\Orchestrating a brighter world

NEC

Sustainability Report 2018

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This is our **Communication on Progress** in implementing the principles of the **United Nations Global Compact** and supporting broader UN goals.

We welcome feedback on its contents.

NEC is a signatory to the United Nations Global Compact.

Message from the President

Becoming a company that is embraced by and essential to society

Since its founding in 1899, NEC has been providing products and services that are centered on IT and networks under the motto of "Better Products, Better Services" as the company contributes to customers and society. In 2014, we created the Brand Statement "Orchestrating a brighter world" and have been promoting business that originates from efforts to address important social issues.

In fiscal 2018, under the Mid-term Management Plan 2020, we identified nine themes that represent "Materiality" – Priority Management Themes from an environmental, social and governance (ESG) perspective. This demonstrates to stakeholders, inside and outside the company, NEC's 119 years of efforts to provide value to society and clearly presents NEC's resolve to work together to further promote growth initiatives.

NEC became a signatory to the United Nations Global Compact in 2005, which was founded on the basic principles of human rights, labor, environment and anti-corruption. NEC continues to strive to minimize any burdens that business activities may have on society, and when we identify a materiality, we emphasize that themes must be able to contribute to value creation for society.

Moreover, the name of each materiality reflects the aspirations and resolve that NEC is seeking to promote. For example, the theme of "Security to maximize ICT possibilities" expresses NEC's desire not only to minimize the impact of risk but also to contribute to the creation of a safe and secure society where everyone has the opportunity to lead positive and abundant lives. This can be accomplished through the provision of our information security and cyber security solutions.

NEC is a member of the Sumitomo Group, whose business philosophy encourages individuals to "place prime importance on integrity and sound management," a belief passed down from some 350 years ago. The principle of placing prime importance on integrity and avoiding pursuit of immediate benefit can be defined as the heart and essence of sustainable management. This philosophy is also in alignment with the principle of SDGs.

The significance of NEC's existence can be measured by its continued provision of value to society through its business activities. The NEC Group is determined to serve as a company that is embraced by and essential to society. By each employee listening to the opinions of customers and the voices of society, the company can strengthen its ability to create value while working towards the solution of social issues.

July 2018

Takashi Niino
President and CEO

Sustainable Management

NEC's Sustainable Management

NEC has defined the brand statement "Orchestrating a brighter world" and provides solutions to worldwide social issues for the realization of a global society where everyone has the opportunity to lead positive and abundant lives.

In 2014, we announced this brand statement in order to confirm our vision to achieve "Social Value Creation." This statement is rooted in the NEC group corporate philosophy which was established in 1990, "NEC strives through C&C* to help advance societies worldwide toward a deepened mutual understanding and the fulfilment of human potential."

*C&C: the integration of computers and communications

For us at NEC, sustainable management means that every one of us, executives and employees, will seek to operationalize the brand statement and the corporate philosophy through our business activities while listening to the voices of society through dialogue with our stakeholders. Our activities, which include both non-profit social contributions and our core business, will contribute to the creation of social value, impacting society and the environment positively from Environment, Social and Governance (ESG) perspectives. We don't only focus on fulfilling our compliance responsibility, typified by legal compliance and corporate ethics. We also focus on mitigating corporate risks that may adversely affect society or the environment.

At NEC, we are pushing forward the above initiatives in line with the "NEC Way," statements setting out the guiding principles for human resource development and for the mind set which applies to each individual employee. Furthermore, in 2005 NEC signed the United Nations Global Compact, which calls for corporate activities that adhere to 10 principles in the four areas of "Human rights," "Labor," "Environment" and "Anti-corruption," and we periodically undertake self-evaluations of the activities that we are carrying out based on the principles. In these ways, we are driving forward corporate activities which center on contributing to the Sustainable Development Goals (SDGs) adopted by the United Nations (UN) in 2015.

▶ NEC Way

Basic Approaches and Process for Redefining "materiality," the Priority Management Themes from an ESG Perspective

Since its founding, NEC has been working to drive forward initiatives relating to Environmental, Social and Governance (ESG) issues, with the aim of realizing sustainable development for both society and NEC Group itself. In 2007, we defined the CSR initiatives, and in 2014 we announced our brand statement "Orchestrating a brighter world" specifying our direction as a company which aims to take up the revolution of Social Value Creation, and have been making progress with carrying out business activities which originate from social issues.

On the other hand, there is now a trend of using non-financial information to evaluate corporate activities.

Accordingly, in our Mid-term Management Plan 2020, NEC has identified "materiality" as new priority management themes from an ESG perspective in the light of the needs of society including the SDGs, in order to connect our non-financial initiatives more closely with our business strategies so that they can be translated into growth not only for NEC but for society.

The Basic Principles of Sustainable Management and Materiality

We have defined materiality and the indicators used to measure its progress in accordance with the basic principles of NEC's sustainable management as set out below.

(1) Strengthen risk management and enforce compliance

NEC implements thorough risk management within all of its Group companies and business partners, in order to continually respond to the expectations and demands of our stakeholders and to secure our place in society. To this end, NEC is committed to avoiding and/or mitigating any negative impact or risk of negative impact on its stakeholders, society and the environment, such as the potential occurrence of violations of human rights and environmental damage. In addition, NEC practices compliance with a constant awareness of the need to prioritize this area.

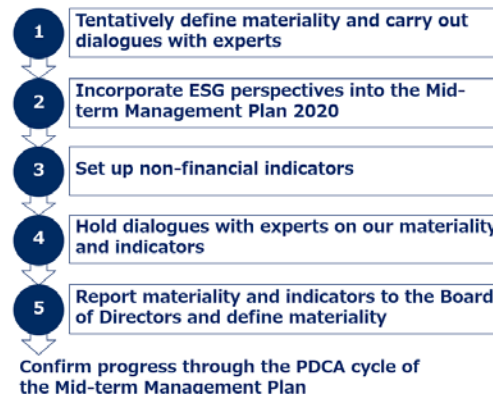### (2) Contribute to solving social issues through our business activities

NEC maximizes both economic value and social value through our business activities.

(3) Promote communication with stakeholders

NEC identifies the fundamental issues of customers and society and the values they seek by engaging in communication and dialogue with a wide range of stakeholders. NEC discloses the corporate initiatives taken to solve those issues, the results of these initiatives, and new challenges in Sustainability reports (CSR reports) and other publications. Furthermore, by continuously implementing improvement measures through PDCA cycles that take into account the feedback from society, NEC will continue to build relationships of trust with our stakeholders and society, enhancing corporate value.

Materiality Identification Process

We worked to identify materiality through the following processes, based on being strongly aware of the need to engage in dialogue with experts in a variety of domains and to work in conjunction with the Mid-term Management Plan.

1. Tentatively define materiality and carry out dialogues with experts
2. Incorporate ESG perspectives into the Mid-term Management Plan 2020
3. Set up non-financial indicators
4. Hold dialogues with experts on our materiality and indicators
5. Report materiality and indicators to the Board of Directors and define materiality

Confirm progress through the PDCA cycle of the Mid-term Management Plan

1 Tentatively define materiality and carry out dialogues with experts

NEC created a list of social issues which were considered potential contenders for being set as priority themes, by referring to global guidelines such as the GRI Standard, ISO26000 etc. and the SDGs while taking NEC's business characteristics into account. We then undertook a questionnaire survey of our employees which asked what priority they would place upon each social issue and state the extent to which they believed NEC's initiatives would impact society in the mid- to long-term, and, conversely, the extent to which these areas would be impacted by society.

In addition, we then drew up a materiality matrix which centered on the impact that NEC will have on society and the level of importance that various social issues have for society, based on the results of the questionnaire and referring to the SRI International's survey items and to the SDG goals. Of these social issues, the theme of "materiality" which has a high level of impact (or, a high level of importance) was then identified as the theme which NEC should tackle as a top-priority matter, and priority themes were set out for each of three layers as described below.

① Fundamental priority themes for Social Value Creation:
  • Governance and Compliance
  • Climate Change
  • Human Resource Development
  • Security
  • Privacy

② Processes connected with maximizing economic value and social value/themes which are strengths for NEC
  • Dialogue and Co-creation with our Stakeholders
  • Innovation Management

③ Priority themes for maximizing value
  We decided to set out the specific points of this theme when undertaking discussions for the Mid-term Management Plan 2020, for which discussions had begun at that time.

Based on the approaches set out above, we asked a number of external experts in various areas for their opinions and presented these in the CSR Report 2017 issued in July 2017.

▶ Dialogue with Stakeholders Aimed at Identifying Materiality (from the CSR Report 2017)

② Incorporate ESG perspectives into the Mid-term Management Plan 2020

In order to incorporate ESG perspectives into the Mid-term Management Plan 2020, a lecture presentation given by experts on the themes of ESG and the SDGs was held for the top management at NEC, followed by an exchange of opinions, with the aim of ensuring that the mind set required for incorporating the ESG perspectives into management practices could penetrate right through the top levels of management at the company.

Then, discussions on economic value originating from social issues and Social Value Creation were promoted within each business unit, leading to the clarification of the priority themes for ESG aimed at maximizing value that were to be set in the Mid-term Management Plan 2020 which was announced in January 2018.
At the same time, growth areas both inside Japan and overseas as set out in the Mid-term Management Plan 2020 were set as priority themes for maximizing value.

③ Set up non-financial indicators

When setting the non-financial indicators used for measuring the progress of materiality initiatives, NEC aimed as far as possible to quantify outcomes in terms of what level of positive value was provided to society. Whenever it was not possible to quantify impacts on society, we attempted to clarify the processes in terms of what efforts were to be undertaken by what point in time.

Details of the non-financial indicators for each area of materiality are set out below.

▶ Priority Management Themes from an ESG Perspective — Materiality

④ Hold dialogues with experts on our materiality and indicators

Dialogues were held with experts in several different fields on three themes: "Human resource development," "Privacy" and "Climate change." These themes were taken from among the fundamental themes which are to be tackled as priorities for Social Value Creation, and were selected as top priorities in terms for maximizing value as well as minimizing risk. Themes of the dialogues included discussions of why efforts were needed on the above themes, and how progress in each theme was to be measured.

In addition, following on from this in fiscal 2018, dialogue sessions continued to be held on the topic of materiality as a whole among external experts with perspectives on sustainable management, civil society and medium- to long-term investors, alongside chief strategy officer and heads of departments from NEC who are in charge of sustainable management and business departments.

▶ Dialogue Sessions on Materiality with Experts

⑤ Report materiality and indicators to the Board of Directors and define materiality

By incorporating the opinions of experts, NEC has worked out the basic approaches that NEC needs to take regarding materiality and non-financial indicators based on the temporarily set themes.

1. Materiality for NEC
Nine themes occupying three layers were defined as follows.

① Sustainable Growth Enablers (5 themes)
NEC has identified the following 5 themes as themes positioned within the foundation of management as a whole.
• Governance and compliance
• Environmental action with a particular focus on climate change
• Sustainably and socially literate human resources
• Privacy policies and measures aligned with societal expectations
• Security to maximize ICT possibilities

② Engines of Change (2 themes)
NEC identified the following 2 themes as processes which will lead to maximizing the economic and social value/strengths of NEC.
• Dialogue and Co-Creation with our Stakeholders
• Innovation Management

③ 2020 Growth Focus to Create Social Value
NEC will create social value through the following growth areas.
• NEC Safer Cities
• NEC Value Chain Innovation

2. Approaches to setting non-financial indicators
As a company which aims to take up the revolution of Social Value Creation, we have attempted to set indicators which measure the feasibility of approaches in terms of whether they actually succeed in creating value. However, in the case of indicators which are hard to quantify in numerical terms, NEC will indicate the processes that make up the initiatives and manage the progress of such processes.

3. Running the PDCA cycle
Based on processes for confirming the state of progress of the Mid-term Management Plan which is reviewed each year on a rolling schedule, NEC will confirm the progress of materiality and the non-financial indicators while continuing to hold dialogues with external experts.

Materiality: Priority management themes from an ESG perspective at NEC

Promotion Framework

The Corporate Communication Division's Sustainability Promotion Office promotes NEC's sustainable management initiative in close coordination with the related divisions involved in business planning, investor relations, human resources, general affairs, legal affairs, internal controls, management systems, design, the environment, customer satisfaction, quality assurance, procurement, and more, as well as research laboratories, business divisions, and Group companies. Coordination is also conducted with the company's business partners.

We discuss important issues related to the promotion of sustainable management among executives and the CSO (Chief Strategy Officer) who is in charge of corporate management and who adopts those matters and reports at a Board of Directors meeting.

Board of Directors

Reports on sustainability are delivered by the CSO at Board of Directors' meetings on a periodic basis.

Global CSR Promotion Framework

NEC has appointed CSR Promoters in five regional headquarters, namely, North America, Latin America, EMEA (Europe, Middle East, and Africa), China/East Asia, and APAC (Asia Pacific). They work closely with the Sustainability Promotion Office to promote sustainable management globally.

Sustainable Management Promotion System

Global Sustainable Management Promotion Framework
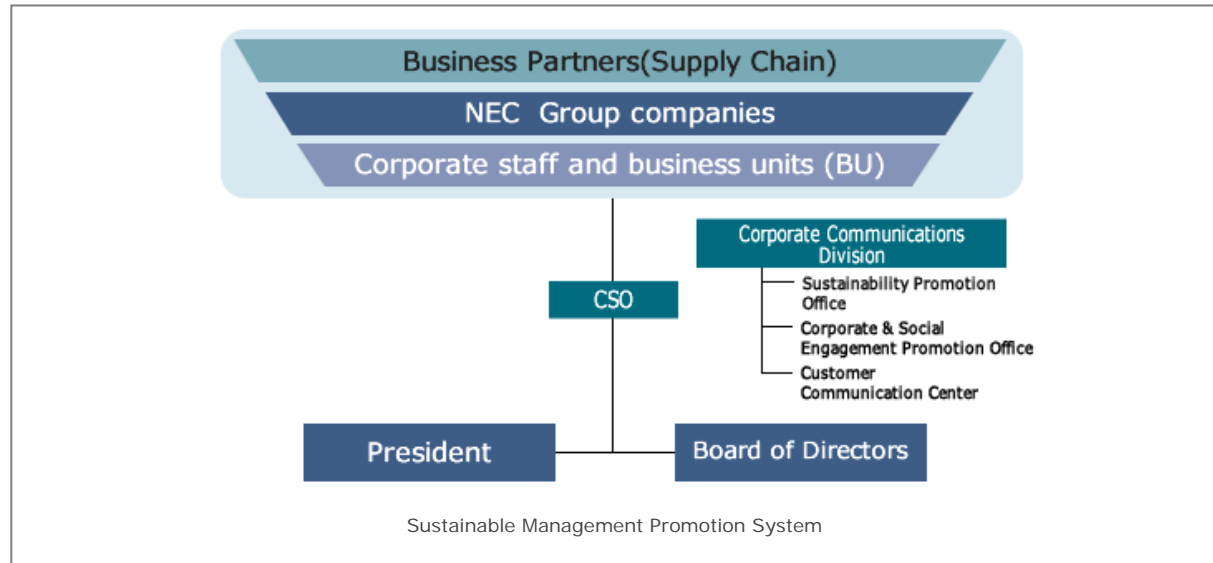
Priority Management Themes from an ESG Perspective — Materiality

Priority Management Themes from an ESG Perspective that Are Set to Generate Economic Value and Social Value

To realize our aim of "Orchestrating a brighter world," and to generate both economic value and social value, NEC is focusing attention on ESG (Environment, Social and Governance) perspectives as a priority area, and sets as our strong point the theme "materiality," which is specified by the following three layers:

▶ For the specific process of materiality, please refer to the "Sustainable Management" page.

① **Sustainable Growth Enablers**
To minimize risks to NEC and society, and to maximize the social value that NEC is to generate, NEC places priority on following five themes:
• Governance and compliance
• Environmental action with a particular focus on climate change
• Sustainably and socially literate human resources
• Privacy policies and measures aligned with societal expectations
• Security to maximize ICT possibilities

② **Engines of Change**
The two following points have been defined as engines for maximizing economic value and social value as well as minimizing social risks:
• Dialogue and Co-Creation with Our Stakeholders
• Innovation Management

③ **2020 Growth Focus to Create Social Value**
The following growth areas of the Mid-Term Management Plan 2020 are defined as the themes that management should place priority on from ESG perspectives:
• NEC Safer Cities
• NEC Value Chain Innovation

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③ **2020 Growth Focus to Create Social Value** — NEC Safer Cities | Value Chain Innovation

② **Engines of Change** — Dialog and co-creation with our stakeholders | Innovation management with global No.1/only 1 technology

① **Sustainable Growth Enablers** — Sustainably and socially literate human resources | Privacy policies and measures aligned with societal expectations | Security to maximize ICT possibilities | Environmental action with a particular focus on climate change | Governance and compliance

Sustainable Growth Enablers

In order to maximize the social value that NEC is to generate, as well as minimizing the risks to NEC and society, NEC has specified five themes to pursue as priority areas, and non-financial indicators to measure the progress of each theme.

In order to specify the policies to pursue and non-financial indicators for themes on Human Resource Development, Privacy Policy, and Climate Change out of the five themes, we referred to the comments and advice offered by the experts with whom we held dialogues.

▶ For details on the discussions, please refer to the "Dialogue Sessions on Materiality with Experts" page.

Governance and Compliance

Since our establishment in 1899, NEC has built our business based on the trust we enjoy from our customers and society. We believe that this trust is developed by every member of NEC, from executives to employees, with each member putting compliance first in order to carry out his/her work in a sustainable manner, based on an extremely sound and transparent governance framework.

In particular, ensuring compliance in areas such as fair trade and anti-corruption is an essential measure for gaining and maintaining trust. NEC ensures compliance in cooperation with the suppliers and partners who make up our value chain.

▶ Compliance and Risk Management
▶ Supply Chain Management

NEC also gives priority to human rights issues. The NEC Group Human Rights Policy is applied to all NEC members, from executives to employees. If any of our activities within the value chain should have negative effects on human rights, we make our best efforts to recover the situation or cooperate with others in order to do so, then make further efforts to ensure that similar incidents do not occur again.

▶ Respecting Human Rights

As set out in our long-established motto, "Better Products, Better Services," we will continue to improve the quality of our products and services as a priority area.

▶ Ensuring Quality and Safety

Non-financial Indicators to Measure the Progress of the Activities We Will Pursue

To eliminate violations of compliance, NEC implements in-house training courses to ensure that all our members from executives to employees can prioritize compliance in the actions they take at any time. In addition, we aim to accomplish the following indicator:

- Indicator: Number of cases of involvement with serious cartels and/or bid-rigging
- Target for fiscal 2019: 0 (zero)

▶ Compliance and Risk Management

Environmental Action with a Particular Focus on Climate Change

The negative effects that are brought about by climate change cover a range of different circumstances, such as an increasing number of natural disasters caused by abnormal weather conditions, depletion of water resources, effects on the supply of and demand for food, etc.

NEC has set out a goal of reducing our company's CO_2 emissions to zero by 2050, and reducing CO_2 emissions from the whole supply chain by cooperating with suppliers and partners. Based on these efforts, NEC is contributing to reductions in greenhouse gases on a global scale.

By offering energy-saving products and services, solutions aimed at preparing for the risks of natural disasters such as floods and landslides, and products and services to cope with environmental issues caused by climate change, NEC will contribute to the efforts our customers and society are making to address climate change.

Non-financial Indicators to Measure the Progress of the Activities We Will Pursue

To realize a sustainable society, it is essential not only to minimize CO_2 emissions and various risks facing and engendered by our supply chains, but also to expand the values that we offer to our customers and society via ICT in terms of both reducing and coping with environmental issues. We are enhancing our activities by setting a goal in the form of the following indicator:

- Indicator: Rate of contribution to CO_2 emission reductions across the whole supply chain.
- Target for fiscal 2021: 5 times

▶ Environmental Management Initiatives

Sustainably and Socially Literate Human Resource

For enabling Social Value Creation at NEC, we need to continue developing personnel who are capable of sensing or reading the needs of customers and society and discovering potential issues through conversations and co-creation processes with our customers and diverse stakeholders, and who are capable of swiftly offering products and services that will contribute to solving the issues that they are experiencing.

**NEC
Sustainable Report
2018**

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In 2016, NEC formulated its "People Philosophy," a basic approach to human resource development at NEC Group, with the aim of ensuring that these ideas become thoroughly embedded among our members, from executives to employees.

NEC continues to deliver products and services that will be accepted by society, including our customers, by developing the kind of "human resources" who can take on a diverse range of values and continuously create social value based on the "People Philosophy."

▶ Human Resources Development and Training

Non-financial Indicators to Measure the Progress of the Activities We Will Pursue

NEC will use the following indicators to confirm whether we succeed in developing human resources who possess a higher level of social sensitivity and in outputting the social value created by our personnel, and whether we succeed in creating an organization that has a sense of speed embedded in its culture.

- Indicator: rate of employees who have a strong sense that NEC is changing to create social value by accepting a diverse range of values
- Target for fiscal 2019:
  To review the questions in the opinion survey among NEC group employees and set a specific target number for fiscal 2021.

Privacy Policies and Measures Aligned with Social Expectations

As the use of AI (artificial intelligence) and the IoT (internet of things) spreads, there are growing concerns about adverse impacts on human rights, including violations of privacy and discrimination.

In addition to responding to the General Data Protection Regulation (GDPR) that came into force in the European Union (EU) from May 2018, NEC also intends to develop and supply products and services that are responsive to differences in privacy needs between different countries and regions due to cultural perspectives and are sensitive to human rights issues, such as the challenge of discrimination that could potentially be furthered through

the usage of AI. Through these means, NEC intends not only to minimize adverse impacts on society but also to maximize social value through such initiatives.

Non-financial Indicators to Measure Progress of Activities to Pursue

NEC has set out the following indicators and will clarify our approach concerning respect for human rights in our business activities, including dealing with privacy in our business activities. Our approach is to provide products and services that are sensitive to privacy concerns, based on adherence to the law, cooperating with our customers and sales partners.

- Indicators:
  ① To have discussions with multi-stakeholders regarding sensitive cases from human rights or privacy perspectives.
  ② Number of cases incorporated, in areas such as R&D, product development and proposals for services, based on "Human Rights by Design*" concept

- Target for fiscal 2019
  ① Carry out once per quarter
  ② Set the specific target number for fiscal 2021

  * Incorporation of the approach of respect for human rights (privacy, fairness, etc.) into each process in the value chain.

▶ Personal Information Protection and Privacy

Security to Maximize ICT Possibilities

Security, as well as privacy, is also a theme that NEC needs to take up across the whole value chain including our customers and clients, in order to provide values such as safety, security and fairness to society through our business activities.

NEC is making efforts to minimize risks in the fields of "Information Security" and "Cyber Security" in particular, ensuring that our customers are able to securely experience the benefits offered by ICT.

Non-financial Indicators to Measure the Progress of Activities That We Will Pursue

The following two indicators are used to measure the progress we make in terms of minimizing risks while maximizing value, with the aim of realizing a secure information society.

- Indicators:
  ① Minimize the effects of major security incidents by ensuring that we enhance cyber security measures while also enhancing information security measures in order to prevent leakage of information.
  ② Promote products and services that incorporate security measures and case studies taken from the NEC Group's own information security practices as a reference

▶ Information Security and Cyber Security

Engines of Change

Dialogue and Co-creation with Our Stakeholders

Values are constantly changing for our customers and society. To provide products and services that deliver real value, NEC must incorporate processes for dialogue and co-creation with stakeholders into its corporate activities.

Through dialogue with our stakeholders, we will develop insights into the issues our customers and society face and their opinions regarding NEC's activities, while developing partners with whom to engage in the co-creation. By connecting these activities to value we aim to realize NEC's goal of "Orchestrating a brighter world."

We recognize that dialogues and co-creation of value are processes that NEC should carry out at all times. For this reason, we do not specify non-financial indicators for this area.

▶ Dialogue and Co-creation with Our Stakeholders

\Orchestrating a brighter world

Social values achieved by co-creating with customers

Safety   Security   Efficiency   Equality

Value creation by leveraging ICT

Awareness of social issues

Collaboration for value creation

Innovation Management

Over the years since NEC was founded, we have cultivated our technologies based on NEC's motto of "Better Products, Better Services." In a society that is constantly changing, the technologies in demand keep changing as well; by implementing appropriate innovation management, we can continue to generate social value in the form of the technologies, products and services that society demands.

NEC is investing approximately 4% of our sales revenues into R&D in order to realize innovation sustainably. However, for this theme, we have not set a non-financial indicator to measure how much value is generated by innovation management. This is because NEC believes that the outcomes of innovation management in terms of social value creation are, by their nature, things that can only be measured for the first time when our technologies successfully deliver value to society in the form of products and services.

▶ Innovation Management

2020 Growth Focus to Create Social Value

In the Mid-Term Management Plan 2020, we define "NEC Safer Cities," "Formation of a sustainable, smart supply chain," and "Safe and comfortable connected cars" as growing businesses. From ESG perspectives, these are placed into two growth fields: "NEC Safer Cities" and "NEC Value Chain Innovation."

Based on the approach that social value is to be engendered by the products and services that NEC offers, we will measure the progress of this theme by using the financial indicators set out in the Mid-term Management Plan 2020.

At the same time, while managing the progress of the Mid-term Management Plan going forward, from non-financial perspectives as well we will continue to consider how to demonstrate in quantitative terms what kind of impacts on society NEC aims to bring about through the products and services we provide.

NEC Safer Cities

As populations rapidly concentrate in urban areas, new value is created through economic growth and the diversification of life and culture; at the same time, cities also face a wide range of social challenges, such as increasing levels of crime and terrorism.
NEC will contribute to realizing safe, secure, efficient and fair cities where individuals can exhibit their potential to the full and live better lives, by utilizing cutting-edge technology such as biometric authentication, AI, IoT, etc.

Non-financial Indicators to Measure the Progress of the Activities That We Will Pursue

For example, by having a wider range of our customers use NEC products and services such as biometric authentication solutions and AI-based crime/disaster-prevention systems and providing these to a larger number of organizations, NEC will ensure that the social value we provide will be amplified in terms of both quantity and quality.

For fiscal 2021, NEC will focus on expansion of our international sales and aims to increase our international sales to 200 billion yen.

NEC Value Chain Innovation

Our society faces various kinds of social issues, such as food waste, labor shortages, changes in consumption patterns, and diversifying threats.
NEC will develop cutting-edge technologies and promote co-creation with customers in order to connect people, goods, and processes, reaching across the boundaries between enterprises and industries to create new value. In doing so, NEC will support a more sustainable planet, sustainable growth for companies, a society where people can live in abundance and a brighter world for the future.

Non-financial Indicators to Measure the Progress of the Activities That We Will Pursue

NEC aims to amplify the social value we provide by developing and supplying larger numbers of services. For example, we will contribute to reducing food waste from manufacturing and supply chains, which is defined in Target 12.3 of the SDGs' Goal 12, by promoting NEC Value Chain Innovation which aims to optimize the demand-and-supply balance.

For fiscal 2021, we have set out a goal of expanding our domestic sales to 85 billion yen in growth fields including NEC Value chain Innovation.

Initiatives by NEC for Contributing to the Achievement of the SDGs

To specify materiality, NEC has held meetings with experts to discuss whether NEC should specify goals and targets* for SDGs as a theme to pursue as a priority area.

As a company that announced a shift towards Social Value Creation in 2013, NEC has been engaging in businesses that originate in social issues. Since 2015, when the UN adopted the SDGs, NEC has developed an even stronger sense of purpose in these businesses. Since ICT has the potential for responding to a variety of issues, we believe that we can contribute at least a little to all the goals outlined in the SDGs, through engaging in discussions and co-creation with customers and stakeholders.

For example, looking only at the targets among the areas defined as growing fields in the Mid-Term Management Plan 2020, such as "NEC Safer Cities" and "NEC Value Chain Innovation," there are No. 3, No. 7, No. 8, No. 9, No. 11, No. 12, No. 16 and No. 17 to which NEC wishes to contribute on its own initiative, as shown on the right. There are a large number of targets that could potentially be set out as goals.

Meanwhile, it has been pointed out by some external experts that narrowing down the range of SDGs to pursue brings the risk of narrowing the scope of our business expansion and the possible range of social value that could be delivered by our products and services as well.

* 17 goals and 169 targets have been set by the SDGs

▶ Dialogue Sessions on Materiality with Experts

To demonstrate NEC's approach of contributing to the SDGs on a wider basis, we have categorized the targets of materiality into the two following areas: "Targets to which NEC wishes to contribute on its own initiative and/or positively," and "Targets to which NEC is able contribute or wishes to contribute in the future" (see the following figure). In addition, to ensure that the SDGs are used proactively for defining the goals that NEC should aim towards, or as indicators for measuring the social values that are generated by NEC business, we will aim to engage in educational activities on this matter within our company.

Fields that NEC Contributes to SDGs

■ Targets to which NEC wishes to contribute on its own initiative and/or positively
■ Targets to which NEC is able to contribute or wishes to contribute in the future

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
NEC Safer Cities	1.4		3.8	4.a		6.4		8.3	9.3 9.a	10.7	11.2 11.3 11.7 11.b			14.1		16.6 16.a	17.16
NEC Value Chain Innovation		2.1 2.4 2.a 2.c	3.6				7.2 7.3	8.1 8.2 8.8	9.1 9.3 9.4		11.2	12.2 12.3	13.3				17.16
Dialog and co-creation with our stakeholders			3.8	4.3 4.4 4.a				8.1 8.2 8.3 8.8	9.1 9.4		11.2 11.3 11.b	12.8	13.3			16.6 16.7 16.a	17.16 17.17
Innovation management			3.6 3.8 3.b		5.2		7.3	8.1 8.2 8.3 8.8	9.1 9.3 9.4 9.5 9.a	10.5	11.2 11.3 11.b	12.2 12.3 12.5	13.1		15.2	16.1 16.2 16.6 16.9 16.a	17.6
Sustainably and socially literate human resources				4.3 4.4 4.5 4.a	5.1 5.5			8.3 8.5 8.7	9.2	10.2 10.3			13.3			16.5	17.16
Privacy policies and measures aligned with societal expectations					5.2			8.7	9.5							16.1 16.9 16.10	17.16
Security to maximize ICT possibilities									9.5		11.1 11.7					16.1 16.3	17.16
Environmental action with a particular focus on climate change	1.5	2.4	3.d			6.4	7.2 7.3 7.a 7.b		9.4		11.5 11.b		13.1 13.3	14.2 14.5	15.1 15.4 15.5		17.16
Governance and compliance					5.1 5.2 5.5			8.5 8.7 8.8		10.2 10.3		12.7				16.1 16.2 16.5 16.6	17.16

Dialogue Sessions on Materiality with Experts

Incorporating the Voices of Stakeholders into Materiality

Aiming to define materiality, NEC has held dialogue sessions based on the following themes with experts from fields such as sustainable management, civil society, and medium- to long-term investment as part of our initiative for promoting stakeholder communication—one of the basic principles of sustainable management at NEC. Members of NEC's corporate staff and relevant business departments participated in these dialogue sessions.

These dialogue sessions enabled us to obtain wide-ranging insights from external experts on how non-financial (ESG) activities can be linked with business and management, as well as on how NEC's business activities impact society. To ensure participants received a general overview of materiality, we invited Mr. Peter David Pedersen, co-founder of Next Leaders' Initiative for Sustainability (NELIS), to attend each of the sessions.

Theme of Dialogue Session	Experts		
Materiality	**Masaru Arai,** Chair, Japan Sustainable Investment Forum (JSIF)	**Kaori Kuroda,** Executive Director, CSO Network Japan	**Peter David Pedersen,** Co-Founder, Next Leaders' Initiative for Sustainability (NELIS)
Sustainably and socially literate human resources	**Mika Kumahira,** CEO, A-TEC Co., Ltd.	**Peter David Pedersen,** Co-Founder, Next Leaders' Initiative for Sustainability (NELIS)	
Privacy policies and measures aligned with societal expectations	**Yukiko Furuya,** President, Consumer Conference for Sustainability	**Peter David Pedersen,** Co-Founder, Next Leaders' Initiative for Sustainability (NELIS)	**Harumichi Yuasa,** Professor, Institute of Information Security
Environmental action with a particular focus on climate change	**Yoshinao Kozuma,** Professor, Faculty of Economics, Sophia University	**Peter David Pedersen,** Co-Founder, Next Leaders' Initiative for Sustainability (NELIS)	

Materiality

As part of NEC's ongoing efforts since last fiscal year to reexamine materiality, a dialogue session was held in May 2018 to provide an opportunity to receive insights from experts in the fields of sustainable management, civil society, and medium- to long-term investment.

Participants from NEC included our Chief Strategy Officer (CSO), Chief Human Resources Officer (CHRO) in charge of management planning, Chief Marketing Officer (CMO), department managers in charge of management planning, marketing, communications and the environment, as well as executives and directors responsible for social and public solutions.

The experts who attended provided comments on materiality and non-financial indicators for measuring its progress from the perspectives of their respective fields of specialty.

Selecting Themes That Will Generate Value

Pedersen
Materiality is originally an approach used for determining where to focus and allocate management resources. When utilizing this approach, you must not only consider the impact it will have on your company and society but also your corporate intentions. I therefore believe NEC should select themes that will generate value. NEC should also focus on creating names for these themes that express its strong determination to be a social value innovator.

Amemiya
I strongly agree with the idea that our intentions are important. I believe this will enable us to overcome the hurdles to business expansion.

Kunikazu Amemiya,
Vice President,
Public Solutions
Business Unit, NEC

Kuroda
Of the themes identified as being fundamental to Social Value Creation, I believe "privacy protection" and dealing with "climate change" will inherently lead to the creation of social value.

Enomoto
I think you're absolutely right about these fundamental themes leading to business opportunities. Having said that, however, lofty goals like reducing the crime rate to zero cannot be achieved by NEC alone. Looking at this from a marketing perspective,

Makoto Enomoto,
Senior Vice President
and CMO, NEC

I feel the challenge will be for us to determine how to raise funds and cultivate partnerships to resolve such social challenges.
I have high expectations for the spread of social impact bonds, which represent a social investment model based on a public-private sector partnership.

Arai
While I think social impact bonds will become increasingly prevalent going forward, the current reality is that they cost more than regular bonds.
I would recommend focusing more on clearly stating that your SDGs, ESG and other sustainability efforts are intertwined with your company's governance and strategies.
The theme of climate change is attracting attention from not only investors but also various national governments. Even if you are not developing this into a business for the sake of the environment, addressing climate change can bring major business advantages to ICT companies. It is essential to demonstrate a clear sense of corporate mission in this regard, expressing your determination to tackle this domain as a priority area.

Setting Indicators That Can Be Used to Measure Changes in Initiatives

Arai
Even in the case of indicators for non-financial matters, it is best to set numerical indicators whenever possible. Since investors observe the changes in a company year by year, I would also like to see indicators that show the amount of change rather than absolute quantities.

Pedersen
I think economic indicators could also be used as indicators to show the progress of your initiatives in growth areas within the Mid-term Management Plan. For the processes of "co-creation/dialogue" and "innovation management," which will serve as engines for transformation, I believe that making really thorough efforts in capacity-building and network creation could also serve as targets. For themes NEC will engage in over the long term as part of the foundation of its management, NEC could adopt process-based targets indicating what should be done by what point in time.

Adopting SDGs as Targets for Initiatives Engaged in by Management as a Whole

Kuroda

SDGs are not merely targets for value creation—they can also serve as targets for management base initiatives. If you confine yourself exclusively to value-creation aspects and then just plaster the SDGs targets on top of this, it can result in a sense of incongruity. Transformative change and innovation are crucial for the attainment of SDGs. Rather than simply looking at 17 individual goals, I think it would be best to explain NEC's approach by utilizing the concepts of the SDGs.

Arai

SDGs are garnering attention from investors and governments as a common language for measuring ESG initiatives undertaken by companies. Some companies have narrowed down the scope of the goals on which they would like to focus. However, narrowing down the scope of SDGs to be addressed brings with it the risk that the company will also narrow the potential scope of its initiatives and business opportunities. This is why I think it's better not to focus too much on specific SDGs. If NEC wants to narrow its focus in this way, I would like to see it do so after having discussed all the objectives and targets explicitly.

Taguma

The targets of the SDGs are all closely related. NEC's Public Safety business is capable of contributing to "Sustainable cities and communities," Goal 11 of the SDGs, by reducing crime rates through the use of biometric technology—one of NEC's greatest strengths. On the other hand, if we turn our attention to Goal 1, "No poverty," eliminating crime alone will not eradicate poverty despite the fact that poverty could be described as a breeding ground for crime. If poverty originates from disparities in education levels, unique identification in these regions through the use of biometric technology will allow us to contribute to Goal 4, "Quality education," which will in turn allow us to contribute to Goal 1 as well. Social issues vary depending on the country, region and culture, and there will be case studies that have proved successful in Japan but are not accepted in other regions. I hope to

Noritaka Taguma,
Senior Vice
President, NEC

develop businesses that are tailored to different regions and cultures.

Listening to Comments from Participating Experts

When we set out to define materiality, I was determined to incorporate the philosophy of how we connect the non-financial (ESG) activities that we have cultivated since NEC's establishment in 1899 with our business and management.

Hajime Matsukura,
Executive Vice
President and Member
of the Board,
CSO (Chief Strategy
Officer) and CHRO
(Chief Human
Resources Officer)

For new definition of materiality, we decided to add themes such as the growth areas included in our Mid-term Management Plan 2020. These themes not only have the potential to positively impact our management and business but also provide social value.

To fully incorporate ESG perspectives into our management, the next step will be to set non-financial indicators and manage their progress. At the moment, however, this is still in the discussion stage. At today's dialogue session, the experts told us that economic indicators and process-based indicators can also serve as non-financial indicators. We would like to use this as a reference point when implementing the PDCA cycle for initiatives related to non-financial domains under future mid-term management plans.

I was also very inspired by the experts who said NEC needs to make more of an effort to address the SDGs. ICT has the potential to contribute to all kinds of SDGs-related goals and targets if we focus on engaging in co-creation with our stakeholders.

Even before the UN's adoption of the SDGs, NEC publicly proclaimed its intention to create social value based on seven themes in response to megatrends in society, and has been working to resolve social issues ever since. We take pride in this, and hope to contribute to the SDGs as well.

Sustainably and Socially Literate Human Resources

In April 2018, NEC invited a range of external experts who hold various perspectives on human resources development and sustainable management to take part in a dialogue session based on the theme of "Sustainably and socially literate human resources."
Members of NEC who work in the Human Resources Department which promotes the development of human resources, and members who have been studying in human resources development programs aimed at developing a higher level of social consciousness and who work in the Business Department promoting actual business attended the talks.
We received the following comments from all the participating experts.

Developing Human Resources That Can Take Action Based on Their Own Ideas

Kumahira
I think that the leadership development program is a good response to the vision of NEC's "People Philosophy." However, I did feel that the program was perhaps a little lacking with regard to the idea of independent learning. I would really like to see NEC cultivating human resources who are capable of taking responsibility for what they have done, and reflecting independently on the learning cycle (personal reflection, in other words).

Sato
The "People Philosophy" is about "thinking for yourself." I believe that the process of taking on risks by taking action based on thinking for yourself is an opportunity for learning. However, I felt that the idea of making efforts to learn independently was perhaps not yet sufficiently developed.

Hideaki Sato,
Department General Manager, Human Resources Development Division, NEC

Don't Fear Failure

Pedersen
Is there a culture where people can take up new challenges without fearing failure? Innovation does not come about through coercion. It is essential to boost the personal transformation power of each individual employee.

Amie
I think that very often, when we are getting ready to take on some new challenge, we are told to eliminate all possible risks at the outset. At NEC, a company which has supplied mission-critical solutions that support social infrastructure, I feel at times that there is a culture which does not tolerate any failure. However, I think that the corporate culture has started to change in recent times, with those in top management beginning to talk more about the dreams and milestones that they hope to achieve.

Takahiko Amie,
Senior Vice President, NEC

Kumahira
Failure comes in many different forms. They play an important role in the early stages of a project. It's important to work towards becoming "a learning organization" by creating the sort of corporate culture where people can learn from failures and share them with one another. The biggest issue is that we forget to reflect on failures made in the past. I hope to see NEC reflecting and learning like this.

Diversity is Not a Goal in Itself

Pedersen
Promoting diversity in a way that develops naturally takes time. For example, we need to tackle this in a conscious way, such as through the inclusion of women as board members.

Iketani
In my group at NEC Central Laboratory, consciously trying to push diversity is something we have never once considered. Rather, we take the approach that the human resources we require may sometimes happen to be a woman or someone with a foreign nationality. Diversity is not a goal in itself; it is merely a means to an end.

Akihiko Iketani,
Senior Manager, Value Co-Creation Center, NEC Central Research Laboratories

Kumahira
Right now, we are living in a world where everyone can reach their full potential by constantly learning about who they are and respecting each other.
We need to be aware of and mutually respect the fact that each individual is different. That is what "diversity" really means.

"Training" Does Not End with the Training Process Itself

Konishi
Based on the hypothesis that unless the top management of a company changes its mindset, the company as a whole will not change either, our program aiming at developing human resources with a higher level of social consciousness is being started from the executives and top managers downwards.

Katsumi Konishi,
Senior Expert, Human Resources Development Division, NEC

Iketani
When young people return from training programs with a new mindset, they often struggle with the gap between what they have learned in the programs and their daily work. It is essential for leaders like us to create an environment where people can develop higher level of social consciousness in real-life workplaces.

Pedersen
It is vital to build workplaces that are ready to take on the employees who come back from these training sessions.
The continued support of those who undergo such training will also be essential. Learning and innovation are connected, so it is essential to look at how people's perceptions change over time. As changing attitudes among the top management become evident, this will generate increased motivation at the shop-floor level too.

Privacy Policies and Measures Aligned with Societal Expectations

In April 2018, NEC invited a range of experts who view management from the perspectives of academia, civic society and sustainable management to take part in a dialogue session based on the theme of "Privacy-related challenges for business."

Members of NEC who are in charge of proposing overall strategies relating to data distribution, R&D, service development and sales attended the talks, and exchanged opinions with all the experts as set out below, centering on the importance of clearly specifying policies relating to privacy.

Transforming "Human Rights by Design" into a Competitive Strength

Yuasa
We see the three following trends in relation to the distribution and handling of personal data. These are: (1) Moves towards the development of cross-border distribution regulations, as seen in the case of the General Data Protection Regulation (GDPR); (2) Moves towards localizing data, as seen in China's Cybersecurity Law; (3) Increasingly close links between personal data and national security. Amid such trends, companies must be aware that there will be instances of handling of data that will not be considered acceptable by consumers, even though such handling may be lawful; this means that clearly specifying what initiatives you are adopting in management and what stance you are taking is of great importance.

Furuya
It is essential to thoroughly investigate what companies should do by taking the unease that consumers are feeling as a starting point. Companies need to incorporate processes into their management guidelines which clarify that the company in question will disclose information to consumers and ensure accountability.

Wakameda
At the Data Distribution Strategy Office which was set up in April 2017, we are now proposing and pushing forward strategies relating to data distribution, based on all-encompassing perspectives which include legal system aspects, ethics and acceptability among ordinary people. We are hoping that the "Human Rights by Design" concept, in which the approach of respecting human rights (privacy, fairness and so on) is incorporated into various processes along the value chain, can also be used as a slogan by NEC, where this idea can be developed as a competitive strength for the company.

Mitsuo Wakameda, Office Director, Data Distribution Strategy Office, NEC

Human Rights Issues Are the Flipside That Technology Brings

Tani
We are conscious of the importance of taking privacy and ethics into account from the R&D stage, and are working on research concerning social acceptability through open innovation processes with universities and external research institutes.
However, while the honing of specific technologies is of course important, the central laboratory as a whole should discuss the impact that technologies could have on privacy and consider possible countermeasures.

Mikiya Tani, General Manager, Security Research Laboratories

Yuasa
The flipside of technology is that it raises human rights issues and advanced ethical issues. It is likely that awareness of this has not yet fully penetrated to reach everyone involved right to the ends of the supply chain.

Hashitani
We have long promoted activities which think about Quality, Cost, Delivery (QCD); however, one more factor in ensuring quality is the concept that we are also required to protect privacy in the services we provide. It is likely that we will experience incidents when privacy issues develop as a result of the way the products and services we handle are made use of. I've become aware that we need to ensure that issues that could potentially develop are shared across the value chain as a whole, and that we need to create

Naoki Hashitani, Senior Vice President, NEC

guiding principles that consolidate what we need to do in order to respond to such issues, and develop a consensus with our stakeholders about such guiding principles.

Becoming a Company That Users Choose Because of the Policies It Has Set Out

Onoda
My impression is that the questions of how to ensure quality—which includes privacy aspects—and how to transform data into a source of value, have recently started to become issues of major importance in the settings where business negotiations are held. At times, I have sensed that the data services provided by overseas venders are winning more acceptance among consumers than those provided by Japanese venders.

Yuji Onoda, General Manager, Future City Development Division, NEC

Furuya
Companies from overseas are inviting consumers to choose them by clarifying their guidelines and making commitments on these issues. I believe that if Japanese companies, likewise, can disclose their own guidelines thoroughly and set out concrete examples of how these work, they will not only help consumers develop a deeper level of understanding, but ultimately ensure that they are the kind of companies that consumers will want to select.

Pedersen
The "Human Rights by Design" approach is a robust concept, and one that should be debated at the top level of management. The era which we are now approaching is the era of QDCE—"Quality, Cost, Delivery, plus Ethics, or Ecology." If we prioritize the earning of profits too much, do we risk putting the ethical perspective on the back-burner? Are we putting human aspects ahead of technology? I would like to see companies transforming "Ethics" and "Ecology" into value as they think about these questions.

Environmental Action with a Particular Focus on Climate Change

In March 2018, NEC invited a range of external experts who hold various perspectives on the environment and sustainable management to take part in a dialogue session on "Environmental action with a particular focus on climate change."
Members of NEC who are in charge of promoting environmental management and developing businesses originating in the environment attended the talks.
We heard the following comments from the participating experts.

The Kind of Environmental Management That NEC Needs to Aim Towards

Kozuma
NEC's Environmental Management Action Plan is extremely well put together. However, I wonder if it is perhaps a little lacking in executives' perspectives. Right now, looking at environmental issues at the global level, managers constitute the core group carrying out business, and they are involved with company growth not business ethics. Companies need to evaluate the risks carefully and consider growth strategies that are linked up with management.

Pedersen
I also feel that NEC's Environmental Management Action Plan is nicely put together. I hope to see NEC carrying out environmental management in a strategic manner, in terms of how to translate environmental issues into sales and into brand value, and what kinds of human resources need to be cultivated in order to make this happen.

Key Performance Indicators (KPIs) That Have Been Set with the Aim of Improving Initiatives

Kozuma
NEC has stated that it intends to reduce its CO_2 emissions to "effectively zero" by 2050, but I noticed that the scope of this target only covers Scope 1 and 2. What NEC needs to do first of all, I think, is to reduce CO_2 emissions in Category 11 of Scope 3 ("Use of sold products"), which is a major issue for NEC.
However, I think the reality is that however much progress is made with energy-saving in products, ever-higher-level functions and services are being demanded, with the ultimate result that energy consumption (and CO_2 emissions) does not go down. In the face of such a situation, I would like to see NEC discussing environmental issues from broader perspectives in the future, such as generating innovations based on the starting assumption that there are limits to how much electric power can be used.

Pedersen
I think that NEC must tackle Scope 1 and 2. However, I feel that just identifying an all-encompassing list of challenges relating to the environment is not enough. When setting KPIs, NEC needs to carefully identify and consider the things that are values from society's perspective and the things that are competitive strengths for NEC.

Kozuma
Looking to the future, it would be best for NEC to adopt KPIs that inspire a sense of purposefulness, in terms of showing that the environment is a theme that can make money for NEC.
So, regarding Eco Symbol Star Products, rather than looking at the "number of such products" that are registered, I think it would be more effective to adopt the "sales-boosting effect" of these as a KPI, and measure how much the symbol has contributed to sales.

Initiatives That Translate into Creating New Businesses

Kozuma
The things that we consider to be social values right now will constitute economic values five years from now. This means that when NEC is setting out its management plans, it needs to think about these social values. However, during actual business negotiations themselves, customers tend to be more concerned about streamlining working processes and expanding sales than they are about social values. It is difficult for social values alone to translate into sales in the short run.

Concluding the Dialog with the Experts

Horinouchi
I have become aware of the need to bring about a change in mindset— ensuring that the mindset that says "Environmental issues are economic issues" becomes embedded as a way of thinking right throughout the entire company.
Furthermore, the experts today have pointed out that when carrying out environmental management, it is crucial to maintain a balance, taking both long- and short-term perspectives into account. In particular, I have got the impression that, when looking from short-term perspectives, it is essential to analyze challenges in current management.

Tsuyoshi Horinouchi, then-Deputy Department Manager, Environment and Total Quality Management Division/Department Manager, Environmental Management Promotion Department, NEC

Dialogue and Co-creation with Our Stakeholders

Values are constantly changing for our customers and society. To supply products and services that deliver real value, NEC must incorporate processes for dialogue and co-creation with stakeholders into its corporate activities.

Through dialogue with stakeholders, we will develop insights into the issues customers and society face and their opinions regarding NEC's activities, while developing partners with whom to engage in the co-creation. By connecting these activities to value we aim to realize NEC's goal of "Orchestrating a brighter world."

The Sustainability Report 2018 introduces the following examples of dialogue and co-creation with stakeholders.

- Dialogue Sessions on Materiality with Experts (Described in the previous chapter)
- Dialogue with our Diverse Stakeholders – Case Examples
  - Dialogue with the United Nations and International Organizations
  - Dialogue with the Local Communities, NPOs and NGOs
  - Dialogue with Employees
- CS (Customer Satisfaction) Initiative
- Cooperation with the Local Communities

Dialogue with Our Diverse Stakeholders – Case Examples

Dialogue Case Examples in Fiscal 2018

In fiscal 2018, we had a variety of dialogues on materiality with experts and various stakeholders.

As NEC believes that these types of dialogues are part of a process that should always be incorporated into NEC's business activities, this report introduces some case examples.

- Dialogue with the United Nations and international organizations
  - World Economic Forum Annual Meeting in Davos
  - United Nations High-Level Political Forum / Reception hosted by the Japanese government

- Dialogue with the local communities, NPOs and NGOs
  - Pro bono regional revitalization initiative
  - Conserving "*copera tokyoensis*," an endangered species

- Dialogue with employees
  - Seminar to find social issues – "Leveraging ICT, Business and Management Learned from the Treatment of Intractable Diseases"
  - Secure quality and safety – "Dialogue about Quality"

- Click here for dialogue details and with shareholders and investors

- Click here for dialogue details and with customers

- Click here for dialogue details and with business partners

Dialogue with the United Nations and International Organizations: World Economic Forum in Davos / UN High-Level Political Forum

World Economic Forum Annual Meeting in Davos

Nobuhiro Endo, Chairman of the Board, and Takayuki Morita, Senior Executive Vice President, attended the World Economic Forum Annual Meeting in Davos held January 23 through 26, 2018.
We introduced its security solutions including a demonstration of facial recognition at a various meetings, individual interviews and receptions during the period. We introduced NEC's solutions and how it would contribute to SDGs and international security measures including demonstration and vigorous discussions were held with government officials, international organization officers, global business representatives, etc.

Nobuhiro Endo
Representative Director and Chairman of the Board, NEC

After the main meeting, NEC actively participated in the follow-up meetings held in various areas and established a global human networks. By leveraging this network, NEC will continue to have further dialogues with various stakeholders.
The establishment of the "World Economic Forum Centre for the Fourth Industrial Revolution Japan[*1]" was announced during this meeting. With those institutions and corporations that were actively involved and participated in this Centre, we will continue discussions on the advantages and disadvantages of demonstrating and implementing new services using leading-edge technologies such as AI and blockchain.

[*1] As one of hubs of the World Economic Forum Centre for the Fourth Industrial Revolution, Japanese leaders – METI, corporations and experts – established it in Tokyo, Japan. It will actively cooperate with the World Economic Forum Centre for the Fourth Industrial Revolution in San Francisco and other sister hubs that will be established in various cities globally.

UN High-Level Political Forum Reception Hosted by the Japanese Government

On July 18, 2017, the "United Nations High-Level Political Forum on Sustainable Development (HLPF)" was held in New York. Government officials, corporations and civic groups participated and discussed the Sustainable Development Goals (SDGs) initiative and the progress status.

On the evening of July 17 before the forum was held, the Japanese Foreign Minister hosted a reception under the theme "A Japan Night for a Sustainable Future." At the reception, we exhibited its leading-edge facial recognition technology. Former Foreign Minister Fumio Kishida introduced Japan's joint efforts with the public and private sectors to contribute to SDGs and Japanese entertainer Picotaro, Goodwill Ambassador representing the Japanese Foreign Ministry for SDGs, gave a performance.
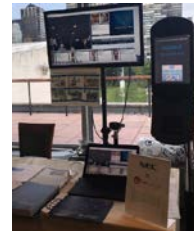
Demonstration of facial recognition technology

At the venue, more than 10 Japanese corporations and organizations including NEC set up booths and introduced what they were doing to achieve SDGs to about 300 people such as United Nations officials, global corporations, governments and civic groups who visited the booths and exchanged opinions.
NEC demonstrated a system that leverages leading-edge facial recognition technology. The system shows how a person can be authenticated quickly and accurately by demonstrating facial recognition in real time based on preregistered face data and displaying the person's name on a screen.
As another application example, NEC introduced a catering management system in Chile. This system is a biometric system that implemented in Chile's public schools to verify and ensure that each student receives proper meals. This system will contribute as a countermeasures against obesity, which is a big social issue in Chile. NEC also demonstrated how biometric authentication is playing an important role in creating a country/city environment where people can safely enjoy public spaces.
NEC exchanged ideas about those areas in which the company can coordinate efforts to achieve SDGs with people from various sectors such as Japanese Permanent Representative to the United Nations Koro Bessho who visited our booth, international organizations and government officials.

Dialogue with the Local Communities, NPOs and NGOs: Pro Bono Regional Revitalization Initiative

As part of the employee framework concerning volunteer activities, NEC promotes pro bono activities in which employee use their professional skills to help solve social issues.
By leveraging employee skills, the "NEC Pro Bono Initiative," launched in 2010, supports a multitude of NPOs and social entrepreneurs who are working on social issues.

Overview

I Local, Inc., (Sanriku Sekken Koubo KURIYA), one of the organizations the NEC Pro Bono Initiative supported in fiscal 2018, manufactures and sells handmade soap using local natural materials. The company's workshop/store is located in Onagawa Town of Miyagi Prefecture, within the disaster area of the Great East Japan Earthquake. Mayor Yoshiaki Suda and the whole town are working to create a sustainable local community.

Young people in their 30s and 40s in Onagawa have been playing a central role to actively revitalize the town soon after the disaster by coordinating efforts with the private sector and government.
Inspired by this initiative to revitalize the town, I Local opened a shop in a tenant-type commercial facility in Onagawa. NEC's employees helped I Local expand by analyzing the business process and supporting the implementation of a business system.

The "NEC C&C User Forum & iEXPO" was held in November 2017, where a talk session with "Municipalities x Social Entrepreneurs/NPOs and Corporations" was held to discuss the possibility of co-creation for regional revitalization after the Tohoku reconstruction, and Onagawa Mayor Suda took the rostrum.

Comments by Yoshiaki Suda, Onagawa Mayor

Mayor Suda had the following to say about NEC's pro bono work:

"Onagawa Town raised a slogan to be a 'town born again with the largest number of "new starts" in the world.' This slogan has inspired us to move forward with reconstruction and to look forward to the future of Onagawa. Under this slogan, a diverse group of people from within and outside of Onagawa gathered and interacted, resulting in a 'chemical reaction' that produced many new ideas and actions.
NEC's pro bono work is part of this effort. There is a new possibility for linking young people who start businesses in Onagawa with NEC technology."

▶ NEC Pro Bono Initiative

Meeting in Onagawa town

Dialogue with the Local Communities, NPOs and NGOs: Conserving "*copera tokyoensis,*" an Endangered Species

On February 23, 2018, stakeholder communications was held under the theme "Conserving *copera tokyoensis* dragonfly, an endangered species." Seventeen members from the Teganuma Aquatic Organism Research Association (a civil group), the city of Abiko (public administration), the Chiba Biogeocoenosis Research Center (expert), the Chiba Biodiversity Center (expert) and NEC (corporate) gathered for this meeting. This was the fourth dialogue meeting. The first was held in March 2015.

On the grounds of NEC Abiko Plant, there is a spring-fed pond called "Yotsu Ike," which is believed to come from the Tone River. The endangered *copera tokyoensis* dragonfly has been spotted near the pond. The *copera tokyoensis* dragonfly has a ruler-like design on its abdomen. It was designated an endangered species I on the Ministry of the Environment's Red List in April 2000.

In cooperation with the Teganuma Aquatic Organism Research Association, NEC has established artificial dragonfly ponds (biotopes) and is working to eliminate non-native fish as part of efforts to protect the species.

Overview

The Teganuma Aquatic Organism Research Association presented a report on the status of their conservation work in fiscal 2018. The report indicated that by further exterminating largemouth bass (*micropterus salmoides,* a foreign species), red swamp crayfish (*procambarus clarkii,* another foreign species) increased exponentially. This resulted in a broken food chain balance, negatively impacting the dragonfly population and resulting in a decrease in the population of the *copera tokyoensis* dragonfly.

Responding to the report, members discussed how to decrease red swamp crayfish, a problem throughout Japan, and improve the natural environment inhabited by the *copera tokyoensis* dragonfly.

Meeting participants made valuable comments: "This kind of dialogue is very constructive in helping to make our conservation efforts more effective. I hope these meetings will be held regularly in the future"; "Since the natural environment surrounding the plant is precious and visitors are infrequent, it is very important that the environment will be carefully maintained."

Continuing from last year in collaboration with Abiko citizens, NEC provided an opportunity for 13 people from the city to participate in observing *copera tokyoensis* dragonfly on July 8, 2017.

Meeting at Abiko plant

The Future

Based on these suggestions and the comments made by experts, our plan is to upgrade the natural environment at the NEC Abiko plant to continuously conserve *copera tokyoensis* dragonfly including implementing a measure to decrease red swamp crayfish.

NEC will promote these activities in the future to contribute to environmental conservation through such efforts as those at the Abiko plant.

▶ NEC Abiko plant has been selected as one of the "100 locations in the Kanto Water and Green Network" (Japanese press release)

▶ Biodiversity conservation effort at NEC Abiko plant (Video: 7:55, YouTube)

▶ Environment and Biodiversity

NEC Sustainability Report 2018

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07-13   Priority Management Themes from an ESG Perspective – Materiality
20   Dialogue and Co-creation with Our Stakeholders
26-29   CS (Customer Satisfaction) Initiative
35-44   Innovation Management   45-47   External Ratings and Evaluation

Dialogue with Employees: Seminar to Find Social Issues – "Leveraging ICT, Business and Management Learned from the Treatment of Intractable Diseases"

So that NEC can promote social solution business on the world stage, it is important for each employee to understand social issues. In February 2018, NEC held a seminar – "Leveraging ICT and Business Management Learned from the Treatment of Intractable Diseases" – on discovery of social issues for employees to think about those issues surrounding intractable diseases and how to leverage ICT.

Overview

Hajime Takano, a former NEC employee and now the president of Emergence Planning, Co., Ltd., gave a lecture on long-term social changes which he, as an ALS patient, felt through the treatment of the disease, the social issues surrounding intractable diseases and how to manage and deal with them. The lecture gave employees an opportunity to learn about the progress and problems of medical care and treatment and to understand that people with disabilities need not only support for survival but also support for self-actualization.

Here are samples of comments from about 60 people attending the lecture:

- Mr. Takano talked about himself facing a difficult situation, battling the disease with many supporters and other patients, and as an ALS patient, knowing a lot about ICT, actively participating in advanced research leveraging ICT and creating a network. I learned about an innovative mind that creates new value.
- Mr. Takano talked about his very real experience with ALS. From his talk, I was able to think again about many issues – the significant burden on his family and how ALS patients deal and communicate with society.
- Looking at Japan's national budget structure and population decline trend, it may be that fewer people will want to become helpers. The issue may be solved by using ICT to subdivide the work of the helpers.

▶ NEC IT Communication Support Course for People with Severe Disabilities

Mr. Takano (left) and participants

CS (Customer Satisfaction) Initiative

Policy

Since its founding in 1899, NEC has continued to develop a corporate culture based on "Better Products, Better Services." This means creating products and services that are more valuable to its customers. It also means that every one of us at NEC understands, considers and quickly responds to what our customers expect in order to make NEC a company that is trusted and chosen by customers.

The word "Better," not "Best," in our statement of "Better Products, Better Services" embodies our desire to "continuously make improvements to achieve our very best in providing better products for customers."

"Customer Satisfaction" appears in the first paragraph of the NEC Group Charter of Corporate Behavior. We believe that improving CS (Customer Satisfaction) is critical to establishing a strong trust relationship with our customers.

Based on this way of thinking, NEC formulated its "Customer Satisfaction Management (CSM) concept" in 1992. The CSM concept consists of "Significance," which refers to the ideal state of NEC's CS management; "Activity System," which specifies how to address CS management; "Goal," the achievement of CS No. 1 in the industry; and "CS Action Plan," which outlines the direction of our activities in concrete terms.

[CS Action Plan]
Everyone at NEC will continuously strive to:
• Have the common goal of providing customer satisfaction.
• Enhance perceptions to precisely gauge customer needs and wants and provide new value for customers and visions of the future.
• Give top priority to customer convenience and ease-of-use and provide products and services that customers can use with confidence and peace-of-mind.
• Refine sensitivity to customers' needs and wishes and provide them with new value and future prospects.
• Consider the customers of our customers, the society and environment of the customers, and solutions to issues.

▶ CSM Concept

Activity Objectives, Achievements and Progress

Objectives for the Mid-term (from fiscal 2019 to 2021)

Continue to be a company that is trusted and chosen by customers

Objectives, Achievements and Progress, and Degree of Completion

(Degree of completion: ◎Achieved, ○Mostly Achieved, △Some Progress, ✕No Progress)

Objectives for the Mid-term	FY2018 Objectives	FY2018 Achievements and Progress	Degree of Completion	FY2019 Objectives
Continue to be a company that is trusted and chosen by customers	1. Perform improvement activities continuously based on customers' opinions that are not implemented a company-wide uniform initiative, but matching to the characteristics of each business area.	• Each business unit identified the focus area, set the CS activity plan, and executed the strengthening/improvement activities. • Reviews by media - NEC was ranked No.1 in the Storage category in 2017-2018 Nikkei Computer Customer Satisfaction Surveys - NEC was ranked No.1 in 7 categories in 2018 Nikkei Computer Partner Satisfaction Surveys (Corporate Desktop PC category / Corporate Laptop PC category / Enterprise Server category / Storage category / Network Device category / Virtualization Software category / ERP Package category)	○	1. Perform improvement activities and create new value continuously based on customer's opinions that are not implemented a company-wide uniform initiative, but matching to the characteristics of each business area.
	2. Strive to foster a CS mind continuously and share information on good examples of CS activities among NEC Group employees in Japan and overseas for the customer-oriented corporate culture to be radicated.	• Top management continuously sent messages to employees about the importance of CS. • Sharing CS training and good examples within and outside the company and fostering a CS mind in employees. • Awarded internally the excellent activities that exemplify "Better Products, Better Services" and shared those activities.	◎	2. Strive to foster a CS mind continuously and share information on good examples of CS activities among NEC Group employees in Japan and overseas for the customer-oriented corporate culture to be radicated.

Promotion Framework

CS Improvement activities at NEC are carried out mainly by CS promoters selected from NEC's business units and Group companies according to each of its business characteristics. The basic responsibility of a CS promoter is to continuously promote improvement by closely examining the activities in the company from the customer's point of view and striving for higher value business activities. The status of CS Improvement activities progress is reviewed at a meeting attended by the president and top-level management, pushing through the PDCA Cycle to apply the review results to the next year's activities.

▶ Entire Workforce in Pursuit of Higher Quality

NEC is collecting customers' opinions, requests and complaints through various channels with customers and is applying this information to improve products and services and create new value.

▶ Contact Form

Main Activities and Results for Fiscal 2018

Aiming to Be a Company "Chosen" by Customers

The value that customers and society seek and expect from NEC is constantly changing. So that there can be a continued response to the customer expectations, NEC thinks it is critical to build a trust relationship by understanding the essential issues faced by customers and society. NEC is working on CS activities with the aim of receiving trust and positive feedback from its customers – "We want NEC to work with us again next time."

NEC has defined its CS activities as a part of its business to offer value to its customers. To this end, instead of implementing a company-wide uniform initiative, NEC is promoting various and unique initiatives that match the characteristics of each business area.

CS Activities in Business Unit

In fiscal 2018, each business unit identified a focus area and issues to be improved according to its business area and worked on CS improvement. At that time, we tried to determine at which point customers were dissatisfied and implemented countermeasures after forming a hypothesis. We pushed through the PDCA Cycle to validate the effectiveness of the countermeasures and the activity results by obtaining customer opinions or by conducting a CS survey.

Each business unit is applying these opinions and CS survey results, obtained through everyday activities, to the investigation to determine the causes of those problems and work on strengthening or improving the products and services. At the same time, it identifies potential customer needs and expectations to solve those problems.

Customer-Oriented Corporate Culture

"People" are the basis of developing and supplying products and services that deliver high customer satisfaction. Each and every member of NEC should have an awareness of making a contribution to the customer and society; it is very important to codify in the corporate culture the concept that each member should consistently pursue the ideal of "Better" to achieve higher customer satisfaction.

NEC is promoting the codification of the customer-oriented corporate culture through CS education programs, promoting improvement activities in each work place, and giving award for excellent initiatives.

Recognition then Action to Foster a CS Mindset

NEC is fostering a CS mindset in its employees to train them to take notice of issues and make improvements spontaneously.

NEC offers stratified training of CS so that employees have the opportunity to think about the importance of CS in terms of milestones at the company.

- Company-wide training seminars to foster a customer-oriented mindset titled Customer-oriented Business Defined the CS basics and fostered the CS mindset for new employees, new chiefs and mid-career employees of NEC Corporation, or transferred employees to NEC Corporation

- New manager training program of CS management All new managers of NEC Corporation learned the basic concept of CS management

Other than these stratified trainings, a series of educational programs are being launched to link CS from recognition to action in everyday activities. This provides an opportunity for NEC employees to master the approach method to apply the customer-oriented point of view to specific action or to learn key points to create customer value and improve CS with case examples.

▶ Details on CS Education

Promoting Improvement Initiatives at the Front Line

NEC is actively promoting CS improvement activities at the front line. NEC considers that we can offer higher customer value when the employees themselves at the front line have an awareness of problems and a willingness to make improvements and raise their work capabilities while continuing the CS improvement initiative through a feeling of satisfaction and accomplishment.

NEC continues to implement ways to recognize excellent initiatives that promote "Better Products, Better Services" – the NEC Group value. By spotlighting steady efforts for CS improvement, employees are being inspired to act more.

Cooperation with the Local Communities

Policy

The NEC Group Corporate Philosophy was established in 1990 in the belief that "NEC strives through C&C[1] to help advance societies worldwide toward deepened mutual understanding and the fulfillment of human potential." This philosophy lays down NEC's intention to contribute to society through C&C, in other words, through ICT – NEC's core line of business.

With each employee acting as a good corporate citizen, NEC promotes social contributions "NEC Make-a-Difference Drive" to help solve mid- to long-term social issues. These have been conducted under four universal themes: "Education, Culture and Sports," "Welfare and Diversity," "Environment," and "Regional Contribution Activities" and with the cooperation of local communities, NPOs and NGOs, local governments, universities, etc. As a company that earn the confidence and trust of everyone, NEC is doing this because it wants to support such everyone in local communities that are major actors in solving social issues.

Moreover, believing that our social contribution activities through the NEC Make-a-Difference Drive are foundational in developing sustainably and socially literate human resources – a quality that is required of a member of a company that calls itself a Social Value Innovator – we encourage as many employees as possible to participate in the program. Through these social contribution activities, we aim to nurture the mindset for volunteerism and co-creation, and develop human resources that are sensitive to the fundamental issues faced by customers and society and are able to take the initiative towards solving social issues.

[1] C&C: Concept for the integration of computers and communications

Cooperation Policy

Cooperation with the communities is essential both in social contributions through NEC's core business, as well as in social contribution activities aimed at providing mid- to long-term solutions to social issues through volunteer activities by officers and members of NEC. This section introduces NEC's policies for cooperation particularly for mid- to long-term social contribution activities.

To effectively carry out socially relevant and sustainable programs, NEC has established basic policies in the creation of social contribution programs and the guidelines listed at the right in collaborating with NPOs. In addition, we conduct yearly evaluation and refinement of the programs based on social circumstances, independence level of partners, and the directions of NEC's business strategies.

Basic Policy of Social Contribution Program Creation

1. Effective utilization of management resources

   • Management resources: funds, products, human resources, facilities, information, and knowledge, etc.
   • Relationship with businesses

2. Partnerships with NPOs and NGOs

   • Promoting solutions of social issues based on win-win relationships
   • Supporting the creation of social businesses
   • Strengthening NPO foundation

3. Participation of officers and employees, cooperation with domestic and overseas affiliate companies

   • Promotion of volunteer activities by officers and employees
   • Promotion of initiatives for cooperation with NEC domestic and overseas affiliate companies

4. Contributing to improving our corporate value

   • Visible activities of NEC's presence
   • Cutting-edge volunteer programs
   • Promoting information delivery

Guidelines for Coordination with NPOs

1. Certified by NPO law (in principle)

2. Activity record

   • Must have advanced and unique activities, and prior history.
   • Must have specialized know-how, the ability to complete projects and the ability to output information

3. Financial details

   • Making efforts to disclose the status of financial management, revenue and source of funds.
   • Have diverse financial resources.

4. Organizational foundation

   • Clear mission, vision, goals and personnel makeup.
   • Clear division of labor between management, specialized staff, paid staff, volunteers, etc.

5. Leadership and management

   • Clear leadership, enthusiasm, and high quality of responsible personnel.
   • Considers governability, transparency, and accountability.

Activity Objectives, Achievements and Progress

Objectives for the Mid-term (from fiscal 2019 to 2021)

Establish social contribution activities generating a synergistic effect including brand improvements and developing human resources with business activities.
1. Develop sustainably and socially literate human resources and contribute to business creation that is social-issue-driven.
2. Establish an activity process and the "visualization" of the results.
3. Create the promotion platform.
4. Optimize the activities from the point of view of the total NEC Group.

Objectives, Achievements and Progress, and Degree of Completion

(Degree of completion: ◎Achieved, ○Mostly Achieved, △Some Progress, ✕No Progress)

Objectives for the Mid-term	FY2018 Objectives	FY2018 Achievements and Progress	Degree of Completion	FY2019 Objectives
1. Embed the social contribution activity within the business strategy	• Promote partnering (comprehensive partnership agreement) with local governments (Minato Ward, Tokyo, etc.).	• Concluded a comprehensive partnership agreement with Wakayama Prefecture, Kamakura City (Kanagawa Prefecture), Kumejima Town (Okinawa Prefecture), etc.	◎	• Promote private-public partnerships where business and co-creation/social contribution activity are integrated.
2. Create opportunities for new business creation from social contribution activities	• Hold workshops with social entrepreneurs and create regional revitalization (CSV) models in collaboration with the Community-Reactivating Cooperator Squad, Ministry of Internal Affairs and Communications.	• Created a case study for possibility of creating a new business by cooperating with social entrepreneurs such as Monitoring elders, Remote medicine, etc. • Held a workshop to create new business with graduates of "NEC Social Entrepreneurship School" and employees.	◎	• Enhance to create a new business from the social-issue-driven by encouraging employees to participate in "NEC Social Entrepreneurship School," "NEC Pro Bono Initiative," etc., and accelerating creation of a contact point between social entrepreneurs and employees.
3. Review the social contribution activities from strategic viewpoint	• Select and concentrate from the standpoint of creating core company-wide functions and Group-wide organization. • Expand scale of activities and enhance dissemination of information.	• Reviewed revision of the social contribution program from Group-wide optimal point of view to enhance activities. • Promoted Select and concentrate of social contribution program from strategic viewpoint.	○	• Implement a new promotion framework for social contribution program. • Energize co-creation/social contribution activities by leveraging new company-wide infrastructure system.

Promotion Framework

NEC's social contribution activities consist of three promotion frameworks; namely: social contribution programs planned and executed under the initiative of the Corporate & Social Engagement Promotion Office of the NEC Corporate Communications Division and the Social Contribution Promotion Departments of NEC Group Companies, activities for contributing to local communities planned and participated by NEC Group employees around the world acting as promoters, and various grants by foundations.

Social Contribution Program Assessment System

We assess all social contribution programs each year based on the social contribution program assessment system.

Goals	1. Improving business: Promotion of activities according to the basic policy. 2. Realization of highly objective and transparent assessment and management.
Methods	Assessment axis = Social value + Value for NEC
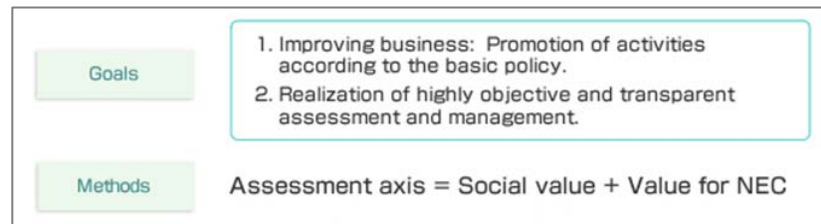
Social Contribution Program Assessment System
* Both "Social value" and "Value for NEC" are quantified and assessed for each item.

Assessment Criteria: Social Value

Public Interest	1. Tracking the needs in the community and society 2. Not limited to a few beneficiaries or participants, but contributes to a wide range of people 3. Working together with NPOs, public administrations and universities 4. Obtaining opinions (feedback) from program partners
Effectiveness	1. Specific goals are made for social issues and results are being achieved. • Output (Result) • Outcome (Effect) 2. Impact (Spread)The approaches are being developed effectively. • Contains ideas and mechanisms to spread its effect • Contains global elements

Assessment Criteria: Value for NEC

Strategy	1. Continuously improving programs based on PDCA management 2. Utilizing resources (funds, products, human resources, facilities, information, and knowledge) 3. Collaborating with NPOs • A win-win relationship is established. • Supporting a stronger NPO foundation Promoting communications with NPOs
Effectiveness	1. Contributing to businesses (business creation and sales contribution) 2. Contributing to nurturing employee human resources 3. Contributing to improving corporate reputation and building trust from the community and society • Program participants are greatly satisfied. • The amount of advertisement cost conversion for PR results exceeds investment cost. • Programs are introduced in seminars, forums, symposiums, popular SNS, etc. as case studies. • Awards given by external organizations or programs are evaluated by SRI, etc.

Social Contribution Expenses

In fiscal 2018, the total social contribution expenses for the NEC Group were approximately 520 million yen. We were involved in various regions around the world following three main themes in five areas, including "Academia, Research and Education" and "Arts, Culture and Sports." Social contribution expenses included the following:
1) Financial assistance
2) Charitable donations of products quoted on a unit price basis
3) Public use of NEC facilities (converted into monetary amounts based on the unit price of using equivalent external facilities to quantify the cost of using NEC facilities for socially beneficial purposes)

Expense Changes

FY2016	FY2017	FY2018
430 million yen	6.7 million yen	5.2 million yen

Fiscal 2018 Expenses Breakdown

Others 13.8%
Social Welfare 3.3%
Disaster-hit Region Support (Including East Japan Recovery Support) 0.9%
Environment 4.3%
Arts, Culture and Sports 14.8%
Academia, Research and Education 62.8%

* Areas of social contribution expense: Data was extracted from the Survey on Social Contribution Activities (Japan Economic Federation).

Social Contribution Expenses
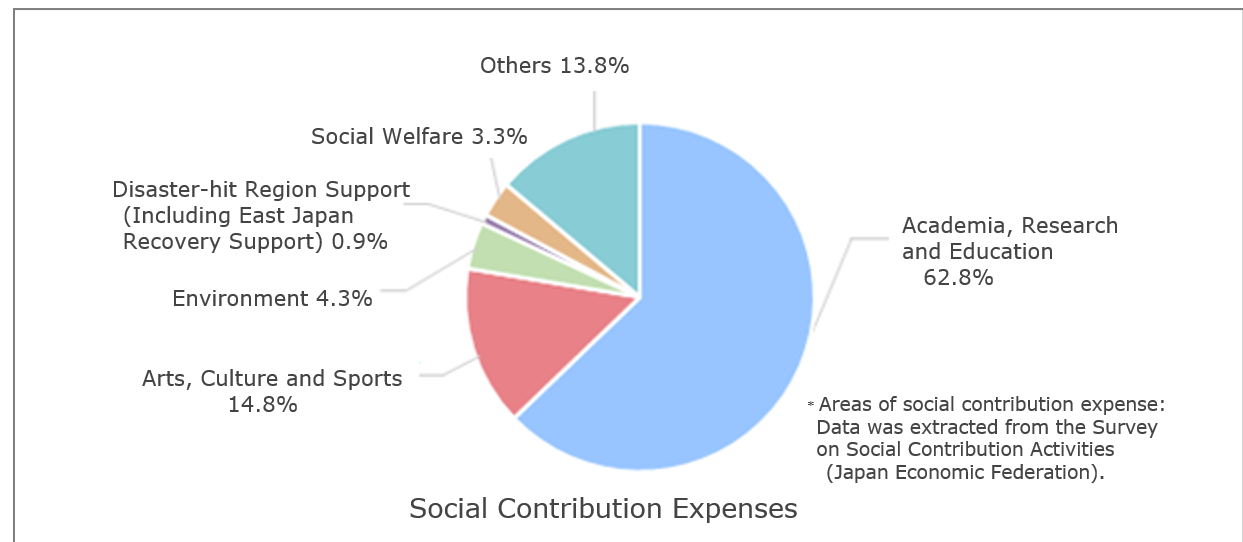
Fiscal 2018 Activities

For details of the activities, refer to the following pages:

▶ Activities for Contributing to Society

▶ Dialogue with Our Diverse Stakeholders – Case Examples

Innovation Management

Policy

NEC believes that innovation is the key to continuing to provide social value. Under the direction of its Chief Technology Officer (CTO), we have formulated a technology strategy to ensure future growth.

The pillars of this strategy rest on an aggressive use of open innovation and a concentrated investment in the areas of data science that uses NEC's strengths in artificial intelligence (AI), and ICT platforms that are necessary in dealing with large-scale, complex real-world issues. In fiscal 2018, NEC conceptualized the "Bio-IDiom," a brand to integrate its biometric authentication products as part of concentrated investments in data science. The company also enhanced "NEC the WISE," NEC's first technology brand launched in fiscal 2017.
NEC is also creating innovation valuable to both customers and society by leveraging "social value design®," an approach for creating value from a societal perspective, in pursuing co-creation with customers.

What follows is an introduction to NEC's concepts and approaches that are designed to maximize its corporate value through managing innovation in technology development, research and development, and co-creation.

Strategy

The following are the strategies for NEC's initiatives in technology development, intellectual properties, and design.

Technology Development Strategy

At NEC Corporation, the CTO is responsible for overall technology development, company-wide optimization of development investment, optimizing development investment company-wide, and drawing up an open innovation strategy and the formulation of open innovation strategies and process design.

R&D is a source of technological development. NEC's basic approach to R&D is to deliver value to society as quickly as possible by identifying the best solutions we should create for the social issues presented in NEC's "Seven Themes for Social Value Creation," SDGs and other guidelines, then efficiently and rapidly aligning the necessary technology assets to realize them. These technology assets include NEC's No.1/Only 1 core technologies that have been refined to a high level based on technology trends, as well as technologies produced through open innovation.

We have set our investment in R&D at around 4% of revenues. To ensure that these investments are used effectively and efficiently, we are investing also in collaborations with external research organizations, in addition to concentrated investments in the key business areas. In fiscal 2018, our R&D expenses was 108.1 billions of yen, which was 3.8% of revenues. Although the ratio against revenue has decreased due to increase in sales, we have set aside the same amount of R&D expenses as with last fiscal year.
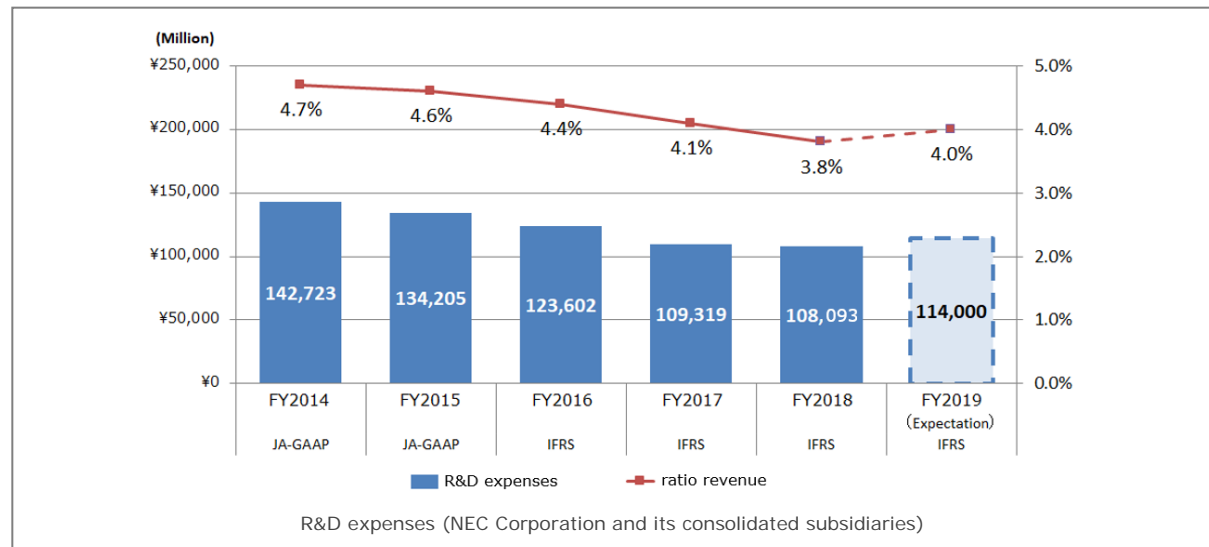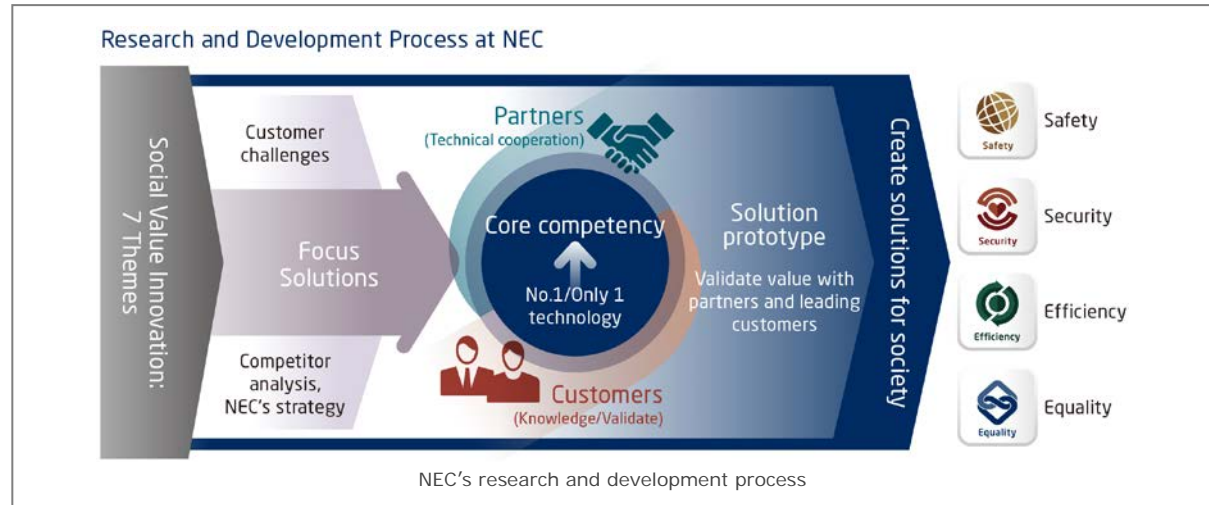
NEC's research and development process

R&D expenses (NEC Corporation and its consolidated subsidiaries)

Concentrated Investment in Strong Technology Areas

We are concentrating investment in two areas of technology: (1) data science that is artificial intelligence (AI) technologies to create new value from big data, and (2) ICT platforms that are needed to address large-scale and complex real-world issues. NEC Corporation has many unique and competitive technology assets in these two areas, and we believe that continuously building strength in these areas will improve our competitive edge in delivering solutions for society.

In the areas of data science, we are developing AI technologies that contribute to the creation of new values by carrying out "visualization" "analysis" and "control/guidance" for the real world. In the areas of ICT platforms, we are developing computing and network technologies that can adapt dynamically and in real-time to changes in the real world, and security technologies that allow social systems to operate securely and stably.

As part of the concentrated investment in strong technology areas, we launched "NEC the WISE" in fiscal 2017 as a leading edge AI technology brand. For fiscal 2018, we continued our selection of technologies to be included in the brand, and clearly systematized the issues targeted by the technologies. "The WISE" refers to "wise people." Social issues have become quite complex and they are in so many areas. It is not practical to address all these issues through one universal AI technology. "NEC the WISE" expresses our determination to address the foremost and complex social issues by combining the many AI technologies of which NEC is proud.
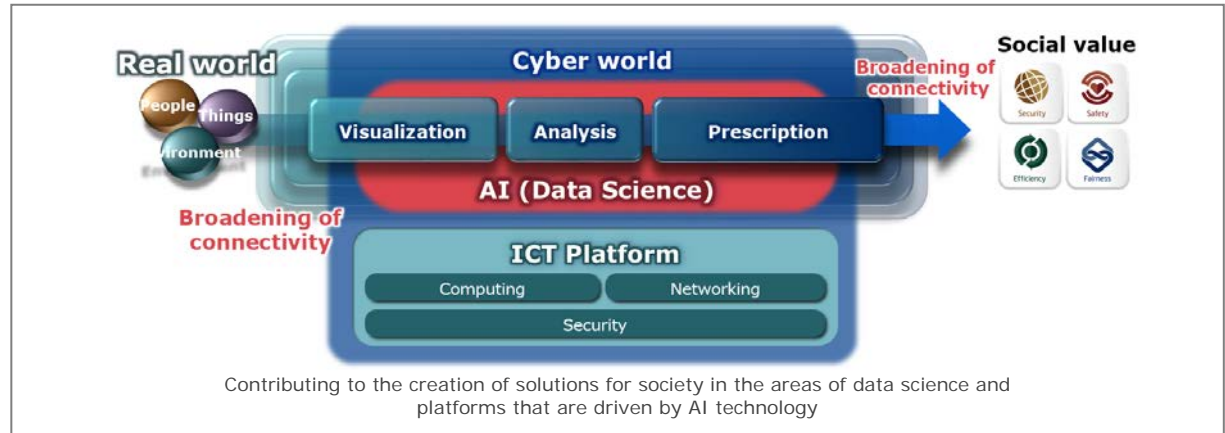
Contributing to the creation of solutions for society in the areas of data science and platforms that are driven by AI technology

*1: Ranked 1st four consecutive times in task assessment sponsored by NIST
*2: Ranked 1st eight times in task assessment sponsored by NIST
*3: Ranked 1st in task assessment sponsored by NIST (2018)   *4: Ranked 1st in task assessment sponsored by NIST (2012)
*5: Ranked 1st in task assessment sponsored by IEEE AASP Challenge DCASE2016

NEC's No. 1/Only 1 core technologies for social value creation

In April 2018, we launched the "Bio-IDiom," as a comprehensive brand for our biometric authentication products covering six biometric authentication technologies for face, iris, fingerprint and palmprint, finger vein, voice, and ear acoustic. One of NEC's strengths is in multimodal authentication, which combines multiple biometric authentication technologies to achieve higher accuracy. Also, we take pride in our ability to provide completely new social values and user experiences by combining another strength of NEC, for example, our video analytic technologies such as "crowd behavior analysis" and "remote gaze detection," with these biometric authentication technologies.

Our biometric authentication technologies, which are a product of more than 40 years of research and development, are world-class technologies that we will continue to leverage and concentrate our investments in to further contribute to society.
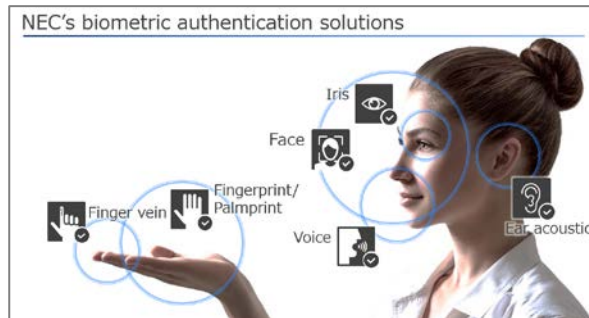
© NEC Corporation 2018

Promoting Open Innovation

We will also continue our open innovation initiatives in cooperation with other research organizations to develop technologies needed for value amplification. Approaches to open innovation include collaborations, acquisitions, spin-offs, the use of open source solutions, licensing, and investments to start-ups or venture capitals.

NEC Corporation and wide-ranging tie-ups with other entities include national cooperation projects and collaborations with municipal governments. In the use of open-source solutions, we make use of already standardized tools and are actively involved in standardization activities mainly through academic conferences. Also, we conduct licensing aimed at wider use of tools and software.

NEC Corporation promotes the creation of solutions through the proper combination of these open innovation approaches, in addition to refining our own core technologies.

Intellectual Property Strategy

At NEC Corporation, because intellectual property is regarded as an essential business resource supporting our group's competitiveness and stability, as well as for contributing to co-creation with our customers, we strive to strengthen and protect not only our patents and know-how but also the designs and trademarks that support our global brand.

To create and develop social value, we are not only building IP-based barriers to entry and securing competitive advantage, but also building and using our IP portfolio to strengthen and protect collaborations with customers and partners.

We have applied trademarks globally for "Bio-IDiom," the newly launched brand for our biometric authentication technologies.

NEC owns some 51,000 patents worldwide including approximately 22,000 Japanese patents as of March 2018.

"Social Value Design®" Strategy

To create new social value, we need to illustrate what society should be in the future, for example, by creating a city vision from the corporate, government, and community points of view. To address these needs, it is imperative to find ways to increase the value of systems and services from a societal perspective in addition to individual points of view. NEC has embedded this way of thinking based on "Social Value Design" into the planning and development of new products and services and is thereby creating innovation.

Social Value Design is NEC's design policy aimed at providing "innovation" to customer's business and to the future society by creating value from two points of view, namely, "user experience," which is aimed at improving the value of human experience, and "social experience," which is aimed at achieving the vision for what society should become.

For example, for solutions that solve a variety of problems at airports, we strive to create social value for airports by employing Social Value Design from a higher perspective than "what the airport should be originally." We have so far designed a flight information system that allows airport users to obtain accurate and easy-to-understand information and display installations and guidance signs that take into consideration user movements and thus allow users to easily reach their destinations.

Promotion Framework

NEC has created a Chief Technology Officer (CTO) position to establish a company-wide perspective in our effort to optimize development investment company-wide, and link our corporate strategy with the planning of collaboration strategies with others. The CTO also organizes our technology roadmaps and portfolios towards focused investment in our technological strengths, and promotes the timely introduction of technology through open innovation.

Technology Strategy Committee / CTO Council

In the business of creating new value and the innovation of technology, the President, Chief Officers, and Executive Officers supervising the Business Units share the corporate culture that NEC needs to nurture via open discussions in regular information-sharing meeting and at events such as executive retreats. At the Technology Strategy Committee chaired by the CTO, decisions are made regarding the planning and execution of technology strategies that contribute to NEC Corporation's management strategy and business strategy.

As a subordinate organization, the CTO Council chaired by the CTO is convened once a month. At the CTO Council, Senior Vice Presidents in charge of the Business Units and the General Managers of the Central Research Laboratories and the Intellectual Property Management Division raise issues relating to technology strategies for NEC Corporation's key business areas and company-wide technology strategies, discuss how these issues can be addressed, and formulate plans for resolving these issues.

Corporate Technology Division: Promoting the Innovation of Technologies

In order to strongly drive the innovation of technologies forward and promote growth across the different Business Units, we have established the Corporate Technology Division as an independent organization apart from the Business Innovation Integration Unit, and clarified its commitments to management. It will continue to work with the CTO in collaboration with the

Senior Vice Presidents in charge of the Business Units and the General Managers of the Central Research Laboratories and the Intellectual Property Management Division to formulate NEC Corporation's technology strategies and implementation plans, including strategies for open innovation, standardization, and regulation.

Standardization Promotion Department: Contributing to Market Creation and Expansion

The Standardization Promotion Department, which is under the Corporate Technology Division, is involved in strategic standardization activities, such as building business ecosystems, expanding business opportunities, and utilizing standardization-related patents needed for strengthening business. Also, realizing that participation in standardization activities contribute to the creation and growth of markets and to the stable provision of products and services, we also promote standardization by heading standardization bodies within and outside Japan.

Business Innovation Unit: Driving Business Innovation Forward

The Business Innovation Unit, which reorganized and took on a new name from the Business Innovation Integration Unit in April 2018, promotes the transformation into new business models that transcend existing business frameworks and the development of business from NEC's core technologies.

The Unit is involved in formulating business hypotheses based on NEC's core technologies, on social issues, and on market opportunities, and in carrying out business exploration functions for verifying values via open innovation and ecosystems, as well as business development functions that follow business hypothesis testing. In addition, it also carries out business implementation, which is a function aimed at the materialization of new business models and sustaining business growth. For business implementation, we not only establish business within NEC, but also promote

business incubation through various schemes that include spin-outs and carve-outs.

Intellectual Property Management Division: Strengthening NEC's Intellectual Property Capability

In anticipation of future global business expansion, the Intellectual Property Management Division is focusing on the construction of an IP portfolio that is at par with global leaders. To this end, we have established intellectual property centers in North America, Europe, and China to carry out global intellectual property activities. Moreover, for our solutions for society business, we are implementing strategic patent projects across the entire NEC Group to acquire strong patents and patents that can be leveraged to our advantage, and promoting the establishment of a comprehensive IP portfolio centered on those patents to encompass all our businesses. In terms of strengthening and protecting our global brand, we are ensuring the proper communication of our corporate brand statement and the protection of rights.

▶ NEC Brand Statement: "Orchestrating a brighter world"

Central Research Laboratories: Aiming to Create Value

As "Value Creation Research Laboratories," the Central Research Laboratories take the lead in driving technology innovation based on strategies developed by the Technology Strategy Committee. Armed with our strong technological capability and through co-creation with our customers, the Central Research Laboratories produces solution prototypes that contribute to social value creation and drives the growth of NEC forward.

We are also collaborating with world-leading research organizations and universities to study technologies that have potential to become key business areas in the next generation by back casting from the technologies envisioned for the future.

Examples of these initiatives include our open innovation activities through the "NEC Brain Inspired Computing Cooperative Research Center" launched in 2016 with Osaka University, the "NEC-AIST AI Cooperative Research Laboratory" established within the AIST Artificial Intelligence Research Center (AIRC), and the "RIKEN AIP-NEC Collaboration Center."

Another example is our research on AI carried out based on the NEC/University of Tokyo Strategic Partnership Agreement for Future AI Research and Education, concluded with the University of Tokyo in 2016 to execute a comprehensive co-creation initiative that includes ethics, legal systems, development of human resources for advanced basic research and implementation of those initiatives in society.

NEC Brain Inspired Computing Cooperative Research Center

The NEC Brain Inspired Computing Cooperative Research Center was established in 2016 at Osaka University for use in interdisciplinary courses, and is aimed at promoting platform research activities. Through these courses, we are conducting joint research into "brain-inspired computing"—a new information processing technique that involves studying the brain's characteristics, including its superior environmental adaptability, cognitive ability, reasoning ability, and highly efficient electrical power consumption.

We have also strengthened our ties with the Center for Information and Neural Networks (CiNet) and the RIKEN Quantitative Biology Center (QBiC) to provide a base for industrial innovation in the use of computational neuroscience to create a new telecommunications industry.

▶ NEC and Osaka University Jointly Establish a Research Institute for the Development of Brain-Inspired Computing Technology (Press Release)

NEC-AIST AI Cooperative Research Laboratory and RIKEN AIP-NEC Collaboration Center

In 2016, the NEC-AIST Artificial Intelligence Collaborative Research Laboratory was launched as an organization to research AI within the National Institute of Advanced Industrial Science and Technology (AIST).

Through this laboratory, we conduct research on decision-making under unknown conditions and insufficient past data, such as in dealing with disasters, abnormal situations, and other rare events, or in designing new products and new services.

We combine the laboratory's simulation technologies with the world's top-class AI-related technologies, such as machine learning, prediction/sign-detection, optimal planning, and control, which have been nurtured by NEC Corporation since the 1980s. In other words, we combine simulation and AI to carry out R&D and industrial applications of technology that facilitate decision-making even in situations where it is difficult to gather enough of the prior data needed for analysis.

Also, the RIKEN AIP-NEC Collaboration Center established in 2017 combines RIKEN AIP's knowhow on cutting technologies in the field of AI with NEC Corporation's experience in developing AI-related technologies to bring about innovations needed for dealing with critical social issues.

NEC/University of Tokyo Strategic Partnership Agreement for Future AI Research and Education

The NEC/University of Tokyo Strategic Partnership Agreement for Future AI Research and Education was concluded in 2016. It focuses on sharing a vision and issues relating to executing advanced basic research and applying research results to society under the inter-organizational agreement, validation of social receptivity after the results have been applied, and promotion of comprehensive collaboration initiatives including the training of future leaders.

Specifically the agreement advocates the following:

1) Research and development of "Brain Morphic AI Technology," which realizes an information processing system that simulates the brain and nervous systems, by assembling the world's top researchers under the leadership of Professor Kazuyuki Aihara of the Institute of Industrial Science, The University of Tokyo.

2) Research on laws, guidelines, social consensus, ethics, etc., to integrate social rules and human sensations, in view of the widespread uptake of solutions using AI throughout society.

3) Establishment of the new "NEC/University of Tokyo Future AI Scholarship" that is designed to nurture doctoral program students who are researching AI at the University of Tokyo.

As part of these initiatives, in fiscal 2018, we conducted basic research on information processing systems modeled after the brain and the nervous system.

▶ NEC and the University of Tokyo embark on industry-academia alliance for strengthening innovation (Press Release)

Overseas Research Laboratories: Aiming to Create Global Social Values

To carry out social value creation on a global scale, we are promoting R&D that takes advantage of the local strengths of each area by placing R&D centers at five locations worldwide, namely, in Japan, North America, Europe, China, and Singapore. Further, as part of our open innovation strategy, we collaborate with the world's top universities and research organizations and promote co-creation activities with local customers to reinforce our technologies from the solutions perspective and establish competitive advantage over other companies. The characteristics of each laboratory are described below:

NEC Laboratories America

At Princeton on the East Coast and Cupertino in Silicon Valley on the West Coast, NEC Labs America is creating many core technologies while strengthening our ties with local universities and research organizations. In particular, we are working on the R&D of analysis and security technologies of complex systems, cutting-edge network and sensing technologies, system solution technologies for surveillance, and media analytics and machine learning technologies.

NEC Laboratories Europe

NEC Labs Europe is engaged in advanced research on solutions for society and ICT platforms that incorporate trends not only in Europe but also around the world. Located in the central part of Heidelberg, the birthplace of Germany's oldest university, NEC Labs Europe also promotes collaboration with nearby universities and research institutions, as well as with enterprises in the communications, ICT, and automobile industries. Through these initiatives, we drive the realization of next-generation AI and IoT platforms and communication networks that underpin smart, safe, and secure transportation and industries.

Moreover, we also actively participate in national projects in Europe and in standardization activities mainly in the field of networks, and promote R&D marketing as well.

A global system of research laboratories
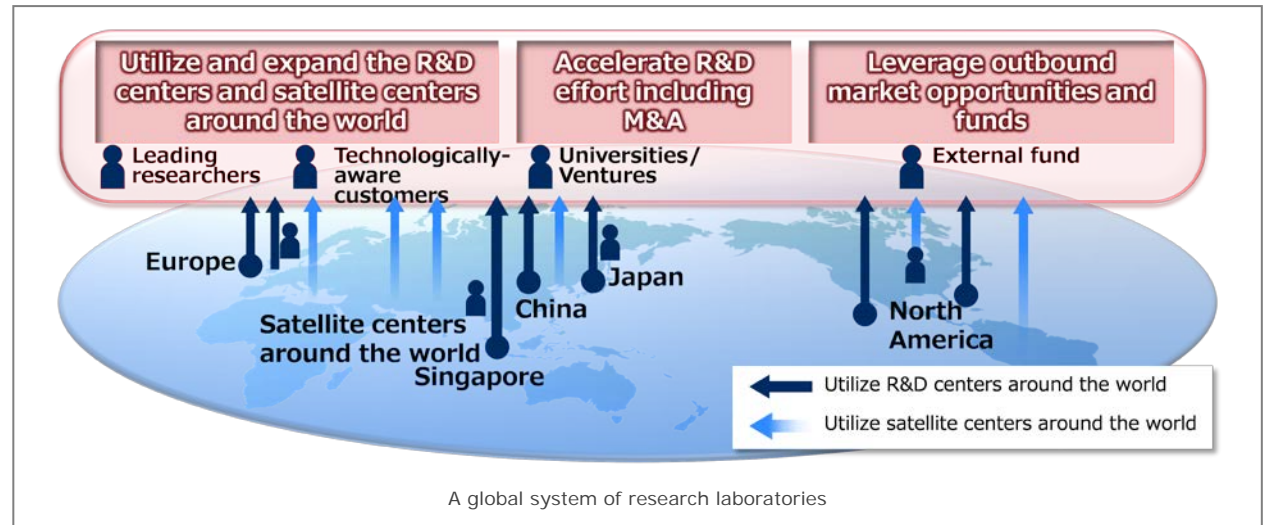
NEC Laboratories China

NEC Labs China is engaged in cutting-edge research aimed at the creation of solutions for society by focusing on AI and 5G technologies and standardization.

Located in Beijing, the most innovative city in China, NEC Labs China conducts R&D of technologies while pursuing close collaborations with top local universities, standardization organizations, and industry partners in transportation and retail.

NEC Laboratories Singapore

NEC Labs Singapore is building flexible joint research frameworks with local governments, research organizations, universities, and customers, while actively participating in projects aimed at solving urban problems and promoting the creation of new solutions using NEC's unique cutting-edge technologies. NEC Labs Singapore is particularly active in the fields of safety, security, public transportation, and healthcare. Solutions created here are being deployed in ASEAN countries, South America, Africa, and other emerging countries where there is a particularly strong need for advanced social infrastructure.

We have also opened an Advanced Centre for Experimentation (ACE) as a "living lab" for proof-of-concepts of advanced and innovative solutions. The Centre will partner with government and enterprises to co-create solutions and conduct trials in an environment approximating the real society to verify their usefulness before deployment.

Human Resource Development to Support Innovation

NEC is focusing on cultivating human resources to create solutions for society businesses, as well as to strengthen our core technologies, for the creation of innovations. In addition to reinforcing our global human resources, we are also promoting the nurturing of business minds and the diversification of our human resources.

Human Resource Development Aimed at the Creation of Solutions for Society Businesses

To create solutions for society businesses, we need to cultivate and strengthen researchers who not only have specific core technology expertise, but also possess broad and diverse domain knowledge as well as a business mind. To broaden our scope on the creation of new value, we are working on strengthening the development of global human resources, bolstering efforts to hire domain specialists, and developing leaders who are equipped with the business acumen to drive business forward.

Aiming to strengthen our human resources tasked with tackling advanced global issues, we are implementing measures to raise the number of researchers with global business experience to 70% by fiscal 2019.

In the creation of solutions for society businesses, it is also necessary to have not only specialist knowledge of specific technologies, but also wide-ranging knowledge of the social issue domains into where these technologies will be provided as value to society. Thus, we are also strengthening our mid-career recruitment programs.

We are also endeavoring to accelerate the realization of solutions for society businesses by strengthening the ability of our in-house human resources to promote business development through the exchange of personnel between our business and research divisions. In particular, we are reinforcing the training of human resources by top engineers and nurturing project leaders and technology architects through personnel exchange in order to strengthen business development capability for our No. 1/Only 1 AI technologies and security technologies.

Human Resource Development Aimed at Strengthening Core Technologies and Enhancing Diversity

At NEC, we are working towards enhancing diversity and concentrating our human resources to our key business areas, in order to strengthen the core technologies that contribute to solutions for society, as well as to sustain these technologies and solutions into the future.

To reinforce our researchers in the key areas, we plan to increase the number of data science researchers at the Central Research Labs to 300 by fiscal 2019, which is double the number in fiscal 2016.

Our overseas research laboratories are actively recruiting top local talent while our research labs in Japan are stepping up recruitment of doctoral degree holders. We are continuing with our policy of hiring applicants with PhDs at around 50% of new hires, and will be recruiting more graduates from the Indian Institute of Technology and other notable institutions. As a result of these policies, 40% of our new recruits are now classified as "global human resources."
We are also instituting organizational reforms that will facilitate major innovations by engaging in multi-faceted and mutually respectful discussions with specialists in a wide range of fields, regardless of their gender or nationality.
For example, for Japanese researchers, we are promoting a shift from domestic human resources to global human resources by using training programs inside and outside NEC, such as work-study programs and overseas trainings in emerging countries in cooperation with NPOs.

To promote diversity in specialist fields, we are strengthening recruitment not only in information science but also in the physical sciences, which provide excellent training in the proper handling of data. Likewise, we are also strengthening recruitment of diverse talents in the humanities, law, and other fields to realize solutions to issues based on the cooperation between humans and AI.

Major Activities and Results for Fiscal 2018

Major Research Achievements for No. 1/Only 1 Technologies

In fiscal 2018, we are continuing to apply our No. 1/ Only 1 technology to business that contributes to the realization of the "Seven Themes for Social Value Creation." Our major business achievements are shown below:

Development of the World's Fastest Blockchain Technology That Allows a Throughput of 100,000 Transactions Per Second

NEC Corporation and NEC Labs Europe have developed the world's fastest consensus building algorithm for blockchain, which has achieved a recording performance of more than 100,000 transactions per second, under a large-scale connection environment with around 200 participating transaction nodes. This feat exceeds the performance necessary for systems supporting worldwide credit card transactions, making it a technology that will accelerate the full-scale use of blockchain in business.

Development of Data Processing Technology for Machine Learning in Vector Computers

NEC Corporation has developed a data processing technology for high-speed execution of machine learning optimized for vector computers. The technology can execute machine learning at more than 50 times faster than conventional methods that connect multiple servers for analysis.

For example, the technology enables timely use of results of analysis since optimization of web ad placement, recommendations, and document analysis can be performed more quickly. Also, with fewer servers needed, analysis can be performed at lower costs, making it possible to offer value to a wider layer of users.

▶ NEC accelerates machine learning for vector computers (Press Release)

Major Research Achievements

Achievement		Theme
Provided invariant analysis technology for use in satellite and aerospace industries	Lockheed Martin Corporation	Invariant analysis
Launched a security anomaly detection service capable of unknown cyber-attack responce	System operations, etc.	Autonomous learning system-based anomaly detection
Provided face recognition system for improving services to VIP customers	OCBC Bank Singapore	Face recognition
Launched access control solution based on walk-through face recognition	Commercial facilities, event management, etc.	Face recognition
Forged business collaboration with Japan Weather Association to optimize demand and supply for entire value chain	Food manufacturer, food wholesale, logistics, retail, etc.	Heterogeneous mixture learning
Established dotData, Inc. in the U.S. to automate data analysis process	Data analytics, etc.	Predictive analysis automation
Commercialized product that performs diverse logs analysis, anomaly detection, and causal analysis	System operations, etc.	Log pattern analitics
Established the world's fastest blockchain technology, capable over 100,000 transactions per second*	Financial and various other transactions and information sharing	High-speed blockchain
Accelerated the execution of statistical AI learning process by more than 50 times compared to conventional technology using data processing for vector computers	Data analytics	Machine-learning-based data processing for vector computing

Business Deployment along the 7 Themes for Social Value

*Under a large-scale connection environment with around 200 participating nodes

Development of "mIDot" Technology Utilizing 1-mm Ink Dots as Identification Tags

NEC Corporation has developed the mIDot (micro-sized Identifier Dot on Things) for individually recognizing camera images of "dots" written using off-the-shelf ink pens on various objects.

The technology recognizes images of tiny patterns in the ink of individual dots, which are difficult to identify with the naked eye, to distinguish each dot. Due to random particles in the ink, identical patterns are unlikely to be formed, making each 1-mm dot a unique identification tag that is difficult to duplicate. Dots can be easily applied to a wide range of objects by hand, enabling the technology to be conveniently used by anyone, anywhere, to identify products or property. It can also be used to distinguish dots uniformly made using machines.

This technology is expected to be used for a broad range of applications, including identification tags for ultra-small electronic components that are too small for the use of barcodes; tags for managing goods that are lent or taken out; keys and tickets used for entry/exit control; and identification tags for linking physical objects with electronic payment or voucher data.

▶ NEC technology enables ink dots to become identification tags (Press Release)

Results and Effects of Open Innovation

The following are some concrete results of open innovation.

Establishment of FIWARE Lab Node in India for Building of Smart Cities

Staring fiscal 2017, NEC has been a platinum member of "FIWARE Foundation e.V.," a non-profit, private-sector-led organization that promotes the uptake of FIWARE, the infrastructure software developed and implemented by the Future Internet Public-Private Partnership Programme (FI-PPP) in the EU.

In this connection, with NEC Technologies India, we established and started operations of FIWARE Lab node in India. Creating a cloud environment for experiencing FIWARE technology in Europe and other regions enables application developers, solution providers, government agencies, academic organizations, and various organizations, enterprises, and individuals to co-create with each other and experiment and test solutions for smart cities using open data publicized by cities and other organizations.

▶ NEC to establish FIWARE Lab node in India (Press Release)

Joint Development of Technology to Wirelessly Control Robots with Nidec

NEC Corporation and Nidec Corporation jointly developed a technology that enables highly precise, real-time remote control of Intelligent Motors®*, motors incorporating microcomputers, through a wireless network.

As the uptake of IoT accelerates, the growing robotics industry has seen a greater need for the evolution from individual robot operations to cooperative operation between multiple robots. To address this demand, we have successfully developed a new technology that combines NEC's wireless communication technology with Nidec's motor synchronization technology to enable highly precise, real-time remote control of robots equipped with Intelligent Motors®. The technology has been verified to improve transportation efficiency by 30% compared to conventional methods in simulation testing with automated guided vehicles (AGVs) in factory and warehouse environments where wireless communications are unstable due to the data transmission of peripheral equipment and the influence of electromagnetic noise.

▶ NEC and Nidec develop technology to control robots equipped with Intelligent Motors (Press Release)

* "Intelligent Motors®" is a registered trademark of Nidec Corporation.

NEC, AIST, and RIKEN Start AI Research Collaborations

NEC Corporation, the National Institute of Advanced Industrial Science and Technology, and RIKEN have come to an agreement to join hands in accelerating cutting-edge research on AI—from the development of platform technologies to their commercialization.

The collaboration aims to optimize the fitting of applied solutions and component technologies, streamline activities through a higher-level of consistency, and maximize research results through the sharing of information pertaining to R&D, the joint development of software, and the shared use of equipment and other research resources for activities of the "NEC-AIST AI Cooperative Research Laboratory" and "RIKEN AIP-NEC Collaboration Center."

AI research themes under this three-pronged collaboration include "decision-making under unknown conditions," where past data are insufficient for big data analysis, and "automated coordination among AIs," which has become necessary due to the development of smart individual systems. Aiming to further accelerate AI research and contribute to society and industries, the three organizations will jointly tackle the establishment of new fields of technology pertaining to the smooth operation of massive systems underpinning the real world, which is rendered uncertain and complex by constantly changing phenomena.

External Ratings and Evaluation

NEC received high marks in non-financial areas for its approaches to CSR or ESG (Environmental, Social, and Governance) issues and is included in world-renowned SRI (Socially Responsible Investment) indices.

FTSE4Good Index Series

This index is created by FTSE Russell, part of the London Stock Exchange Group. Over 4,000 companies are evaluated and those that meet the ESG criteria are included in this index. NEC has been included since September 2002 (As of June 2018).

 FTSE4Good Index Series

(NEC is a member of the FTSE4Good Index, an equity index series that is designed to facilitate investment in companies that meet globally recognized corporate responsibility standards.)

MSCI ESG Leaders Indexes

Designed by MSCI, these indexes are the globally recognized ESG_indexes. Companies that have received high evaluations based on ESG are included in these indexes. NEC has been included since 2015. (The name of the Indexes was changed from the "MSCI Global Sustainability Indexes" in 2017.)

 MSCI ESG INDEXES

oekom Corporate Rating

oekom research AG, an ESG rating agency in Germany, evaluates companies with social and environmental criteria. Companies that are received high evaluation in their industry sectors are rated "Prime." NEC has been rated "Prime" in March 2018 in the "Electronics Devices & Appliances" industry sector.

 oekom corporate rating

Euronext Vigeo World 120

This sustainability evaluation index was designed by NYSE Euronext, the world's largest stock exchange group, and Vigeo Eiris, an agency that has expertise in the assessment of companies and organizations based on their practices and performance related to ESG. This index includes the 120 most advanced companies in the European, North American, and Asia Pacific regions based on ESG. NEC has been included since 2012.

 Half-year review Euronext Vigeo Eiris ESG indices

Ethibel Pioneer & Excellence

Forum ETHIBEL, a non-profit organization that actively promotes Socially Responsible Investing (SRI) and Corporate Social Responsibility (CSR), includes companies identified as sector leaders in terms of CSR into the ETHIBEL Investment Registers. Forum ETHIBEL manages two universes, the ETHIBEL PIONEER label and the ETHIBEL EXCELLENCE label, which are regularly updated and monitored. NEC has been included in the ETHIBEL "EXCELLENCE" Register since 2009 and in the ETHIBEL "PIONEER" Register as well since 2013. In 2018, NEC is continuously included in the both Registers.

Ethibel Pioneer & Excellence

Morningstar Socially Responsible Investment Index (MS-SRI)

This is an SRI index created by Morningstar Japan K.K. Companies are evaluated on "governance," "environmental," "social contribution," and "employment" based on a survey that Toyo Keizai Inc. conducted on approximately 4,000 listed companies, to select 150 excellent companies. NEC has been included since 2003. (As of June 2018)

Morningstar Socially Responsible Investment Index (MS-SRI) (Japanese only)

STOXX Global ESG Leaders Index

This index is generated by STOXX Ltd., a group company of Deutsche Börse. It selects world leading companies based on a survey results related to ESG by Sustainalytics, an SRI research/analysis company. NEC has been included since 2014.

STOXX Global ESG Leaders Index

EcoVadis

EcoVadis is the first global collaborative platform that provides Supplier Sustainability Ratings and assesses suppliers with their CSR assessment methodology which covers 150 purchasing categories, 110 countries and 21 CSR indicators including "Environment," "Labor Practices & Human Rights," "Fair Business Practices" and "Sustainable Procurement." NEC has been awarded "Gold" CSR rating, the highest rating, for the third consecutive time since 2014.

EcoVadis

Certificate

Other External Evaluations

[Awards for social contribution](#)

[Recognition and awards on the environment](#)

[External ratings and evaluation about our working environment](#)

Corporate Governance

Policy

In recognition of the fact that reliable corporate governance is essential to the continuous creation of social value and the maximization of corporate value, NEC is committed to strengthening its corporate governance practices through:

1. Assurance of transparent and sound management;
2. Realization of prompt decision making and business execution;
3. Clarification of accountability; and
4. Timely, appropriate and fair disclosure of information.

Corporate Governance Structure

NEC has adopted the company with the Audit & Supervisory Board Members (KANSAYAKU), as illustrated in the chart below.
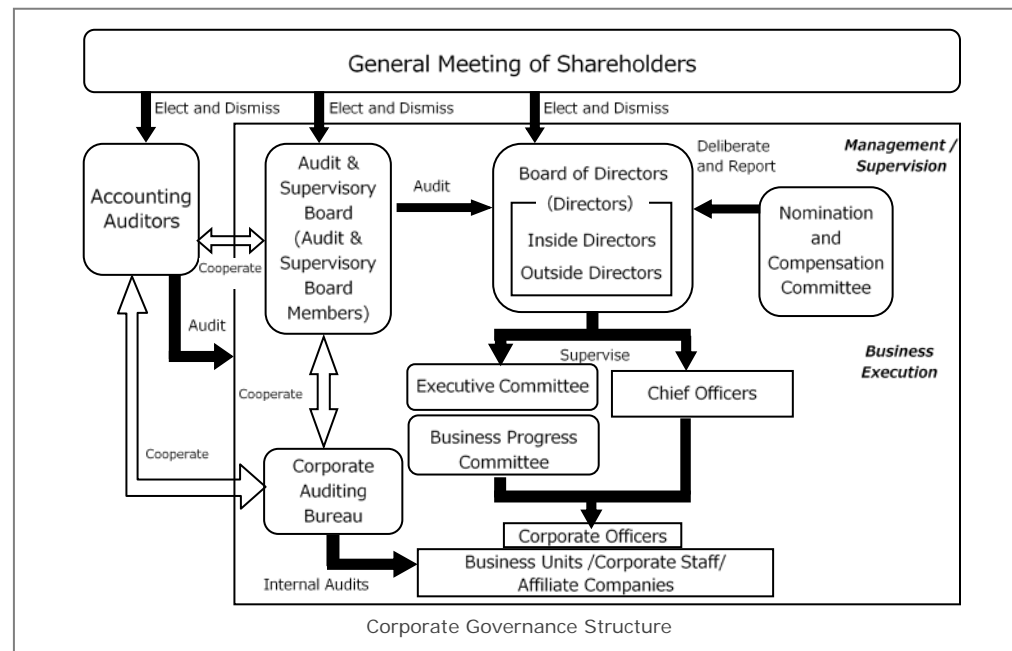
Corporate Governance Structure

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| Sustainable Management | **Governance** | Social | Environment |

48-49   **Corporate Governance**
55   Basic Approach on Tax Matters
60-66   Business Continuity
73-79   Supply Chain Management

50-54   Compliance and Risk Management
56-59   Promoting Fair Commercial Transactions
67-72   Information Security and Cyber Security
80-83   Ensuring Quality and Safety

NEC Corporate Governance Guidelines

In June 2016, NEC adopted the NEC Corporate Governance Guidelines, which set out the basic framework and policy of NEC's corporate governance system to help strengthen the relationship with stakeholders, thereby contributing to sustainable growth and the increase in corporate value.

NEC's activities regarding Japan's "Corporate Governance Code" that entered into force in June 2015 are described in the Corporate Governance Report and NEC Corporate Governance Guidelines.

▶ Corporate Governance
▶ Corporate Governance Report
▶ NEC Corporate Governance Guidelines

Overview of NEC Corporate Governance Guidelines

Chapter 1	General Provisions	Purpose of these Guidelines
		Corporate Philosophy and Business Strategies
		Basic Views on Corporate Governance
Chapter 2	Corporate Governance System	Board of Directors
		Nomination and Compensation Committee
		Main Committees in Business Execution
		Audit & Supervisory Board (A&SB) (KANSAYAKU-KAI)
		Compliance Hotline, Supporting System for Directors and/or A&SBMs
Chapter 3	Relationship with Stakeholders	Relationship with Shareholders
		Relationship with Other Stakeholders
Chapter 4	Disclosure	Basic Policy Information Disclosure Structure

Compliance and Risk Management

Policy

As a company to deploy the social solution business, NEC believes that to earn and sustain the trust of customers and society are the most important things.

NEC considers compliance to not only mean compliance with the law, but also in the wide sense to include compliance with socially accepted norms and common sense. Likewise, our risk management activities include properly understanding risks that have an impact on the company's business, and taking preventive measures efficiently and effectively, including compliance violations.

NEC positions compliance at the foundation of management, and recognizes compliance and risk management as priority themes "materiality" which are essential for corporate governance. We, including the top management, will continue to promote company-wide efforts.

Based on this belief, NEC has established the "NEC Group Charter of Corporate Behavior" and "NEC Group Code of Conduct" that are also translated into multiple languages (English, Spanish, Portuguese, and Chinese) to have these at our overseas consolidated subsidiaries also, by which we put a top priority on the compliance to run our business domestically and internationally. In February 2017, the Japan Fair Trade Commission issued a Cease and Desist Order and an Order for Payment of Surcharge against NEC Corporation for activities in violation of the competition law. To keep this fact fresh in mind, and to enhance our sense of compliance, NEC has newly established "NEC Compliance Day" that periodically gives us, from executives to employees an environment to review and reconsider the compliance.

In line with the key concepts of "awareness" and "information sharing", our basic approach to implementing compliance is to foster "awareness" among every officer and employee so that irregularities are recognized as "being not in conformance". In addition, NEC encourages consultation with supervisors, related departments or the "Compliance Hotline", and "sharing information", with a view to resolving those issues and improving our practices systematically as an organization.

Moreover, as part of our risk management activities, we have established an efficient and integrated risk management framework to avoid oversights and overlap of measures, under a common policy for the entire of NEC, based on our "Rules of Basic Risk Management". Every year, we identify risks that require priority measures "Priority Risks" for management across the entire of NEC, and formulate, implement, and assess measures to address those risks. In addition, each of our business units and subsidiaries are also conducting specific activities to manage particular risks in their unit or company.

▶ NEC Group Charter of Corporate Behavior

▶ NEC Group Code of Conduct

▶ Priority Management Themes from an ESG Perspective - Materiality

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48-49 Corporate Governance
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50-54 **Compliance and Risk Management**
56-59 Promoting Fair Commercial Transactions
67-72 Information Security and Cyber Security
80-83 Ensuring Quality and Safety

Activity Objectives, Achievements and Progress

Objectives for the Mid-term (from fiscal 2019 to 2021)

1. Ensure the Compliance
   • Based on the NEC Group Code of Conduct, establish the organizational culture of "Compliance on Top Priority" and promote fair commercial transactions.
2. Carry Out the Appropriate Risk Management
   • Adopt those critical risks that have an impact on implementing the business, and set up and carry out effective measures.

Objectives, Achievements and Progress, and Degree of Completion

(Degree of completion: ◎Achieved, ○Mostly Achieved, △Some Progress, ✕No Progress)

Objectives for the Mid-term	FY2018 Objectives	FY2018 Achievements and Progress	Degree of Completion	FY2019 Objectives
1. Ensure the compliance	• Implement the web-based compliance training. • Maintain and increase the recognition rate of the "Compliance Hotline."	• Established "NEC Compliance Day" (November 18.) • Conducted the web-based compliance training (completion rate in NEC Corporation: 98.3%.) • Recognition rate of the Compliance Hotline was increased (recognition rate in NEC Corporation: 96.9%.)	◎	• Deliver the executive messages to employees on the occasion of NEC Compliance Day. • Raise the completion rate of web-based compliance training (completion rate in NEC Corporation: 98% or higher.) • Number of reports to the Compliance Hotline: 100 cases or more. • Number of cases of involvement with serious cartel/bid-rigging: 0.
2. Carry out the appropriate risk management	• Implement measures to raise the employees' consciousness of the importance to prevent fraud. • Implement the training to prevent recurrence by reviewing the fact that the Japan Fair Trade Commission issued a Cease and Desist Order and an Order for Payment of Surcharge against NEC Corporation. • Reshuffle personnel to prevent the violation of competition law.	• Held workplace meetings where all the employees attended. • Held face-to-face education programs for 140 times in Japan to convey the facts about three bid-rigging incidents caused by NEC Corporation. • Transferred and changed the employees who had had long-term responsibility for the same governmental agency-related customers to prevent competition law violations.	◎	• Establish and implement effective measures for Priority Risks.

Promotion Framework

NEC Corporation enforces and effectively implements compliance with top management and conducts activities led by the Risk Control and Compliance Committee, the Internal Control Division and the Corporate Auditing Bureau.

1. Board of Directors
Given its oversight role with respect to business execution, the Board of Directors receives reports related to material misconduct and reports on the activities taken for the Priority Risks.

2. Executive Committee
The Executive Committee discusses important NEC's management issues such as policies and strategies, including Priority Risks and other important risks related to management and strategies.

3. Audit & Supervisory Board Members (Kansa-yaku)
The Audit & Supervisory Board Members audit the performance of duties within the company by regularly receiving and discussing reports of audit results from the Corporate Auditing Bureau, or by receiving reports on the status of operations of the internal reporting system pertaining to business ethics and violations of laws and regulations (Compliance Hotline).

4. Risk Control and Compliance Committee
The Risk Control and Compliance Committee, whose members are officers, investigates the underlying causes of serious compliance breaches, studies related prevention of recurrence and preventive measures, and deliberates policies for risk management activities and policies for selection and countermeasures of the Priority Risks. The committee executes a supervisory function in company-wide risk control by, for example, regularly receiving reports from the divisions in charge of deliberations and progress status related to specific Priority Risk measures, validating the activity results and issues and future activity plans and providing direction to improving and enhancing measures as needed.

5. Internal Control Division
The Internal Control Division formulates and implements various initiatives designed to enforce compliance, including instilling knowledge of the NEC Group Charter of Corporate Behavior and NEC Group Code of Conduct. In addition, the division provides the necessary support, coordination and guidance to ensure that risk management in the business and corporate staff divisions is implemented systematically and effectively.

For example, the division enhances the risk control function for the entire NEC Group by continuously supporting risk control activities in each division including subsidiaries. This is accomplished by collecting external information, investigating using a risk management survey and exchanging information with subsidiaries worldwide.

In addition, the division regularly receives and discusses reports on audit results from the Corporate Auditing Bureau and receives status reports on the operations of the internal reporting system pertaining to business ethics and violations of laws and regulations (Compliance Hotline).

6. Corporate Auditing Bureau
The Corporate Auditing Bureau functions as an internal auditing department directly under the supervision of the president and is composed of members who are experts in internal audits. The bureau carries out audits aimed at ensuring that NEC is operating lawfully, properly and efficiently, as well as in pointing out problems and making proposals for improvement.

7. Framework for Promoting Compliance in Consolidated Subsidiaries Worldwide
In regard to domestic consolidated subsidiaries, compliance frameworks are being developed through the activities of the Risk Control and Compliance Managers and promoters set up in each company.

In regard to overseas consolidated subsidiaries, the five regional headquarters, including the subsidiaries under them worldwide, further strengthen compliance.

NEC has also established channels for reporting compliance-related issues regularly, and as the need arises, from the domestic and overseas consolidated subsidiaries to headquarters in Japan.

Internal Control Division

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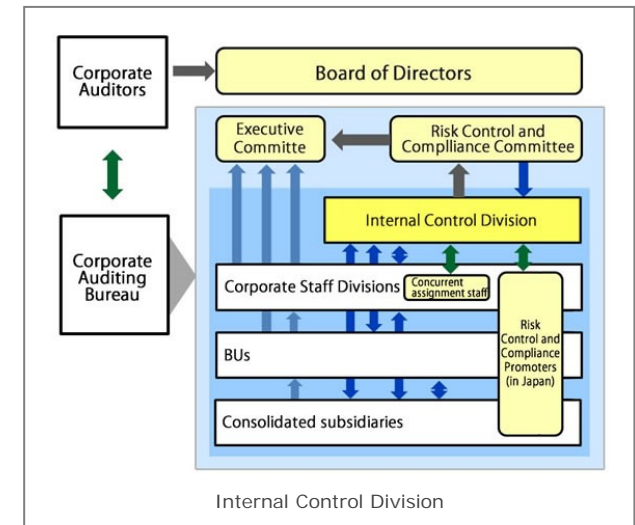
Main Activities and Results for Fiscal 2018

Compliance

Establishing "NEC Compliance Day"

NEC Corporation received notification of violations of the Antimonopoly Act from the Japan Fair Trade Commission in July 2016 regarding the deal of telecommunications equipment for electrical power security system with Tokyo Electric Power Co., Inc. (current Tokyo Electric Power Company Holdings, Inc.), and in February 2017 regarding the transactions for wireless digital emergency firefighting equipment, and telecommunications equipment for electrical power security system with Chubu Electric Power Co., Inc. In order to keep these events fresh in mind and reconfirm the importance of compliance for each individual, we established NEC Compliance Day and set it on November 18 on which we received an on-site inspection at all NEC offices from the headquarters to the branches located all over Japan in regard to transactions for wireless digital emergency firefighting equipment.

In fiscal 2018, the President, the Chief Compliance Officer (CCO) and all general managers (approximately 130 people) of NEC Corporation, and the Presidents of domestic consolidated subsidiaries communicated messages on NEC Compliance Day to again ensure the importance of compliance to all the employees.
The messages sent out by the general managers were reviewed and evaluated by the members of the division and the evaluation results were fed back to all general managers to further promote compliance.
In addition, we made a poster appealing the messages "Compliance on Top Priority" and "Act Fairly and with Integrity" from our president Takashi Niino, and posted them at all the domestic business bases.

In the period around NEC Compliance Day, NEC Corporation and its domestic consolidated subsidiaries held workplace meetings under themes such as preventing fraudulent accounting and compliance with competition law. These provided opportunities for individual employees to consider compliance themselves.

Spread Education and Enlightenment Activities in Japan and Overseas

NEC Corporation conducts the web-based training program regarding the compliance for all the executives and employees once a year (completion rate in NEC Corporation: 98.3% in fiscal 2018). Our domestic consolidated subsidiaries also use this educational program, where almost all of members participated (completion rate in domestic consolidated subsidiaries: 98.0%) in fiscal 2018. Also, the web-based compliance training program is translated into multiple languages (English, Spanish, Portuguese, and Chinese), which made our overseas consolidated subsidiaries available to take this program. After they completed the program, we collected their pledges in which they pledged to comply with the NEC Group Code of Conduct and other internal policies.

"NEC Business Ethics" is the forum where our president uses his own words to tell how important the compliance is, which is held annually for NEC Corporation and its domestic consolidated subsidiaries. In fiscal 2018, the forum was held themed on "Three Types of Trusts – To Focus on Sustaining Business Growth," where he confirmed to focus on the business growth centering on the trusts of clients, shareholders, and colleagues at workplace by acting fairly and honestly to eradicate violations of compliance.

Furthermore, NEC Corporation emphasizes the importance of action that complies with the NEC Group Code of Conduct using the opportunities of the trainings and educations for new employees, and stratified education programs for new officers and new general managers. To strengthen the compliance management in overseas consolidated subsidiaries as well, we also conduct the education and training programs for executives to be posted there and for the local executives there.
The latest information on the compliance is disseminated and shared within NEC through our intranet web portal "Risk Control and Compliance" (in Japan) and "DASHBOARD Global" (overseas). We also provide the timely topics in consideration for our business

environment by issuing the push-type newsletter "Compliance News" every month.

For NEC Corporation and its domestic consolidated subsidiaries, we also complied 170 expected case examples on compliance as "NEC Group Code of Conduct Case Sheet" to advice the points to keep in mind when we behave. The case examples of this Case Sheet are reviewed every year, which is posted on our intranet web portal and is used as the training aid for managers to be at the time of their promotion. In this way, we continue the educational activities.

Compliance Hotline (Whistle-blowing system for employees and business partners)

NEC believes that creating a positive working environment for all is important to enforce compliance. Accordingly, we are taking care to raise employee awareness so there can be consultations with superiors, colleagues or others from related divisions about any concerns or issues on compliance in the workplace.

Compliance Hotline, internal reporting system, has also been established in the Corporate Auditing Bureau for consultations from employees encountering violations or suspected violations of the NEC Group Code of Conduct. NEC has established an additional contact point for this hotline at a third-party agency in order to enhance convenience and to address a broader range of risks at an early stage. This contact point fields consultations and reports from not only employees of NEC Corporation but also its domestic subsidiaries and business partners.
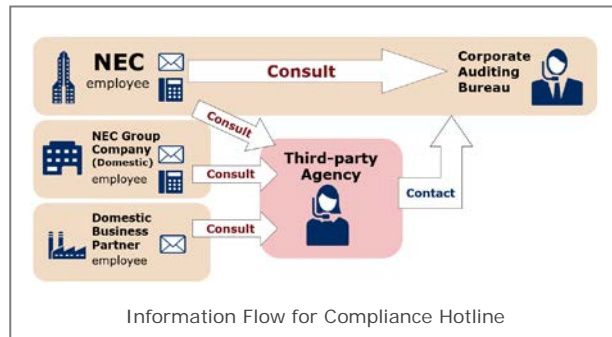
Information Flow for Compliance Hotline

The fact that who consults/reports what to the Compliance Hotline is guaranteed to be confidential by personnel in charge. One who consults/reports will never be retaliated due to the consulting/reporting fact. These are informed at our intranet web portal, and disseminated to employees through the education and training programs.

NEC Corporation believes that the Compliance Hotline is an effective system to early detect incidents that may violate the compliance, and it is important to disseminate this system to employees in order to promote its usage. The recognition rate of this system within NEC Corporation has remained above 90% for the past several years. (In fiscal 2018, it was 96.9%, the highest ever) As a result, in fiscal 2018, the number of consulting/reporting cases was 118, increased by 17 from the previous year. The topics of consulted/reported cases are the violations against ethical behavior criteria, violations against or injustice to the NEC Group Code of Conduct or company rules, and possibilities of some violations. These cases have been appropriately handled.

NEC's overseas consolidated subsidiaries also set up the whistle-blowing system operated by a third-party per region, which is available for the local executives and employees to use. The consulted/reported cases and how the overseas consolidated subsidiaries treated are shared with NEC Corporation.

Survey on Corporate Ethics Initiatives

NEC conducts online surveys as part of its web-based training programs for officers and employees to gauge ethical awareness among them and to evaluate the status of business ethics initiatives. The results are put to good use in developing and implementing measures related to business ethics improvements.
In a survey conducted in fiscal 2018, we received many comments, such as "wishing to work for making the good environment as our culture that allows easier communications between bosses and their subordinates," "understood that only one person's violation against the compliance could give a big damage to the company performances, strongly feel that I need to discipline myself from now on," etc. The results of survey are posted on our intranet web portal, and fed them back to the executives and employees.

Risk Management

Selecting "Priority Risks" and Countermeasures

The Internal Control Division annually identifies "important risks", selected from the perspectives of the need for additional countermeasures and the magnitude of the impact on corporate business and society. These are based on the result of risk assessment for each division which was obtained through a questionnaire-based "risk management survey", and findings in the internal audit by the Corporate Auditing Bureau, etc. NEC Corporation selects "Priority Risks" following deliberations by the Risk Control and Compliance Committee and the Executive Committee on risks deemed to require new countermeasures, including improvements to the existing countermeasures, and on risks that may significantly affect NEC's continuity. The divisions nominated by the Risk Control and Compliance Committee devise countermeasures as the risk owners.

In fiscal 2018, we selected the following Priority Risks – "risks regarding the accounting fraud", "risks regarding violation of the competition law," and "risks regarding violation of the Construction Industry Act." For details on their major countermeasures, see "Spread Education and Enlightenment Activities in Japan and Overseas" described previously and "Promoting Fair Commercial Transactions" in the next.

Participation in Activities of External Organizations

Business Ethics Research Center (BERC)

NEC Corporation has been a BERC member since its establishment in 2000. BERC collects worldwide information relating to business ethics, does research on ethics, offers consulting on business activities and educates businessperson while promoting ethics. We have utilized information on examples of initiatives in other companies obtained through BERC in the enforcement and planning of measures to promote compliance.

🖵 Business Ethics Research Center

Business Ethics Research Center Japan Business Federation –Corporate Behavior & CSR Committee

NEC Corporation participated in the task force on "Revision of the Charter of Corporate Behavior" held under the above committee. We cooperated to revise the charter of corporate behavior and its implementation guide such as writing the parts regarding the cyber securities, protecting/utilizing personal information data that are closely related to our business.

Basic Approach on Tax Matters

Basic Approach

NEC stipulates in its Group Code of Conduct that:
- We will comply with all applicable laws, rules, regulations, and in-house regulations, including this Code, in every aspect of our corporate activities at all times. We will strive to ensure that all corporate activities are in compliance with normal business practices and social ethics.
- We will accurately and fairly maintain all accounting and other records in accordance with applicable laws, rules, regulations, and in-house regulations, and properly execute our duties. We will not carry out any unlawful accounting transactions or actions that may cause losses to the NEC Group.

Likewise, we follow the above basic approach also in relation to tax matters and are striving to optimize them from a medium- to long-term perspective.

Transactions Between Affiliate Companies

NEC carries out pricing decisions in transactions between affiliate companies based on the arm's length principle. NEC pays taxes in a timely and appropriate manner based on tax rules and treaties for each country, by reflecting our business results, and does not carry out activities aimed at fraudulent avoidance of taxes.

Relationship with Tax Authorities

NEC endeavors to reduce tax uncertainties by prior consultation with tax authorities and responding in good faith to related information-disclosure requests made by tax authorities.

Transparency

NEC complies with the Financial Instruments and Exchange Act and all applicable laws, rules, and regulations, in preparing and disclosing its Annual Securities Report. Tax related disclosures required by applicable laws are also included in the Annual Securities Report.
Starting from fiscal 2017, NEC discloses its consolidated financial results in accordance with the International Financial Reporting Standards (IFRS). By adopting IFRS, NEC intends to disclose more internationally comparable financial information to capital markets and to further enhance transparency of its financial information.

Promoting Fair Commercial Transactions

Policy

NEC is actively involved in "promoting fair commercial transactions," such as structure reinforcement to comply with the laws and regulations regarding competition and bribery, as our important activities so that NEC ensures the compliance which is one of its "materiality," the priority management theme from an ESG perspective. In addition, NEC believes that it is important to have conscious mind of always "placing the highest priority on compliance" and to pursue it in this era of severe global competition. Anti-corruption such as bribery is one of the ten principles of the UN Global Compact and is an area of common concern worldwide. NEC is also actively involved in addressing this issue.

In recent years, the enforcement of the laws and regulations regarding competition and bribery has been strengthened globally. NEC has established the "Competition Policy", formulating basic considerations on compliance with domestic and overseas competition laws, to reduce the risk of violations of them. Furthermore, NEC had distributed a portable and business-card sized "Competition Policy Card" to all of corporate officers and employees of NEC Corporation and its domestic consolidated subsidiaries in Japan to make further well known.

NEC Corporation and some of its domestic consolidated subsidiaries have also established "Rules for the Prevention of Cartels and Bid-rigging", which are intended to restrict unnecessary contact with competitors in order to reduce the risk of being suspected of or becoming involved in a cartel or bid-rigging.

NEC has also established an "Anti-bribery Policy", with the intention of instituting a system to prevent bribery and corruption and to stipulate basic rules for compliance by corporate officers and employees. Compliance with the rules will ensure that bribes are neither offered nor received in Japan and abroad in connection with the business activities of NEC.

NEC Corporation received notification of violations of the Antimonopoly Act from the Japan Fair Trade Commission in July 2016 regarding the deal of telecommunications equipment for electrical power security system with Tokyo Electric Power Co., Inc. (current Tokyo Electric Power Company Holdings, Inc.), and in February 2017 regarding the transactions for wireless digital emergency firefighting equipment, and telecommunications equipment for electrical power security system with Chubu Electric Power Co., Inc. In order to keep these events fresh in mind and serve as a foundation for reflections, we established NEC Compliance Day and set it on November 18 on which we received an on-site inspection in regard to transactions for wireless digital emergency firefighting equipment so that everyone at NEC reconfirms the importance of compliance every year. In the first half year of fiscal 2018, NEC conveyed the details of these three bid-rigging incidents to each and every employee at NEC through face-to-face education programs and promoted changes in their consciousness of the business operations. NEC will keep those incidents and facts in mind and actively promotes fair commercial transactions.

Competition Policy
Formulated in October 2011

(Contacting Competitors)

1. Contact competitors only if it is absolutely necessary.

(Exchanging Information and Entering into Agreements with Competitors)

2. Do not exchange information or agree with competitors on matters important for competition such as prices, quantities, sales territories, allocation of customers and intention to (or not to) deal with specific customers (including eagerness for orders or bids).

(Illicitly Obtaining Bid-Related Information)

3. Do not obtain or request confidential information from national or local governments or other public entities that would facilitate bid-rigging among competitors or information about bidders to whom such government or public organizations are intending to award contracts before participating in a bid offered by such government or public organizations.

(Recording and Keeping Records of Contacts with Competitors)

4. Appropriately record the sequence of events and interaction when contacting a competitor and keep copies of those records.

(Interfering with Transactions between Distributors or Licensees and Their Business Partners)

5. Do not unjustifiably restrict prices, quantities, sales territories, business partners, sales methods or other matters in transactions between our distributors or licensees and their customers.

(Unjustifiably Discriminating against Distributors or Other Business Partners)

6. Do not unjustifiably discriminate among distributors or other business partners regarding transaction conditions such as prices, quantities, payment conditions and rebates, conditions for participating in sales promotion campaigns and others.

(Dumping)

7. Do not sell products and services at an unjustifiably low price ignoring profitability.

(Abusing Dominant Bargaining Position)

8. Do not push unjustifiable conditions onto materials suppliers, subcontractors, distributors and other business partners using your dominant bargaining position.

(False Labeling)

9. Do not attach labels or make statements that are not based on fact or are exaggerated or unsubstantiated in sales activities and advertisements.

(Advance Consultation)

10. If you have doubts or cannot make a judgment regarding competition law, immediately consult with the Company's fair commercial transaction promotion department.

Promotion Framework

Competition Law Compliance

It takes effort to comply with competition laws on various fronts, including sales, technology transactions, and materials procurements. NEC Corporation promotes compliance with competitive laws in NEC through cooperation and coordination among the multiple divisions involved in each of these areas, as the Legal Division and the Internal Control Division serving as co-supervising divisions.

Bribery Prevention

Legal Division and Internal Control Division of NEC Corporation act as co-supervising divisions in NEC's efforts to enforce the Anti-bribery Policy and to provide related instruction, support, direction, and training for the internal divisions of NEC Corporation and its domestic consolidated subsidiaries. Since checking daily operations is an important part of preventing corruption, guidelines have been established by the General Affairs Division for

entertainment, gifts, and donations, the planning divisions of each Business Unit for operating expenses, and the Procurement Division for procurement expenses; expenditures requested by the company's divisions are checked to ensure there are no problems.

Main Activities and Results for Fiscal 2018

Message from Top Management

In order to promote fair commercial transactions, it is important to clarify the stance of management executives on this issue.

As described in the "Compliance and Risk Management" section, management executives send messages to all employees about ensuring compliance, including fair commercial transactions issues through activities related to NEC Compliance Day or at the NEC Business Ethics.

Continuous Training and Raising Awareness

Raising awareness through continuous training programs is crucial to increasing employees' awareness of fair commercial transactions.

NEC Corporation annually conducts fair commercial transactions training, including various case studies for employees at divisions that mainly handle public projects in addition to web-based training for the compliance described in "Compliance and Risk Management" section.

In fiscal 2018, NEC also worked to ensure compliance with the competition law by, in addition to the above education, conducting 140 face-to-face education programs for employees of NEC Corporation and its domestic consolidated subsidiaries to communicate the facts to them, including the background on why the three bid-rigging incidents occurred. Furthermore, we also conducted dialogue-based education for upper management personnel at sales divisions throughout Japan, mainly regional headquarters and branches. In this education, they took a long time to discuss how they could further enforce compliance with competition laws, including how to manage subordinates' compliance.

Other Initiatives

Initiatives to Prevent Competition Law Violations

In fiscal 2018, NEC transferred and changed the employees who had had long-term responsibility for the same governmental agency-related customers to prevent competition law violations. For those employees who had not been able to be applied for their assignment, the Internal Control Division specially conducted face-to-face seminars to make them understand the points to be observed from a perspective of competition laws. NEC is also trying to identify nascent infringements of competition law early on through audits performed by the Corporate Auditing Bureau and e-mails monitoring performed by the Internal Control Division.
As a result of the implementation of these activities, there have been no major incidents in violation of competition laws that have warranted a public announcement in fiscal 2018.

Initiatives for Anti-bribery

In regard to bribery prevention, NEC has formulated an "Anti-bribery Policy", which defines a system for preventing bribery and corruption at NEC and stipulates basic rules for compliance by corporate officers and employees. NEC Corporation has also created an "Anti-bribery Manual" that stipulates the roles of general managers and specific methods for preventing bribery. These roles and methods include bribery risk assessment regarding the division's business and operations and due diligence regarding third parties employed in the company's business activities.
Furthermore, the implementation of a scheme for prevention of bribery in our domestic and overseas consolidated subsidiaries has commenced since fiscal 2017, and except for certain overseas consolidated subsidiaries, such scheme has been completed.

In addition, as the world's nations work on strengthening their anti-bribery laws, NEC has also developed a "Guideline for Provision of Gifts, Hospitality and Travel Expenses," which describes cautions and measures that overseas consolidated subsidiaries should follow when they provide gifts, hospitality and travel expenses.

As a result of the implementation of these systems and initiatives, there have been no major incidents within NEC related to bribery that have warranted a public announcement in fiscal 2018.

Business Continuity

Policy

NEC promotes business continuity management (BCM) in order to fulfill its social responsibility to maintain the operation of various backbone systems, database, various communication devices and systems that we provide when a disaster occurs. BCM also makes it possible for us to fully satisfy the supply-chain responsibility and to rush to our customers to be involved in the recovery of social infrastructure as soon as possible when risk occurs.

Through BCM, each NEC Group company takes into account the risk at normal times and implements disaster reduction measures to reduce damage in each division, while providing a variety of training and education enabling its employees to consider the risk as personal matters to act proactively with the knowledge of the common rules at the time of disaster. NEC also sets up a Business Continuity Plan (BCP), as deliverable of BCM, to brush up its contents year by year.

NEC has established the following three specific disaster response policies.
1. Ensure the safety of employees and visitors.
2. Fulfill NEC's social responsibilities (Maintenance and recovery of backbone systems for communications, public infrastructure, traffic, defense, finance, etc.).
3. Minimize management damage caused by operation disruption.

**NEC
Sustainability Report
2018**

Sustainable Management | **Governance** | Social | Environment

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Activity Objectives, Achievements and Progress

Objectives for the Mid-term (from fiscal 2019 to 2021)

1. Provide a variety of training and education keeping in mind the largest disaster risk (natural disaster/ pandemic) toward business continuity in each business site, and increase the number of employees who consider the risk as personal matters to act proactively when risk occurs.
2. "Visualize" the business continuity level continuously in each division while incorporating the Business Continuity Management System (BCMS) into the organizational culture.

Objectives, Achievements and Progress, and Degree of Completion

(Degree of completion: ◎Achieved, ○Mostly Achieved, △Some Progress, ✕No Progress)

Objectives for the Mid-term	FY2018 Objectives	FY2018 Achievements and Progress	Degree of Completion	FY2019 Objectives
1. Prepare action manuals and conduct training for tsunami-prone areas. • Prepare an action manual for tsunami-prone areas on the Sea of Japan announced in FY2017.	• For FY2018 is the third year of the 3-year plan, provide an education in areas where it could not be offered in the first and second years, and an education based on the verification result of the Giant Tsunami on the Sea of Japan side announced in 2015.	• Completed all education in tsunami-prone areas. Provided an opportunity for every employee to think about the dangers in the area and the action to be taken when tsunami occurs.	◎	• (Temporarily to be ended as a mid-term objective) Continue training and education based on findings such as tsunamis and its run-up in rivers.
2. Implement "visualization" by applying maturity level of Information Security Management System (ISMS) to BCMS. • Refine the system based on the merits and reflection points for improvement determined during the implementation in FY2017.	• For FY2018, the second year of the 3-year plan, improve the prototype of the FY2017 with the merits and reflection points in mind. • Brush up each division's disaster prevention and business continuity capabilities by comparison with those in the previous year. • Improve the business continuity capability at the time of a pandemic, other than natural disaster such as earthquake and flood, through training offered in February 2017.	• Systemize an internal audit of BCP for business continuation to reduce the required manpower by 26 to 35% (Data differs depending on the business unit). • As the internal audit streamlined, proceeded with verification of the effectiveness, efficiency and adaptability for the environmental change of business continuity.	◎	• Further reduce required manpower by linking the materials such as education, or training, to be uploaded to the verification for the internal audit.
3. Increase the number of employees who can capture the risk as their own events and can act proactively when risk occurs.	–	–	–	• In the education and training, provide situations where each employee can consider the risk as a personal matter. • Create an environment where he/she can be aware of the risk and perform a pre-disaster mitigation and behavior simulation.

Promotion Framework

NEC maintains proactive and flexible business continuity through the following right three functions as shown in the figure at right.

(1) Headquarters for Business Continuity and Disaster Recovery
Administer the BCP for management function to maintain top management decision-making and restore operations.

(2) Business Unit BCP team
Administer the BCP for each business to recover specific businesses, such as collecting information on damage to customers and operations, securing the personnel needed, and securing materials supply and distribution routes.

(3) Workplace BCP team
Administer the BCP for each workplace, secure the safety of workplaces, confirm the safety of employees, and support employees' life and, collaborate with communities.

NEC's Framework for Disaster Response and Business Continuity
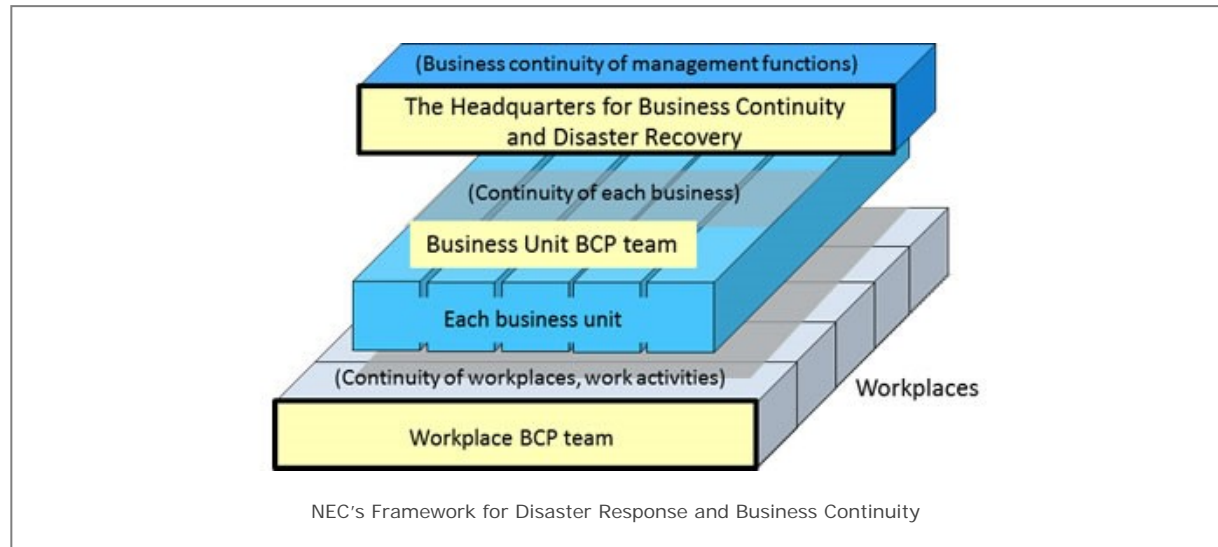
Main Activities and Results for Fiscal 2018

Disaster Prevention 4.0

In February 2017, the government of Japan released its "Disaster Prevention 4.0" as a national policy.

In Disaster Prevention 1.0 to 3.0, measures were implemented that included legislation, systemization, advance preparation, etc. to strengthen responsiveness to disasters in mainly government and local governments. Disaster Prevention 4.0 requires every citizen and employee to become more aware of disaster prevention based on the following objectives:
• Each person considers disaster prevention as a personal matter.
• Each person acts proactively.

Promptly Responding to Disasters and Risk Occurred

Since 2004, NEC has been consistently nurturing its employees under the objective of "proactively thinking and acting when disaster occurs". An environment has been created in which employees can act proactively by implementing measures to mitigate disaster damage beforehand, an information sharing system, rules and a code of conduct. NEC has been disseminating these rules and schemes through education and training and cultivating employees who can act proactively when the risk of disaster actually occurs. This allowed NEC to promptly respond to disasters in the past.

Requests for Case Studies from Inside and Outside of Japan

There were 83 requests to present case studies in relation to NEC Disaster Prevention 4.0 over one year since March 2017.

Those clients who made requests were government offices, local governments and companies not only in Japan but also in foreign countries. Accordingly, NEC held lectures and briefing sessions at the client's sites or provided information and materials.

NEC Disaster Prevention and Business Continuation Basic Policy

2004.9: Established / 2006.2: Approved at Strategy Meeting

NEC provides a lot of social infrastructure. If NEC's initial response is early, it is able to recover local infrastructure early. This means that:
· NEC secures the life and safety of its employees and visitors,
· NEC provides some relief for employees and visitors by securing necessities such as food and toilets, etc.,
· NEC makes the place where our business will be continued safe, and
· NEC assigns manpower secured by providing logistical support, replacement personnel and component from non-affected areas to restoration work at the customer's site.

Implement measures and training to mitigate disaster in advance repeatedly to cultivate many employees who "can think and act proactively when the disaster occurs".

Build an "**information sharing system**" that does not stop when the disaster occurs and make it available to anyone at any time.

A company cannot continue its business without recovery of the local community. As a corporate citizen, NEC contributes to the restoration, safety and security of the local community.

NEC resumes its operations early to offers jobs and security by restoring infrastructure (transportation, electricity, communications, etc.) by its maintenance team.

Training on Disaster Prevention and Business Continuity

In order for each employee to think about disaster and business continuity as a personal matter and to act proactively when the risk occurs, NEC offers training enabling such employee to think and act proactively and implements other various measures. In fiscal 2018, NEC conducted education and training for disaster prevention and business continuity in September, November 2017, and January 2018.

Group-wide Training for All Employees, Business Continuity Plan Walk-through in September and January

NEC holds business continuity training for participation by all the employees every September and January. These are usually held on predetermined dates and times but sometimes an unannounced training is held in the form close to the time of risk occurrence.

In September, we implemented the training to consider the following issues in each workplace in addition to the regular training.
• Toilet problems at the time of disaster.
• In normal times, each school implements the pick-up training for parents and students but what should be done if it is difficult at the time of disaster?
• How to respond to someone in the workplace who requires assistance at the time of disaster.
• How to respond to someone who requires nursing or care services at home at the time of disaster.
And we implemented the training in each workplace so that its employees could think and act proactively about the actions that should be taken and how the information should be shared among family members, etc.

Tsunami Disaster Prevention Training during the "World Tsunami Awareness Day" on November 5

Around November 5, 2016, the day designated as the "World Tsunami Awareness Day", we held a drill at NEC Group locations considered as tsunami-prone areas. As the final year of the 3-year plan the drill was aimed at determining what to do to confirm the expected tsunami damage in Hiroshima, Hakodate, etc., and deciding what preparations and actions should be taken in worst-case scenarios, while incorporating customer and client perspectives. At the same time, a drill was also held on information-sharing with suppliers outside the NEC located in the tsunami-prone areas.

Business Continuity Training Simulating a Pandemic of New Influenza Strains in November

NEC conducted the following training sessions following the basic training for infectious diseases in February 2017:
• Training to register information related to the pyrexia management/information sharing system supposing early stages of infectious disease within the country.
• Basic training (online training) on differences in response to seasonal influenza and new highly virulent influenza.
• Remote training by officers and executive officers.

NEC has been expanding its business since the 1990s under the slogan "anytime, anywhere, and with anyone". The slogan was run at this training, and the president and emergency officers gathered in a conference room at the company headquarters. Other officers and executives who are responsible for business execution participated in a remote meeting from various sites in Japan and overseas and underwent training on how to proceed with business when a pandemic occurs.

Remote meeting with offices in various sites in Japan and overseas

Prompt Response to Diversifying Disasters and Risks

There has been a rash of disasters and risks in fiscal 2018. In addition to July's heavy rainfall in Asakura in Kyushu, we responded to an earthquake in Mexico in September, major typhoons in September and October and a J-Alert in August and September.

Since NEC has been promoting "Disaster Prevention 4.0" – "Each employee thinks about disaster as a personal matter" and "acts proactively", employees were able to respond to the situations proactively. However, some employees had concerns about how to respond to risks for which they had not been trained.

To this end, NEC further promoted the visualization of objective ranking of "how each organization has incorporated its disaster prevention measures and business continuation initiatives into the organizational culture", something NEC has been working since fiscal 2017.

The figure below shows how NEC visualized disaster preparedness and business continuity capability levels for each division and company by using indices such as "organizational state in regular time and at the time of disaster", "leadership", "disaster prevention and business continuity plan", "support status", "effective operation" and "evaluation and improvement". We will further improve the accuracy of the rankings and refine the system to enable divisions and companies to incorporate disaster preparedness and business continuity in their organizational cultures and enable members to think and act independently during occurrence of disasters.

For overseas, starting fiscal 2016, we have adopted a system for conducting self-checks on disaster preparedness and business continuity in each company, and "visualized" the effectiveness and levels of business continuity plans prepared by each company.

In fiscal 2018, the third year of implementation, we confirmed the extent of annual improvements based on past results.
At the same time, we reviewed how to proceed with the business continuity initiative and are creating an action plan.

Initiatives Overseas

NEC addresses all NEC Group companies of the notification rules in a disaster and assigns the persons in charge in each company. We have constructed a system to understand and share information on the damage status of overseas subsidiaries under the five regional headquarters. We have prepared BCPs to cover country and regional risks for main overseas subsidiaries.

Moreover, we have a web system to collect and analyze information during initial-response phases at the Business Continuity and Disaster Recovery Headquarters in Japan. To verify effectiveness, we have conducted escalation exercises for all overseas subsidiaries twice a year since fiscal 2013. We are prepared to quickly resume businesses by minimizing the damage in a disaster.

Acquisition of ISO22301 Certification for Entire Value Chain

NEC, consistent with its being a provider of social infrastructures, has established Business Continuity Management Systems (BCMS) not only for the entire company as a whole, but for each unit and for each business area, to enable each unit and company to proactively and organically carry out recovery activities in the event of disasters. To make these systems internationally acceptable and applicable, we acquired "ISO22301" certification in various business areas, such as telecom carriers, systems, and datacenters.

The business-related fields for which ISO certification has been obtained cover the entire value chain, from design and system construction to manufacturing and maintenance. The number of these certifications obtained is the largest among companies in Japan.

"ISO22301," third-party certification

Certificate of Appreciation for Two Consecutive Years Awarded by the WFP

In company cafeterias and stores, NEC has sold food and water which have been stockpiled for disasters but of which the expiry date is off to a half a year. Some of the proceeds have been donated to the WFP.

During the period from 2016 to 2017, the campaign donated 3,941,105 yen, with a total donation reaching 10,189,025 yen; NEC received a certificate of appreciation for two consecutive years. This campaign not only promotes saving food but also contributes to the mitigation of adverse effects on the environment by discarding food while realizing a social contribution.

Receiving the certification of appreciation for two consecutive years from the WFP.

Selling food stockpiled for disasters in the store.

Offering dishes using food stockpiled for disaster in the company cafeteria.

Information Security and Cyber Security

Policy

NEC recognizes that it is our duty to protect the information assets entrusted to us by our customers and business partners as well as our own information assets in order to provide better products and services and contribute to the development of society. Based on this concept, NEC has placed "security to maximize ICT possibilities" as one of its "materiality," the priority management theme from an ESG perspective, and has established an "Information Security Statement," under which it promotes efforts to ensure both information and cyber security.

Based on the "Information Security Promotion Framework" (figure at right), NEC is striving to realize a secure information society and provide value to its customers.

To protect information assets, NEC is implementing cyber attack measures, providing secure products, systems and services, and promoting information security in collaboration with business partners. At the same time, we have positioned information security management, information security infrastructure, and information security personnel as the three pillars of the information security governance framework within the NEC Group, thereby maintaining and improving our comprehensive and multi-layered information security.

▶ NEC Information Security Statement
▶ Information Security Report
▶ Priority Management Themes from an ESG Perspective - Materiality

\Orchestrating a brighter world

Realizing a secure information society   Providing value to customers

Cyber security protection measures
Providing secure products, systems, and services
Information security in collaboration with business partners

Information Security Management
Information Security Infrastructure
Information Security Personnel
Information Security Governance

Information Security Promotion Framework

Activity Objectives, Achievements and Progress

Objectives for the Mid-term (from fiscal 2019 to 2021)

As a global company that provides ICT essential to social infrastructures, NEC will contribute to society by protecting information assets entrusted to us by customers and business partners and its own information assets, as well as further enhance security in the entire supply chain. NEC is also realizing a secure information society and providing value to customers by implementing secure development and operation and providing safe, secure and reliable products, systems and services. NEC will accelerate the creation of mechanisms for defense against cyber attacks, which are foreseen to continually become more sophisticated and advanced, as well as the global deployment of programs to train information security personnel.

Objectives, Achievements and Progress, and Degree of Completion

(Degree of completion: ◎Achieved, ○Mostly Achieved, △Some Progress, ✕No Progress)
In fiscal 2019, NEC will engage in the activities below to achieve the objectives of "minimize the effects of serious security incidents" and "promote our own information security practices as a reference that can be used for our customers" which are set as objectives of "materiality."

Objectives for the Mid-term	FY2018 Objectives	FY2018 Achievements and Progress	Degree of Completion	FY2019 Objectives
1. Strengthen measures against cyber attacks (Japan, overseas)	• Operate GCAPS[*1] in NEC Corporation and its Group companies in Japan and deploy it in overseas Group companies. Further, expand the deployment scope of cyber-attack countermeasures such as detection of unknown attacks, integrated log management and intensified monitoring, CSIRT[*2] establishment, in overseas Group companies.	• Deployed GCAPS in NEC Corporation and its Group companies in Japan (about 180,000 units). • Expanded the deployment of detection of unknown attacks and integrated log management at overseas Group companies.	◎	• Deploy GCAPS overseas. • Enhance the global CSIRT system. • Enhance the use of threat intelligence. • Enhance deployment of EDR (Endpoint Detection and Response) products. • Validate the effect of advanced measures so that the cyber security measures can be used as a frame of reference by customers.
2. Establish global security infrastructures	• Increase the level of information security, both in terms of employees' awareness and IT frameworks, at overseas Group companies to the level in Japan.	• Implemented information security education, including latest topics for all employees, and raised their information security awareness. • Conducted Network Security Audit/Security Inspection and confirmed information security status at overseas Group companies.	◎	• This objective is removed from activities that should be a focus in FY2019 and later, but NEC will continue to work on achieving this goal.

Objectives for the Mid-term	FY2018 Objectives	FY2018 Achievements and Progress	Degree of Completion	FY2019 Objectives
3. Strengthen the improvement of secure products, systems and services	• Contribute to business expansion by improving guidelines, enhancing the IT system, and continuously providing safe and secure products, systems and services by supporting secure development and operations in business projects on the front line.	• Newly created and improved security measure guidelines for the OS and middleware used in each business project. • Enhanced the IT system that supports secure development and operations and engaged in efforts to develop the ideal IT system.	O	• Improve a system that visualizes the progress status of security measures and enhance the vulnerability measures. • Continue enhancing and improving the guidelines and streamline the security measures. • Support secure development and operations in each business project, and provide safe and secure products, systems and services to customers. • Promote security-embedded products, systems and services.
4. Improve security in cooperation with business partners	–	–	–	• Support business partners by checking and understanding the security status of the partners in real time. • Minimize risks by deploying awareness-raising activities against new threats to business partners and ensure supply chain security.

*1 GCAPS: Global Cyber Attack Protection System
*2 CSIRT: Computer Security Incident Response Team

Promotion Framework

The information security promotion organizational structure of the NEC Group consists of the Information Security Strategy Committee, its subordinate organs, and the promotion structure at each organization level.

The Information Security Strategy Committee, headed by the CISO[1], 1) evaluates and discusses how to improve information security measures, 2) discusses the causes of major incidents and the direction of recurrence prevention measures, and 3) discusses how to apply the results to NEC's information security business to address information security risks, including risks related to cyber security. The CISO also heads the CISO office, whose job is to receive direct instructions from the CISO and promote cyber security measures, and the CSIRT[2], whose job is to monitor for cyber attacks, and when an attack is detected, immediately analyze it, identify the cause of the incident and implement measures to bring the situation to normal.
The Information Security Strategy Committee and working groups discuss and coordinate security plans and implementation measures, enforce instructions to achieve them, and manage the progress for Group companies worldwide, for business partners, and for driving the Secure Development and Operations initiative, respectively.

The information security manager in each organization has primary responsibility for information security management including the Group companies under their supervision. They continuously enforce information security rules within their organizations, introduce and deploy measures to assess the implementation status, and implement further improvement measures to maintain and enhance information security.

[1] CISO: Chief Information Security Officer
[2] CSIRT: Computer Security Incident Response Team

Information Security Promotion Structure
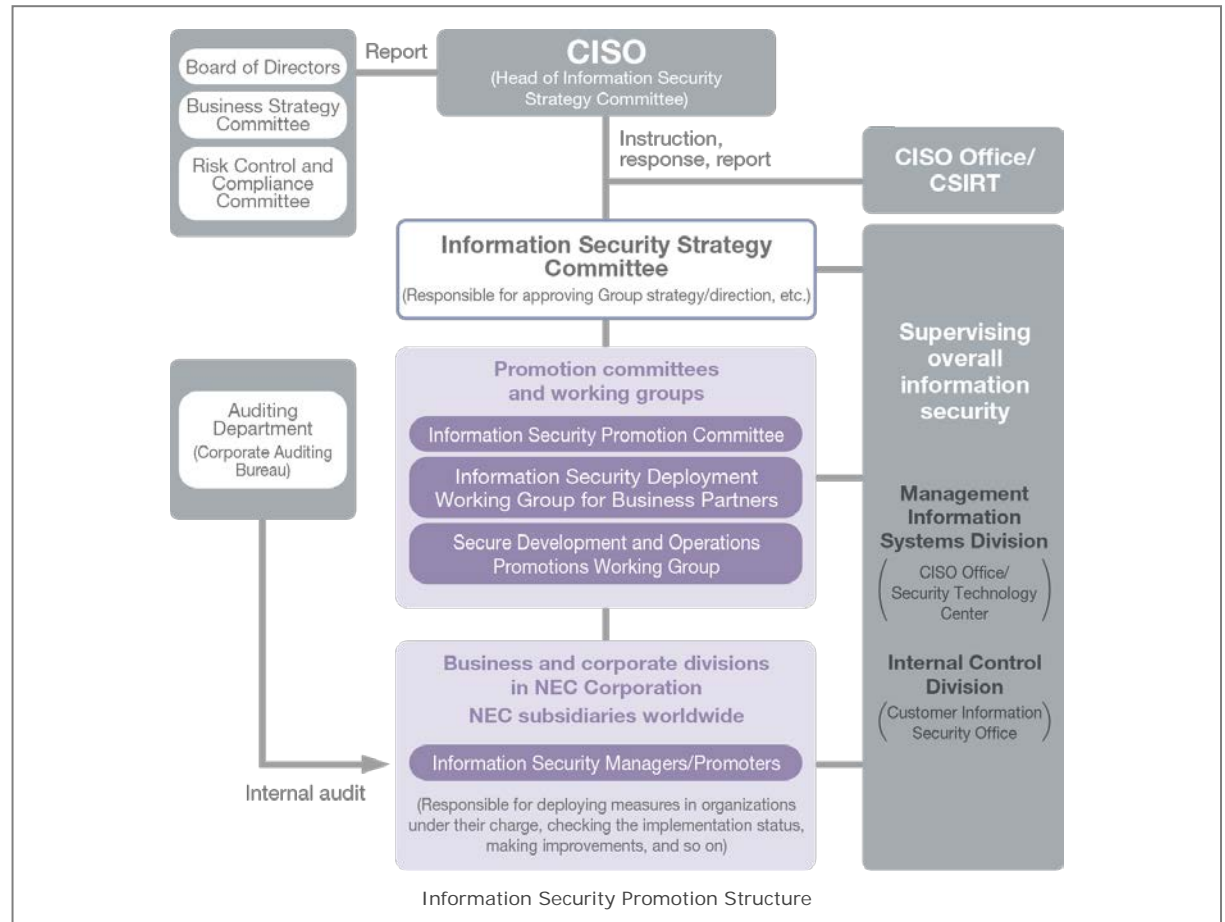
Main Activities and Results for Fiscal 2018

Strengthening Measures against Cyber Attacks

Cyber attacks that occur in daily business operations include targeted attacks against specific companies or organizations, ransomware that is a kind of malware that encrypts files and then demands a ransom in exchange for decryption, BEC (Business Email Compromise), indiscriminate email attacks that aimed at unspecified, large numbers of people, and are becoming more and more advanced and sophisticated. As a means to counter these attacks, we are deploying the Global Cyber Attack Protection System (GCAPS[*1]) within NEC Corporation and all its Group companies in Japan, in order to fix vulnerabilities of PCs and servers promptly and to respond to incidents efficiently.

GCAPS reinforces security of PCs and servers from the two standpoints: "Proactive Defense" performed on the basis of risk recognition, and "Incident Response" when an incident is detected. From fiscal 2019 onwards, we will gradually introduce GCAPS also to overseas Group companies.

[*1] GCAPS: Global Cyber Attack Protection System.
　　　Sold under the Solution name: NEC Cyber Security Platform (NCSP)

In addition, if the system is infected by unknown malware, the unauthorized communication will be blocked automatically from infected devices 24 hours a day together with SDN[*2], thus preventing the spread of secondary infection and minimizing security risks.

Concept of GCAPS
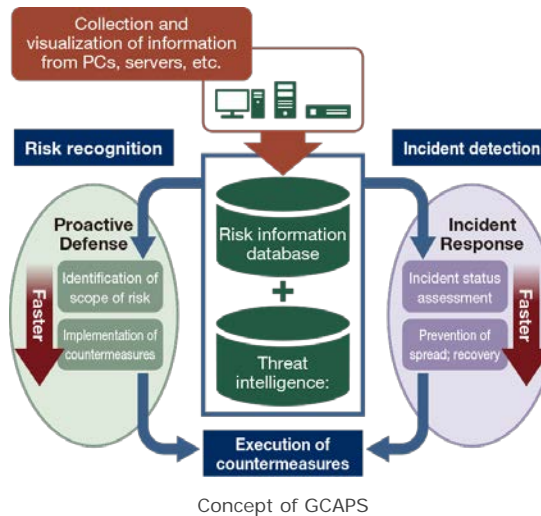
NEC has incorporated Artificial intelligence (AI) to realize leading-edge cyber security. By operating our solution in an actual IT environment as proof of concept, NEC is making efforts on the growth of its focused area as well as the development of an advanced internal reference model. For example, we have implemented ASI[*3], NEC's AI-based self-learning technology that detects abnormal behaviors of a system, into IT environment of NEC Asia Pacific (Singapore), and enabled CSIRT to monitor the environment more effectively. Requirements and points for improvement obtained through these actual operations are provided to the development division as feedback, contributing to the improvement of ASI quality.

[*2] SDN: Software-Defined Networking
[*3] ASI: Automated Security Intelligence

Strengthening Global Security Infrastructures

NEC has deployed the integrated management platform that enables the visualization[*4] of the status of information security measures for PCs such as installation of security patches, malware countermeasures, and PC encryption, at overseas Group companies.

NEC also implemented information security education including the latest topics for all employees by using the Global ID Management Platform and has raised information security awareness. We have also carried out Network Security Audit/Security Inspection and confirmed the information security status at local Group companies.

[*4] "Visualization" in this context refers to a system for quantitatively confirming the implementation status of information security measures in overseas Group companies. The system, for example, shows the security patch installation status and implementation rates for PC encryption measures. This enables Management Information Systems Division of NEC Corporation and regional administration companies as well as Information Security Managers of local Group companies to confirm the implementation status of security measures and take concrete actions to further improve the information security within NEC.
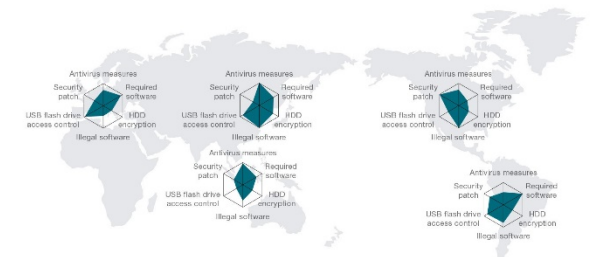
Visualization example: "Overview of information security implementation by region"

(The graph above shows only sample data and does not indicate any actual information.)

Strengthening Promotion of Secure Products, Systems and Services

NEC implements a PSIRT[1] that manages vulnerabilities in order to quickly respond to the huge amount of vulnerabilities that are discovered on a daily basis. The PSIRT, with external organizations such as IPA[2] and JPCERT/CC[3], collects and analyzes vulnerability information and functions as PoC[4] for communications. A framework has been established for enabling the entire NEC Group to share vulnerability information collected principally by the PSIRT.

We operate our own vulnerability information management system as infrastructure for deploying and managing the acquired information within NEC Group. Using this system, we are steadily disseminating and managing vulnerability information.
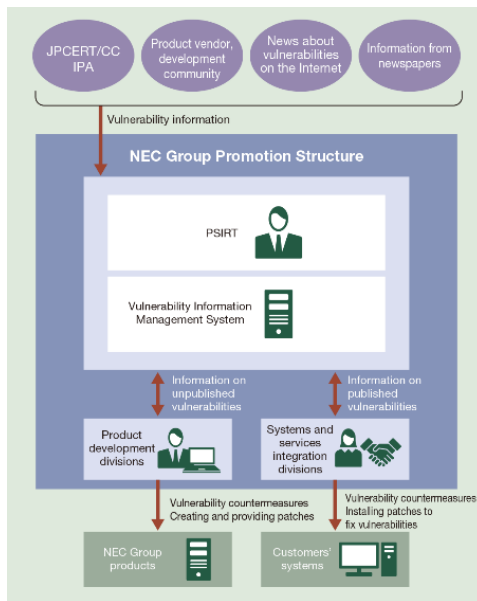
Vulnerability Response Promotion Structure

By visualizing security risks in customers' systems early on, we undertake security-related risk assessments to minimize those risks as much as possible. In response to the increasing threats of cyber attacks on control systems in recent years, we are focusing on implementation of a risk assessment service for control systems complying with standards such as ISO/IEC27001 or IEC62443.

[1] PSIRT: Product Security Incident Response Team
[2] IPA: Information-technology Promotion Agency, Japan
[3] JPCERT/CC: Japan Computer Emergency Response Team Coordination Center
[4] PoC: Point of Contact

Monitoring and Improvement

Information Security Assessment Activities

NEC continuously conducts information security assessments to check the implementation status of information security measures and to create and execute improvement plans.

In fiscal 2018, information security assessments were carried out at NEC Corporation and its 68 Group companies in Japan. Assessments were conducted both by general employees as well as by managers of specific security measures to confirm the status of measure implementation based on their respective roles (personal assessment). We were able to improve effectiveness by accurately assessing the actual on-site security situation. Personal assessments were also conducted at its 34 overseas Group companies, which enabled a detailed grasp of their security measures, and further raised awareness and recognition among them.

These ongoing activities ensure that information security measures for NEC Corporation and its Group companies in Japan are continually being implemented and improved. There remains, however, room for improvement for some of these measures, and we issued reminders for their thorough implementation to NEC Corporation and its Group companies in Japan. On the other hand, for overseas Group companies, since the level of implementation has not reached that of the Japanese Group companies, the overseas Group companies were given instructions to implement measures based on the results of assessments, and the status of their implementation was regularly validated.

Assessment of Business Partners

On the basis of the "Information Security Standards for NEC Group Business Partners," the "Basic Rules for Customer-Related Work for Business Partners," and other related guidelines, we conducted assessments and evaluations of the implementation status of information security measures of business partners through web-based self-assessments and onsite assessments. We provided business partners with feedback on evaluation results, and thoroughly implemented improvements.

In fiscal 2018, web-based self-assessments were carried out at approximately 1,500 companies and onsite assessments at approximately 100 companies.

These ongoing activities ensure that information security measures for business partners are continually being implemented and improved. There remains, however, measures that have relatively low implementation rates compared to other measures, and we requested concerned business partners to conduct thorough implementation of such measures.

Assessment of Security Measures for Products, Systems, and Services Provided to Customers

To ensure security in products, systems and services, NEC uses a checklist. The "Secure Development & Operation Check System" is used to visualize the status of security measures based on this checklist. This system manages about 7,000 business projects and managers can effectively inspect and audit the status of the security measures in place.

Supply Chain Management

Basic Policy Concerning Supply-Chain CSR

As supply chains continually become globalized, corporations are required to responsibly conduct procurement activities that strongly emphasize sustainability throughout the entire supply chain. NEC believes that conducting business while giving full attention to its impacts to the environment and the society as a whole, not only singly but in collaboration with suppliers constituting the supply chain, makes us worthy of the trust given by society and enables us to contribute to sustainable social value creation.
NEC endeavors to work in cooperation with suppliers to learn about critical social issues and the impact of business on society, and continually engage in initiatives toward building a better supply chain.

Basic Polices and Initiatives

NEC formulated the "NEC Group Procurement Policy" based on the NEC Sustainable Management Policy and on ISO26000 and ISO20400 international guidance standards for social responsibility. This policy will be implemented in internal control pertaining to Supply-Chain CSR and among suppliers. In terms of purchasing ethics and other forms of internal control, NEC has established "Basic Rules for Procurement," and ensures that all employees remain in compliance with these regulations. To strengthen this effort, NEC also devised concrete operational rules for its procurement processes, and ensures that the rules are disseminated among procurement-related personnel by conducting regular training. In terms of implementation among suppliers, NEC devised the "Supply-Chain CSR Guidelines" to deepen mutual understanding with suppliers. Based on these guidelines, NEC will promote procurement activities in close collaboration with suppliers and continue in efforts to nurture partnerships from a long-term perspective.

▶ NEC Group Procurement Policy
▶ Supply-Chain CSR Guidelines

Based on the above policies and guidelines, NEC has defined the priority risks in Supply-Chain CSR to be: "human rights," "occupational health and safety," "fair trade," "environment," "information security," and "product quality and safety." To address these risks, NEC is promoting initiatives at various stages, including contract, dissemination, document review, and onsite auditing in order to give full attention to these priority risks throughout the entire supply-chain in the conduct of Supply-Chain CSR.

➢ Basic Contract
NEC ensures implementation and compliance to these initiatives by suppliers in Japan by entering into basic contracts and obtaining declarations that demonstrate their commitment to the environment and safety and health management. NEC also obtains a declaration regarding the environment and safety and health management from suppliers in North America, Europe and Asia. For Asia, we have also incorporated CSR provisions in individual order documents.

➢ Dissemination
NEC presents the NEC Group Procurement Policy, Supply-Chain CSR Guidelines, and various other guidelines to its suppliers, and ensures that they have understood and agree to those guidelines. In Japan, NEC held briefings on "CSR/Information Security Measures" and shared information with subcontractors about the latest measures that we have to promote together with them.

➢ Document Check
NEC conducts web-based self-assessment in order to assess the status of compliance with requirements and initiatives relating to information security among suppliers.

➢ On-site Assessment
NEC visits its suppliers and continually conducts on-site assessment to evaluate the implementation status of measures relating to information security. NEC shares the items that require improvement with its suppliers and supports them in implementing improvement measures.
In regard to the on-site assessment (CSR-PMR) held until fiscal 2017, we have decided to suspend the review for fiscal 2018 based on results of evaluation of its effectiveness and of future initiatives. (Details are explained in "Original objectives (second item)" in the next section.)

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Activity Objectives, Achievements and Progress

Objectives for the Mid-term (from fiscal 2019 to 2021)

Further promotion of autonomous CSR for supply-chain partners

Objectives, Achievements and Progress, and Degree of Completion

(Degree of completion: ◎Achieved, ○Mostly Achieved, △Some Progress, ✕No Progress)

FY2018 Objectives (New)	Achievements and progress for fiscal 2018	Degree of completion	FY2019 Objectives
• Formulate supply-chain CSR policy in procurement of software and solutions	• Revised and presented the Group Procurement Policies and Supply-Chain CSR Guidelines on the NEC website. • Achieved specified learning objectives regarding the Supply-Chain CSR initiatives by major hardware suppliers based on onsite surveys conducted thus far through SAQs and CSR-PMR; analyzed NEC Corporation's purchase cost structure, and revised the policy to focus on Supply-Chain CSR promotion in software and solutions procurement from now on, based on initial results of assessment of medium-term strategies to promote Supply-Chain CSR. • Supervising executive officers approached executives of major suppliers in efforts to further promote co-creation in software and solutions procurement. • Developed a quantitative "Supplier Risk Index" that takes into consideration the product domain, transaction history, corporate information, and other factors, to promote Supply-Chain CSR in accordance with supplier's conditions.	○	• Promote supply-chain CSR in the procurement of software and solutions - Identify issues in software and solutions procurement through supplier surveys. - Devise and start implementation of measures suited to each supplier using the Supplier Risk Index. Initially, determine measures for "long working hours" and "health management," which are also the focus of government measures. - Verify the impact of the measures through collaboration with internal and external information sources and dialogues with NPOs.
• Develop effective supplier CSR to replace SAQ, PMR • Develop monitoring tools	• Developed Supplier Visit Record, which can be used by local procurement personnel for routine CSR monitoring. • Constructed system infrastructure for the online use of Supplier Visit Record, enabling the sharing of information among procurement personnel including overseas subsidiaries.	○	• Promotion of use of Supplier Visit Record - Prepare a user's manual for Supplier Visit Record, and conduct training for procurement personnel. - Start actual use of Supplier Visit Record in Greater China, and proceed with gathering of needed information.
• Incorporate CSR provisions to individual order documents for APAC (Asia-Pacific region)	• Incorporated CSR provisions in individual order documents used by APAC Regional Headquarters, and started their actual use. • Proceeded with incorporation of CSR provisions in individual order documents used by overseas affiliates supervised by NEC APAC, and started their actual use in overseas affiliates except in Oceania. • Proceeded with activities aimed at incorporating CSR provisions in individual order documents used by EMEA Regional Headquarters (Europe, Middle East and Africa) and its affiliated subsidiaries.	◎	• Globally implement the incorporation of CSR provisions in individual order documents - Complete the incorporation of CSR provisions in individual order documents for APAC and EMEA Regional Headquarters and their affiliated subsidiaries. - Start studying the incorporation of CSR provisions in individual order documents in Greater China, which has different business practices. - Start studying the incorporation of CSR provisions in basic contract for materials in Japan (NEC Corporation and its consolidated subsidiaries in Japan.)

Original objectives	Reason for changing objectives
1. Conduct (resume) SAQ that covers all CSR-related items.	The introduction of existing SAQ (self-assessment questionnaire prepared by the Global Compact Network Japan working group) designed for hardware procurement was considered, but it was discontinued after the formulation of the policy for promoting supply-chain CSR in software and solutions procurement.
2. Expand continuous CSR-PMR.	After close examination of the effectiveness of the current PMR, it was determined that although it can effectively assess safety and health, and waste management at the factory level, it was difficult to identify critical problems such as human rights violations. Also, due to the decision to comprehensively revise all initiatives towards promotion of Supply-Chain CSR in the development of software and solutions, the implementation of CSR-PMR was suspended.
3. Start a survey on CSR initiative of suppliers in APAC.	For the same reason as (1) above, the survey of CSR initiatives (document check) was not conducted, but instead, CSR provisions were incorporated in the individual order documents that are tailored to APAC regional attributes.

Promotion Framework

NEC's Supply-Chain CSR System

Supply-Chain CSR activities of the entire NEC Group are under the responsibility of the Chief Supply Chain Officer. Decisions related to Supply-Chain CSR are discussed at the Procurement Steering Committee chaired by the General Manager of Purchasing Division. Measures are devised and implemented after dissemination of information and deliberations at the CSR Procurement Sectional Committee convened every quarter by the Purchasing Division. Also, the promotion of Supply-Chain CSR is held in collaboration with relevant in-house departments.

NEC endeavors to gain a deep understanding of global social issues and actively gathers the latest information on initiatives of international institutions, government agencies, and other companies by engaging with international initiatives and stakeholders such as civic communities (NGO/NPO) and academia, to serve as basis in drawing up Supply-Chain CSR promotion plans, as well as plans for effective implementation and improvement of individual measures.

Information gathered at the CSR Procurement Sectional Committee is announced to subsidiaries in Japan, and activities are carried out as activities of the entire NEC Group.

Overseas subsidiaries conduct activities under the Global SCM Leadership Session, which meets annually, as the decision-making body. Regional Headquarters in EMEA, China and East Asia, and APAC have assigned personnel to manage Supply-Chain CSR over their entire respective regions to effectively promote Supply-Chain CSR in accordance with the culture and business practices of each country, as well as with the basic policies mandated by the Headquarters in Japan.

Participation in Activities with Other Companies

NEC also actively participates in cross-company activities related to Supply-Chain CSR. The Supply Chain Working Group of Global Compact Network Japan hosts continuing discussions regarding the goals of Supply-Chain CSR among various members coming from companies in different industries, NGOs, etc., and conducts activities aimed at generating output that will contribute to improvement of CSR practices in corporations. As part of these activities, the Working Group published the CSR/Sustainable Procurement Self-assessment Tool Set in June 2017. As an active member of the Working Group, NEC Corporation has also contributed to generating output for the tool set.

In January 2018, the Japan Electronics and Information Technology Industries Association (JEITA) established a CSR Committee to conduct surveys, research, and promotional activities, as well as provide external suggestions and proposals from an expert viewpoint pertaining to CSR. At the same time, as a subsidiary body under the said committee, the Responsible Supply Chain Working Group was launched, to which NEC Corporation is also a member, sharing the latest information and issues common to the industry and contributing to the improvement of the Working Group's initiatives.

Measures

Revision of the NEC Group Procurement Policy

The NEC Group Procurement Policy was revised along with the formulation of the Mid-term Management Plan 2020. Under the goal of pursuing economic and social values, NEC issued the following statement: "We will aim to solve social issues through co-creation of values with our partners towards the building of sustainable societies."

Likewise, we have clarified our vision to (1) promote sustainable and responsible procurement, (2) generate social value through co-creation, and (3) build relationships of trust aimed at growth. Guided by these visions, we will endeavor to link our daily procurement activities with the concept of value co-creation with partners, and aim to conduct activities that integrate financial as well as non-financial elements.

A major recent social issue, "modern slavery," is now the subject of discussions as a negative aspect of globalization. So as not to contribute to the exacerbation of absolute poverty in developing countries, NEC included a declaration against slavery and human trafficking in the "Concept of NEC Procurement" under the revised NEC Group Procurement Policy.

▶ NEC Group Procurement Policy

In addition, NEC Europe also reviews the EMEA Procurement Policy as needed, promoting Supply-Chain CSR in accordance with guidelines specific to countries and regions where customers are based.

▶ Promoting Human Rights in Europe, Middle East and Africa (EMEA)

Revision of Supply-Chain CSR Guidelines

We also revised our Supply-Chain CSR Guidelines following the revision of the NEC Group Procurement Policy and published the revised guidelines in our website.

There is a limit to the extent of problems that can be addressed by initiatives that are confined either within NEC or within individual suppliers. The guidelines were

revised mainly to put the focus on collaborations with companies upstream in the supply chain and pursue collaborations to promote co-creation with each supplier. NEC will promote activities that address social issues commonly recognized by both NEC and suppliers by identifying concrete and more relevant issues through various programs and venues for co-creation with suppliers.

Since many CSR problems are related with "social exclusion," items related to human rights, such as "consider minorities" and "protect foreign employees" were added as issues to address, for which suppliers have also been requested to comply.

▶ Supply-Chain CSR Guidelines

Environmental Measures

NEC has been promoting green procurement of parts and materials and has operated a green certification system based on the Green Procurement Guidelines that cover the procurement of not only hardware, but also software and services. We have maintained a green procurement rate of 100% for product-related materials, excluding some supplies for internal use. Also, to comply with chemical substances regulations around the world, notably the "European RoHS (Restriction on Hazardous Substance) Directive," and "European REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) Regulation," NEC continuously conducts chemical substance content surveys covering purchased items.

Furthermore, since measures against global warming must be implemented across the entire supply chain, NEC, from 2012, has been monitoring CO_2 emissions related to purchased items with the cooperation of major suppliers. We disclose CO_2 emissions data for the entire supply chain, including purchased items, after third-party validation, and are making use of the data in developing measures to reduce CO_2 emissions.

▶ Standards Pertaining to Procurement Restrictions for the Inclusion of Chemical Substances in Products

▶ Scope 3

Addressing the Issue of Conflict Minerals

It is claimed that minerals mined in the Democratic Republic of the Congo and neighboring countries are used to finance armed groups, contributing to tribal conflict, human rights violations, and environmental destruction. In fiscal 2012, the NEC Group clarified its policy of neither using nor procuring mineral products mined improperly in conflict areas and sought the understanding and cooperation of its suppliers by establishing the "Conflict Minerals Guidelines." NEC established a response structure drawing on a liaison between its internal sales and business units so it can swiftly respond to requests from customers based on the conflict minerals survey.

▶ Conflict Minerals Guidelines

NEC continues to collaborate with industry as a member of the "Responsible Mineral Trade Working Group" led by JEITA.

In fiscal 2018, NEC joined the "Education and PR Team" and the "Smelter Support Team" under the Working Group. As part of the Education and PR Team, NEC acted as a presenter in a joint briefing for its suppliers and worked to understand their particular conflict-mineral problems. For the Smelter Support Team, NEC directly encouraged overseas smelters that had not yet been certified as "Conflict Free" to get audited and certified.

Seminar on conflict minerals

Response to Recommendations by the CSR Review Forum (CRF)

In 2017, NEC implemented the following initiatives in regard to items pertaining to Supply-Chain CSR based on recommendations from the CSR Review Forum.

- In regard to the recommendation for onsite auditing to be more effective in the areas of human rights, safety and health, etc., NEC has still been unable at this point to establish auditing methods that balance effectiveness and efficiency across the wide area encompassed by human rights. However, since our major overseas manufacturing contractors have already completed self-assessment and reviews by international organizations such as the Responsible Business Alliance (RBA), risks are believed to be minimal. As part of human rights due diligence, we will continue the research on effective methods for identifying and assessing risks.
- In regard to the recommendation for implementing procurement personnel training to raise their awareness on CSR, as mentioned below, NEC has formulated a training plan and is systematically conducting training that include CSR and compliance with relevant laws. For fiscal 2019, we will enhance the training programs to incorporate revisions to the NEC Group Procurement Policy and Supply-Chain CSR Guidelines, such as measures against modern slavery and other new items.
- In regard to the recommendation for enhancement of dialogue with stakeholders and the execution of due diligence, recognizing the importance of implementing initiatives in accordance with the shift to software and solutions, this fiscal year, we will identify priority themes based on the unique characteristics of these business areas and strengthen collaborations with suppliers. Also, activities aimed at the dissemination and entrenchment of the different measures in the procurement frontlines will be pursued across the entire NEC Group via the CSR Procurement Sectional Committee.

Planned Training

NEC has established and is implementing a training plan relevant to the appropriate positions and roles of the procurement staff for CSR and related procurement laws and regulations, so that all procurement personnel not only comply with laws, but also fulfill their social responsibility and conduct highly sustainable procurement activities.

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Previous Initiatives and Future Directions

Policy formulation: Critical Issues in Supply-Chain CSR

Compared to the time when the NEC Group first initiated Supply-Chain CSR initiatives, the ratio of procurement related to software and solutions has increased, while that related to hardware has decreased. NEC has decided to focus on Solutions for Society in line with the shift in its management policy, and therefore expects this procurement trend to continue following the shift in business direction. In fiscal 2018, NEC has started devising Supply-Chain CSR strategies that are tailored to these changes in business and procurement areas.

The software and solutions domain is different from the hardware domain in terms of the nature of business and social issues that must be addressed. Through survey of literature and consultations with experts, we have identified that besides information security, long working hours, health considerations, and work-life balance are among the issues that we need to focus on in software procurement.

In solutions procurement, we have identified the need to prevent danger and ensure safety in factories as important issues to address.

Going forward, we will determine more concrete issues as we move along with co-creation activities with suppliers and will identify specific issues that NEC should focus on in Supply-Chain CSR.

Policy Formulation: Measures in Accordance with Status of Suppliers

The NEC Group purchase cost structure indicates that the top 1,000 companies based on purchase amount account for 85% of the entire purchase volume. On the basis of corporate influence, we expect to see greater impact for our initiatives at Procurement Steering Committee by working with our major suppliers.
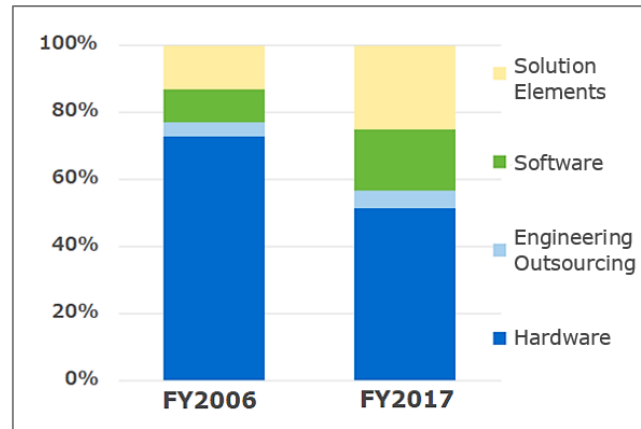
There is also a need, however, to monitor small-scale suppliers. Since there are still considerable risks related to human rights violations and other issues even for small purchase amounts, we believe it is also necessary to promote awareness from a perspective other than corporate influence.

Therefore, for fiscal 2018, we conducted an analysis of purchase cost structure and developed the "Supplier Risk Index" in order to carry out varied and adaptive CSR measures that fully take the scale of suppliers, status of transactions with NEC, and other factors into consideration.

The Supplier Risk Index is essentially based on purchase amount and is aimed at visualizing supplier risk conditions in terms of product domain, transaction history, corporate information, and other factors.

Starting fiscal 2019, we will leverage the Supplier Risk Index to carry out measures that emphasize effectiveness of activities based on newly identified key issues to address.

Contract: Collaboration with Overseas Subsidiaries and Suppliers for Environmental Health Services (EHS)

From fiscal 2016, NEC Group overseas subsidiaries have required their suppliers, including hardware manufacturers and local construction companies, to submit a declaration regarding the environment and safety and health management. This is aimed at ensuring compliance with environmental regulations enforced in each country and region and at securing the safety of workers at local construction sites.

In this declaration, suppliers pledge to comply with the following three rules:
① Compliance with regulations on banned chemical substances for delivered items (products or purchased goods)
② Proper and lawful disposal of wastes from construction of facilities, etc.
③ Ensuring worker's safety at construction sites, etc.

Through this kind of co-creation with its suppliers, NEC will continue to implement a compliance organization in its overseas subsidiaries and improve the compliance process.

Dissemination of Information Regarding Compliance

In-house Training and Monitoring

NEC Corporation and its consolidated subsidiaries regularly implement various educational and training programs for procurement personnel in accordance with the situation of each company, as part of efforts to maintain proper business conduct.
These initiatives continued in fiscal 2018 based on the annual plan. The content was closely related to purchasing tasks, including overall aspects of CSR, corporate ethics, and the Act against Delay in Payment of Subcontract Proceeds, etc., to Subcontractors, and included courses needed to enhance operations skills. In particular, procurement personnel are required to undergo training on "onsite contracting and dispatch staffing" and on the "Act against Delay in Payment of Subcontract Proceeds, etc. to Subcontractors" (Basic Compliance I, II, and Application) repeatedly for a total of three times over a period of several years.

In connection with accepting employees from suppliers through onsite contracting or dispatch staffing, training is conducted so that employees learn the compliance requirements at their respective workplaces. Since fiscal 2008, all newly appointed management personnel undergo annual Web training. All employees also undergo mandatory Web training every year regarding the Act against Delay in Payment of Subcontract Proceeds, etc. to Subcontractors as a refresher course, in addition to when they become promoted into management positions.

In the course of enforcing compliance with purchasing-related laws and regulations and meticulously implementing such laws and regulations, NEC has appointed compliance promoters who are specialized in purchasing-related laws and regulations at NEC Corporation and its major consolidated subsidiaries in Japan. These compliance promoters rigorously enforce legal compliance within the divisions and their companies. Compliance promoter conferences are held twice a year, during which they share recent trends in reinforcement of control by competent authorities, and

information on training programs for procurement personnel, Web training materials, and other information needed in promoting compliance.

NEC continued to conduct internal auditing in fiscal 2018 to further promote appropriate onsite contracting and dispatch staffing practices. In regards to ensuring appropriate dispatch staffing practices, NEC worked closely with the personnel divisions to revise the audit details based on the amended Worker Dispatching Act. Internal audits conducted at NEC during fiscal 2018 revealed no major problems pertaining to onsite contracting and dispatch staffing practices.

A Compliance Hotline, a point of contact for compliance consultation and reporting, has been made available also to suppliers since 2003. This mechanism provides an independent channel for transaction-related complaints and consultation by suppliers. The Compliance Hotline is easily accessible from NEC's website.
As part of efforts to eliminate compliance violations by NEC employees, starting fiscal 2018, a "request for cooperation towards thorough compliance" was issued to solicit cooperation of suppliers in handling complaints of violations. This initiative will be continued to further enhance the effectiveness of the Compliance Hotline.

▶ Compliance Hotline

Web-based Self-assessment: Strengthening Information Security

For NEC, a system integrator of information systems that serve as critical social infrastructures, strengthening and committing to information security involving subcontractors is one of the most critical issues. The Purchasing Division in particular is focusing on managing subcontractors and raising awareness on information security. Yearly activities include holding briefings for subcontractors, preparing educational materials and tools, and conducting web-based self-assessment.
The following are the activities for fiscal 2018:
- Briefings on CSR and information security measures for management and CSR managers of subcontractors. Held 14 times in 13 locations throughout Japan. About 2,000 attended from about 1,500 companies.

- Compliance education for subcontractor staff working on NEC Group operations. About 900 companies downloaded educational materials.
- Web-based self-assessment to assess the information security implementation status of each subcontractor. Done for about 1,500 companies.
- On-site assessment of subcontractors. Done for about 100 companies.

NEC will continue to implement measures to improve the information security level in its subcontractors.

On-site Assessment: Information Security Checks by Visitation

Comprehensive dissemination of instructions and requirements to include employees of suppliers is necessary in ensuring information security along the supply chain. This is because accidents are bound to occur if these stipulations are not followed at the workplace.
Every year, NEC issues "Information Security Standards for NEC Group Business Partners" as part of the framework for implementing information security management among subcontractors.
During On-site assessment, NEC representatives visit supplier operation sites to conduct interviews, check supporting documents, and carry out inspections to verify conformance with the standards stipulated in standards manuals. Subcontractors are selected for onsite assessment based on comprehensive criteria that include, not only the scale of transactions, but also the criticality of handled information, the level of confidentiality, and results of web-based self-assessment.
In fiscal 2018, around 100 suppliers were visited, and requests for improvement of information security management system were issued to 9 companies.

Ensuring Quality and Safety

Policy

Since its founding in 1899, NEC has continued to develop a corporate culture based on "Better Products, Better Services." This means creating products and services that meet the expectations of and are more valuable to our customers in terms of quality and safety. It also means that every one of us at NEC understands, considers, and quickly responds to what our customers expect as our corporate culture.

The word "Better," not "Best," in our statement of "Better Products, Better Services" embodies our desire to "continuously make improvements to achieve our very best in providing better products for customers."

Based on these values, we hope that all our employees will be confident in NEC's quality policy by raising the quality of their own work, the products they create, and the services they provide. Also we hope to be NEC that is trusted as "NEC Quality" and chosen by customers. NEC defines "maintaining and improving quality" as a critical initiative to promote "Governance and compliance" – one of its "materiality," the priority management themes from an ESG perspective – and defines "Quality and Safety Principles" and "Code of Conduct" as follows to enforce the initiative.

Quality and Safety Principles

NEC puts CS (Customer Satisfaction) first and continues to provide "Better Products, Better Services."

Code of Conduct

1. Quality management
    1) Think about the new values of customers and society and act accordingly.
    2) Maintain and develop the NEC brand.
    3) Raise awareness in everyone about the importance of quality and the necessity of striving to make improvements.
    4) Ensure the quality of products and services and comply with product-related laws and regulations.
    5) Address issues related to product quality and services with integrity.

2. Safety management
    1) Raise awareness in everyone about the importance of product safety.
    2) Ensure the safety of products and services and comply with safety-related laws and regulations.
    3) Address issues related to product safety and services with integrity.

Promotion Framework

Quality and Safety Risk Management System

One of the most important management issues is how to deal with quality and safety risks in products, systems and services. In October 2000, NEC reconfigured the company-wide quality and safety risk management systems and it has ensured a smooth and carefully monitored operation since then.

NEC is working specifically to clarify a range of actions for this system by defining company-wide rules and standards and ensuring that these are disseminated by appointing quality/safety management officers for each business division. We have consolidated and informed thoroughly the systems and frameworks to comply with laws and regulations related to the products' quality and safety, etc., and set up the "Quality and Safety Action Policy." In this way– improving the safety and reliability of our technology, standardizing key components and sharing know-how – we can prevent errors from occurring or recurring.

To deal with any large-scale social impact that could occur in the unlikely event of a major system outage or the failure of a major component, an urgent risk management report that is immediate escalation to top management is submitted and an emergency troubleshooting meeting is held. The business division in charge and the specialist staff division confer and reach a quick decision on how customers are to be treated, the response of those in authority and whatever other publicity measures might be appropriate. The consultations are rapid and decisions are made concerning the most appropriate overall policy. This implementation can be audited with an auditing framework that meets the standards of NEC's auditing department.

As a way to strengthen its response to escalation of important quality issues, in October 2010, NEC revised the rules whereby major product failures and system issues facing customers can be escalated directly to top management from the relevant business sector. In this

manner, the NEC Group has been dealing with quality and safety risk management promptly as one.
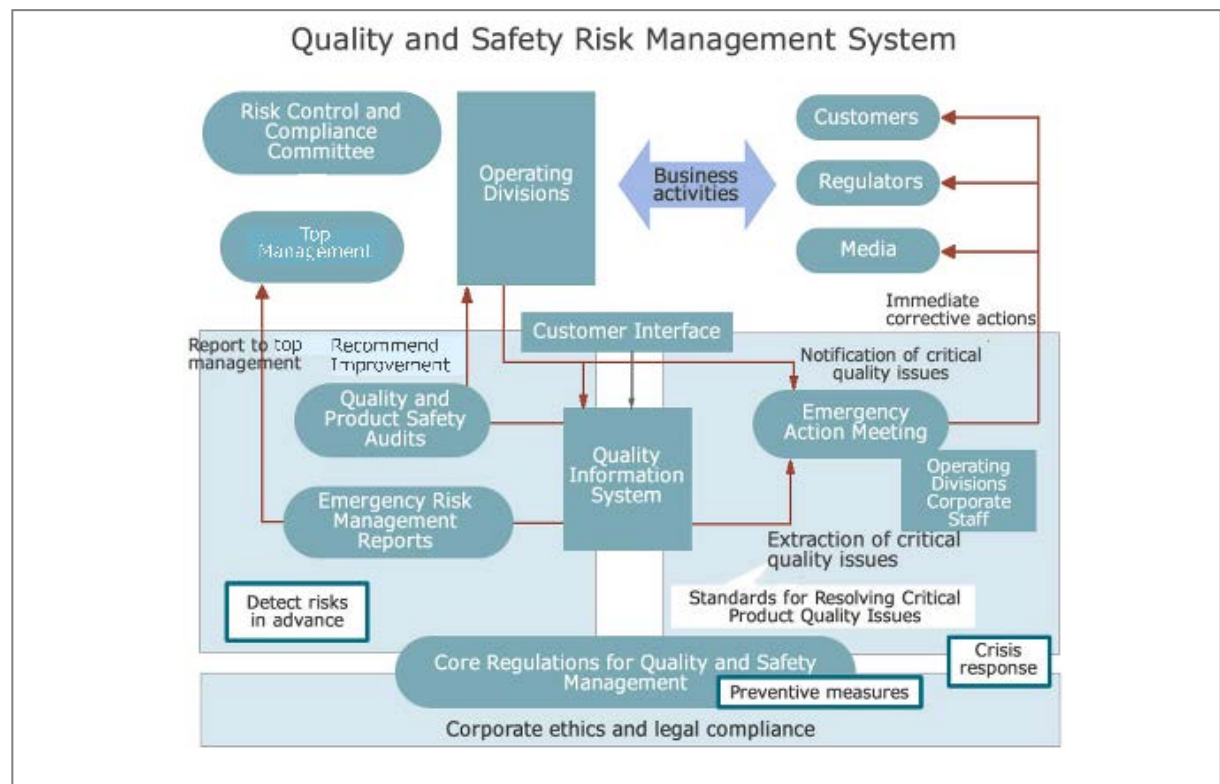
Education to Develop Human Resources for Safety and Peace of Mind

Improving product safety and quality requires a focus on improvements in employee training and skills. NEC Corporation offers 16 training classes that focus on job roles and field of specialization to improve practical skills in design and construction and provide basic and specialist knowledge related to quality and safety management standards and technical standards. In particular, NEC offers specialist education to all quality and safety management officers who are responsible for managing quality and safety risks.

NEC is also training more safety technology specialists by holding "Safety Review Workshops" where safety technology is taught using actual equipment.

Testing the strength of a locked power cable
at Safety Review Workshop

Measuring voltage
at Safety Review Workshop

Ensuring Product Safety

Based on the concept of ensuring customer safety, the NEC Group has adopted a basic "global first" policy. This policy focuses on increasing a product's international value by conforming to international standards while designing products and services. NEC is working to ensure the safety of its hardware products by basing designs on IEC-60950-1 (JIS C 6950-1) / IEC62368-1 (JIS C 62368-1), the widely recognized global standard for information technology equipment and one of the international safety standards.

Reinforcing the IEC 60950-1/ IEC62368-1 standard required NEC to establish a "Group safety standard" that incorporates its own safety measures. Establishing "basic safety standards," NEC ensures product safety and prevents product safety incidents, by performing risk assessments and specifying Group safety standards.

Basic Safety Standards

Group Safety Standards

Product Safety Standards
IEC60950-1(JIS C 69501-1)／IEC62368-1(JIS C 62368-1)

NEC's safe technology standards system

Compliance with Relevant Acts and Regulations

To "visualize" the technical laws and regulations with which those products of NEC Group companies must comply, NEC developed a "map of technology laws and regulations" to make it easier to identify what kind of laws and regulations are applied to which divisions' products. By using this map, we strive to comply with those technical laws and regulations by precisely conforming with various countries' domestic laws and regulations, including Japan's the Electrical Appliance and Material Safety Act, Radio Act and Telecommunications Business Act and the laws and regulations of other countries.

NEC is enforcing compliance with relevant acts and internal rules for indications and labels for quality and safety of products and services. If violations are found, NEC will properly address the problem by following the direction of the relevant ministries and agencies.

Map of technology laws and regulations
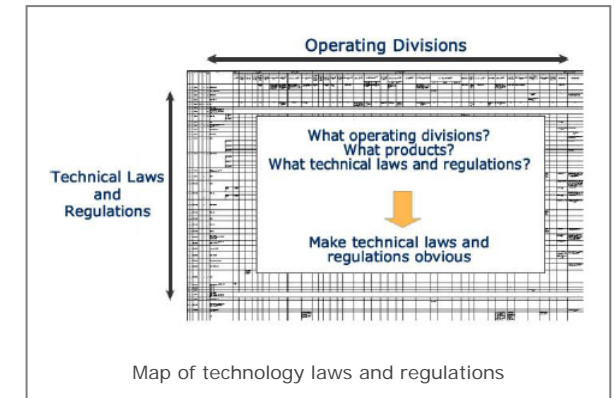
Main Activities for Fiscal 2018

NEC Group Quality Promotion Meeting

An "NEC Group Quality Promotion Meeting" is held twice a year with the quality and safety management staff and quality officers of NEC Corporation to have cross-company discussions throughout the NEC regarding its product quality and safety, and its systems and compliance frameworks with laws and regulations relating to it.

The meeting's purpose is to share information among the parties concerned and horizontally spread it within the organization through explanations of quality policy and cases and group discussions. In fiscal 2018, the meeting was held in July and November.

NEC operates while actively having frequent discussions based on the concepts of "Customer Oriented," "Full Participation" and "Continuous Improvement."

Quality Dialogue Meeting

A Quality Dialogue Meeting was held between top management and front-line employees, where both parties discussed how "quality" can be passed on to ensure the culture of "NEC Quality" in the future.

Top management talked about their passion for "Quality First" and participants reaffirmed the history of quality so important to the NEC since its foundation. Discussions also focused on how to ensure the corporate culture toward quality in the future; self-reflection by individual members and linking this thinking to their own specific future actions is a way to raise awareness about quality.

In this way, NEC continues its pursuit of becoming a company that is trusted by its customers; all employees continue their work with high quality awareness firmly in mind.

Project Management Award

NEC holds an annual presentation of outstanding cases and presents a project management award to the organization or group that demonstrated the best project support, or a project team that tackled a difficult project and achieved a particularly outstanding result.

The intent of this award is to raise awareness of the importance of project management among all NEC Group employees and to demonstrate the significance of accomplishment and recovery in those projects that have a high level of risk. NEC also recognizes that the penetration of award-winning cases will be useful in preventing risk in new projects through the horizontal spread of risk management practices throughout the NEC Group.

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Respecting Human Rights

Policy

As a company that operates its business globally and aims to realize a safe, secure, efficient, and equal society where everyone can live abundant lives, we believe that it is imperative for us to mitigate and prevent any negative impacts our corporate activities may have on human rights. Guided by this belief, NEC makes it clear that it endeavors to respect human rights under all circumstances in the NEC Group Charter of Corporate Behavior and the NEC Group Code of Conduct, which are the foundations of its corporate activities.

NEC upholds the United Nations' (UN) International Bill of Human Rights[*1], the International Labor Organization (ILO) Declaration on Fundamental Principles and Rights at Work, and the 10 principles of the UN Global Compact[*2]. It also seeks to improve its initiatives across its whole Group companies on respecting human rights by taking into account trends in international standards and laws, such as the UN's Guiding Principles on Business and Human Rights and Sustainable Development Goals (SDGs), the UK Modern Slavery Act, and the EU General Data Protection Regulation (GDPR).

In 2015, NEC formulated the "NEC Group Human Rights Policy" (next page), which states that NEC will promote initiatives on respecting human rights across its entire value chain by dialogue and consultation with its stakeholders and implementing human rights due diligence[*3].

[*1] It refers collectively to the Universal Declaration of Human Rights, and the International Covenant on Economic, Social and Cultural Rights and the International Covenant on Civil and Political Rights which were adopted by the UN General Assembly.

[*2] NEC has been a member since 2005. The 10 principles of the UN Global Compact are based on global agreements such as the Universal Declaration of Human Rights and ILO's Declaration on Fundamental Principles and Rights at Work and include items such as support for the protection, maintenance, and respect for human rights, the eradication of forced labor and the prohibition of child labor.

[*3] Human Rights Due Diligence refers to the process that includes the assessment of risk and identification of issues which are caused by the company's business operation and have negative impacts on human rights, the response to the identified issues (the integration into management), the monitoring of the results, and the reporting of a series of the initiatives.

▶ NEC Group Charter of Corporate Behavior
▶ NEC Group Code of Conduct

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NEC Group Human Rights Policy

April 2015

1) Policy statement

NEC Corporation and its consolidated subsidiaries ("NEC") aim to realize an information society in which people all over the world can live more safely and securely. All of NEC's actions are governed by a pledge to act responsibly on behalf of future generations to ensure social, environmental, and economic progress. NEC is committed to comply with the strictest corporate ethics standards and respect all applicable international and national laws and human rights in the countries in which we operate.

NEC recognizes that it has, as a global company, a responsibility in addressing the potential impacts that its products, business activities, and relationships ("corporate activities") may have on human rights. NEC supports the fundamental rights of individuals and workers in reference to guidelines set out by the United Nations (UN) Universal Declaration of Human Rights, the UN Guiding Principles on Business and Human Rights, the related European Commission's ICT Sector Guide, and the International Labor Organization (ILO).

2) NEC's commitment on human rights

Every officer and employee of NEC is required to respect all human rights in compliance with the fundamental principles of the NEC Charter of Corporate Behavior, the NEC Code of Conduct, and its management approach (The NEC Way):

(1) In every aspect of all corporate activities, we will respect fundamental human rights and will not act in such a way that may offend the dignity of any individual or be prejudicial on the grounds of race, beliefs, age, social position, family origin, nationality, ethnicity, religion, gender and gender identity, sexual orientation, physical or mental handicap.

(2) We will abide by the rules and regulations of each country or region for hiring and labor practices. However, we will never accept child labor or forced labor, under any and all circumstances.

(3) We, as an ICT provider, will strive not to cause or contribute to human rights violations on data privacy and security through our business activities.

In addition, NEC expects its business partners and other parties in the value chain to apply the same level of respect for human rights and to address any existing measures that would be recognized as insufficient.

3) Engaging with stakeholders to respect human rights

NEC will engage with its stakeholders to address the following commitments in every aspect of its corporate activities:

(1) NEC will develop and implement human rights due diligence to address the actual or potential negative impact of its corporate activities on human rights. NEC will identify and assess actual or potential human rights risks and take measures to mitigate or prevent those risks in a consistent manner. In addition, NEC will develop processes to disclose findings externally as part of the company's wider efforts to strengthen transparency and accountability.

(2) Where NEC's corporate activities result in negative human rights impacts caused either directly or indirectly, the company will endeavor to provide for or to cooperate to the remedy of those impacts and will take appropriate measures to prevent their recurrence.

(3) Where national laws are in conflict with internationally recognized human rights, NEC will seek solutions that support the respect of the principles of international human rights.

(4) NEC is committed to provide appropriate training, promote better awareness of human rights, and implement other initiatives such as capacity-building, for all its officers and employees to ensure that this policy and human rights due diligence are implemented adequately.

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Activity Objectives, Achievements and Progress

Objectives for the Mid-term (from fiscal 2019 to 2021)

1. Promote understanding of officers and employees on recent trends in global human rights issues
2. Establish a common, company-wide framework for implementing human rights due diligence process
3. Mitigate and prevent human rights violations by implementing human rights due diligence process (Planned to be implemented from fiscal 2020)

Objectives, Achievements and Progress, and Degree of Completion

(Degree of completion: ◎Achieved, ○Mostly Achieved, △Some Progress, ✕No Progress)

Objectives for the Mid-term	FY2018 Objectives	FY2018 Achievements and Progress	Degree of Completion	FY2019 Objectives
1. Promote and establish human rights due diligence activities	• Promote implementation of related activities into the human rights management system.	• Published the statement for NEC Corporation and its consolidated subsidiaries, Compliance with the UK Modern Slavery Act. Established task force in order to respond to modern slavery, and continuation of its initiatives.	△	• (Revised FY2019 objectives, refer to item No. 4.)
2. Strengthen initiatives to raise awareness of human rights across the whole NEC Group	• Analyze the latest trends in human rights issues and hold study meetings for management-level employees. • Confirm structures and help-desks for human rights activities at each Group company; Provide information and training materials related to human rights awareness. • Strengthen initiatives to prevent recurrences of human rights violations.	• Conducted e-Learning modules primarily aimed at promoting diversity including eradication of discrimination (Attendance rate: 90.6%). • Held NEC Group Diversity Promotion Meeting to discuss trends on global human rights issues with human resource officers of Group companies; Strengthening of collaborations to promote future human rights activities. • Held Human Rights Promotion Committee to discuss trends on global human rights issues with General Managers of Business Unit Planning Division.	○	• (Revised FY2019 objectives, refer to item No. 3.)
3. Promote understanding of officers and employees on global human rights issues	–	–	–	• For officers; Hold dialogue or lecture by experts. • For employees; Conduct an e-Learning. Target attendance rate: 90.0%.
4. Formulate company-wide framework pertaining to the implementation of human rights due diligence	–	–	–	• Formulate common company-wide process for assessment of risk and identification of issues via a task force.

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Promotion Framework

Human Rights Promotion Committee

NEC has established a Corporate Human Rights Promotion Committee and a Business Unit Human Rights Promotion Committee in 1997. The Committee spearheads the discussion, establishment and implementation of basic activities and promotion of in-house trainings for human rights awareness, such as elimination of discrimination and prevention of harassment. These activities are also being promoted throughout the NEC Group by establishing similar frameworks at each Group company.

As the coverage where negative impacts on human rights caused by its corporate activities need to be mitigated and prevented has expanded to the supply chain and, in addition, the entire value chain, the divisions, such as the Procurement Division, which involve in each area of the value chain and have begun to conduct initiatives more proactively for respecting human rights are increasing.

In response to trend like above, NEC is proceeding with the formulation of a common company-wide framework for unitarily promoting activities for respecting human rights across the entire value chain.

Corporate Human Rights Promotion Committee

Chair : CHRO*1

Vice-Chair : General Manager of the Human Resources Development Division

Member : Head of the Business Unit Human Resources Development Division, etc.

Business Unit Human Rights Promotion Committee^{*2}

Chair : General Managers of the Business Unit Planning Division

Vice-Chair : General Manager of the Human Resources Development Division, etc.

Member : General Managers

*1 Chief Human Resources Officer
*2 Set up in each Business Unit

Human Rights Promotion Framework at NEC

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Main Activities and Results for Fiscal 2018

Human Rights Issues Addressed by NEC

NEC recognizes the following items as considerable human rights issues as the results of considering the nature of its corporate activities and the global trends on human rights issues. Each division responsible for the areas from where these issues arise is taking lead in implementing measures to mitigate and prevent any negative impacts on human rights.

- Human rights issues of NEC:
  - Promotion of diversity including elimination of discrimination and prevention of harassment
  - Prevention of human rights violations on privacy caused by our provision of ICT
  - Prevention of modern slavery such as prevention of forced labor and human trafficking

- Human rights issues across its supply chain:
  - Promotion of respecting for human rights in labor practices such as prevention of modern slavery
  - Response to issues related to conflict minerals

While recognizing the processes stipulated in the "NEC Group Human Rights Policy" and the UN's "Guiding Principles on Business and Human Rights", NEC is taking action against human rights issues and is currently proceeding with the formulation of a common company-wide framework for implementing human rights due diligence in order to enhance the effectiveness of its initiatives.

Awareness Raising

NEC provides awareness raising activities including trainings and others with all officers and employees responsible for ensuring respecting human rights in operating its corporate activities, in order to deepen their awareness on respecting human rights and promote their understandings of global trends on human rights issues. The following are the activities in fiscal 2018.

- A training entitled "Human rights related to the Corporation" aimed at promoting the understanding of the relationship of business and human rights, social integration and other human rights that must be considered in conducting business was held for each management layer such as officers and new members. (566 participants)

- A web-based training program aimed at promoting diversity in the workplace and deepening understanding on issues related to women, balancing work with child and nursing care, disabled persons, foreign nationals, LGBT, etc. was held for all management-level employees. (8,026 participants)

- A lecture aimed at ensuring fair recruitment and providing equal employment opportunities was held for persons in charge of recruitment interviews. Examples of proper interview questions from the perspective of respecting human rights were introduced to enable interviewers to make judgments based only on the person's capability and suitability for the job, and avoid questions that lead to discrimination and offend the dignity of an individual. (Approx. 400 participants)

- A seminar aimed at enhancing understanding of laws relevant to use of camera images and privacy to be considered was held for NEC Group employees who may handle products and solutions for use of camera images. In this seminar, lectures and panel discussions by specialists including university professors and a lawyer were conducted. (Approx. 500 participants)

Number of people that have attended human rights awareness training (Scope: NEC Corporation)			
	FY2016	FY2017	FY2018
Web-based training [*1]	22,063	20,296	8,026
Lectures [*2]	1,070	1,031	586

[*1] E-learning for all employees ("Human rights related to the Corporation" and "Diversity in the Corporation" are held every year (attendance required). In fiscal 2018, as the training was held for management-level (not for all) employees, the number of participants decreased.
[*2] In fiscal 2018, as some lectures were excluded from the certain management layers as a consequence of reviewing their contents, the number of participants

In addition to these trainings, NEC is also actively promoting awareness and understanding on human rights within the local community through the following social contribution activities.

- NEC has supported wheelchair tennis for more than 27 years, NEC employees participated in volunteer activities, such as by serving as linespersons in national competitions since 1991.

- NEC has supported "ICT Communication Support Course for people with severe disabilities" to spread and promote awareness on using IT to support communication of people with severe disabilities, such as amyotrophic lateral sclerosis (ALS) and muscular dystrophy, since 2008.

- NEC has supported NEC Network Safety Classes for pupils in elementary and junior high schools to enjoy and learn how to use the Internet safely based on the Children's Rights and Business Principles developed by Save the Children (NGO), UN Global Compact and UNICEF since 1999.

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NEC is one of the main corporate members of the Working Group on Human Rights Due Diligence run by the United Nations Global Compact Network Japan. NEC endeavors to improve and enhance its own global initiatives based on the latest information regarding trends and cases on human rights obtained through participation to the Working Group.

Compliance with the UK Modern Slavery Act

The UK Modern Slavery Act was enacted in the UK to prevent forced labor, human trafficking, and other modern slavery practices. Section 54 of the Act requires UK corporations as well as foreign commercial organizations that meet certain criteria to publish a statement on measures to prevent modern slavery within the organization and across its supply chain.
NEC Corporation issued the statement on behalf of itself and its consolidated subsidiaries in 2017.

▶ NEC Group Statement for UK Modern Slavery Act 2015

The statement asserts that NEC Group companies respect human rights and will never accept forced labor based on the NEC Group Charter of Corporate Behavior, the NEC Group Code of Conduct and the NEC Group Human Rights Policy. It also explains the various measures implemented to prevent modern slavery within the NEC Group organization and across its supply chain.

Additionally, NEC has established a task force composed of relevant divisions and continually ensures the prevention of modern slavery within the NEC Group organization and its supply chain. The following are the activities conducted in fiscal 2018.

- Initiatives within the NEC Group organization:
  - The purpose and content of the UK Modern Slavery Act and NEC's compliance status were explained to General Managers of Business Unit Planning Division and Officers in charge of human resource of NEC Group companies.

- Initiatives across the NEC Group's supply chain:
  - NEC revised the NEC Group Procurement Policy and the NEC Group Supply-Chain CSR Guidelines to clarify that it prevents modern slavery and requests its suppliers to ensure the prevention of modern slavery.

Operational Grievance Mechanism: Human Rights Hotline

To mitigate and prevent negative impacts on human rights caused by its corporate activities, and to reinforce initiatives to promote respecting human rights, NEC has set up contact points to receive inquiries and consultations on human rights from stakeholders.

- Human Rights Hotline
The Human Rights Hotline has been set up at the Human Resources Division in each area and within each Business Unit, where assigned personnel receive inquiries and consultations about human rights from employees including temporary employees through telephone and/or email. A system has been set in place to protect the privacy and avoid any disadvantageous treatment of employees who use the hotline. Outside Japan, the Compliance Hotline as the contact point receives consultations on human rights.

Once violation of human rights has been recognized through consultations with the Human Rights Hotline, the Human Resources Division works with the relevant divisions to resolve and prevent such violations.

A total of 49 inquiries and consultations including those regarding harassment (14 on power harassment and 4 on sexual harassment) were received in fiscal 2018.

NEC receives inquiries and consultations on human rights from suppliers through the Compliance Hotline, while those from customers and residents of local communities through the Customer Communications Center. As the same with the Human Rights Hotline, systems have been set in place to protect the privacy and avoid any disadvantageous treatment of those who use these contact points.

Promoting Human Rights in Europe Middle East and Africa (EMEA)

In the EMEA region, NEC Europe proceeds with formulating policies on the sustainability of the entire NEC Group, which works in the EMEA region.

Awareness Raising

In the EMEA region, NEC Europe puts emphasis on activities to promote employees' understanding on human rights issues.

NEC Europe implements the on-line education course to familiarize employees with the NEC Group Code of Conduct. The contents of this course are periodically reviewed to incorporate the latest information regarding the global trends in human rights issues, such as the UK Modern Slavery Act, data protection, and the consideration for privacy, as well as the impacts on our business if we handle them wrongfully or incautiously. We also monitors the employees if they have taken the course or not.

Moreover, our subsidiaries within the EMEA region adopt the process where each division's director or its president should report the corporative executives once in a quarter about his/her division's activities regarding the social, labor rights, safety, environmental stewardship, and its supply chains issues, with their progress statuses, and with the information if there was any violation. By this process, executives of subsidiaries are available to make business decisions considering ESG (the environment, social and governance).

In addition, if there is the information that may have an impact to our or each subsidiary's business, we post it on our intranet site to get our employees attention.

NEC Europe participates in a working group of the UN Global Compact. We use the information that we obtained there to improve our activities for the human rights issues in EMEA region.

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Promotion of Procurement Activities Compliant with Each Laws and Guideline

In the procurement activities for suppliers, we review the EMEA Procurement Policy as necessary, and promote CSR procurement that conforms to unique guidelines in regions and countries of customers, such as the Broad-Based Black Economic Empowerment (BBBEE) of South Africa.

NEC Europe also cooperates with surveying the efforts to the sustainability including labor and human rights, which are conducted by external organizations.

Allowing or not allowing the transactions with new suppliers is determined by the due diligence process. The due diligence process assesses the risks if they are high or low according to the types of offered products and services, and geographical factors or others, which are also reviewed cross-functionally by the relevant sections.

NEC Europe monitors the types and severity of risks checked through the assessment of suppliers, and analyzes the potential risks pertaining to corruption, bribery, and breach of human rights, in consideration of NEC's operations, business, and locations.

Operational Grievance Mechanism (OGM)

NEC has established the Operational Grievance Mechanism also in the EMEA region, and monitors the number of cases received. Suppliers may send inquiries via procurement desk personnel or via the web where we have established the online desk as well. In addition, they can also directly send an email to the Legal Division of NEC Europe. By providing multiple routes for accepting suppliers' inquiries, NEC Europe ensures that they can easily contact NEC Europe for their questions and issues pertaining to business transactions.

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Personal Information Protection and Privacy

Policy

Due to the rapid progress of ICT and the continuing and rapid spread of the Internet and smartphones, the need to protect personal information and privacy is a growing concern. Especially in Europe, the Charter of Fundamental Rights of the European Union stipulated protection of privacy as a fundamental right requiring protection. The EU's General Data Protection Regulation (GDPR), which began in May, 2018, is the regulation stipulating methods of protecting and managing personal information to protect and establish personal privacy rights.

NEC has studied the trend related to this framework of new laws and regulations and is addressing these problems regarding personal information protection or privacy by following the policies described below.

<Personal Information Protection>
Personal information refers to personally identifiable information, which includes numbers and other simple identifiers and we recognize that appropriately protecting personal numbers and other personal information received from shareholders, investors, business partners, employees and others is one of our social responsibilities. In 2000, NEC Corporation formulated its own "NEC Privacy Policy," which it implements and continues to uphold. Other than protecting personal information as dictated by relevant laws and regulations, we also ensure protection of privacy-related information in conducting our business activities.

▶ NEC Privacy Policy

In cooperation with its subsidiaries in Japan and overseas, NEC Corporation built a system for promoting privacy protection and, in 2004, a "personal information protection management system" in conformance with the "Act on the Protection of Personal Information" and "JIS Q 15001." We endeavor to gain our customer's trust and are working toward solving various problems related to the handling of personal information.

<Privacy>
NEC Corporation subsequently acquired "Privacy Mark" certification in October 2005 and renewed it in October, 2015. As of the end of March 2018, NEC Corporation and its 28 affiliated companies have obtained this certification. In principle, we forbids gathering sensitive information (highly private information) such as medical records or birthplace without the person's consent so that information leaks will not cause harm such as social discrimination.

As seen in the examples of GDPR, privacy laws are being created as a global trend and the roles and responsibilities required to companies increasingly grow. In response to this, NEC positions "Privacy policies and measures aligned with societal expectations" as one of its "materiality," the priority management themes from an ESG perspective. In doing so, we wants to enforce the privacy protection initiative to maximize social value. It also wants to minimize the negative impact to society through developing and providing products and services that are careful about privacy issues which can be perceived differently depending on country, region or culture, and human rights issues such as discrimination problems that may be aggravated by leveraging AI.

▶ Priority Management Themes from an ESG Perspective - Materiality

21000055(07)

Privacy Mark System Promotion Framework

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Activity Objectives, Achievements and Progress

Objectives for the Mid-term (from fiscal 2019 to 2021)

1. Global implementation of personal information protection
   - Comply with overseas laws and ordinances in cooperation with overseas subsidiaries.
   - Expand the target countries for the signing of pledges on the Basic Rules from overseas subsidiaries and overseas business partners to those in Asia and nearby regions starting in fiscal 2017.
2. Conformance to amendments to the Personal Information Protection Law including My Number[1]
   - Review in-house rules starting fiscal 2017 based on amendments to domestic and overseas laws, reconstruct and disseminate the rules in fiscal 2018, and carry out more thorough enforcement in fiscal 2019.
3. Reconstruction of personal information protection management system
   - Every year starting fiscal 2017, carry out monitoring of status of implementation of the My Number System (The Social Security and Tax Number System), improvement of implementation sites, and provide directions.
4. Clarification of the concept "respecting human rights," such as privacy protection in NEC's business activities
   - Through dialogues with multi-stakeholders about use cases, based on "Human Rights by Design[2]", incorporate the concept in NEC's research, product development or service offerings.

[1] Numbers to identify a specific individual in the administrative procedure
[2] Incorporation of the approach of respect for human rights (privacy, fairness, etc.) into each process of the value chain

Objectives, Achievements and Progress, and Degree of Completion

(Degree of completion: ◎Achieved, ○Mostly Achieved, △Some Progress, ✕No Progress)

Objectives for the Mid-term	FY2018 Objectives	FY2018 Achievements and Progress	Degree of Completion	FY2019 Objectives
1. Global implementation of personal information protection	• Review compliance to personal information transfer restrictions in countries where overseas subsidiaries are located. • Expand the target countries for the signing of pledges among overseas business partners.	• Summoned personal information managers from overseas regional headquarters. Reviewed the following in addition to EU's GDPR with them: Regulations on transferring private information in the country where the company resides. How a report should quickly be submitted when privacy is violated. Significance and importance of complying with laws and regulations. Reviewed how to address the restrictions placed on transferring personal information while checking the trend of laws and regulations of the country where the company resides. • As overseas NEC Group companies are reorganized, reviewed the countries where the overseas business partners submit pledges and selected the same number of countries as last year.	◎	• For Europe and other overseas subsidiaries, enable them to implement a measure to deal with restrictions on personal information outside the region, to improve the Personal Identifiable Information Control System, and to allow them to search a country that is origin or destination of personal information transfer and support them in enforcing the measures appropriate to each risk level and situation of those countries by cooperating with private information managers selected in each country and NEC Corporation. • Enhance the system, which those overseas subsidiaries can reliably run, to submit a report immediately to relevant divisions including NEC Corporation and a report to external organizations within the time frame stipulated by laws and regulations, if private information infringement incident occurs.

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Objectives for the Mid-term	FY2018 Objectives	FY2018 Achievements and Progress	Degree of Completion	FY2019 Objectives
2. Conformance to amendments to the Personal Information Protection Law	• Revise our regulations, manuals, and the Personal Identifiable Information Control System in conjunction with the amendments to the Personal Information Protection Law.	• Revised our manuals, and the Personal Identifiable Information Control System, etc. Enabling to register a country that is origin or destination of personal information transfer and "visualizing" the flow of transferring personal information outside the region, NEC Corporation strengthened the control on personal information protection.	◎	• As a measure to deal with restriction on transferring personal information from Japan to a foreign country, build a process capable of supporting the restriction before transferring the personal information and develop a manual to disseminate this to subsidiaries in Japan and overseas.
3. Reconstruction of personal information protection management system	• Items necessary for managing subcontractors will be recorded and maintained as evidence in a designated system by relevant personnel from consignors and subcontractors, in order to prevent omissions in filling up personal information forms needed in managing subcontractors. • Collaborate with government agencies and create in-house rules regarding the handling of personal information, the disclosure of information, and other matters that need to be considered by companies, in order to expand business related to solutions utilizing camera image data.	• Completed a trial version of the subcontractor management system and currently re-adjusting the system after the implementation of the on-site trial. • Developed and publicized guidelines for NEC to protect use and utilize camera image data. • Carried out the lobbying of government agencies through an external organizations to expand the solution business of use and utilization camera image data.	◎	• Promote the internal use of subcontractor management system and reduce the risks of My Number and other sensitive personal information leaks. • Promote anonymization of personal information, and further reduce the risk of personal information leaks when it is in infringement, and at the same time, promote effective use of anonymized personal information.
4. Clarification of concept "respecting human rights," such as privacy protection in NEC's business activities.	–	–	–	• Hold quarterly dialogue meetings with multi-stakeholders to discuss about difficult cases from the viewpoint of human rights or privacy issues. • Set specific goals for research, product development and service offerings based on "Human Rights by Design."

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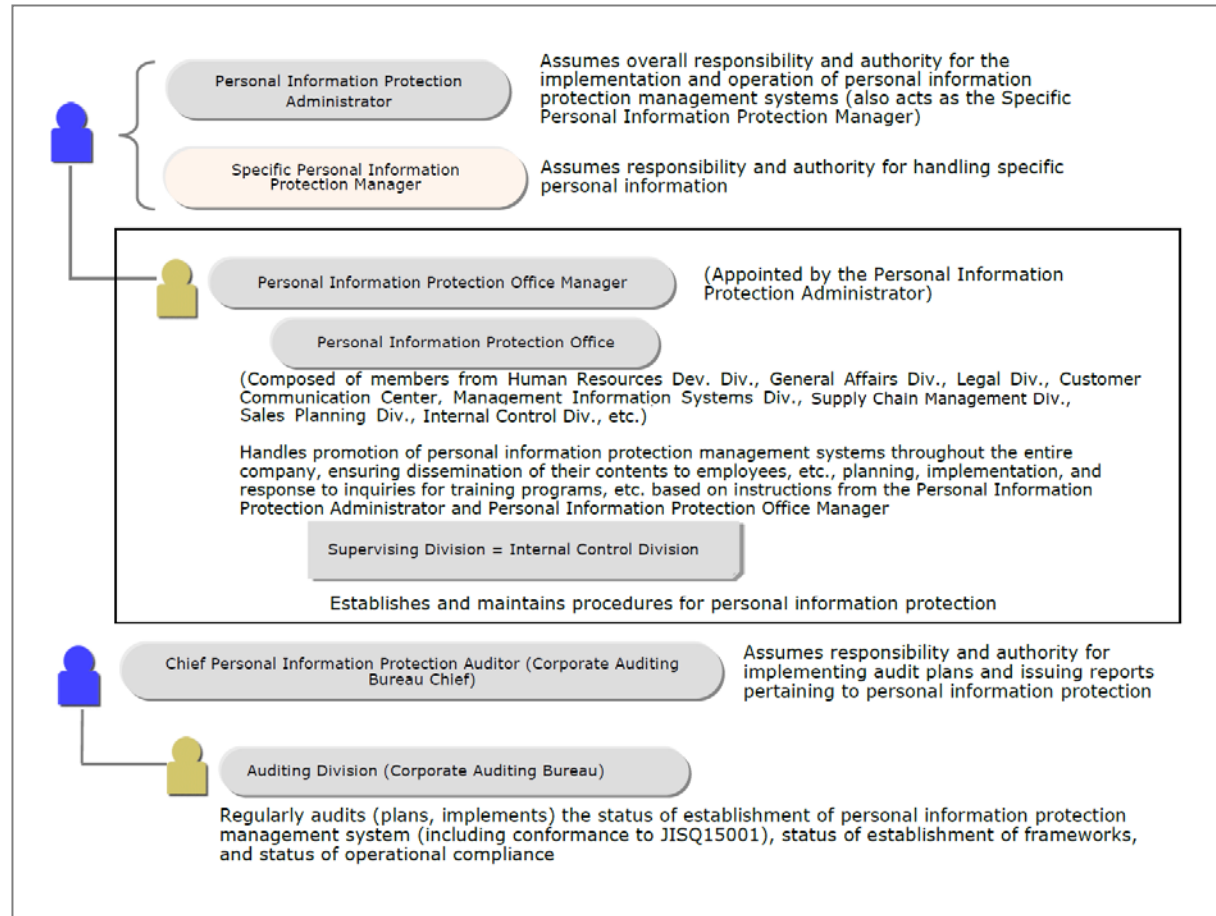114-119 Human Resources Development and Training

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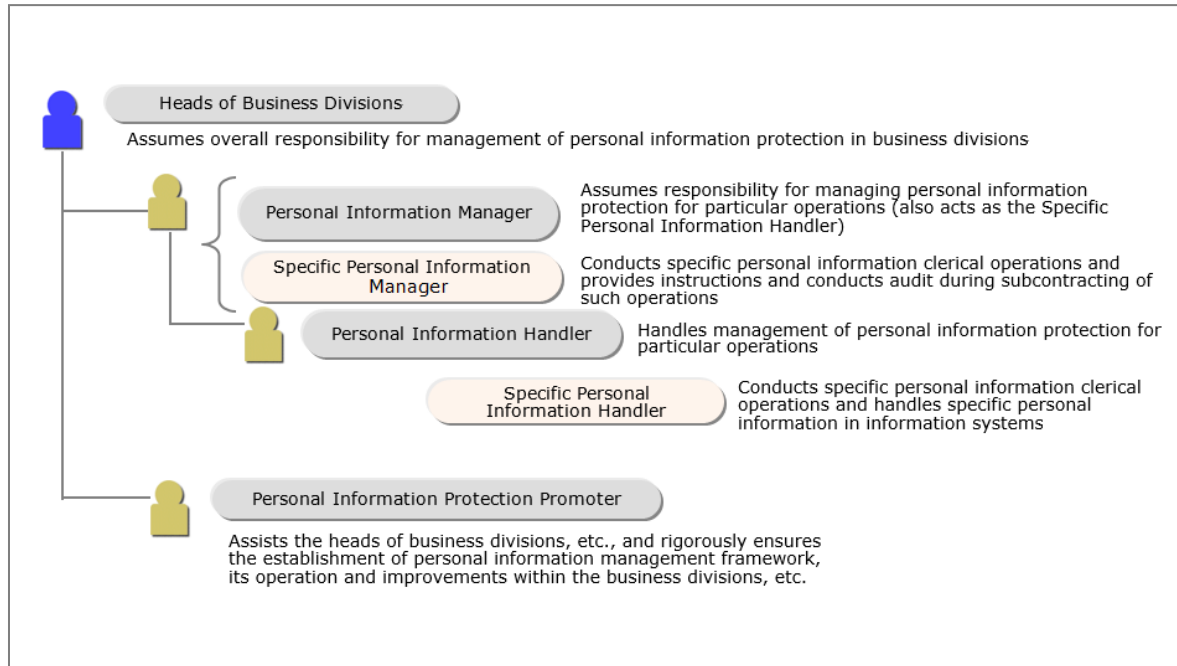120-125 Health and Safety

Promotion Framework

At NEC Corporation, the head of the managing division for protecting personal information serves as the "Personal Information Protection Administrator," the person with ultimate responsibly for implementation and operation of the personal information protection management system. Further, to comply with the Social Security and Tax Number System, we have added the role of protecting specific personal information including My Number to the duties of the Personal Information Protection Administrator. Promoting the protection of personal information within NEC is carried out under the leadership of officers, Personal Information Protection Promotion Office Manager, appointed by the Personal Information Protection Administrator and under the supervision of the Internal Control Division's Customer Information Security Office.

In addition, we conducts regular audits of privacy protection in conformance with "JIS Q 15001," with the General Manager of the Corporate Auditing Bureau serving as "Chief Personal Information Protection Auditor." Staff and managers are assigned under the supervision of divisional managers for each type of personal information handled, in order to raise awareness at sites and offices that handle personal information. Staffs in charge of promoting privacy protection are also appointed under management systems established in each corporate division.

Group-wide Management Framework

Personal Information Protection Administrator — Assumes overall responsibility and authority for the implementation and operation of personal information protection management systems (also acts as the Specific Personal Information Protection Manager)

Specific Personal Information Protection Manager — Assumes responsibility and authority for handling specific personal information

Personal Information Protection Office Manager — (Appointed by the Personal Information Protection Administrator)

Personal Information Protection Office

(Composed of members from Human Resources Dev. Div., General Affairs Div., Legal Div., Customer Communication Center, Management Information Systems Div., Supply Chain Management Div., Sales Planning Div., Internal Control Div., etc.)

Handles promotion of personal information protection management systems throughout the entire company, ensuring dissemination of their contents to employees, etc., planning, implementation, and response to inquiries for training programs, etc. based on instructions from the Personal Information Protection Administrator and Personal Information Protection Office Manager

Supervising Division = Internal Control Division

Establishes and maintains procedures for personal information protection

Chief Personal Information Protection Auditor (Corporate Auditing Bureau Chief) — Assumes responsibility and authority for implementing audit plans and issuing reports pertaining to personal information protection

Auditing Division (Corporate Auditing Bureau)

Regularly audits (plans, implements) the status of establishment of personal information protection management system (including conformance to JISQ15001), status of establishment of frameworks, and status of operational compliance

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Management Framework at Business Divisions, etc.

Heads of Business Divisions
Assumes overall responsibility for management of personal information protection in business divisions

Personal Information Manager
Assumes responsibility for managing personal information protection for particular operations (also acts as the Specific Personal Information Handler)

Specific Personal Information Manager
Conducts specific personal information clerical operations and provides instructions and conducts audit during subcontracting of such operations

Personal Information Handler
Handles management of personal information protection for particular operations

Specific Personal Information Handler
Conducts specific personal information clerical operations and handles specific personal information in information systems

Personal Information Protection Promoter
Assists the heads of business divisions, etc., and rigorously ensures the establishment of personal information management framework, its operation and improvements within the business divisions, etc.

Equivalent systems have been established at our domestic subsidiaries to ensure personal information is protected at each company in conjunction with full enforcement of the Social Security and Tax Number System in October 2015 and the amendment of the Personal Information Protection Law in May 2017. Our overseas subsidiaries also engage in personal information protection in accordance with the laws of their respective countries.

Emergency Response to Information Leaks

NEC maintains systems for responding quickly if an incident occurs involving the loss, outflow or leak, etc. of personal information. If an incident should occur, the response is coordinated quickly and systematically based on standardized procedures.

If an incident occurs related to personal information or an event takes place for which there is that risk, the employees involved in incidents contact their divisional supervisors and the Group contact point for information security incidents. That contact point then coordinates a response with the related staff divisions that make up the Personal Information Protection Office or relevant divisions in accordance with applicable laws, ordinances, ministry guidelines, and other regulations; and upon considering the risk for infringing on the rights and interests of the persons involved.

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Main Activities and Results for Fiscal 2018

Recognizing the importance of protecting personal information, the NEC formulated the "NEC Privacy Policy" and "NEC Privacy Protection Regulations" based on the "NEC Group Charter of Corporate Behavior" and the "NEC Group Code of Conduct" as common Group-wide rules for running its personal information protection management system.

Each NEC Group company implements these rules and systems and executes PDCA cycles autonomously, contributing to the appropriate management of personal information.

Training for Personal Information Protection

NEC Corporation conducts the following trainings for each management layer in the organization.

1. Training for all employees for NEC Corporation
   Online training on information security and training on personal information protection is held online once a year for executives and employees of NEC Corporation. In fiscal 2018, there was 100% completion of training for all employees of NEC Corporation.

2. Training for personal information protection promoters for NEC Corporation and its domestic subsidiaries
   Group training was held four times in fiscal 2018 for information security promoters involved in promoting personal information protection.

3. Training for new hires and transfers
   for NEC Corporation and its domestic subsidiaries
   In fiscal 2018, a handbook on personal information protection was created for use as introductory training material. The handbook was distributed and used in training of new hires and transfers. Apart from these training, when there is a request from a division where an incident has taken place, or when it is otherwise judged necessary by the Personal Information Protection Office, awareness training is conducted as appropriate at divisions or at the Group company level.

Management of Personal Information

1. Initiatives at NEC
NEC runs the "Personal Identifiable Information Control System," a ledger-based system to manage personal information and make its management more transparent.

Further, we have documented standard procedures, and operates a personal information protection management system. Also, as necessary, operational rules are created at the division level and by types of personal information and rigorously enforced.

In addition, to raise awareness on information security overall, which includes personal information protection, the "Basic Rules for Handling Customer-Related Work and Trade Secrets" have been established, and all NEC employees are encouraged to submit "electronic pledges" every year.

As a result of these efforts, there were no incidents involving the loss, outflow or leak, etc., of personal information in fiscal 2018. There were also no complaints from the Ministry of Economy, Trade and Industry, which oversees this area or the Personal Information Protection Commission, or from other third-party institutions about customer privacy violations or other issues.

2. Initiatives for Customers and Business Partners
NEC Corporation and its domestic subsidiaries request contractors handling personal information to conduct privacy management using systems equivalent to those of the NEC Group. Moreover, employees of suppliers engaged in work for NEC Corporation and its domestic subsidiaries must also submit a pledge on the "Basic Rules for Customer-Related Work" and take a regular online test to verify their knowledge. These steps help ensure rigorous management of personal information. As a result of these efforts, there were no incidents involving the loss, outflow or leak, etc., of personal information in fiscal 2018.

My Number System (the Social Security and Tax Number System) is designed to ensure that the burdens and benefits of social security and taxation are shared fairly. This setup makes it possible to undertake more efficient procedures and more transparent administrative services. For example, the system eliminates the need to submit supporting documentation to government bodies. However, since the system handles specific personal information, it must be managed carefully.

However, since "My Number," as a specific personal information, must be handled carefully, we are operating them with security ensured. We are carrying out initiatives to deploy technical measures to ensure secure operations by controlling access, blocking unauthorized external access, and preventing information leaks, etc., while maintaining sufficient privacy protection levels in each system.

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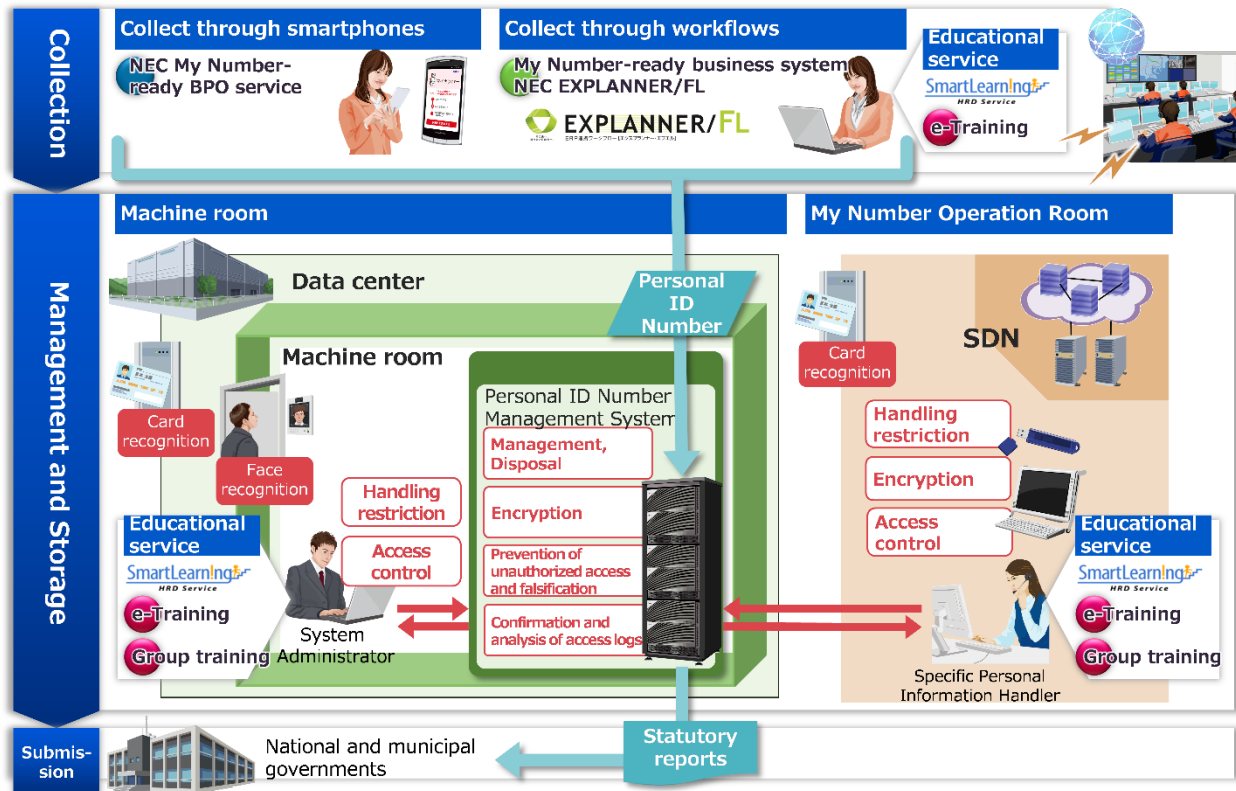
Overall image of the NEC's Support System for the My Number System

NEC Corporation and its domestic subsidiaries operate a system that comprehensively executes the operation process related to the My Number System; namely, collection, management, storage, and submission of My Numbers, by leveraging existing solutions and component technologies. We also provide the operation process, which has been standardized and consolidated as a result of operating the system, to customers who are considering adoption of the My Number System. The operation process has been standardized and consolidated by operating the system.

Going forward, NEC Corporation and its domestic subsidiaries will leverage the knowhow gained from actual operations of the My Number and aim to develop and provide the solutions of a higher quality.

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Monitoring and Improvement

NEC appropriately manages personal information by executing PDCA cycles on an autonomous basis through various inspection activities.

Also, NEC Corporation and its domestic subsidiaries conduct regular internal audits based on internal audit check items stipulated in JIS Q15001. Further, for operations related to handling of My Numbers, we use security control measure check sheets prepared based on Japan's security control regulations and self-check sheets during re-entrustment in order to monitor divisions and subcontractors handling My Numbers.

1. Verification of the operation of information security measures
   At the NEC Corporation, implementation of information security measures by employees is verified once a year, and if there are cases of non-compliance, activities are conducted to execute improvement plans at the organization level.

2. Verification of status of personal information management
   At NEC Corporation, the management slips registered in the Personal Identifiable Information Control System are reviewed at least once a year to validate the status of management of the various types of personal information handled by each organization. Also, inspection of personal information with especially high management priority level including My Number is carried out through the system regularly (once every six months).

3. Verification of operations during emergencies
   Operation of the above inspections is thoroughly reviewed and readjusted as the need arises, in the event of an incident involving the loss, outflow or leak, etc. of personal information.

Privacy in Business Activities

We are actively promoting understanding of privacy issues in business activities within the company.

In September 2017, a seminar was held for employees of NEC Group companies to increase understanding of legal systems related to using camera images and the privacy to be respected. About 500 employees participated in the seminar where lectures were given by external experts and panel discussions were held.

We are also actively involved in activities outside the company. This year, we joined an industry group about data trading with other companies with the same problem consciousness, made policy proposals toward a privacy and took part in rulemaking.

The "Data Distribution Strategy Office," newly organized in April 2017, handles these initiatives, establishing NEC's policy on the privacy issues in business and leading such a policy to the strengths of NEC Corporation.

Diversity and Inclusion

Policy

Developing "socially literate human resources" is one of NEC's "materiality," the priority management theme from an ESG perspective, and promotion of diversity is a necessary effort so that other cultures and ways of thinking can be accepted.

The "NEC Group Human Rights Policy" includes a declaration of respect for diversity, as follows:

In every aspect of all corporate activities, we will respect fundamental human rights and will not act in such a way that may offend the dignity of any individual or be prejudicial on the grounds of race, beliefs, age, social position, family origin, nationality, ethnicity, religion, gender and gender identity, sexual orientation, physical or mental handicap.

We consider "respect for individuality" to be at the core of diversity promotion. This is why this respect is listed as one of the basic principles of behavior of the "NEC Group Core Values," which encapsulate NEC Group employees' values and principles of behavior. In addition, NEC's "People Philosophy," which sets forth the vision and mindset of human resources who lead the creation of social value, also specifies that people who respect diversity are valued.

We believe that new social value and innovations arise where there is a rich foundation on which diverse personnel in each organization and department can work actively while incorporating diverse viewpoints and ideas, and at the same time maintaining a healthy "work-life" balance.

► "NEC Group Core Values"
► Priority Management Themes from an ESG Perspective - Materiality

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Activity Objectives, Achievements and Progress

Objectives for the Mid-term (from fiscal 2019 to 2021)

1. Promotion of women's active participation
   • Systematic promotion of each measure to achieve the numerical targets based on the Act on Promotion of Women's Participation and Advancement in the Workplace. (Numerical target: Increase the ratio of female managers in Department Head or higher positions to 5% by fiscal 2019.)
2. Employment of people with disabilities
   • NEC: Achieve a ratio of employees with disabilities of 2.3% by April 2021 including special subsidiary company
   • Consolidated subsidiaries in Japan: Achieve the statutory employment rate at all consolidated subsidiaries

Objectives, Achievements and Progress, and Degree of Completion

(Degree of completion: ◎Achieved, ○Mostly Achieved, △Some Progress, ✕No Progress)

Objectives for the Mid-term	FY2018 Objectives	FY2018 Achievements and Progress	Degree of Completion	FY2019 Objectives
1. Promotion of women's active participation	• Ensure the implementation and achievement of action plans and numerical targets based on the Act on Promotion of Women's Participation and Advancement in the Workplace.	• Achieved 4.3% of employment rate of female managers in Department Head or higher positions.	△	• Continue to ensure the implementation and achievement of action plans and numerical targets based on the Act on Promotion of Women's Participation and Advancement in the Workplace.
2. Employment of people with disabilities	• Attain the revised statutory employment rate (enforcement began in April 2018). (Expand duties and employment for people with disabilities)	• Achieved 2.2% of employment rate by approval to calculate the total ratio of NEC Corporation, NEC Friendly Staff, Ltd. a special subsidiary company, and NEC Management Partner, Ltd.	○	• Study and carry out various measures to achieve ratio of employee with disabilities of 2.3%.
3. Support for sexual minorities (LGBT)	• Formulate measures in support of LGBT within personnel system and benefit program.	• Had interviews with LGBT people	△	• Formulate measures in support of LGBT within the benefits and welfare system.

Promotion Framework

As the unit dedicated to the promotion of diversity at NEC, the Diversity Promotion Group was established in NEC Corporation's Human Resources Development Division in July 2013. The role of the Diversity Promotion Group is to make full use of the individuality and uniqueness of diverse employees and to create a corporate culture where everyone can work and participate at their full potential. This group carries out various measurements such as providing support and promoting understanding for women's active participation, employment of people with disabilities, and sexual minorities (LGBT) while building cooperation with related departments.

Measures and Systems

Promotion of Global Recruitment of Human Resources

To achieve global business expansion, we are working to recruit non-Japanese individuals who possess the skills and specialized knowledge needed by NEC in its research, technology, sales, and corporate administration departments. Through these efforts, NEC strives to increase the quality of its workforce and promote diversity in each department. NEC is also working proactively to recruit employees of overseas subsidiaries to work at NEC Headquarters and to facilitate interactions with these personnel and develop human resources.

For the cultivation of global human resources, please also refer to the section on "Human Resources Development and Training."

▶ "Human Resources Development and Training"

Promoting Women's Active Participation in the Workplace

Before the 1985 Equal Employment Opportunity Act came into effect, NEC Corporation was already keen to hire and promote people regardless of their gender, and the proportion of female new employee hired in recent years has ranged between 25% and 30%. The proportion of female employee in all managers has already exceeded 5%, and there are 95 women occupying managerial positions at the level of organization leaders, department heads and above (as of April 1, 2018).

North America 2.5%
Latin America 4.3%
Europe, The Middle East and Africa 6.1%
China/East Asia 4.3%
Asia / Pacific 10.0%
Japan 72.8%

Individuals 109,390

Ratio of Employees by Region as of March 31, 2018 [Scope: NEC Corporation and its Consolidated Subsidiaries]

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Compliance with the Act on Promotion of Women's Participation and Advancement in the Workplace

NEC Corporation has formulated and is pursuing the following action plans and numerical targets based on the "Act on Promotion of Women's Participation and Advancement in the Workplace," which came into effect in April 2016.

1) Appoint women to positions at or above the level of department head in a planned way. By fiscal 2019, the proportion of women operating at this level will be at least 5%.
2) Provide career advancement opportunities and management support for mid-career staff who are just below managerial or directorial level.
3) Promote Work Style Reform using ICT.

By meeting all the five criteria for certification, namely recruitment, continued employment, working hours, percentage of women in managerial positions, and diversity of career courses, NEC became the first company in April 2016 to receive the "3-star" mark, the highest level under the "L-boshi" Certification given in recognition of companies based on their compliance with the Act on Promotion of Women's Participation and Advancement in the Workplace. Since the Act covers companies with more than 300 employees, NEC Corporation conveyed the purpose of the Act accurately to all Group companies in Japan covered by the Act, and requested those affiliates to formulate their respective action plans and numerical targets.

NEC provides support and holds career-formation and other events for its Group company employees returning to work after taking maternity and childcare leave, engaging in promoting women's participation and advancement in the workplace throughout the entire NEC Group.

NEC's numerical data in regard to the promotion of women's active participation are published in the "Database of companies promoting women's participation and advancement in the workplace" in the website of the Ministry of Health, Labour and Welfare. (For details, refer to "Data Collection.")

▶ "Data Collection"
🖳 Database of companies promoting women's participation and advancement in the workplace (Ministry of Health, Labour and Welfare website, Japanese)

Workforce by gender
[Scope: NEC Corporation employees only]
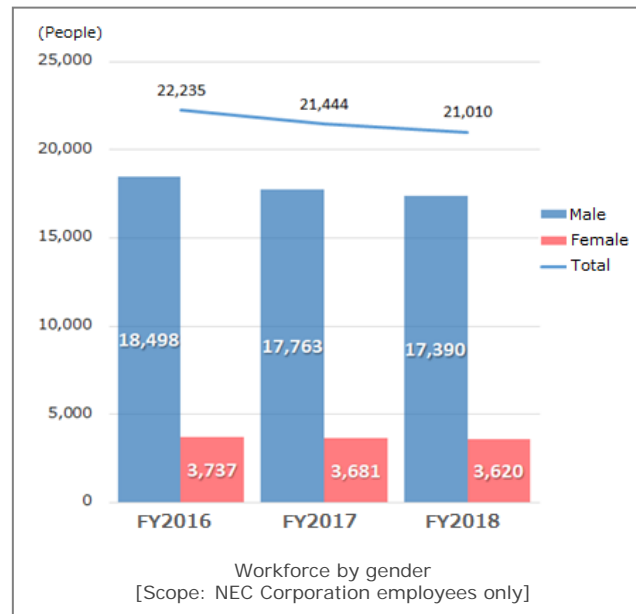
Average length of employment
[Scope: full-time NEC Corporation employees only]

	End of March 2016	End of March 2017	End of March 2018
Male	18.7 years	18.9 years	19.2 years
Female	18.2 years	18.3 years	18.3 years

Number of female managers and ratio of female managers to the total number of managers
[Scope: NEC Corporation employees only]

	April 2016	April 2017	April 2018
Number of female managers (Ratio to total number of managers)	374 (5.4%)	368 (5.5%)	372 (5.8%)
Department Head and above (Ratio to total number of Department Head and above)	97 (4.1%)	102 (4.5%)	95 (4.3%)

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Promoting Employment of People with Disabilities

Since 1979, NEC's "Central Committee for the Promotion of Employment of People with Disabilities," chaired by the corporate officer in charge of human resources, has been promoting the employment of people with disabilities.

Guided by the principle of "do what you can do on your own, and help each other for things you cannot," there are currently more than 320 people with disabilities employed in NEC (NEC Corporation, NEC Friendly Staff, Ltd. and NEC Management Partner, Ltd.).

To promote a "barrier-free" recruitment process, we established an employment liaison service in the Human Resources Development Division and are actively participating in joint interviews for people with disabilities held by Public Employment Security Office called "Hello Work" that operated by the Japanese government. In addition to arranging for sign language interpreters and conducting examinations in Braille, we provide support according to the nature of individual disabilities, such as confirming the availability of barrier-free facilities before they enter the company.

Likewise, after a person with disability joins the company, we also regularly make sure that the necessary work accommodations are being taken through career review interviews. In addition, since April 2016, our human rights hotline has included consultations regarding "reasonable accommodation."*

In addition, we have established a NEC Group Diversity Promotion Committee which includes human resource officers of its affiliated companies in Japan as members. Also, in collaboration with experts in the field, NPOs and other organizations such as Hello Work, we are conducting regular study sessions to deepen our understanding of the nature of disabilities and the business aptitude of persons with disabilities throughout the entire NEC Group, and are pursuing initiatives to diversify our work styles and introduce new modes of employment, as well as to broaden the range of career opportunities for people with disabilities.

* Measures to improve conditions that are barriers for a worker with disability to exercise his or her abilities effectively.

Special Subsidiary Company: NEC Friendly Staff, Ltd.

In March 2003, NEC Corporation established NEC Friendly Staff, Ltd. as a special subsidiary company for employing people with disabilities including mentally handicapped people. Its head office is located in the NEC Fuchu Plant, and employees work in offices in Tamachi, Abiko, and Tamagawa. As of April 1, 2018, it employs 81 people with disabilities.

Employees are engaged in administrative support, cleaning and afforestation services, and the service of converting business-related contract documents into PDFs. In addition, they provide support for the "NEC Make-a-Difference Drive," through which NEC Group members participate in the social contribution activities.

Their work contributes to strengthening management practices in terms of compliance, as well as improving business efficiency at NEC. The company will continue to expand its business as a special subsidiary company by providing a wide range of business support services.
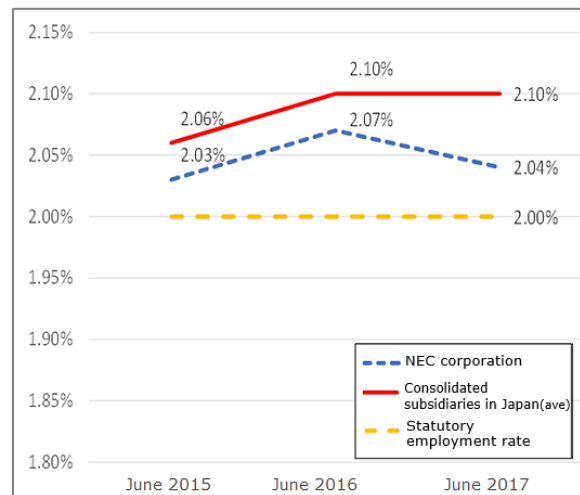
Changes in the ratio of employee with disabilities
[Scope: NEC Corporation and its consolidated subsidiaries in Japan]

Supporting Diverse Work Styles for Seniors

NEC Corporation has implemented systems that enable employees to choose their career support programs by themselves in order to meet the diverse needs of employees seeking to start a new career outside of the company or those approaching retirement age. These programs are designed to support proactive life planning initiatives by providing financial and time benefits to employees choosing to plan and prepare for new careers outside of the company. NEC has been implementing these programs since 1998, and is currently offering four programs to employees aged 45 and over that provide support by granting periods of leave for skills training and development, provide financial assistance for post-retirement career support, subsidize the costs of related skills training, and provide reemployment support services.

In addition, NEC provides a system that enables employees who wish to work beyond the age of 60 to extend their employment to a maximum age of 65. This system is offered with the intent of giving highly motivated and skilled personnel the opportunity to continue being active in the workplace. Since fiscal 2016, NEC has also begun a personnel recruiting system for those extending their employment that works to match the needs of individuals and hiring organizations, based on type of work, job description, employment terms and other conditions.

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Major achievements in fiscal 2018

Promotion of Global Recruitment of Human Resources

NEC Corporation is devoting energy to recruiting international students who newly graduated in Japan. In addition, we also began hiring directly from overseas universities, with 37 international students joining as new hires in fiscal 2018.
NEC Corporation has established a system that enables international students, Japanese students enrolled in overseas universities, and other students studying abroad to join the company in October instead of April. Also, in response to the increase in the number of international employees, we have completed the preparation of English versions of not only documents related to employment procedures but also the main internal rules and regulations and other internal documents. English language support is also provided in the training of new employees in efforts to create an environment for hiring diverse human resources.

Promoting Women's Success in the Workplace

For fiscal 2018, we implemented the following measures and events centered on the formation of career paths for female employees and raising awareness.

Participation in work style reform and diversity promotion activities by female managers

The voluntary association of female members of NEC's management "Scarlet Elegance in NEC (SELENE)" has been holding events for female employees since 2014. These include discussions with invited board members, executives and outside lecturers and the study sessions. From fiscal 2018, the association has been supporting the planning of events to meet the needs of female employees at each individual workplace.

In addition to discussions with female employees in diversity promotion activities at other companies and advice and support for young working mothers activities in NEC, SELENE is carrying out a variety of activities to improve working styles in NEC by participating in panel discussions with male executives and having dialogues with young employees.

Seminar for Employees Returning from Childcare Leave

This seminar, begun in fiscal 2015, was held for the fourth time in February 2018. Its aim is to enable employees on childcare leave who are due to return to work soon to enrich their careers while balancing the demands of work and childcare.
The fiscal 2018 seminar was attended by 65 employees on childcare leave. Participants learned about measures and systems including company trends and work-life support systems. In addition, they did group work where they visualized work-life balance after returning to work.

At the seminar held in February 2018, a survey was held among senior employees currently balancing work and childcare regarding their life after returning to work and the ways by which they achieve balance. Responses from a total of about 130 female and male employees were received and summarized as "realities of senior employees" who have been through the same experience. It was shared to participants of the seminar, to the survey respondents, and to superiors of returners. As a result of these efforts, NEC Corporation has achieved a record return rate of nearly 100%.

Seminar for Employees Returning from Childcare Leave

Career Development Event Held for Women in Sales

At NEC Corporation, cross-company development of female sales personnel and future leaders is considered as a very important theme.

In fiscal 2018, NEC held nationwide networking events and leadership training for women in sales positions in other industries. These events create opportunities for women to discuss their careers with executives, managers, and other senior employees, and are part of an effort to expand the participants' networks and their view of working potential to a nationwide level. By holding networking events with sales personnel in other industries, NEC also supports networking with individuals outside of the company, expanding the viewpoints and thinking.

Summer "Riko-Challe" 2017 for Female Junior and Senior High School Students

NEC actively hires female talents in the fields of science and technology.

However, very few women still choose a science or engineering career path in Japan. NEC has therefore been participating in "Riko-Challe," a program being promoted by the Gender Equality Bureau Cabinet Office, since 2016. This program seeks to increase female junior and senior high school students' motivation to choose careers in science and engineering.

In August 2017, NEC held a conversation event for female junior and senior high school students at the showroom of NEC Platforms, Ltd. Through experiencing the room entry/exit security system and point-of-sales system developed by NEC and having conversations with female employees working as researchers or engineers at NEC, the participants had an opportunity to have a first-hand experience of ICT.

Female junior and senior high school students visit NEC Platforms, Ltd. as part of "Riko-Challe"

Promoting Employment of People with Disabilities

For fiscal 2018, we held the following activities aimed at creating employment for people with disabilities.

NEC Group Job Fair for People with Disabilities

Since fiscal 2013, NEC has been offering shared employment support services using NEC Management Partner, Ltd. as a point of contact, with the goal of strengthening cooperation among NEC Group companies with regard to hiring people with disabilities. In fiscal 2018, we held a job fair for people with disabilities, targeting new graduates and midcareer recruits. Seven companies participated.

At NEC Corporation and its Group companies in Japan, when there are people with hearing difficulties present at recruitment events, during the selection process or during training events after joining the company, we offer assistance by providing a sign language interpreter or displaying summarized captions on a PC. We are also working towards providing a barrier-free working environment by allowing commuting by car and making our facilities and equipment as accessible as possible.

Assisting the Self-Empowerment of NEC Group Employees with Hearing Difficulties

Since fiscal 2016, we have been holding study sessions in order to deepen the knowledge of NEC for employees with hearing difficulties in the NEC Group. This started from a comment we received at the annual event of NEC, C&C User Forum & iEXPO, where a hearing employee given the task of looking after customers who also had hearing difficulties expressed a wish to learn more about the company's business on a regular basis rather than just before an event, but commented that there were not enough learning opportunities of this sort.

In fiscal 2018, four study sessions attended by a total of 210 people were held on themes that are considered important for all employees of the NEC Group, such as introduction of products and solutions, presentation training, and seminar for customer satisfaction. Also, by holding meetings for discussions and presentations among workers with hearing difficulties, we are contributing not only to deepening business knowledge and know-how but also to the construction of cross-department networks that transcend organizational boundaries.

In these study sessions, in addition to provide the contents of lectures via sign language, we are also using ICT to guarantee access to information, such as projecting a summary of the content on a screen or installing audio induction loop devices which make it easier to hear through a hearing aid.

NEC will continue to use ICT to supplement communication and bridge the digital divide in order to provide a workplace where employees can operate effectively.

Commitment to LGBT

NEC believes in prioritizing a correct understanding of LGBT[*1] issues and increasing the number of allies[*2] in order to create a work environment where every individual can fully express oneself at the workplace without fear of discrimination. In fiscal 2018, we carried out the following initiatives.

Promoting Fair Employment

We added the items about LGBT issues in interview manuals, and are promoting awareness so recruiters can carry out appropriate interviews.

1) Absolutely do not conduct interviews that discriminate or violate human dignity from the perspective of human rights.
2) Even if a person comes out as an LGBT, for example during an interview, do not ask questions only concerning LGBT.
3) Judge a candidate only by the person's capabilities and suitability for the job.

Online Training "Diversity in Companies"

We held an online training course for all managers called "Diversity in Companies" in March 2017 to deepen the understanding of LGBT issues. Besides raising awareness of correct understanding of LGBT issues as part of respect for diversity, the training also raised awareness about preventing harassment and outing[*3] of LGBT people.

[*1] LGBT stands for lesbian, gay, bisexual and transgender <person whose sex and gender do not correspond such as person with gender identity disorder>, and is a collective term for sexual minorities.
[*2] A supporter who understands the situation of LGBT individuals
[*3] Public disclosure to a third party about a person's sexuality without that person's approval.

A list of NEC's particular initiatives related to LGBT issues can be found at the Japan Business Federation (Keidanren) website.

Toward the Realization of a Diverse and Inclusive Society (Japan Business Federation (Keidanren) website)

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Creating a Diverse Work Style Environment

Policy

To carry out the "NEC Way," the collective activities of NEC Group management, our human resources, who play such an active and important role in our growth, are trained and fairly evaluated to help us realize the ideal work environment.
As a corporation that contributes to society through its business, NEC has established a system that fairly evaluates employees based on their contribution. We are bringing about a friendly work environment through discussions and by working with the workers union and management on issues covering the personnel system, benefit programs, the realization of work-life balance, and a work style by which all employees have the opportunity to reach their full potential.

▶ NEC Way

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Activity Objectives, Achievements and Progress

Objectives for the Mid-term (from fiscal 2019 to 2021)

- Reduction in total work hours and the number of long-hour workers through improvements in productivity
- Establishment of a flexible work style where a diverse people can successfully work
- Establishment of a childcare system and nurse care system that support those employees who continue to pursue their careers.

Objectives, Achievements and Progress, and Degree of Completion

(Degree of completion: ◎Achieved, ○Mostly Achieved, △Some Progress, ✕No Progress)

Objectives for the Mid-term	FY2018 Objectives	FY2018 Achievements and Progress	Degree of Completion	FY2019 Objectives
1. Reduction of total work hours	• Reduce average overtime work hours compared to FY2017. • Increase annual rate of taking paid leave and compensatory leave compared to FY2017. • Reduce total work hours to lower than that in FY 2017.	• Compared to the previous year, the average monthly overtime decreased (from 17.1 to 16.3 hours). • The annual rate of taking paid leave (from 69.27% to 69.34%), as well as the rate of taking compensatory leave (from 45.3% to 50.3%) increased. • Compared to FY2017, total work hours decreased (from 1930.97 to 1906.64 hours).	◎	• Reduce average overtime work hours compared to FY2018. • Increase annual rate of taking paid leave and compensatory leave compared to Y2018. • Further reduce total work hours to lower than that in FY2018.
2. Deployment of "Work Style Reform" that should improve productivity	• Improve work environment to enable diverse employees to work successfully. Measures include expanding telecommuting and making use of "Secure BYOD (Bring Your Own Device)" to expand work styles with high productivity.	• Continued deliberations between workers union and management to improve productivity, and expanded the different internal work systems, such as by lifting restrictions on the number of times employees can use the Telecommuting System.	◎	• Further enhance "Work Style Reform" through further expansion of telecommuting and Secure BYOD, etc. • Through the above measures, expand highly productive working styles and improve the work environment to enable diverse employees to participate and advance.
3. Expanding of work-life balance support measures	• Support continued employment and career formation by monitoring the actual status of achieving a healthy balance between work and childcare/nursing care and through enhancement of work-life balance programs.	• Created the "Nursing Care Handbook", which enabled any personnel to have the information needed to balance both work and nursing care.	○	• To balance both work and childcare, nursing care, and sick leave, support continued employment and career formation by monitoring the actual status of achieving a healthy balance enhancing work' life balance programs, and providing information such as guidelines.

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Promotion Framework

Promotion Framework

Human Resources Development Division and business unit are leaders in coordinating workers union and management.

Measures and Systems

Personnel System and Two-Way Communication

Since 1990, NEC has been using the collaboration based on the two-way communication evaluation system. Goals were set for each employee by reviewing and correlating the organization's overall goals and each employee's desires and career expectations, feedback was given about the goal achievement level, and evaluation results were discussed through interviews to assist personal and career development.

NEC pays appropriate salaries and bonuses based on ability and performance and various laws and regulations, collective labor agreement and internal regulations. The average annual salary of employees is 7,890,103 yen, and the average length of employment is 19.0 years (As of March 31, 2018).

Work Style Reform

At NEC, workers union and management cooperate to implement flexible working styles, prevent overwork, and promote time off from work. The status of these efforts is confirmed by workers union-management committees in each business unit and office to shorten work hours and ensure employee health while also promoting time off from work. In addition, to respond to the diversifying changes in the business environment and needs of employees, we have expanded the range of employees allowed to telecommute and to "Bring Your Own Device (BYOD)." This has not only contributed to creating a better work-life balance for employees, it has also led to increases in worker productivity.

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Main Activities and Results for Fiscal 2018

Two-Way Management

We have continued and repeatedly held deliberations between workers union and management in fiscal 2018 in regard to operations that will further enhance Two-Way Communication and enable effective dialogue. Based on the results of the One NEC Survey (Employee Opinion Survey), we reviewed the management improvement suggestions at each work place, employed them and at the same time held a training session for evaluators in management on a company-wide basis.

Promoting a Healthy Work-Life Balance (Work Style Reform)

As a result of activating a series of measures created by workers union and management, "shorter work hours" and "taking time off from work" have become prevalent. Following workers union and management deliberations, the coverage of employees required to fill in the Health Check Sheet[*1] was expanded from fiscal 2017, in efforts to ensure the health of employees. In addition, the number of employees who are allowed to telecommute or work with BYOD has been extended, improving CS (Customer Satisfaction) with faster communication and labor productivity due to efficient use of time.

The rate of taking paid leave at NEC Corporation for fiscal 2018 was 69.34%, which was a little higher than the previous year (69.27%), while the average monthly overtime, 16.3 hours, was lower than the previous year (17.1 hours).

[*1] The Health Check Sheet is a questionnaire in which employees who work long hours enter their health status. Those who have concerns can consult with an industrial physician.

The Rate of Taking Paid Leave
[Scope: NEC Corporation]

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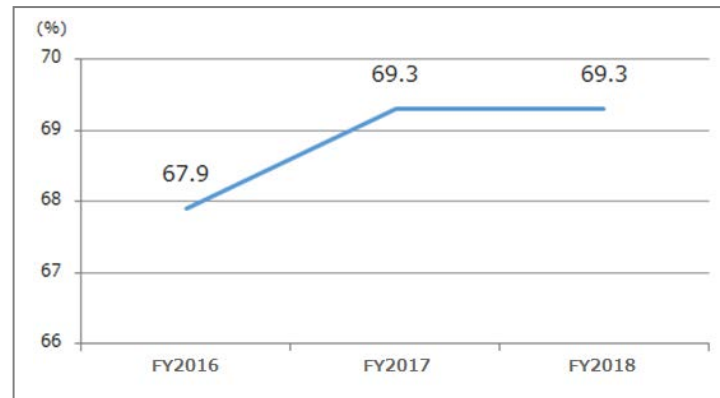
Promoting a Healthy Work-Life Balance (Supporting balance between work and childcare/nursing care)

NEC strives to enhance the programs which provide support to employees achieving a balance between work, childcare and nursing care. It has offered childcare and nursing care leave systems ahead of other companies and since before such systems were mandated by law.

Childcare Support

In addition to its other initiatives intended to support a balance between work and childcare, since fiscal 2006 we have implemented a number of measures based on its own action plan in line with the Act on Advancement of Measures to Support Raising Next-Generation Children.

In particular, NEC has implemented:
(1) A system to help with the payment of childcare fees at government-run nurseries, Subsidy for Family Support Service
(2) A system to provide employment support, childcare support system, when relocating in order to raise children.
   To increase the number of employees who make use of these systems, NEC relaxed certain conditions for their use in 2012 and again in 2014.

Along with the introduction of these systems, we conducted management training on supporting work-life balance and skills improvement training for employees on childcare leave, enabling us to acquire the "Kurumin" Next-generation Support Certification Mark in fiscal 2008, fiscal 2013, and fiscal 2016. We implemented a series of measures, even including measures that are not incorporated in the action plan: in 2014, we extended the duration of our system of reduced working hours for people looking after children, and from fiscal 2017 we further improved the work-life balance of our employees by adding "looking after one's children or grandchildren before they go to elementary school" as one of the reasons for which employees can use the Family Friendly Leave System, and by increasing the number of times employees responsible for childcare/nursing care can arrive late to work from eight times per month to ten times per month. Through these measures, NEC acquired the "Platinum Kurumin" certification in fiscal 2018.

Nursing Care Support

Now that people are living longer and there are more people requiring care, either informally or from qualified caregivers, it is becoming harder for working people to care for their older family members. We have therefore been working at expanding our care support system with the aim of supporting workers who have to balance their care-giving and work responsibilities.
More specifically, we have established the following systems:

(1) A "Nursing Care Relocation Expense Subsidies" System, under which NEC will provide subsidies for relocation expenses incurred by employees who have their parents move in with them or move nearby so that they can provide nursing care
(2) A "Care Environment Maintenance Funding" system whereby financial support is made available when an employee has to incur major expenditures, such as making structural modifications to the family home or moving to a long-term care facility, as a result of a care review of a parent with a high level of nursing requirements
(3) A "Nursing Care Support Website" where detailed information and actual opinion are shared to help reduce any feelings of isolation or frustration of caregiver.

We have also implemented web-based training to promote these systems and to teach all employees how to use them.

Number of People of Utilizing Childcare and Nursing Care Leave [Scope: NEC Corporation]

	FY2016	FY2017	FY2018
Childcare leave	395	376	358
Reduced working hours for childcare	850	893	882
Nursing care leave	19	18	32
Reduced working hours for nursing care	16	19	25

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History of the Introduction of Systems to Support Workers Responsible for Childcare/Nursing

FY	Systems Introduced
2018	• Revised Telecommuting System – Eligible personnel expanded to "all employees." The number of times employees can telecommute is changed to "no restrictions." "Parents' home" is added as a place of work.
	• Expanded the coverage of children's age for whom care of children leave system applies – Children for whom days of care leave can be taken are expanded from "pre-elementary school age children" to "children in the 6th grade or younger."
	• Revised the Childcare Leave System – Childcare leave can be taken until the child is 2 years of age. Restrictions in the number of times the scheduled end of childcare leave can be changed are abolished.
2017	• Added "looking after one's children or grandchildren before they go to elementary school" as one of the reasons for which employees can use the Family Friendly Leave System
2015	• Extended applicable period for reduced working hours for child care – (The applicable period is extended to the end of 6th grade; currently it is at the end of 3rd grade.)
	• Enhanced Subsidy for Family Support Service (Private facilities under contract with or introduced by national or municipal governments added to subsidy eligibility).
2013	• Extended applicable period for telecommuting system – (Extend from the end of third grade to the end of sixth grade)
	• Extended applicable period for Subsidy for Family Support Service – (Extend from the end of third grade to the end of sixth grade)
	• Enhanced Childcare Support System – (Revised requirements for the application of the system to "day-care centers providing childcare until 20:00")
2011	• Introduced Nursing Care Leave – (Employees can obtain up to 5 days multiplied by the number of family members requiring nursing care)
	• Added reasons of sickness prevention for children before entering elementary school to the Family Friendly Leave System
	• Exempted employees raising children under the age of 3 from overtime work
	• Offered Subsidy for Relocation Expenses incurred to provide nursing care

FY	Systems Introduced
2011	• Introduced a subsidy program for expenses (up to ￥200,000 a year) related to changes in nursing care methods, such as home renovations or relocation into a nursing home
	• Launched Intranet website on a nursing care support
2009	• Introduced Retiree re-entry system – a re-employment system for people who have left the Company for reasons such as spouse relocation, childcare and nursing care, provided certain requirements are met.
2008	• Introduced financial support system for fertility treatment (up to ￥200,000 a year)
2006	• Offered Subsidy for Relocation Expenses for childcare
2005	• Introduced Parent Fund: Payments to employee or dependent giving birth of ￥550,000 per child
2003	• Revised Family Friendly Leave System: Medical and nursing care leave system revised. In addition to existing reasons for medical care and nursing, added reasons of birth by spouse, sickness prevention for employees and family members, including immunization, nursing care of family members, family members' school events such as parents' days, and volunteer activities.
2001	• Introduced Telecommuting System
1999	• Introduced Childcare Coupon System: Provision of discount coupons of babysitter services by All Japan Childcare Service Association.
1998	• Introduced Nursing Care Coupon System: Provision of discount coupons for nursing care services provided by nursing assistants registered at nurse and housekeeper agencies nationwide.
1993	• Introduced reduced working hours for nursing care
	• Introduced reduced working hours for childcare
	• Introduced Medical and Nursing Care Leave: Leave system that are separated from the annual leave system; It enables employees to take leave for the purpose of treatment of sickness and injuries and medical care as well as to care for family members.
1991	• Introduced Childcare Leave System
	• Introduced Nursing Care Leave System

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External Ratings and Evaluation

External Ratings and Evaluation about Our Working Environment

"L-boshi" Certification

Certification recognizing companies for outstanding compliance with the Act of Promotion of Women's Participation and Advancement in the Workplace.
By meeting all the five criteria for certification, namely recruitment, continued employment, working hours, percentage of women in managerial positions, and diversity of career courses, NEC Corporation became the first company in April 2016 to receive the "3-star" mark, the highest level under the "L-boshi" certification program.

Next-generation Support Certification Mark "Platinum Kurumin"

NEC received the "Kurumin" certification, given by the Minister of Health, Labour and Welfare, in recognition as a child-rearing support company, in FY2008, FY2013, and FY2016.
In FY2018, NEC Corporation received the "Platinum Kurumin" certification for carrying out higher levels of effort in introducing and using considerable measures to child-rearing support. To receive the "Platinum Kurumin", "Kurumin" certification is needed.

Certified Health and Productivity Management Organization Recognition Program ("White 500")

The program recognizes companies and organizations for outstanding health and productivity management. Certified organizations are divided into large enterprises and small and medium-sized enterprises.
NEC Corporation was certified as a 2018 health and productivity management "White 500" company.

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Human Resources Development and Training

Policy

NEC considers "development of Sustainably and socially literate human resources" as one of its "materiality," the priority management theme from an ESG perspective.

Based on the approach of "self-development," where employees consciously develop their own skills, NEC is aiming to develop human resources who are able to continuously create value for society, constantly acting a customer-oriented perspective with a high sense of ethical values and a deep understanding of the essential issues faced by customers and society. Also we seek to foster an organizational culture for it and this is based on "NEC Group Core Values," which encapsulate NEC Group employees' values and principles of conduct.

To further clarify this philosophy, NEC established its "People Philosophy" in April 2016, summarizes specific behaviors that should be pursued by the employees. Based on this People Philosophy, NEC is advancing three core objectives: "strengthening execution capabilities," "cultivating professionals," and "developing business leaders."

As NEC Group builds our Social Solutions businesses,

we value employees

who are ethical,

who respect diversity,

who think long term with a broad perspective,

and who work in a boundaryless way to achieve results.

Furthermore, NEC values executives and leaders who create

organizations full of innovation and open communication.

People Philosophy
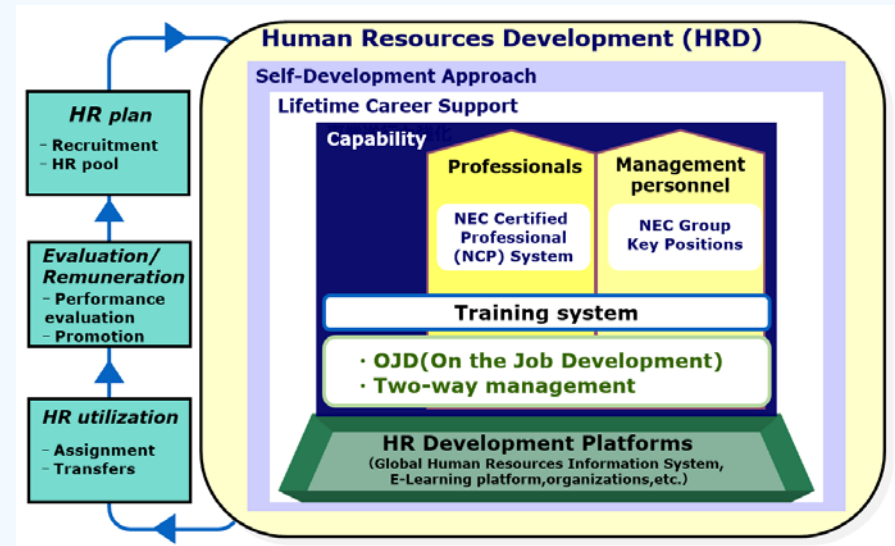
Management of Human Resources Development at NEC

As society becomes more complex and diverse, the abilities of human beings to think thoroughly about the essence of things and carry out actions to overcome a variety of difficulties will become even more important for providing more value to customers and society. Toward this end, NEC Group seeks to nurture its people as critical assets and resources.

▶ "NEC Group Core Values"

▶ Priority Management Themes from an ESG Perspective - Materiality

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Activity Objectives, Achievements and Progress

Objectives for the Mid-term (from fiscal 2019 to 2021)

1. Upgrading and expanding the next generation business leaders
2. Upgrading and expanding the highly-skilled professionals who play critical roles in business growth
3. Reconstruct the training system based on NEC's People Philosophy

Objectives, Achievements and Progress, and Degree of Completion

(Degree of completion: ◎Achieved, ○Mostly Achieved, △Some Progress, ✕No Progress)

Objectives for the Mid-term	FY2018 Objectives	FY2018 Achievements and Progress	Degree of Completion	FY2019 Objectives
1. Enhance the training of next generation business leaders, including overseas personnel	Expand "NEC School for Social Value Creation" launched in FY2017 to enhance the next generation business leaders training program on a global scale, including overseas human resources.	• The "NEC School for Social Value Creation" was implemented with 2 selected members who advance NEC's business at overseas locations. • Global common talent management processes were trialed.	△	• Expand training programs including the selected members who advance NEC's business at overseas locations. • Improve talent management process including the strengthening of follow-up after training.
2. Enhance the training of advanced professional human resources	Accelerate discussions carried out through the "Community of Senior NCPs" launched in FY2017, and create the process for training professional human resources.	• Meetings of Community of Senior NCPs were held three times. Participants discussed systems, frameworks, and value proposition related to human resource development and technologies. • Studies of framework to acquire advanced professional human resources and framework for talent management commenced. Challenges in the NCP system were analyzed and its future direction was examined. • Personnel training was enhanced in key business domains (IoT platform, SS-FW, AI, cybersecurity, cloud).	△	• Prepare framework to assign and acquire advanced professional human resources in a planned manner . • Examine rebuilding the system to train professional human resources and improving its efficiency of the process.
3. Reconstruct the training system based on NEC's People Philosophy	Promote understanding of the People Philosophy throughout the entire NEC Group, reconstruct the training system, and review the training programs.	• To evolve the company culture, "NEC Way Sessions" were held during the training of new general managers, department managers and managers to educate the NEC Way as a common subject for all employee levels. • To enhance the capabilities of managers, started to prepare for the systematic trainings for each management layer. Preparations and transition plans after FY2019 were clarified.	△	• Change the name of "NEC Way Session" to "People Philosophy Session." Review the programs, based on the scope of participants' roles of practicing People Philosophy. • For trainings, especially of management layers enhance feedback skill for thorough implementation of 9 Blocks personnel evaluation system.[*] Carry out regular checks and follow-ups to maintain/improve management capabilities after appointment.

[*] NEC's personnel evaluation system. Employees are evaluated according to two axes: "Recent achievements" and "Conduct according to NEC Group Core Values," and each axis is further divided into three levels.

Promotion Framework

In collaboration with NEC Management Partner, Ltd., NEC is carrying out human resources development and training measures based on Human Resources Management (HRM)-related activity frameworks for each job category and for each organization.

Job category-based HRM-related activity frameworks implement personnel and human resources development measures for each job category and focused theme.

Business Unit-based HRM-related activity frameworks implement personnel and human resources development measures for each organization and function.

Theme-based task forces study challenges across job categories and organizations. Measures are then implemented with deliberation and decision-making carried out as needed by the company-wide Business Strategy Committee.

BU: Business Unit
HRM: Human Resources Management

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Measures and Systems

Our training organization, which plays an important role in achieving the above objectives, is comprised of job-specific courses that are prepared for each type of job category to develop job-specific professional skills and common training courses for all employees of NEC Corporation.

	Staff	Assistant Manager	Manager	Top Management

Job-specific training

NEC Certified ProfessionaSystem

| Associate | Specialist | Professional | Senior Professional |

Professional training

Common technology training

Global training

Common training

3FP (New recruit training, etc.)

Common recommended training for all job categories

Promotion training

Business leader training

Voluntary training

Career development training

NEC Way (Vision, Core Values, Strategies, Measures)

HR Development Platforms

Global Human Resources Information System – "SAKURA"

Job-specific Training

Job-specific training are offered to provide employees seeking to become professionals in a specific field with the opportunity to enhance and refine their expertise.

NEC Certified Professional (NCP) System

Recognizing that people are the most significant resources, NEC believes it is important to develop highly specialized professionals who can deliver true value to customers. With this view, the "NEC Certified Professional (NCP) system" was introduced.

For each personnel category, such as SE or service personnel, the NCP system divides qualifications into four grades that define increasing degree of specialization corresponding to higher market value. Within each grade, separate personnel qualifications are defined for each category based on an analysis of which business processes are critical to a field. Qualifications specify in detail the levels of skills and performance required for each personnel category. Approximately 9,100 individuals have been certified as career professionals under the NCP system as of April 2018.

Global Training

As a company that does business all over the world, NEC carries out a variety of programs for global human resource development. These include programs that focus on building comprehensive skills in language, multicultural communication and business, as well as practical programs in which participants engage in onsite field work overseas, usually in an emerging country.

Common Training

NEC has a diverse menu of common training, ranging from those aimed at the personal growth and skill enhancement of individual employees to those taken when an employee is promoted or specifically selected to participate.

Training for Each Management Layer

Training for newly assumed positions at each management layer is prepared when personnel are promoted. Based on the NEC Way and People Philosophy, the training for newly promoted personnel equips them with the knowledge, skills, and mindset needed for roles at each management layer. To put their training into practice, participants create action plans applying what they learned to their everyday work.

Selecting NEC Group Key Positions and Selective Training to Develop Business Leaders

To ensure that the appropriate people are assigned to important positions throughout the NEC Group regardless of geographic location, key positions (NEC Group Key Positions: GKPs) are identified. Promotions for GKPs and the training of successors are conducted in a systematic manner. As part of a set of processes for this goal, selective trainings to develop business leaders are held.

NEC launched NEC School for Social Value Creation, which was improved from the existing selective training based on the principles of its People Philosophy, in fiscal 2017. Headed by the Chairman of NEC Corporation, it is a program for training next-generation leaders. The program provides opportunities for the participants to dialogue with various lecturers and stakeholders from outside and inside NEC and experiences in the domestic and international fields which contain social issues. Through the dialogues and experiences, the participants reaffirm their personal mission and goals with high ethical standards and broad perspectives, as well as think thoroughly about NEC's future vision and business models for realizing social values.

As for the selected personnel from overseas affiliates, NEC launched the "Drive NEC" training program in fiscal 2014 in order to enable them to refine their leadership capabilities and expand global human networks. Employees from overseas affiliates and NEC participate together in this program, which is carried out completely in English.

Career Development Support Programs - Lifetime Career Support

Self-development and autonomous growth at the level of individual employees require a continual process of self-analysis, personal change, and skills redevelopment. NEC Corporation has introduced the "lifetime career support" system (career design support) since 2002 with the aim of helping individual employees to take spontaneous actions to promote career-long personal growth.

The typical programs are shown in the diagram below.

Lifetime Career Support Flow

1.	Work and Life Balance Training: Participants who reach the milestone ages of 30, 40 or 50, review their own career paths and establish additional goals for skill development. Approximately 1,000 employees participated in this training in FY2018.
2.	NEC's Career Parcel®: This program provides employees at the key intermediate milestone ages of 35, 45 and 55 with career-related and other information appropriate to each age group. Participants in this program have the opportunity to assess their future careers and life plans. For employees in the age 55 group in particular, we offer the "Life Design Seminar," on online training focusing on retirement benefits and pension plans.
3.	Career Advice: Through this program established in 2002, NEC provides employees with career advice to support self-guided career development. Professional career advisors, from their specialized perspective, consult with employees on career development, including on the issue of work-life balance and making objective judgments on values and aptitudes. Four career advisors counsel around 600 employees each year.

* NEC's Career Parcel® is a trademark of NEC Corporation in Japan.

Global Human Resources Information System – "SAKURA"

NEC uses the "Global Human Resources Information System (SAKURA)" as the training platform to support human resources development activities. The system imports and utilizes personnel information from 24 NEC group companies in Japan, and 57 overseas (as of April 2018).

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114-119   **Human Resources Development and Training**

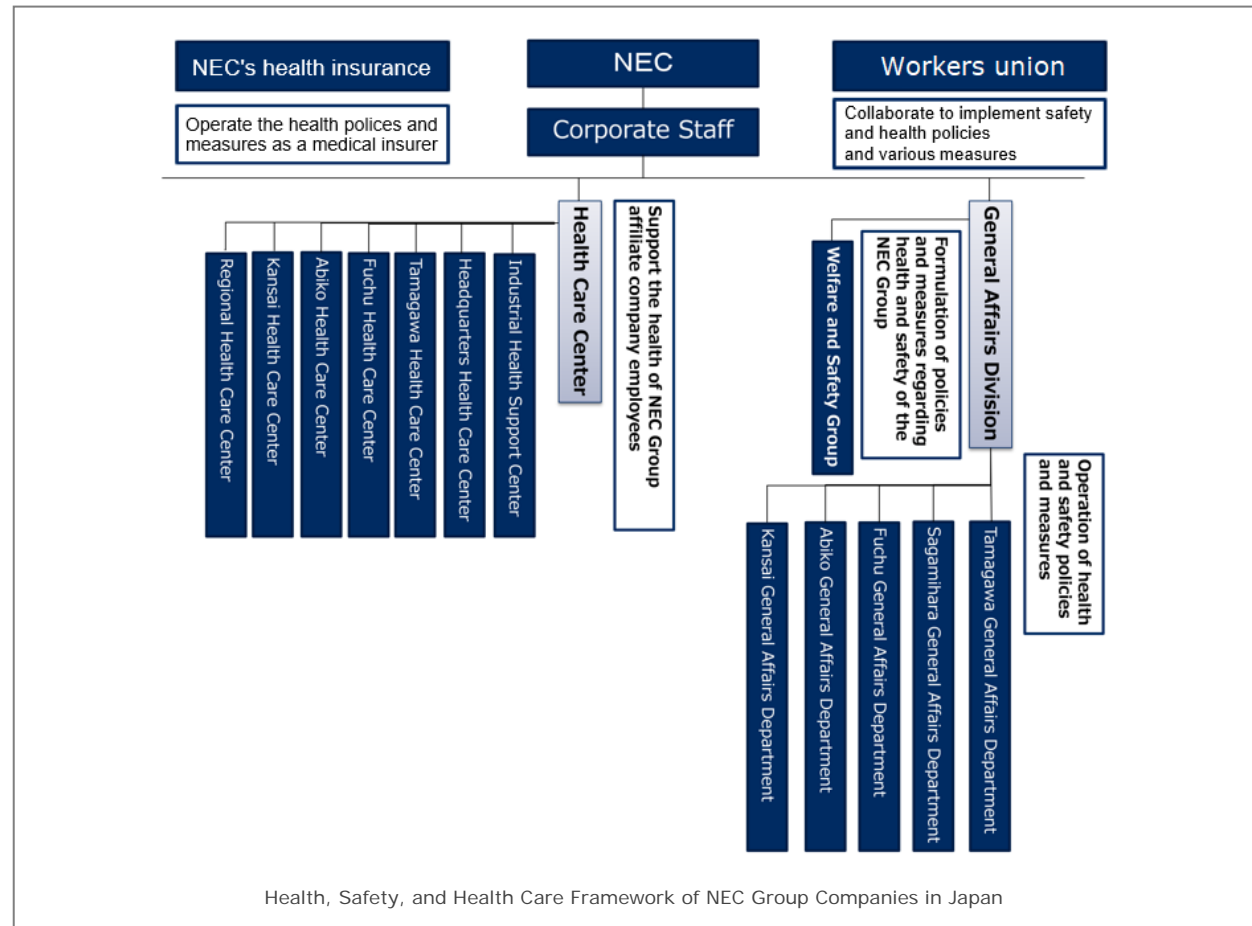91-98   Personal Information Protection and Privacy
107-113   Creating a Diverse Work Style Environment
120-125   Health and Safety

Main Activities and Results for Fiscal 2018

Expansion of Training for Selected Personnel for Business Leaders, including Overseas Member

In fiscal 2018, "NEC School for Social Value Creation" was implemented from June/July 2017 to February 2018 with two selected personnel from overseas locations.

In the executive-level training program, 34 personnel, including two overseas members, explored NEC's reason for existence and its role in creating social value, and thought about NEC's future vision thoroughly. Due to the inclusion of members from overseas locations, participants deepened their global personal networks as well.

Meanwhile, the training program for younger personnel was carried out from June 2017 to February 2018. 102 participants were divided into 18 teams and studied and created business models for social value creation. Participants not only learned in classrooms, but also refined their hypotheses proposed within each team by testing, examining and revising at actual customer sites.

Cultivate Key Global Personnel

In order to expand business in the global market, NEC is implementing various programs to reinforce global skills. In particular, we have increased the number of personnel sent to practical training programs where participants gain actual experience in the overseas market and learn to formulate business ideas and plans. In fiscal 2018, 12 personnel, including employees selected for GKPs, underwent training in Asian emerging countries.
In addition, other than the different business skill enhancement programs, we also actively send employees abroad for job training and studies.

Strategic Investments in Training

In fiscal 2018, compared with the previous fiscal year, NEC invested five times as much in personnel training in business areas such as AI, cybersecurity, IoT, and the cloud in which the company is strategically expanding. As a result, more than 1,500 personnel earned qualifications such as Certified Information Systems Security Professional (CISSP) and AWS Certified Solutions Architect, and more than 66,000 personnel as a total received trainings such as AI /analytics application and hands-on training for NEC IoT platform system engineers.

Education Performance

NEC utilizes the Global Human Resource Information System (SAKURA), which manages the individual cultivation plan and result information and also serves as the platform for human resource development activities, throughout the entire company. The number of training days per employee of NEC Corporation and NEC Group companies registered in the system in fiscal 2018 was 5.7 and 4.9 days respectively.

Monitoring and Improvement

NEC's human resource development programs reflect the needs of each business division through organization and job category-based human resource management activities. These measures are continually evaluated and improved for each job category.

In addition, in cooperation with NEC Management Partner, Ltd., responsible for NEC's human resource development, NEC seeks to evaluate and revise training programs periodically based on evaluations by course participants and workplace behavior surveys.

Health and Safety

Policy

NEC has established a basic philosophy as part of its "Company-wide Occupational Health & Safety (OH&S) Policy Action Guidelines" stating that "NEC should maintain and enhance a comfortable and supportive workplace to ensure the health and safety of all who work at its business sites." In line with this philosophy, the General Affairs Division, charged with safety and health activities, the Health Care Center, and the Safety and Health Management Organization in each business site offer various programs for safety and health focusing on preventive management.

<Safety>

On the basis of its "Company-wide Occupational Health & Safety (OH&S) Policy" NEC has established the following action guidelines to maintain and enhance a comfortable and supportive workplace and to ensure the health and safety of its employees including dispatched workers.

[OH&S Policy Action Guidelines]
1. Improve occupational health and safety management systems by continuously and efficiently implementing occupational health and safety activities.
2. Promote the identification of sources of danger, as well as risk assessment and risk management, with the aim of reducing labor accidents to zero.
3. Comply with laws and regulations, and other rules and decisions regarding occupational health and safety.
4. Strive to make the occupational health and safety obligations known to ensure understanding and fulfillment of these obligations.
5. Actively provide disclosure of information regarding occupational health and safety activities.
6. Endeavor to enhance the mental and physical health of workers and develop a comfortable workplace.
7. Ensure the appropriateness and effectiveness of these policies and the occupational health and safety management systems through regular reviews.

<Health>

NEC Group has been implementing various programs under the "NEC Health Innovation 21" initiative for all employees to prevent lifestyle-related diseases since fiscal 2009. These programs are measures for metabolic syndrome, stress and cancer prevention. These efforts have been acknowledged and NEC was certified as 2018 Health and Productivity Management Organization (White 500). NEC will promote maintaining and promoting physical and mental health, as one of its business initiatives; this should serve as the base of employees' continuous growth.

[NEC Health Innovation21 – Major activities]
- NEC will promote various programs and activities for all employees from the perspective of preventing lifestyle-related diseases:
  - Enhancing specific health guidance including the items not designated by law
  - Activities that promote exercise and events
  - Food service (menus) that contributes to a healthy diet
  - Nutritional education
  - Activities that encourage people to stop smoking.
- NEC will promote the use of ICT tools to enhance the effects of the above programs and activities.

2018 Health and Productivity Management Organization (White 500) Certification

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120-125   **Health and Safety**

Activity Objectives, Achievements and Progress

Objectives for the Mid-term (from fiscal 2019 to 2021)

1. Occupational Health and Safety (OH&S)
   - Operating and improving effectively the occupational health and safety management system within the NEC Group.
   - Completing enforcement of occupational health and safety management appropriate to the workplaces, branch offices and diverse workplace environments (i.e., construction sites, offices at other companies).

2. Health Management
   - Maintaining and promoting the physical and mental health for the base of the NEC Group employees' continuous growth.

Objectives, Achievements and Progress, and Degree of Completion

(Degree of completion: ◎Achieved, ○Mostly Achieved, △Some Progress, ✕No Progress)

Objectives for the Mid-term	FY2018 Objectives	FY2018 Achievements and Progress	Degree of Completion	FY2019 Objectives
1. OH&S	• Improve the OH&S management system at each NEC workplace, strive to maintain the management system, and further enhance the OH&S management in the fields outside the NEC workplace.	• Maintained OHSAS Certification for the OH&S management system at each NEC workplace. • Assigned a staff to the division that carried out construction in the field, held monthly meetings and established guidelines of NEC as the criteria for OHSAS management for construction in the field.	◎	• Maintain operations of the OH&S management system at each NEC workplace and improve it according to the situation. • Thoroughly operate the OH&S management guidelines for construction in the fields outside the NEC workplace.
2. Health management	• Strengthen preventive measures for mental and physical health through collaboration between the Health Insurance Association and Health Care Center.	• Implemented mental health education and health education by ages for all employees and management-level employees. • Executed new "Health Point" activity to raise the awareness of employees' physical and mental health and promote the health-enhancing activities.	◎	• Disseminate and promote "NHI21 Third Season." • Promote "Health Point" activities. • Maintain "Health and Productivity Management Organization (White 500)" certification.

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Promotion Framework

At NEC, the General Affairs Division of NEC Corporation formulates its policies and measures including its Group companies in Japan, regarding health and safety for employees. We deploys the measures for each region by cooperating with the safety and health manager in the regional support division and the Health Care Center (i.e., industrial doctors and health nurses). NEC also ensures health and safety in the workplace through a community health and safety committee with the participation of the safety and health commissioners and labor union members selected by each division and by following up the implementation of health-related measures.

For everyday reportable items, the applicable general affairs division or an executive officer is responsible, but when something important arises, such as a major disaster or pandemic, the matter will be deliberated by the Business Strategy Committee attended by corporate management, such as the President or Directors.

Operational methods, however, are recommended at an information exchange meeting on health issues and labor accidents with the NEC Group's overseas subsidiaries. This is done to set up coordination with existing operations being carried out under the occupational health and safety management system.

Health, Safety, and Health Care Framework of NEC Group Companies in Japan

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Main Activities and Results for Fiscal 2018

Occupational Health and Safety (OH&S)

NEC Corporation conducts OH&S activities from two standpoints that address "company-wide issues" as well as "specific issues reflecting unique conditions faced by individual Group companies and business sites."

As a company-wide initiative, in fiscal 2011 NEC formulated a "Company-wide OH&S Policy" based on the "NEC Group Charter of Corporate Behavior" and the "NEC Group Code of Conduct," as a sign of its commitment to stakeholders. And, in fiscal 2013, NEC formulated the "Occupational Health and Safety Management Regulations" as part of efforts to enhance the quality of its OH&S activities.

As an initiative to address specific issues reflecting unique conditions faced by individual Group companies and business sites, NEC has been working to obtain the "OHSAS 18001" standard for occupational health and safety since fiscal 2011. In fiscal 2018, 7 NEC Group affiliate companies out of 14 companies at the business sites in Keihin District obtained the "OHSAS18001."

OHSAS18001 Specification Cerficate

Health Management

Prevention of Health Impairment Due to Overwork

NEC Corporation supervisors at specific workplaces and the personnel affairs divisions manage employee's working conditions everyday and monitor work hours by using a work management system to make sure that the workers (including dispatched workers) are not working too many hours based on agreements between labor and management. For those workers who may be working long hours, the system automatically issues a monthly alarm e-mail around the middle of each month to further manage their working conditions.

For employees who have worked long hours, based on the "Comprehensive Program for the Prevention of Health Impairment Due to Overwork" by the Ministry of Health, Labour and Welfare, we use a Web-based interview sheet (health check sheet) to ascertain accumulated fatigue. Furthermore, the Health Care Centers select employees for compulsory follow-up on the basis of working hours (long hours) and health check (regular checkup and metabolic syndrome examination) data and has them consult with an industrial physician/health professional, and restricts work hours, among other measures.

"NEC Health Innovation21" Activities

NEC is promoting "NEC Health Innovation 21 (NHI21)" activities to promote employee health. NHI21 has launched various measures and programs for each age group, including those for metabolic syndrome, mental health care, promotion of smoking cessation, cancer prevention and dental health.

Lifestyle-related Diseases
Obesity   Hypertension   Hyperlipidemia   Diabetes

NEC Health Innovation 21

Personal Measures
- Specific physical check-up
- Specific health guidance

Tutoring program

General Measures

Dietary Measures
- Meal balance Recommendations
- Company cafeteria menu improvement
- Nutrition exhibitions
  etc.

Exercise Programs
- Recommendation for walking
- Walkathons
- THP activities
- Slow Pilates class
  etc.

Smoking Cessation Measures
- No Tobacco Day
- No Smoking Campaign
- Smoking cessation seminars
  etc.

Prevent lifestyle-related diseases and realize an environment where employees and families lead healthy lifestyles.

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Measures for Metabolic Syndrome

NEC has focused its attention on metabolic syndrome since 2004 and has provided lifestyle improvement advice to employees with high risk for cerebrovascular problems or heart disease. Since April 2008, it has been enhancing measures for metabolic syndrome as a part of its NHI21 activities.
Since fiscal 2014, NEC has expanded the health guidance given by nurses for those who were selected for monitoring (ages in odd-years). As a result, the ratio of the NEC Group employees with metabolic conditions and potentially metabolic conditions was reduced from 33.1% in fiscal 2009 to 24.4% by the end of fiscal 2017. (Reduction rate: 26.3%).

Mental Health Care Initiatives

NEC Corporation positions mental health care as a key health care priority. Accordingly, NEC conducts measures focused on prevention and is creating a healthy workplace by maintaining the mental health of its employees.

- Mental Health Support Program: Introduced in February 2005. This program consists of three elements: 1) "early stage support" focused on early identification and treatment of mental disorders; 2) "follow-up support" for people receiving treatment for mental disorders; and 3) a "return-to-work support program" that helps people on leave make a smooth return to work.
- Return-to-work support program: The process and standards for determining whether an employee on leave may return to work was clarified in fiscal 2011. As a result of initiatives to help employees on leave smoothly return to work, there has been increasing number of consultations from individual employees and their supervisors during the early stages of onset of mental illness, showing a stronger recognition of mental health care within NEC.
- Mental health education and primary care education for management-level employees: These programs have been implemented as preventive measures for management-level employees since fiscal 2012. They are designed to enable management-level employees themselves to consider how to provide care and manage their staff in order to prevent mental health impairment and disorders, including increasing communication, building even better human relationship, and developing worksite environment conductive to consultations.

- Consultation desks (In-house/Outside the company): Employees and their supervisors can consult with someone when they notice an irregularity. The in-house consultation desks are staffed by industrial physicians and health professionals using dedicated internal telephone lines called the "Mental Health Consultation Hotline" installed at the health care center of each business site. The external consultation desk is provided by a specialist external institution based on an arrangement with the NEC Health Insurance Association. It provides a system for employees themselves as well as their families (dependents) to consult on mental health via the telephone and other means.
- Stress checks: Since fiscal 2017, NEC has been conducting stress checks for all employees based on the Revised Industrial Safety and Health Act enforced in December 2015.

NEC is working on further enhancing the primary care initiative by following up on interviews and promoting early consultations with those employees.

Smoking Cessation

NEC has instituted an "NEC No Tobacco Day" in conjunction with the World Health Organization (WHO) "World No Tobacco Day," to promote smoking cessation. Moreover, it provides consultation on smoking cessation by pharmacists at the health management center of each business site, distributes nicotine gum or patches ("No Smoking for Only a Half Day" program) and holds events such as panel displays.

NEC No Tobacco Day

Event booth   Panel display
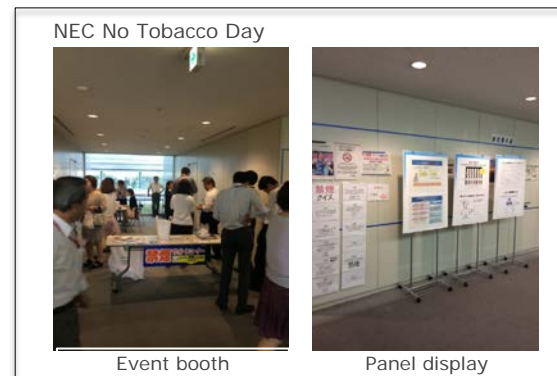
The smoking rate at the NEC Group was lowered from 31.1% in fiscal 2006 to 22.0% by the end of fiscal 2017. (Reduction rate: 29.3%)

Measures for Preventing Lifestyle-Related Diseases, Cancer Prevention and Infectious Diseases

NEC has been implementing measures to prevent lifestyle-related diseases for its employees (including dispatched workers) and their families (dependents). The "NEC Health Fair," an event at which employee families can participate, offers programs such as prevention of metabolic syndrome, cancer screening, and measures for infectious diseases (i.e., seasonal influenza). The health management center delivers "Health News" every month featuring topics related to health such as cancer screening, dental health, smoking, infectious diseases, etc., to promote the health awareness.

Activities for Each Age Group

NEC Corporation has been prioritizing improving the awareness of self-care by targeting the younger age group and has also been providing specific health checkups and specific health guidance for employees in their 30s since fiscal 2009. Since fiscal 2015, it added blood tests and measuring abdominal circumference as part of the regular health checkups for employees in their 20s. Interviews are conducted to give advice based on checkup results, enhancing the health support activities for its younger employees.

- "Fresher's Interview": At the time of initial employment, NEC conducts health checkups and health education, and interview by nurses to provide advice based on the checkup results.
- "Interview for all 27-year-old employees": An interview conducted by nurses for all employees who reach the age of 27.
- "Health College 30": A group education about self-care for all employees who reach age 30.
- Seminars on lifestyle-related diseases for employees of specified age groups or anyone who wants to attend: For example, at the Fuchu plant, health promotion programs (seminars, stretching exercises, measurements of physical fitness, etc.) are offered for employees aged 25, 30 and 35.

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Labor Accidents and Disasters

Labor accidents at NEC Corporation are mostly minor, such as tripping on stairs at train stations or falling on the street during business trips or sales calls. There have been no major disasters. Looking ahead, in order to raise awareness concerning occupational safety, we intends to continue conducting OH&S Committee activities, daily workplace inspections and cross-checking, while aiming to reduce the number of labor accidents and disasters.

The graph shows the changes in the frequency and severity rates of NEC Corporation for the past several years. The "frequency rate" remains low at 0.37, which is about one-fourth the nationwide manufacturing sector average rate of 1.02. The "severity rate" has remained at 0.00, whereas the nationwide manufacturing sector average rate is 0.08.

Legend:
- Nationwide manufacturing sector (100 or more employees) frequency rate
- NEC Corporation frequency rate
- Nationwide manufacturing sector (100 or more employees) severity rate
- NEC Corporation severity rate

[1] Frequency rate: Number of deaths and injuries due to industrial accidents divided by total working hours multiplied by 1 million
[2] Severity rate: Number of lost working days divided by total working hours multiplied by 1,000

Labor Accidents and Disasters

[Scope: NEC Corporation]

Environmental Management Initiatives

Policy

As part of its Corporate Social Responsibility, NEC seeks to reduce environmental impacts in its own business activities. At the same time, it is carrying out "environmental management" that contributes to reducing the environmental impacts of society as a whole through providing products and services. Also, to promote environmental management in NEC, it has established the "Environmental Charter" to express its environmental philosophy and action guidelines. Conduct that complies with the charter is expected of all NEC employees including executive officers.

NEC has set "Environmental action with a particular focus on climate change" as one of its "materiality," the priority management theme from an ESG perspective. Since fiscal 2017, we have been focusing on measures to both "mitigate" and "adapt" to climate change. NEC has also formulated the "climate change policy guidelines aimed at 2050," which demonstrates NEC's stance on co-creating a sustainable society together with our customers. The plan raises the target to reduce CO_2 emissions linked to our business operations to effectively zero by 2050.

NEC is continuing to contribute to measures by customers and society to fight climate change from both the aspects of mitigation and adaptation by offering energy-saving products and services and developing and providing solutions that deal with the risk of climate change, such as floods and landslides.

For details about environmental management initiatives, see Annual Environmental Report 2018.

▶ Environmental Charter

▶ Climate Change Policy Guidelines (Course of Action for Climate Change towards 2050)

▶ Annual Environmental Report 2018

Activity Objectives, Achievements and Progress

Objectives for the Mid-term (from fiscal 2019 to 2021)

The "Environmental Management Action Plan 2020/2030" was established as the mid-term action plan for environmental management. To realize this action plan, the "NEC Eco Action Plan," which sets specific targets for the next three years, was formulated, and activities under this plan are being advanced. The "NEC Eco Action Plan" sets forth concrete targets from the three standpoints of "Offense (Business Contributions)," "Defense (Measures against Risks)," and "Foundation," which supports the former two measures.

The table below shows the major targets and progress related to "climate change," one of the priority management themes from an ESG perspective. Note that in recognition of Science-Based Targets (SBT), absolute targets were added, or previous targets were changed to absolute targets, to steadily reduce Scope 1 and 2 emissions, which are produced in the course of business activities. See "NEC Eco Action Plan" for other activity objectives, achievements, and progress.

Objectives, Achievements and Progress, and Degree of Completion

(Degree of completion: ◎Achieved, ○Mostly Achieved, △Some Progress, ✕No Progress)

▶ NEC Group Environmental Management Action Plan 2020/2030

▶ NEC Eco Action Plan

Objectives for the Mid-term	Indicators		FY2018 Objectives	FY2018 Achievements and Progress	Degree of Completion	FY2019 Objectives
1. IT solutions for reducing CO$_2$ emissions 23 megatons (2020)	Amount of CO$_2$ reduced through IT solutions (*new FY2019 target.)		–	16.39 megatons	–	17.70 megatons
2. Improvement of energy efficiency of products (weighted average)	Reduction of total CO$_2$ emission when products are used (*Compared to FY2014 products. Applies to hardware products shipped in the target fiscal year.)		15%	35%	◎	20%
3. Reduce CO$_2$ emissions from business activities	Reduction rate of energy consumption.	Compared with previous fiscal year	-1%	8.4%	✕	-1%
	Reduction rate of the generation of energy-derived CO$_2$ (*Addition of absolute value targets from FY2019.)	Compared with FY2018	–	–	–	-1.9%
	Renewable energy generation capacity (*Change to absolute values from FY2019.)	Compared with FY2012	6.6x	9.7x	◎	
		Absolute value	–	323 MWh	–	520 MWh

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126-132   **Environmental Management Initiatives**

Promotion Framework

The environmental strategies and policy and long-term environmental activity plans of NEC Corporation are drafted after discussion at Business Strategy Committee, with final approval being made by the President.

Based on the environmental strategies, the results of these discussions are implemented through a system that promotes the specific measures throughout NEC, from the environmental management committees of the Business Units and divisions to NEC Group companies in Japan and overseas.

Furthermore, committees are individually formed to engage in cross-organizational initiatives such as compliance with environmental regulations for products, development of environmentally friendly products and solutions, and raising awareness in employees.

We have also established environmental promotion departments for each region, such as at our business sites and laboratories, to maintain and promote environmental management regionally as well as organizationally.

▶ Environmental Management Promotion Framework
▶ Environmental Governance

Environmental Management Promotion System (As of April 1, 2018)
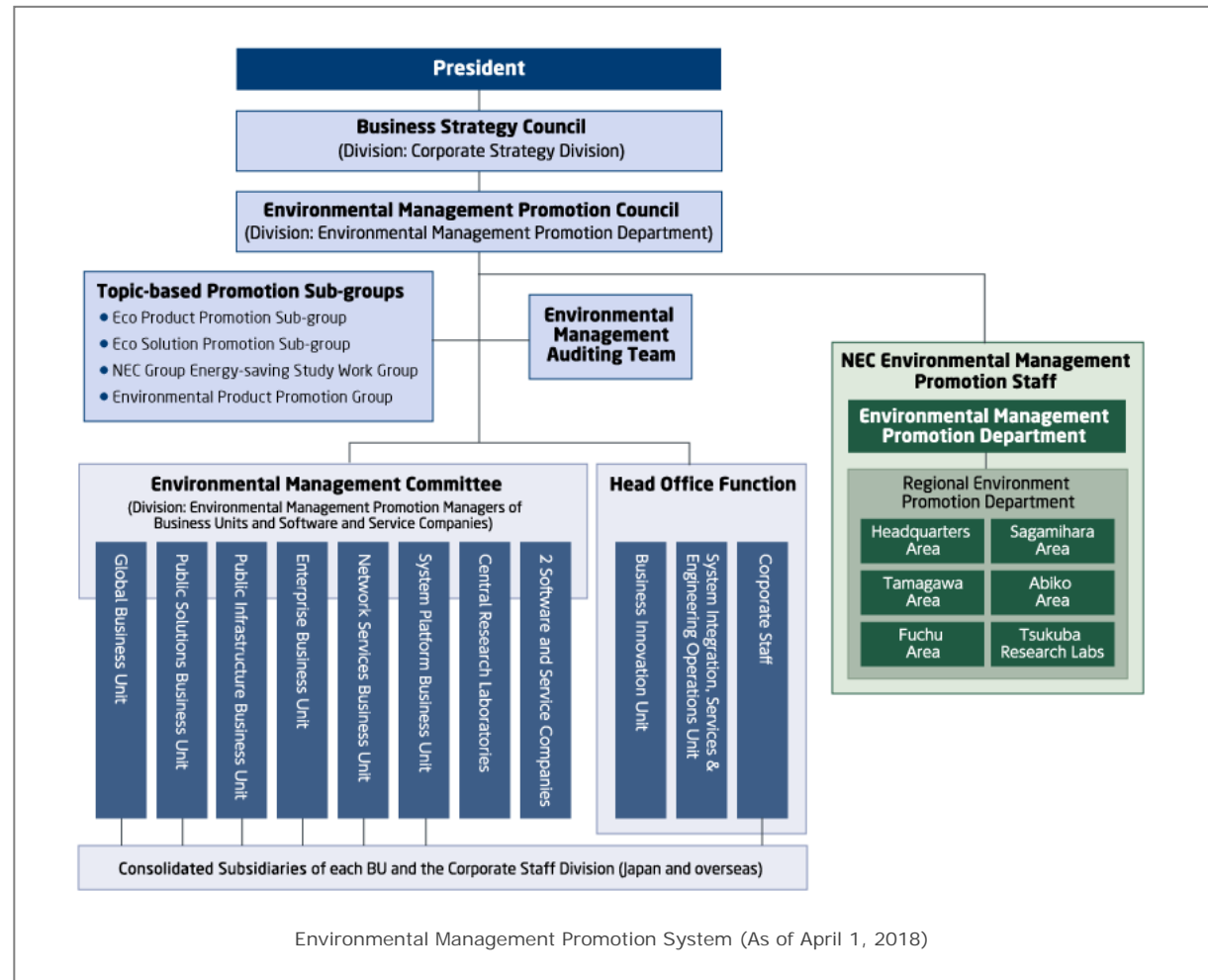
Main Activities and Results for Fiscal 2018

Strengthening NEC's "Climate Change Measures"

In July 2017, NEC announced its guidelines on climate change measures from a long-term perspective up to 2050. NEC will work to reduce CO_2 emissions linked to its business operations to effectively zero by 2050.

▶ Climate Change Policy Guidelines (Course of Action for Climate Change Towards 2050)

In December 2017, NEC committed to achieving our CO_2 emission reduction targets by 2030 as Science Based Targets (SBT), and we are proceeding with the development of specific SBTs.

Progress on "Environmental Management Action Plan 2020/2030"

Through the promotion of the "Environmental Management Action Plan 2020/2030" as mid- and long-term environmental management targets, NEC is aiming to contribute to reducing CO_2 emissions through the provision of its products and services by attaining a level of CO_2 reduction that is five times the total volume of CO_2 emissions from its entire supply chain by 2020.

In fiscal 2018, the contribution against the impact became 3.5 times. We are continuing to provide value and reduce the impact of the supply chain to reach our targets.

▶ Climate Change Mitigation Target for 2020

CO_2 Emissions across the Supply Chain

CO_2 emissions were 6.16 megatons, a decrease of 1.60 megatons from fiscal 2017. The main factor behind the decrease was a major reduction in emissions (Category 11) from product use as the shipment of heavy energy-consumption hardware fell.

Scope 3 inventory was carried out based on the "Corporate Value Chain (Scope 3) Accounting and Reporting Standard". Third-party verification was conducted by the Japan Quality Assurance Organization to ensure transparency and trustworthiness.

▶ CO_2 Emissions across the Supply Chain

Climate Change Mitigation Target for 2020

CO_2 Emissions across the Supply Chain (FY 2018)
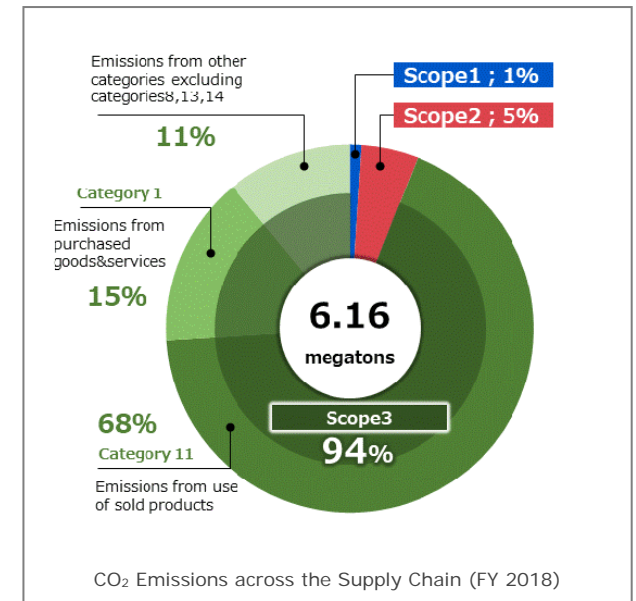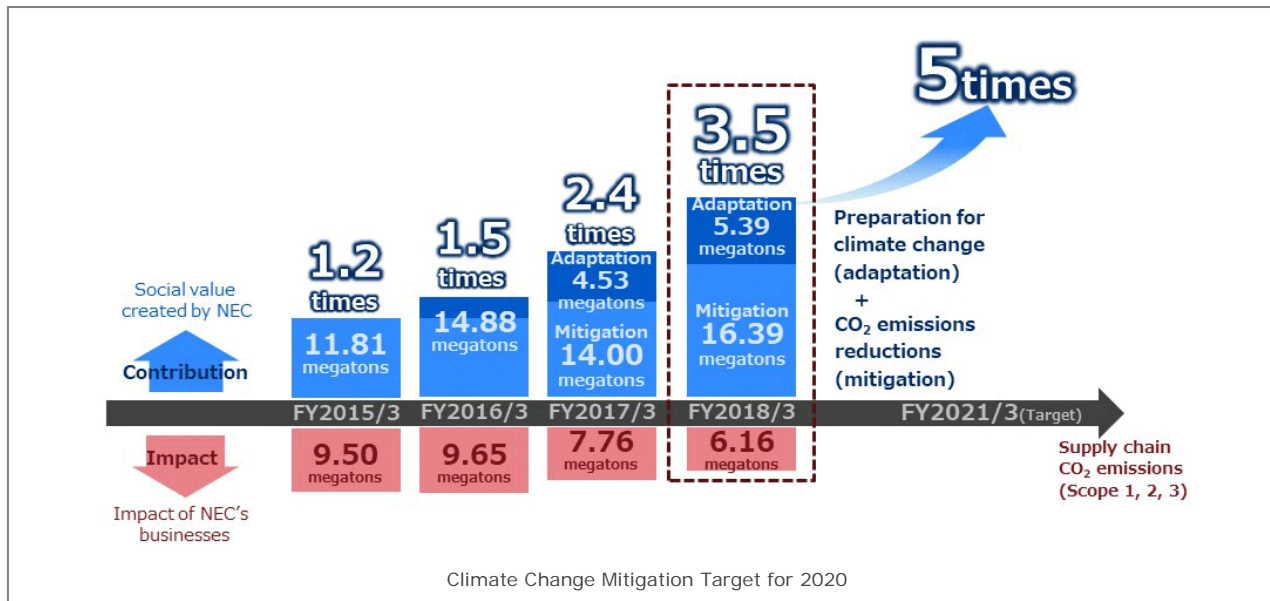
Examples of Providing Environmental Value through Business

NEC is reducing environmental impacts in the entire company through providing its original products and services.

NEC certifies its products and services that especially reduce environmental impacts with the "Eco Symbol Star," part of the Eco Symbol system. Eco Symbol Star-certified products and services are highlighted in NEC's catalogs and websites.

▶ Development of Environmentally Friendly Products

Two examples of products and services that were given the NEC "Eco Symbol Star" in fiscal 2018 are introduced below.

DMIC Logistic Visualization Solution in India

NEC and DMICDC[1] have established a joint venture company, "DMICDC Logistics Data Service Limited." Since July 2016, it has provided the information service basis to visualize distribution infrastructure and to perform real-time searches based on positional information of containers being transported.

The joint venture company affixes RFID tags to shipping containers being loaded and unloaded at ports of Mumbai. It has also installed RFID reader/writers at locations such as port entrances and exits, toll plazas on the expressway, and inland container depots where customs inspections are carried out. The information is uploaded to the cloud and shared with other logistics systems.

By this service, consigners and freight forwarders could obtain accurate positional information of their container in transit along the 1,500 km stretch between Delhi and Mumbai on a near real-time basis, just inputting the container number.

As the result, this service shortens shipping lead times, reduces inventory levels, improves the accuracy of production plans and also contributes to reduce the consumption of fossil fuel by realizing efficient transportation.

NEC approved this service as "ECO Symbol Star" since we expect that the service will reduce approximately 170,000 t-CO_2e emission annually in addition to shortening shipping lead times and to reducing shipping cost.

[1] DMICDC: Delhi Mumbai Industrial Corridor Development Corporation Limited.

RFID easily attachable to container using magnets

<Related Links>

▶ List of Eco Symbol Star

▶ Press Releases
NEC and DMIC Trust establish joint venture to provide logistics visualization services in India

▶ NEC's Data Platform for Hadoop helps DMICDC Logistics Data Services drive digital transformation

Energy Efficiency in Mobile Phone Base Stations in India

The number of base stations is expanding rapidly due to the sharp increase of mobile phone subscribers nationwide in India. However, there are many regions in India with fragile power supplies that suffer from frequent power outages and regions that are not supplied with power at all. In such regions, mobile telecom operators use diesel generators during power outage to operate base station continuously, therefore the burden of diesel fuel cost of the generator becomes a big financial problem.
Since the Indian government requests for green-industry, mobile base station companies in India are required to reduce fuel consumption by diesel generators, operation cost and CO_2 emissions simultaneously on the viewpoints of both business management and environmental issue.

These issues were taken up for the energy related discussion between the governments of India and Japan (the India-Japan Energy Dialogue), and the demonstration project by Japan's New Energy and Industrial Technology Development Organization (NEDO) opened to the public in 2013.

As the result of NEC's application for the project, NEC was selected by NEDO to implement the demonstrational operation from September 2013 to March 2017. Through this operation, the energy management systems, which consisted of photovoltaic generation systems, lithium-ion rechargeable battery systems, remote monitoring of whole EMS systems, operation planning and battery charging/discharging control, were installed into 20 mobile phone base stations in India. Since the systems were confirmed to be able to reduce the annual CO_2 emissions to about 40% of their original level by the most suitable operation plan using the data acquired by the system itself, NEC approved this EMS system as "ECO Symbol Star."

Through the 2-year-operation on the actual sites, we could acquire know-how needed as a business, like various knowledge for the operation. We are going to link these findings to develop specific business in India where more than 400,000 mobile phone base stations exist.

Demonstration Project for Telecom Tower Sites in India

<Related Links>

▶ List of Eco Symbol Star
▶ Press Releases
NEC completes demonstration project of energy efficient telecom tower sites in India
- Capitalizing on AI and aiming for commercialization in FY2019 -

Supply and Demand Optimization Platform Aimed at Contributing to the Reduction of Food Loss and Waste

NEC is addressing food loss and waste as well as the declining labor force and other social issues by leveraging its "NEC the WISE IoT Platform", which utilizes NEC's lineup of cutting-edge technologies, "NEC the WISE."

An example of these initiatives is the "Demand and Supply Optimization Platform" announced in February 2018.
Through the solution, NEC aims to contribute to the optimization of demand and supply and reduction of food loss and waste by increasing accuracy in forecasting through the use of AI and heterogeneous mixture learning technologies for sharing and utilizing weather information, and inventory and sales data among all companies comprising the value chain.

NEC cannot carry out this initiative alone; we believe it is imperative for us to work together with our partners.

NEC, therefore, has collaborated with the Japan Weather Association (JWA) to proactively resolve food loss and waste issues. NEC will endeavor to address these social issues by combining weather data and data analysis technologies of JWA with NEC's AI technologies.

Monitoring and Improvement

Environmental Audit and ISO14001 Inspection

Including promotion of the development of environmentally friendly products in all business units and business sites including its consolidated subsidiaries, NEC is monitoring its state of implementation of measures to reduce environmental impacts and combat risks and its compliance with environmental laws.

Audit and Inspection System

Each of NEC Group companies audits its own divisions and departments independently and in detail through internal environmental audits.

For the environmental management audits conducted by the Environmental Management Promotion Department of NEC Corporation, environment specialist auditors including approved environmental management system auditors evaluate our comprehensive environmental activities. The audits include examination of the effectiveness of the internal environmental audits, environmental impact reduction, risk management, and ISO14001 conformance.

The results of these audits are verified in a review of ISO14001 undertaken by an external auditing authority using "NetAudit," a digital inspection system, and alternative audit[1] methods. Note that in fiscal 2017, NEC began operation of environmental management systems that support the ISO14001: 2015. It received a transitional inspection in fiscal 2018 and maintained its certification.

[1] Alternative audit: An alternative system that is a recognized part of the ISO14001 inspection system for auditing the internal environment. This internal environment auditing system consists of high-quality auditors, auditing systems, and evaluation tools. It is implemented in combination with observation and evaluation of environmental management audits (witness audits) and direct audits by inspection agencies (verification audits).

Audit and Inspection System
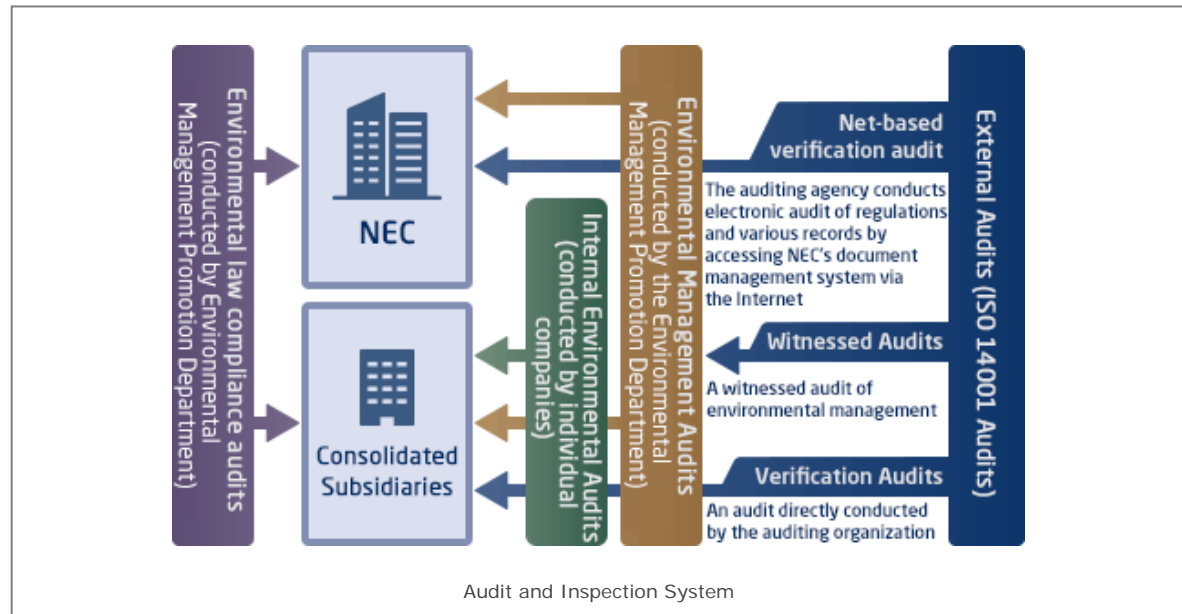
Environmental Law Compliance Audit

Since fiscal 2013, to strengthen risk management, we audits its compliance with environmental laws every year. Target companies are those subject to NEC's environmental management audit.

In fiscal 2018, there were no deficiencies leading to serious environmental pollution or harm to people's health. We have created a plan to address problems found and are keeping a close eye on the progress of corrective actions.

▶ Environmental Audit and ISO14001 Inspection

Measures against Environmental Risks

In order to prevent risks to the environment, we carries out assessments and daily inspections. We have also prepared risk maps for use in emergencies and conduct periodic reviews of our emergency contact system. Environmental risk governance has been further strengthened through establishment of the "Environmental Risk Information Escalation and Response."

▶ Responding to Environmental Risks

GRI (Global Reporting Initiative) Index

The "NEC Sustainability Report 2018" is created with reference to the GRI Standards.
∗: GRI Standards Core items
○: Items related to NEC materiality in GRI Standards ID 200 – 400 range.

GRI＝Global Reporting Initiative

General Disclosures

102: General Disclosures			
1 Organizational profile			
ID		**Item required by report**	**Corresponding page on NEC website**
102-1	∗	Name of the organization	▶ Profile
102-2	∗	Activities, brands, products, and services	▶ Business Outline
102-3	∗	Location of headquarters	▶ Profile
102-4	∗	Location of operations	▶ NEC Worldwide
102-5	∗	Ownership and legal form	📄 Annual Securities Report (Japanese)
102-6	∗	Markets served	📄 Annual Securities Report (Japanese)
102-7	∗	Scale of the organization	▶ Corporate Profile

ID		**Item required by report**	**Corresponding page on NEC website**
102-8	∗	Information on employees and other workers	📄 Data Collection "Number of employees by employment type" "Workforce by gender" 📄 Diversity and Inclusion
102-9	∗	Supply chain	📄 Supply-Chain Management
102-10	∗	Significant changes to the organization and its supply chain	📄 Annual Securities Report (Japanese)
102-11	∗	Precautionary principle or approach	▶ Reducing Environmental Impacts ▶ Activities for Controlling Chemical Substances in Products

ID		Item required by report	Corresponding page on NEC website
102-12	*	External initiatives	Global Compact
			JEITA Responsible Minerals Trade Working Group
			BERC
			Design at NEC
			ISO26000
102-13	*	Membership of associations	Global Compact
			JEITA Responsible Minerals Trade Working Group
			BERC
			Dialogue with Our Diverse Stakeholders – Case Examples

2 Strategy

ID		Item required by report	Corresponding page on NEC website
102-14	*	Statement from senior decision-maker	Message from the president
102-15		Key impacts, risks, and opportunities	Integrated Report
			Priority Management Themes from an ESG Perspective - Materiality

3 Ethics and integrity

ID		Item required by report	Corresponding page on NEC website
102-16	*	Values, principles, standards, and norms of behavior	Code of Conduct
102-17		Mechanisms for advice and concerns about ethics	Compliance and Risk Management
			Respecting Human Rights

4 Governance

ID		Item required by report	Corresponding page on NEC website
102-18	*	Governance structure	Corporate Governance
102-19		Delegating authority	—
102-20		Executive-level responsibility for economic, environmental, and social topics	Sustainable Management
102-21		Consulting stakeholders on economic, environmental, and social topics	Sustainable Management
102-22		Composition of the highest governance body and its committees	Corporate Governance
			Corporate Governance Report
102-23		Chair of the highest governance body	Corporate Governance Report
			Executives

ID		Item required by report	Corresponding page on NEC website
102-24		Nominating and selecting the highest governance body	▶ Corporate Governance 📄 Corporate Governance Report
102-25		Conflicts of interest	📄 Corporate Governance Report
102-26		Role of highest governance body in setting purpose, values, and strategy	▶ Sustainable Management
102-27		Collective knowledge of highest governance body	▶ Priority Management Themes from an ESG Perspective - Materiality ▶ Sustainable Management
102-28		Evaluating the highest governance body's performance	▶ Sustainable Management ▶ Priority Management Themes from an ESG Perspective - Materiality
102-29		Identifying and managing economic, environmental, and social impacts	▶ Sustainable Management ▶ Dialogue Sessions on Materiality with Experts
102-30		Effectiveness of risk management processes	▶ Sustainable Management

ID		Item required by report	Corresponding page on NEC website
102-31		Review of economic, environmental, and social topics	▶ Dialogue Sessions on Materiality with Experts
102-32		Highest governance body's role in sustainability reporting	▶ Sustainable Management
102-33		Communicating critical concerns	📄 Compliance and Risk Management
102-34		Nature and total number of critical concerns	—
102-35		Remuneration policies	▶ Remuneration for Directors and Audit & Supervisory Board Members (KANSAYAKU)
102-36		Process for determining remuneration	▶ Remuneration for Directors and Audit & Supervisory Board Members (KANSAYAKU)
102-37		Stakeholders' involvement in remuneration	—
102-38		Annual total compensation ratio	—
102-39		Percentage increase in annual total compensation ratio	—

5 Stakeholder engagement

ID		Item required by report	Corresponding page on NEC website
102-40	*	List of stakeholder groups	▶ Dialogue and Co-creation with Our Stakeholders
102-41	*	Collective bargaining agreements	📄 Annual Securities Report (Japanese)

ID		Item required by report	Corresponding page on NEC website
102-42	*	Identifying and selecting stakeholders	▶ Dialogue and Co-creation with Our Stakeholders ▶ Basic Policy of Social Contribution Activities
102-43	*	Approach to stakeholder engagement	▶ Dialogue and Co-creation with Our Stakeholders
102-44	*	Key topics and concerns raised	▶ Dialogue and Co-creation with Our Stakeholders

6 Reporting practice

ID		Item required by report	Corresponding page on NEC website
102-45	*	Entities included in the consolidated financial statements	▶ Profile ▶ Organizational Structure (Japanese)
102-46	*	Defining report content and topic boundaries	▶ Sustainable Management ▶ Information Disclosure Policy ▶ Scope of Environmental Report
102-47	*	List of material topics	▶ Sustainable Management ▶ Priority Management Themes from an ESG Perspective - Materiality

ID		Item required by report	Corresponding page on NEC website
102-48	*	Restatements of information	🔲 Data Collection "Number of people that have attended a human rights awareness training session"
102-49	*	Changes in reporting	No change
102-50	*	Reporting period	▶ Information Disclosure Policy ▶ Scope of Environmental Report
102-51	*	Date of most recent report	▶ Information Disclosure Policy
102-52	*	Reporting cycle	▶ Information Disclosure Policy
102-53	*	Contact point for questions regarding the report	▶ Contact Us
102-54	*	Claims of reporting in accordance with the GRI Standards	▶ GRI (Global Reporting Initiative) Index
102-55	*	GRI content index	▶ GRI (Global Reporting Initiative) Index
102-56	*	External assurance	▶ Third-party Assurance ▶ Third party Opinion of NEC's Annual Environmental Report

103: Management Approach			
ID		**Item required by report**	**Corresponding page on NEC website**
103-1	*	Explanation of the material topic and its boundary	▶ Priority Management Themes from an ESG Perspective - Materiality
103-2		The management approach and its components	▶ Priority Management Themes from an ESG Perspective - Materiality
103-3		Evaluation of the management approach	▶ Priority Management Themes from an ESG Perspective - Materiality ▶ Dialogue Sessions on Materiality with Experts

Topic–specific Standards:
200 (Economic), 300 (Environmental) and 400 (Social)

200: Economic Topics			
201 Economic Performance			
ID		**Item required by report**	**Corresponding page on NEC website**
201-1		Direct economic value generated and distributed	—
201-2		Financial implications and other risks and opportunities due to climate change	—
201-3		Defined benefit plan obligations and other retirement plans	—
201-4		Financial assistance received from government	—
202 Market Presence			
ID		**Item required by report**	**Corresponding page on NEC website**
202-1		Ratios of standard entry level wage by gender compared to local minimum wage	—
202-2		Proportion of senior management hired from the local community	—
203 Indirect Economic Impacts			
ID		**Item required by report**	**Corresponding page on NEC website**
203-1		Infrastructure investments and services supported	—
203-2		Significant indirect economic impacts	—
204 Procurement Practices			
ID		**Item required by report**	**Corresponding page on NEC website**
204-1		Proportion of spending on local suppliers	—

205 Anti-corruption			
ID		**Item required by report**	**Corresponding page on NEC website**
205-1	○	Operations assessed for risks related to corruption	Compliance and Risk Management
205-2	○	Communication and training about anti-corruption policies and procedures	Compliance and Risk Management
205-3	○	Confirmed incidents of corruption and actions taken	Promoting Fair Commercial Transactions

206 Anti-competitive Behavior			
ID		**Item required by report**	**Corresponding page on NEC website**
206-1	○	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Promoting Fair Commercial Transactions

300: Environmental Topics			
301 Materials			
ID		**Item required by report**	**Corresponding page on NEC website**
301-1		Materials used by weight or volume	Material Balance
301-2		Recycled input materials used	Material Balance
301-3		Reclaimed products and their packaging materials	Material Balance
302 Energy			
ID		**Item required by report**	**Corresponding page on NEC website**
302-1		Energy consumption within the organization	Material Balance / Energy
302-2		Energy consumption outside of the organization	Material Balance
302-3		Energy intensity	Energy
302-4		Reduction of energy consumption	Energy
302-5		Reductions in energy requirements of products and services	NEC Group Environmental Management Action Plan 2020/2030 / Improved product energy efficiency
303 Water			
ID		**Item required by report**	**Corresponding page on NEC website**
303-1		Water withdrawal by source	Material Balance / Water
303-2		Water sources significantly affected by withdrawal of water	—

ID		Item required by report	Corresponding page on NEC website
303-3		Water recycled and reused	▶ Material Balance ▶ Water

304 Biodiversity

ID		Item required by report	Corresponding page on NEC website
304-1		Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected area	—
304-2		Significant impacts of activities, products, and services on biodiversity	▶ Preserving Biodiversity
304-3		Habitats protected or restored	—
304-4		IUCN Red List species and national conservation list species with habitats in areas affected by operations	▶ Preserving Biodiversity

305 Emissions

ID		Item required by report	Corresponding page on NEC website
305-1	○	Direct (Scope 1) GHG emissions	▶ CO_2 Emissions
305-2	○	Energy indirect (Scope 2) GHG emissions	▶ CO_2 Emissions
305-3	○	Other indirect (Scope 3) GHG emissions	▶ CO_2 Emissions across the Supply Chain

ID		Item required by report	Corresponding page on NEC website
305-4	○	GHG emissions intensity	▶ CO_2 Emissions
305-5	○	Reduction of GHG emissions	▶ CO_2 Emissions
305-6		Emissions of ozone-depleting substances (ODS)	—
305-7		Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	▶ Material Balance ▶ NOx and SOx Emissions

306 Effluents and Waste

ID		Item required by report	Corresponding page on NEC website
306-1		Water discharge by quality and destination	▶ Material Balance ▶ Water
306-2		Waste by type and disposal method	▶ Material Balance ▶ Waste Products
306-3		Significant spills	▶ Handling of Legal Violations, Accidents, and Complaints
306-4		Transport of hazardous waste	—
306-5		Water bodies affected by water discharges and/or runoff	—

307 Environmental Compliance

ID		Item required by report	Corresponding page on NEC website
307-1		Non-compliance with environmental laws and regulations	▶ Handling of Legal Violations, Accidents, and Complaints

308 Supplier Environmental Assessment			
ID		**Item required by report**	**Corresponding page on NEC website**
308-1		New suppliers that were screened using environmental criteria	▶ Procurement
308-2		Negative environmental impacts in the supply chain and actions taken	▶ CO$_2$ Emissions across the Supply Chain

400: Social Topics			
401 Employment			
ID		**Item required by report**	**Corresponding page on NEC website**
401-1		New employee hires and employee turnover	—
401-2		Benefits provided to full-time employees that are not provided to temporary or part–time employees	—
401-3		Parental leave	📕 Creating a Diverse Work Style Environment 📕 Data Collection "Number of people utilizing childcare leave"
402 Labor/Management Relations			
ID		**Item required by report**	**Corresponding page on NEC website**
402-1		Minimum notice periods regarding operational changes	—
403 Occupational Health and Safety			
ID		**Item required by report**	**Corresponding page on NEC website**
403-1		Workers representation in formal joint management-worker health and safety committee	📕 Health and Safety
403-2		Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	📕 Health and Safety 📕 Data Collection "Labor accidents and disasters"
403-3		Workers with high incidence or high risk of diseases related to their occupation	—

ID		Item required by report	Corresponding page on NEC website
403-4		Health and safety topics covered in formal agreements with trade unions	Health and Safety

404 Training and Education

ID		Item required by report	Corresponding page on NEC website
404-1	○	Average hours of training per year per employee	Human Resources Development and Training Data Collection "Number of training days per employee"
404-2	○	Programs for upgrading employee skills and transition assistance programs	Human Resources Development and Training
404-3	○	Percentage of employees receiving regular performance and career development reviews	Human Resources Development and Training Creating a Diverse Work Style Environment

405 Diversity and Equal Opportunity

ID		Item required by report	Corresponding page on NEC website
405-1	○	Diversity of governance bodies and employees	Data Collection "Workforce by gender" "Number of employees by age group" "Number of employees by employment type"
405-2		Ratio of basic salary and remuneration of women to men	—

406 Non-discrimination

ID		Item required by report	Corresponding page on NEC website
406-1	○	Incidents of discrimination and corrective actions taken	Compliance and Risk Management CS (Customer Satisfaction) Initiative Respecting Human Rights Data Collection "Compliance hotline - Number of consultations"

407 Freedom of Association and Collective Bargaining

ID		Item required by report	Corresponding page on NEC website
407-1	○	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Compliance and Risk Management Respecting Human Rights

408 Child Labor

ID		Item required by report	Corresponding page on NEC website
408-1	○	Operations and suppliers at significant risk for incidents of child labor	Compliance and Risk Management

409 Forced or Compulsory Labor

ID		Item required by report	Corresponding page on NEC website
409-1	○	Operations and suppliers at significant risk for incidents of forced or compulsory labor	📄 Compliance and Risk Management 📄 Respecting Human Rights ▶ NEC Group Statement for UK Modern Slavery Act 2015

410 Security Practices

ID		Item required by report	Corresponding page on NEC website
410-1		Security personnel trained in human rights policies or procedures	—

411 Rights of Indigenous Peoples

ID		Item required by report	Corresponding page on NEC website
411-1		Incidents of violations involving rights of indigenous peoples	—

412 Human Rights Assessment

ID		Item required by report	Corresponding page on NEC website
412-1	○	Operations that have been subject to human rights reviews or impact assessments	—
412-2	○	Employee training on human rights policies or procedures	📄 Respecting Human Rights 📄 Data Collection "Number of people that have attended a human rights awareness training session"

ID		Item required by report	Corresponding page on NEC website
412-3	○	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	—

413 Local Communities

ID		Item required by report	Corresponding page on NEC website
413-1		Operations with local community engagement, impact assessments, and development programs	📄 Cooperation with the Local Communities 📄 CS (Customer Satisfaction) Initiative
413-2		Operations with significant actual and potential negative impacts on local communities	—

414 Supplier Social Assessment

ID		Item required by report	Corresponding page on NEC website
414-1		New suppliers that were screened using social criteria	—
414-2		Negative social impacts in the supply chain and actions taken	—

415 Public Policy

ID		Item required by report	Corresponding page on NEC website
415-1		Political contributions	—

416 Customer Health and Safety

ID		Item required by report	Corresponding page on NEC website
416-1	○	Assessment of the health and safety impacts of product and service categories	Ensuring Quality and Safety ▶ Environmentally Friendly Products
416-2	○	Incidents of non-compliance concerning the health and safety impacts of products and services	▶ Important information from NEC (Japanese)

417 Marketing and Labeling

ID		Item required by report	Corresponding page on NEC website
417-1		Requirements for product and service information and labeling	Ensuring Quality and Safety
417-2		Incidents of non-compliance concerning product and service information and labeling	Ensuring Quality and Safety
417-3		Incidents of non-compliance concerning marketing communication	—

418 Customer Privacy

ID		Item required by report	Corresponding page on NEC website
418-1	○	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Personal Information Protection and Privacy

419 Socioeconomic Compliance

ID		Item required by report	Corresponding page on NEC website
419-1	○	Non-compliance with laws and regulations in the social and economic area	Compliance and Risk Management

▶ Global Compact

▶ ISO26000

Global Compact

This table compares NEC's sustainability activities with the Ten Principles of the Global Compact advocated by the United Nations.

The Ten Principles		Corresponding page on NEC website
Human Rights	**Principle 1** Businesses should support and respect the protection of internationally proclaimed human rights.	Respecting Human Rights Diversity and Inclusion Supply-Chain Management
	Principle 2 Businesses should make sure that they are not complicit in human rights abuses.	
Labour	**Principle 3** Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.	Creating a Diverse Work Style Environment Diversity and Inclusion Respecting Human Rights Health and Safety Supply-Chain Management
	Principle 4 Businesses should uphold the elimination of all forms of forced and compulsory labour.	
	Principle 5 Businesses should uphold the effective abolition of child labour.	
	Principle 6 Businesses should uphold the elimination of discrimination in respect of employment and occupation.	

The Ten Principles		Corresponding page on NEC website
Environment	**Principle 7** Businesses should support a precautionary approach to environmental challenges.	Environmental Management Initiatives
	Principle 8 Businesses should undertake initiatives to promote greater environmental responsibility.	
	Principle 9 Businesses should encourage the development and diffusion of environmentally friendly technologies.	
Anti-Corruption	**Principle 10** Businesses should work against corruption in all its forms, including extortion and bribery.	Promoting Fair Commercial Transactions Compliance and Risk Management

▶ GRI (Global Reporting Initiative) Index

▶ ISO26000

ISO26000

This is the comparison table of seven core subjects and 36 issues of ISO26000 and sustainability activities of NEC.

ISO26000 Core Subjects	Issues	Corresponding Page on NEC website
Organizational Governance	1. Organizational Governance	▶ Corporate Governance ▶ Sustainable Management 📄 Compliance and Risk Management 📄 Business Continuity 📄 Information Security and Cyber Security 📄 Personal Information Protection and Privacy
Human Rights	1. Due diligence 2. Human rights risk situations 3. Avoidance of complicity 4. Resolving grievances 5. Discrimination and vulnerable groups 6. Civil and political rights 7. Economic, social and cultural rights 8. Fundamental principles and rights at work	📄 Respecting Human Rights 📄 Compliance and Risk Management 📄 Supply-Chain Management 📄 Creating a Diverse Work Style Environment

ISO26000 Core Subjects	Issues	Corresponding Page on NEC website
Labour Practices	1. Employment and employment relationships 2. Conditions of work and social protection 3. Social dialogue 4. Health and safety at work 5. Human development and training in the workplace	📄 Creating a Diverse Work Style Environment 📄 Health and Safety 📄 Diversity and Inclusion 📄 Human Resources Development and Training
Environment	1. Prevention of pollution 2. Sustainable resource use 3. Climate change mitigation and adaptation 4. Protection of the environment, biodiversity and restoration of natural habitats	📄 Environmental Management Initiatives
Fair Operating Practices	1. Anti-corruption 2. Responsible political involvement 3. Fair competition 4. Promoting social responsibility in the value chain 5. Respect for property rights	📄 Promoting Fair Commercial Transactions 📄 Compliance and Risk Management 📄 Supply-Chain Management

ISO26000 Core Subjects	Issues	Corresponding Page on NEC website
Consumer Issues	1. Fair marketing, factual and unbiased information and fair contractual practices 2. Protecting consumers' health and safety 3. Sustainable consumption 4. Consumer service, support, and complaint and dispute resolution 5. Consumer data protection and privacy 6. Access to essential services 7. Education and awareness	CS (Customer Satisfaction) Initiative Ensuring Quality and Safety Personal Information Protection and Privacy Respecting Human Rights
Community Involvement and Development	1. Community involvement 2. Education and culture 3. Employment creation and skills development 4. Technology development and access 5. Wealth and income creation 6. Health 7. Social investment	Sustainable Management Innovation Management Cooperation with the Local Communities Activities for Contributing to Society

GRI (Global Reporting Initiative) Index

Global Compact

Third-party Assurance

NEC Sustainability Report 2018 has been assured by the third-party for the items listed in the following assurance statement.

Information Disclosure Policy

Policy

Aiming to be a "Social Value Innovator", NEC considers communication with stakeholders to be a critical initiative because communication provides an opportunity for us not only to recognize our obligation to carry out our social responsibility but also to understand the fundamental issues of our customers and society.

The Sustainability Report (web version) is an important tool for communication with our stakeholders, including customers, shareholders and investors, business partners, local communities and employees. It discloses the sustainability initiatives and their results as viewed from ESG (Environment, Social, Governance). The NEC Integrated Report also gives an outline of the Sustainability Report.

Scope of Report

The content solely relates to NEC Corporation in certain sections, but also includes subsidiary companies in other sections. In disclosure of information regarding sustainability, "NEC" refers to NEC Corporation and its subsidiary companies, unless otherwise noted.

The "FY2018 Objectives" and "FY2018 Achievements and Progress" described in the "Objectives, Achievements and Progress, and Degree of Completion" table of each chapter are based on the previous "Objectives for the Mid-term" set for fiscal 2017 to 2019. The "FY2018 Objectives" and "FY2018 Achievements and Progress" for "Objectives for the Mid-term" that are not in the previous "Objectives for the Mid-term" are intentionally left blank in the table.

Disclosure Format

Sustainability Website

Harnessing various website features, NEC regularly discloses the latest information on its sustainability activities via its sustainability website, which is utilized as an interactive communication tool. Furthermore, it emphasizes detailed coverage of information to ensure conformance with international reporting initiatives such as GRI, while addressing the needs of sustainability professionals such as SRI (Social Responsibility Investment) research institutes, the news media, universities, and NPOs/NGOs.

For details of NEC's approaches to environmental issues, please refer to Annual Environmental Report 2018.

Integrated Report

NEC Integrated Report explains our management strategies, which are aimed at promoting the sustainable growth of NEC and society as a whole, from both financial and non-financial perspectives. NEC has published integrated annual reports containing both financial and non-financial information since 2013, and this year we have changed the name of the report to the "Integrated Report," having defined its materiality in July 2018.

Reference Guidelines

With the aim of achieving conformance with international reporting initiatives, NEC reports on its sustainability activities with reference to the following guidelines:
• GRI's Sustainability Reporting Guidelines Standard [*]
• United Nations Global Compact
• ISO26000
[*] International guidelines for sustainability reports issued by the GRI (Global Reporting Initiative)

Update of Activity Report for Each Fiscal Year Issued

September 2018 (Previous: September 2017)

Data Collection

Those data items without notes are for NEC Corporation itself.
The applicable period/date is the consolidated accounting period (ending March 31 of each 2016, 2017 and 2018), or as of March 31 of each year.
The data marked with a star (★) has been assured by a third-party.

(The following figures for female managers, the average age of employees, the average length of employment, the number of people utilizing childcare leave and nursing care leave do not include corporate officers, advisors, and non-permanent employees.)

Governance

Corporate Governance

		FY2016	FY2017	FY2018
Number of directors	Total	11	11	11
	Male	10	10	10
	Female	1	1	1

	FY2016	FY2017	FY2018
Ratio of outside directors to all directors	45.5%	45.5%	45.5%
Number of directors with non-Japanese citizenship	0	0	0

📄 Corporate Governance

Risk/Compliance

	FY2016	FY2017	FY2018
Web-based compliance training completion rate (Including domestic NEC Group companies)	98%	98%	98%
Compliance hotline – Number of consultations	85	101	118

📄 Compliance and Risk Management

Information Security/Personal Information Protection

		FY2016	FY2017	FY2018
Training of privacy data protection completion rate (Including domestic NEC Group companies)		100%	100%	100%
Information security assessment (Including domestic and overseas NEC Group companies)	Domestic	Total 62	Total 60	Total 68
	Overseas	Total 40	Total 34	Total 34
CSR and information security measures number of companies and participants at the briefing		About 1,600	About 1,500	About 1,500
		About 2,000	About 2,000	About 2,000
Information security measures in business partners – Inspection and Review	On-site assessment	Total 100	Total 50	About 100
	Web-based self-assessment	Total 1,600	Total 1,450	About 1,500

📄 Information Security and Cyber Security

📄 Personal Information Protection and Privacy

📄 Supply-Chain Management

Social

Respecting Human Rights

		FY2016	FY2017	FY2018
Number of people that have attended a human rights awareness training session	e-learning	22,063	20,296	8,026
	group study*1	1,070	1,031	586
Human rights hotline – Number of consultations		About 30	About 25	49

*1 Beginning with this report, the group studies no longer includes trainings of recruitment interviewers. The number shown in this FY2016 and FY2017 thus differs substantially from previous years'.

📄 Respecting Human Rights

Promotion of Diversity/Labor Practices

		FY2016	FY2017	FY2018
Number and Ratio of employees by region (NEC Corporation and its Consolidated Subsidiaries)	Japan	77,455	80,478	79,642
		78.5%	74.7%	72.8%
	Asia Pacific	7,678	9,347	10,985
		7.8%	8.7%	10.0%
	China / East Asia	4,058	5,329	4,739
		4.1%	5.0%	4.3%
	EMEA	4,948	5,406	6,636
		5.0%	5.0%	6.1%
	North America	2,495	2,819	2,710
		2.5%	2.6%	2.5%
	Latin America	2,092	4,350	4,678
		2.1%	4.0%	4.3%

		FY2016	FY2017	FY2018
Number of employees by employment type	Regular	22,235	21,444	21,010
	Temporary	26	35	42

		2016	2017	2018
Number of female managers (As of April 1 of each fiscal year)		★374	★368	★372
Ratio of female managers (As of April 1 of each fiscal year)		★5.4%	★5.5%	★5.8%

		FY2016	FY2017	FY2018
Workforce by gender	Male	18,498	17,763	17,390
	Female	3,737	3,681	3,620
Ratio of female employees		16.8%	17.2%	17.2%
Number of new employees - New graduates (foreign nationals)		66	39	37

		2015	2016	2017
Ratio of employees with disabilities (Based on figures collected as of June 1 of each year under the Act for Promotion of Employment of Persons with Disabilities)	NEC Corporation	★2.03%	★2.07%	★2.04%
	Domestic Consolidated Subsidiaries (average)	2.06%	2.10%	2.10%

		2016	2017	2018
Average age of Employees (As of March 31 of each year)	Male	★43.3	★43.6	★43.8
	Female	★41.2	★41.4	★41.5
	Total	★42.9	★43.1	★43.4
Number of employees by age group (As of March 31 of each year)	Under 30	1,994	1,918	2,057
	Between 30-50	13,796	12,807	11,708
	Above 50	6,445	6,719	7,245

		2016	2017	2018
Average length of employment (As of March 31 of each year)	Male	★18.7	★18.9	★19.2
	Female	★18.2	★18.3	★18.3
	Total	★18.6	★18.8	★19.0

📄 Diversity and Inclusion
📄 Creating a Diverse Work Style Environment

Healthy Work-life Balance

	FY2016	FY2017	FY2018
Ratio of taking paid leave	67.9%	69.3%	69.3%
Number of people utilizing childcare leave	★395	★376	★358
Number of people utilizing nursing care leave	★19	★18	★32
Average monthly overtime	17.4 hours	17.1 hours	16.3 hours

📄 Diversity and Inclusion
📄 Creating a Diverse Work Style Environment

Health and Safety

		FY2016	FY2017	FY2018
Labor accidents and disasters	Frequency rate	★0.25	★0.18	★0.3717
	Severity rate	★0.00	★0.00	★0.0019

📄 Health and Safety

Human Resources Development

		FY2016	FY2017	FY2018
Number of training days per employee	NEC Corporation	4.9 days	5.1 days	5.7 days
	Domestic NEC Group companies	4.0 days	4.5 days	4.9 days
Response rate of employees' survey (As a general rule, the surveys for employees at overseas subsidiaries are conducted every other year)	Domestic	83%	79%	81%
	Overseas	-	-	-
R&D expenses (NEC Corporation and its Consolidated Subsidiaries)		123.6 billion yen [1]	109.3 billion yen	108.1 billion yen

[1] Being replaced by calculations according to the International Financial Reporting Standards (IFRS) and thus differs from the amount in previous years report.

📄 Human Resources Development and Training
📄 Innovation Management

Social Contribution Activities

	FY2016	FY2017	FY2018
Social contribution expenditure	0.43 billion yen	0.67 billion yen	0.52 billion yen

📄 Cooperation with the Local Communities

Environment
(NEC Corporation and its Consolidated Subsidiaries)

	FY2016	FY2017	FY2018
CO_2 emissions reduction by providing IT solutions	2,620 Thousand tons	2,630 Thousand tons	4,220 Thousand tons
Improvement in energy efficiency of products[1]	97%	17%	35%
Greenhouse gas emissions[2][3]	—	—	—
Scope1	59 Thousand tons	54 Thousand tons	56 Thousand tons
Scope2	299 Thousand tons	296 Thousand tons	282 Thousand tons
Scope3	9,286 Thousand tons	7,410 Thousand tons	5,820 Thousand tons
Energy usage[3]	—	—	—
Electricity	5,689 TJ[4]	5,708 TJ	5,685 TJ
Gas	1,070 TJ	938 TJ	984 TJ
Fuel (heavy oil and kerosene)	99 TJ	131 TJ	119 TJ
Water usage[3]	2,294 Thousand m^3	2,240 Thousand m^3	2,314 Thousand m^3
Industrial waste[3]	—	—	—
Emission volume (general waste + industrial waste)	35 Thousand tons	26 Thousand tons	42.6 Thousand tons
Resource reuse rate	87.2%	90.6%	91.0%

[1] Figures for FY2016 are a comparison to March 2006 fiscal year products. Due to a revision in baseline comparison year, FY2017 and FY2018 figures are a comparison to March 2014 fiscal year products.

[2] Greenhouse gas refers to CO_2(carbon dioxide), CH_4(methane), N_2O(nitrous oxide), HFCs(hydrofluorocarbons), PFCs(perfluorocarbons), SF_6(sulphur hexafluoride), and NF_3 (nitrogen trifluoride). Greenhouse gas emissions are calculated based on the following categories stated by the Greenhouse Gas Protocol (GHG Protocol).
Scope 1: Direct GHG emissions from sources that are owned or controlled by the Company.
Scope 2: Indirect GHG emissions from consumption of purchased electricity, heat or steam.
Scope 3: Other indirect emissions covering corporate upstream and downstream processes not included in Scope 2.

[3] External assurance received. The scope of assurance includes NEC Corporation and its consolidated subsidiaries subject to environmental governance.

[4] TJ: Terajoule