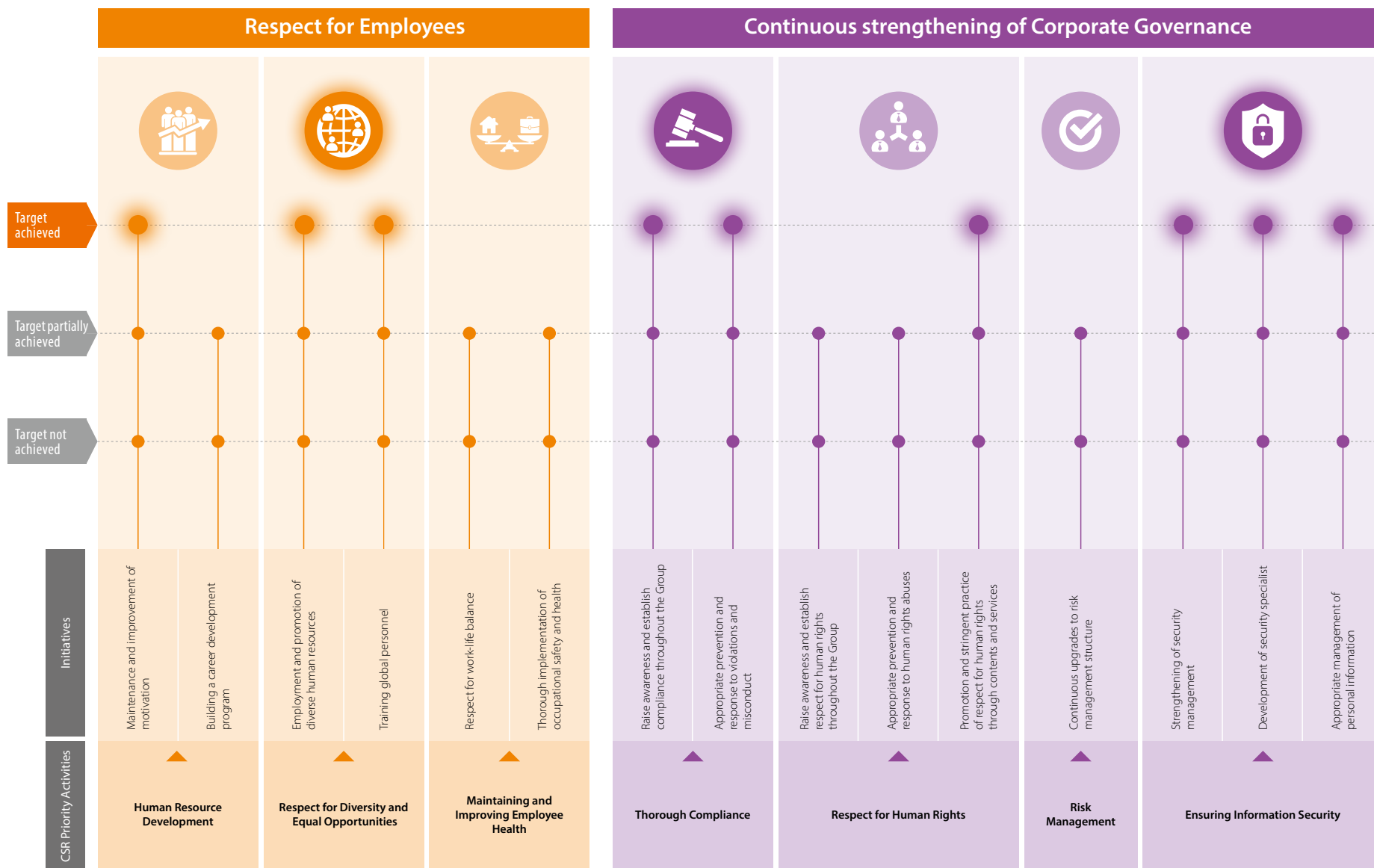
Decent work and economic growth

By adopting a method based on objective data, we can prevent arbitrary decisions, preconceptions, and illegal behavior from entering the internal audit process, thereby maintaining fairness and transparency. This will also lead to realizing a safe and secure workplace environment while boosting employee morale.



Contributions to Society						Contributions to the Global Environment											
																	
Provision of new value that contributes to business transformation	Realization of safe and secure daily lifestyles; bridging the digital divide	Development of disaster-resilient networks	Measures to address major natural disasters	Network surveillance 24 hours a day, 365 days a year	Strengthening vulnerability response functions	Rapid and reliable responses to security threats	Ongoing CS surveys	Dissemination of CSR and green procurement	Contributions to communities	Fostering communities and the next generation	Cutting carbon emissions from businesses	Cutting society's carbon emissions through products and services	Realization of an environmental impact business model	Thorough implementation of a 3R policy in businesses	Facilities that show consideration for biodiversity	Utilize ICT to contribute to biodiversity	
Innovation that Supports a Networked Society		Ensuring Stable and Reliable Services as Mission-critical Infrastructure		Robust Network Security for Customers			Continuous Improvement in Customer Satisfaction	Collaboration with Suppliers	Social Contribution and Fostering of Communities		Realizing a Low-carbon Future		Implementing Closed-loop Recycling		Planning a Future of Co-existing with Nature		

NTT Communications Corporation CSR Report 2020 20



The expanded version of this report provides more information on our activity results and targets for each priority activity.

About the Reporting Media

CSR Website

The CSR website is updated with the latest information on a regular basis. Please access the site for information on the CSR activities of each NTT Communications Group company.

 > <https://www.ntt.com/en/about-us/csr.html>

PDF Report Downloads

The content of the NTT Communications Group CSR Report 2020 is presented in a comprehensive manner. The report consists of a highlight version and an expanded version. We aim to provide information effectively by catering to readers envisioned for each medium. As can be expected of a company that provides ICT services, the NTT Communications' CSR Report has been provided in electronic format since 2012. The highlight version presents the NTT Communications Group's more important CSR activities in a clear, straightforward manner for the general public. The expanded version presents numerous examples of the NTT Communications Group's CSR activities through a comprehensive look at specific CSR activities and detailed data.

 > <https://www.ntt.com/en/about-us/csr/pdf/download.html>

◆ Scope of the Report

This report covers the activities of NTT Communications Corporation and its Group companies, unless otherwise indicated.

◆ Period Covered

Fiscal 2019: April 1, 2019 to March 31, 2020
(Also contains information on activities conducted before or after this timeframe)

◆ Issue Date Information

This report: October 2020
(Previous report: October 2019; next report scheduled for October 2021)

◆ Reference Guidelines

GRI Sustainability Reporting Standards 2016/2018
Ministry of the Environment "Environmental Reporting Guidelines 2018"
Ministry of the Environment "Environmental Accounting Guidelines 2005"
ISO 26000: 2010 Guidelines on Social Responsibility

Corporate Overview (as of March 31, 2020)

Company Name	NTT Communications Corporation
Headquarters	Otemachi Place West Tower 2-3-1 Otemachi, Chiyoda-ku, Tokyo 100-8019, Japan
Date Established	July 1, 1999
Paid-in Capital	230.9 billion yen
Operating Revenues* (IFRS)	794.6 billion yen
Operating* Incom(IFRS)	96.2 billion yen
Number of Employees	5,500 (NTT Communications Group: 11,500)
Business	Domestic and international telecommunications services

Group Companies in Japan (as of October 1, 2020)

- NTT Com Engineering Corporation
- NTT Com Online Marketing Solutions Corporation
- NTT Com Solutions Corporation
- NTT Com CHEO Corporation
- NTT Com DD Corporation
- NTT Com Marketing Corporation
- NTT Smart Trade Inc.
- NTTPC Communications, Inc.
- NTT World Engineering Marine Corporation
- N. F. Laboratories, Inc.
- NTT BizLink, Inc.
- NTT Resonant Inc.
- X-LISTING Co., Ltd.
- CodeTakt Inc.
- Phone Appli Inc.

*Actual results for FY2019 (figures for the NTT Com Group that reflect the integration of global operations).

Globally Recognized Achievements

- Became the first NTT Group company to receive the highest "Gold" rating in the CSR audit conducted by the French company EcoVadis.
- Recognized as the "Operator of the year" at the 2019 World Communication Awards, which took place on October 30, 2019 in London, U.K.
- Received the Best Asian Telecom Carrier and Best International Wholesale Carrier awards at the Telecom Asia Awards 2019 on May 20, 2019.

