Sustainability Book 2022

Nomura Research Institute
Dream up the future. That’s the Nomura Research Institute Group Corporate Philosophy.

In our desire to create a positive future by thoroughly considering the possibilities facing society in this era of rapid change where predictions cannot easily be made, we hope to contribute to society by creating new value.

The NRI Group will continue our endeavors in meeting never-ending challenges as a “company creating future society.”

Icons on pages that introduce NRI Group efforts

Of the 17 Sustainable Development Goals (SDGs)*, these icons indicate goals that correspond to NRI Group initiatives described in this document.

* SDGs: Shared global goals defined by the United Nations for 2016 to 2030 in order to resolve global issues. Achieving this goal requires participation and cooperation from the national governments of UN member nations, local governments, corporations, NPOs, NGOs, and individual citizens.
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Message from the President

Ever since Nomura Research Institute, Ltd. (NRI) was established, we have continued our business of policy recommendations always anticipating the times, corporate strategy proposals, and the development and operation of advanced information systems, etc. for the realization of these.

Going forward, we believe it is vital to seriously engage the issues faced by customers and society as a whole and create new social value to contribute to the development of a sustainable society and also ensure that NRI continues to be indispensable for the world.

Looking toward the next ten years, the world is expected to undergo significant change.

For example, the problems that confront society will become more complex and serious. As the efforts and investments of countries and companies become increasingly active to achieve the SDGs (sustainable development goals) established by the United Nations, systems utilizing digital technology will play an increasingly important role.

The structure of industry will also become more fluid. Numerous new services will emerge using XaaS (a
system for providing a variety of functions in the form of services via network). Furthermore, the barriers between industry sectors and business categories will be eliminated due to the development of platforms linking a variety of services.

The evolution and commoditization of advanced technology will also progress. While utilization of cloud computing and artificial intelligence (AI) will progress and 6G (sixth generation mobile communication systems) will be practically implemented as communication technology, the technologies that have been considered advanced until now will become more widely used.

In addition, diversification of people’s values will progress. It is important to establish an environment enabling each person with diverse thinking and individuality to exhibit their skills.

In recent times, global issues such as infectious disease and heightened geopolitical risk have increased uncertainty with the global situation. The company’s management environment is facing unprecedented change, but the importance of increasing the level of integration of business and IT by transforming the company and organization to be “digital first” remains unchanged, and we believe that it will be a major new trend going forward. In future, transformation using digital technology (DX) will evolve, and digital capability will be required to resolve global social issues.

It is our belief that we will be able to conduct business useful for the resolution of issues faced by customers and society, and can widely contribute to society if NRI exhibits its ability to consistently provide services ranging from consulting to IT. Addressing social issues and creating new social value though core business has continued to be passed down as NRI’s spirit since it was founded. We will constantly pioneer the future of technology find insight in the richness beyond DX, and dynamically transform the world.

NRI will also sincerely listen to the opinions of various stakeholders inside and outside Japan, govern our behavior and continue to create a sustainable future society hand in hand with stakeholders.
Sustainability Management of the NRI Group and Our Goal

Our corporate philosophy of "Dream up the future" indicates our stance of opening up the future through innovation and contributing to the resolution of social problems. In fact, since the establishment of NRI in 1965, we have been contributing to the creation of a safe, secure, convenient, and prosperous society by solving social issues together with our clients via our core business of consulting and

NRI Group Sustainability Management and Future Vision

- Sustained growth of the NRI Group
- Realize a Sustainable Future

Corporate philosophy “Dream Up the Future”

NRI Group Sustainability Management

[Vision 2022 Numerical Targets]

- Consolidated operating profit (JPY billion): 100
- Consolidated operating profit margin: 14% or higher
- Overseas sales (JPY billion): 100
- ROE: 14%*

*Continuously aiming for higher capital efficiency

Solving social issues through value co-creation (CSV*)

- Co-create a thriving future society by driving new value
- Co-create an ideal society by effectively utilizing its resources
- Co-create a safe and secure society by advancing its infrastructure

Key issues for sustainable growth

- Reducing our environmental impact
- Provision of opportunities for all kinds of professionals to take on challenge
- Compliance with laws, regulations and risk management to increase trust from society
- Provision of NRI quality to support safe and secure information society
services such as IT solutions. We hope that the NRI Group itself can continue to grow by contributing to the creation of a sustainable society by solving social issues. This is the basic concept of sustainability management of the NRI Group. The sustainability management of the NRI Group is based on the financial targets defined in Medium-Term Management Plan 2022 and the non-financial goals of resolution of social issues via value co-creation and key issues for sustained growth. From FY2023, we will launch a new long-term management vision and Medium-Term Management Plan, but the DNA of the NRI Group seeking unity between contribution to society and enhancement of economic value remain unchanged. As social issues become more complex on a global scale, the NRI Group will continue to meet the expectations of customers and society, gaining insight into and realizing the vision for the future of society.

Co-create Social Value with our Customers to Realize a Sustainable Future

<table>
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<th>NRI Group’s 3 Social Values</th>
<th>Key NRI Group Initiatives</th>
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| **Co-create a thriving future society by driving new value.** | • Business Model Transformation  
  • DX consulting & analytics  
  • D2C, DX for financial services  
  • Cross-sector cooperation, new market entry support  
  • Policy proposals for society & systems, information & knowledge sharing to promote global discussion & action in all sectors |
| **Co-create an ideal society by effectively utilizing its resources.** | • Business Process Transformation  
  • Strategy/Operations/System Consulting  
  • Resource Optimization with ASP  
  • "STAR", "BESTWAY", and other proprietary business platform solutions |
| **Co-create a safe and secure society by advancing its infrastructure.** | • IT Infrastructure Transformation  
  • Cybersecurity business  
  • Cloud & Data Center managed services  
  • Stable Service Operation  
  • Disaster Prevention & Reduction Policy & Disaster Recovery Support |

* Acronym for “Creating Shared Value.” Achieving both social value and economic value.
value co-creation is implicit in the NRI Group’s philosophy of “Dream up the future,” and the NRI Group has implemented corporate management creating value that can be shared with society. We broadly define social value as “NRI Group’s 3 Social Values” (table on previous page). The NRI Group’s diverse initiatives will continue to create these three social values starting with DX3.0 transforming social paradigms with digital technology.

**Materiality for sustainable growth**

The foundation for resolution of social issues via value co-creation is responding to key issues for sustained growth. Issues to be considered for the growth of the NRI Group aiming to contribute to the creation of a sustainable future society are identified as high-priority items from a management perspective and the perspective of external stakeholders (such as international standards and guidelines, and the opinions of experts), and summarized in the four “key issues for sustained growth” (table below).

In order to respond to these issues,

<table>
<thead>
<tr>
<th>Materiality for sustainable growth</th>
<th>Issue</th>
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| Reduction of environmental impact for preserving global environment | • Response on climate change  
• Responsibility and conservation to the environment  
• Sustainable energy consumption  
• Environment-conscious supply chain |
| Provision of opportunities for all kinds of professionals to take on challenge | • Human resource diversity  
• Customers interaction  
• Respect on human rights  
• Dialogue with civil society  
• Healthy employment and labor-management relationship |
| Compliance with laws, regulations and risk management to increase trust from society | • Enhancement of corporate governance  
• Action against corrupt practices abroad  
• Risk management  
• Appropriate information disclosure to the customers |
| Management of the information systems that form social infrastructure | • Management of information security and system  
• Access to information society |
Taking Up the Challenge of DX3.0 to Transform Society Itself

The NRI Group has promoted DX1.0, which realizes process transformation and infrastructure transformation, and DX2.0, which realizes business model transformation. In addition, the NRI Group will embrace the challenge of DX3.0 performing a paradigm shift of society through DX. This is aimed at transformation of society itself (right table).

At present, the world requires a variety of reforms for the realization of a sustainable society, and DX3.0 can contribute to this. The NRI Group will constantly continue to dynamically transform society as a whole through co-creation with a variety of partners in anticipation of the arrival of new technology.

### NRI Group’s Digital Business Strategy

<table>
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<th>Social transformation</th>
<th>DX3.0</th>
<th>Paradigm transformation</th>
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<tr>
<td>Business model transformation</td>
<td>DX2.0</td>
<td>Process transformation</td>
</tr>
<tr>
<td>Client / industry transformation</td>
<td>DX1.0</td>
<td>Infrastructure transformation</td>
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</table>

**Solving social issues through co-creation with various partners**
- Regional revitalization via digitalization and entrepreneurial assistance
- Low carbon transformation and resource saving via digital solutions

**Establishing unprecedented digital services**
- Creation of new cross-industry platforms
- Creation of new client business models and ecosystems

**Digital front office**
- Digitalize actions for end users
  - D2C*, CRM, digital marketing

**Digital back office**
- Digitalize actions within client companies
  - SCM reforms, AI/RPA, business platforms

**Enhance infrastructure such as cloud/security infrastructure**
- Cloud migration assistance, managed services, cybersecurity business

* D2C stands for Direct to Consumer, or direct sales through e-commerce, etc.
## History of Sustainability Activities

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<td>Participation in Initiatives</td>
<td>External Evaluation</td>
<td>Selection as ESG Constituent Stock</td>
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**FY2014**
- Establishment of CSR Promotion Team
- Changes of Internal Systems

**FY2015**
- Establishment of Environmental Promotion Team
- Launch of Environmental Promotion Committee
- Introduce the NRI-EMS (environmental management system)

**FY2016**
- Setting of environmental targets
- Green bond issuance

**MSCI**
- AA
- A
- A

**CDP**
- 100B
- A-

**DJSI Asia Pacific**
- MSCI ESG Leaders Indexes

(from 2006) FTSE 4 Good Developed Index
<table>
<thead>
<tr>
<th>FY2017</th>
<th>FY2018</th>
<th>FY2019</th>
<th>FY2020</th>
<th>FY2021</th>
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<tr>
<td>Launch of Social Value Creation Promotion Committee</td>
<td>Change of name to Value Co-Creation Promotion Committee</td>
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<td>Launch of Sustainability Activities Committee</td>
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<td>Revision of environmental targets SBT2°C certification</td>
<td>ESG Briefing Session</td>
<td>Revision of environmental targets SBT1.5°C certification</td>
<td>Establishment of Business Partner Code of Conduct</td>
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<td>Signing of Global Compact</td>
<td>Endorsement of TCFD</td>
<td>Formulation of ethical guidelines for artificial intelligence</td>
<td>Publication of &quot;Human Rights Report&quot;</td>
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<td></td>
<td>TCFD scenario analysis</td>
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<td>Switch of main data centers to renewable energy</td>
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<td>A</td>
<td>A</td>
<td>AA</td>
<td>AA</td>
<td>AAA (Highest Rating)</td>
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<tr>
<td>B</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>A (Highest Rating)</td>
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<tr>
<td>DJSI World</td>
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<td>DJSI World</td>
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The COVID-19 pandemic transformed people’s lives and corporate activities, while quickly accelerating digitalization of national and local governments. Japan is now facing the two issues of recovery of the slump in the economy and becoming a sustainable society.

The Dream Up the Future Forum 2021 presented proposals on the theme of Digital Paving the Way for a Vision for a Post-COVID Future such as a vision for the near future after COVID-19, the role of digitalization and the path to be taken by Japanese companies.

Furthermore, in lectures and round-table talks by academic and economic leaders, consideration was given to how Japanese companies can lead the economy in the post-COVID-19 era while meeting the requirements for the realization of a sustainable society.
[Keynote Address]

Post-COVID-19 Future and the Strategies of Japanese Companies
Shingo Konomoto, President & CEO, Chairman, Member of the Board, Representative Director

The global economy has been damaged by the COVID-19 pandemic more than when the global financial crisis occurred. The decline in GDP has been large in countries that had strict lockdowns, and emerging countries and developing countries fell into negative growth along with developed countries in 2020. Meanwhile, the performance of Japanese companies has not declined as much as during the global financial crisis, and it is estimated that this was because many companies were able to absorb the impact of COVID-19 comparatively well by implementing teleworking and moving business online.

Due to the limitations on containing the number of infections even when implementing lockdowns, developed countries are shifting their policies from zero-COVID-19 to coexisting with the virus. Japan also needs to build a society that can comfortably maintain economic activity even if physical contact with people decreases during periods when there is a risk of COVID-19 spreading.

Acceleration of Digitalization of Economic Society
In a survey of approximately 19,000 males and females aged 10 to their sixties conducted by NRI, the majority of respondents who said that life would not fully return to normal even after the COVID-19 pandemic subsides mentioned “I don’t think it will fully subside” and “I have grown accustomed to the current lifestyle” as reasons (Survey of Everyday Life of Japanese conducted by NRI in July 2021).

In a global survey, over 90% of companies responded that “DX accelerated during the COVID-19 pandemic.” Meanwhile, looking at the digital capability index (DCI) that is an indicator evaluating the level of digital economy and society by prefecture, this was characterized by the reduction of the digital divide between urban and regional areas, and it is believed that this is due to an increase in the frequency of use of digital public services in regional areas due to COVID-19 such as the acquisition of My Number cards and the use of online government services.
Two Issues Faced by Japan

(1) In response to stagnation of the economy: Transformation to “digital first”

If labor productivity and the employment rate continue on the trend of the past decade, there is a high probability that Japan’s GDP growth will be negative in the 2030s, and it is forecast that the Japanese economy will continue to stagnate unless a shift is made to an economic growth model not dependent on labor input. For Japan to recover from this economic stagnation, it is necessary to make a paradigm shift from “industrial capitalism” increasing labor productivity to increase the added value of goods to “digital capitalism” where digital services on platforms are the goods and digital data is the source of value. The transformation to “digital first” is expected to bring about a new economic growth model sustaining growth even as the working population decreases.

(2) In response to social issues on a global scale: Balancing of economic growth and a sustainable society through digitalization

Globally, the problem of so-called “external diseconomies” is occurring where a variety of problems occur outside companies as their business activities become more active. Corporate management needs to resolve these and balance business performance and sustainability with public interest. In 2020, global CO₂ emissions decreased by 1.92 billion tons, the greatest decrease since the end of World War II. A breakdown of this by sector shows that the CO₂ emissions of the transportation sector decreased dramatically, and it can be surmised that this is a result of changes in people’s behavior due to COVID-19 and the effect of
of digitalization supporting this. Combining the digital characteristics of online and visualization to create new services is expected to not only reduce CO₂ but also contribute to the resolution of a variety of social issues. For example, if MaaS (Mobility as a Service) develops, NRI estimates that this will have the effect of reducing CO₂ emissions by 300 million tons in Japan, the United States and Europe.

Looking at the correlation between the Digital Economy and Society Index (DESI) published by the European Commission and the level of achievement of SDGs, countries where digitalization has progressed have also made progress with initiatives aimed at a sustainable society, and it could be said that digitalization has great significance for balancing economic growth and a sustainable society.

**Transformation to “Digital First Management”**

To make the transformation to “Digital First Management,” it is necessary to understand that this is a transformation of the company, and it is necessary to transform management as a whole and promote reform of attitudes in the organization rather than simply digitalizing business.

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**Example of implementation of corporate DX:** GE Digital was established in 2011 by global industrial machinery manufacturer GE based on the concept of industrial IoT. Top-down DX was carried out to make reforms, but it was not monolithic, and the company was downsized and reorganized in 2018. French heavy electric machinery manufacturer Schneider Electric began the utilization of digital technology from front-line business units, and succeeded with the implementation of DX by iterating bottom-up business ideas and top-down standardization.

**Digitalization and Sustainability of Local Communities**

In Denmark, which is balancing economic growth and measures to address climate change backed by clean electric power, the national government has brought forward carbon neutrality goals, and regional cities have set targets to implement measures. They have presented growth scenarios for the country and regions, placing improvement of quality of life (QOL) as the highest priority objective to convince and motivate citizens. In Japan, the Regional Decarbonization Roadmap was announced in June 2021, presenting specific processes and measures aimed at the achievement of carbon neutrality. It is expected that measures will be implemented from a citizen’s perspective and to encourage regional and citizen initiatives.
Rebuilding Capitalism and the Role of Japan

Professor, Harvard Business School
Rebecca Henderson

With global climate change that could be considered abnormal and social unrest caused by growing disparity threatening the overall global economy, Japan, which is the world’s third largest economy, is currently faced with the social issue of a labor shortage in addition to the real risk of climate change. While Japanese business leaders must address these issues, it could also be said that they present a significant opportunity for transformation.

At present, only one Japanese company is in the world’s top 100 companies based on market capitalization. Japanese companies have a workforce with a high level of education, and have a stance of attempting to generate benefit for society as a whole. Japan is in an ideal position to create a new positive business model using the threats of climate change and disparity as driving forces for growth.

Five steps are required for the transformation of companies’ systems and the realization of growth.

(1) Have a purpose (The reason for existence of the company is to change the world. It is necessary to rediscover purpose)
(2) Create shared value (Design business models to resolve important issues)
(3) Create cooperative systems (Create sustainable methods to cooperate as entire industry for the long-term survival of the company)
(4) Review financial lines (Investors and consumers evaluate companies with ESG metrics, etc., transforming capital markets)
(5) Rebuild systems (Rebuild global systems through business to create a healthy society with a good balance of “free markets” and “good government and liberal politics”)

Transform Social and Economic Systems to Protect Global Commons

Ishii — Humankind is currently facing a crisis. In order to protect a stable and self-recovering global system (global commons), it is necessary to build a sustainable future for humankind and the earth by making a great transformation of energy, food, production and consumption, and socioeconomic systems in cities with an eye to 2050.

Ohashi — Keidanren has announced the “. The NEW Growth Strategy” (the “.” means to stop once) with the aim of establishing sustainable capitalism, and made a call to action for a vision for the future of Japan and the world in 2030 (new growth through DX, work style reform, regional revitalization, rebuilding the global economic order, realizing green growth).

Konomoto — I think the development of industry and initiatives to address global environmental problems are on the same vector. In order to achieve carbon neutrality, Japan has set a target of reducing greenhouse gases by 46% by 2030 (with 2013 as a baseline), but what is required of industry?

Ohashi — I think industry needs innovation and transition (the transition period until realizing a carbon-free society in 2050). At the same time as focusing on technological innovation to achieve this goal, it is also important to discuss the steps required to achieve this by 2050 based on scientific data.

Konomoto — It is necessary to dig down further to create a roadmap for Japan and also globally.

Ishii: I agree. I think it is important for industry, academia and government work together to formulate the path to take based on Japanese conditions while considering international positioning.


Co-creation of a thriving future society

DX will bring about transformation of production processes in the construction industry

Using digital technology to optimize construction production processes will realize dramatic improvements in safety, productivity and environmental adaptability

The construction industry is currently facing issues such as aging workers and a declining working population, and combined with the impact of the spread of COVID-19, it needs to undergo reforms utilizing the power of digital technology on construction sites in Japan and overseas.

NRI, Komatsu, NTT Docomo and Sony Semiconductor Solutions jointly launched the new company, EARTHBRAIN Ltd., in September 2021. It utilizes digital technology to remotely monitor all kinds of information including the topography of construction sites, machinery, people, materials and also safety and environmental aspects, and control optimization of the entire construction process with diverse solutions such as visualization and optimization of construction sites, and remote control to resolve customers’ issues. This will result in the generation of new standards for production processes and the creation of safe and highly productive sites for the future.

NRI will utilize its insights into digitalization and business model transformation to support DX of the construction industry.
Co-creation of a thriving future society

Contributing to regional revitalization and the enrichment of people’s lives with DX

We are engaged in smart city promotion and building digital government in Tsuruoka City, Yamagata

NRI is working with Tsuruoka City to create a smart city (urban development utilizing digital technology) aimed at the realization of high-quality municipal services, and to create digital government. Tsuruoka City is the most expansive region in Tohoku, and although it is dispersed with underpopulated areas due to the decreasing and aging population, it has rich nature, history and culture, and is also a region with a high concentration of advanced academic institutions and advanced technology companies.

NRI is supporting the creation of a local hub\(^1\) with high productivity and autonomous economic growth utilizing the characteristics of the region, and a well-being\(^2\) community enabling people to feel happiness and affluence that Tsuruoka City aims to achieve. We are engaged in transformation through DX from a variety of angles such as the development if IT personnel and entrepreneurs handling regional development, the improvement of convenience of transportation in hilly and mountainous areas, the improvement of productivity of agriculture, the enhancement of disaster prevention and mitigation measures, and the promotion of city office building DX. Going forward, we will shift emphasis particularly to energy and healthcare, and focus on regional development for good health and long life and the establishment of locations for innovation in local industry.

NRI will utilize its know-how on regional and industrial development and insights into DX to widely contribute to the development of the region and the resolution of social issues.

\(^1\) A city that is in a regional area but serves as a hub connected to the world, enabling the creation of autonomous industry and economy.

\(^2\) The state where all citizens are physically, mentally and socially well, and the ideals of individuals are realized.
Co-creation of a thriving future society

Realizing new styles of securities trading

Started provision of the STAR Mobile Service enabling input of information and procedures in securities trading operations to be performed from a mobile devices

NRI provides the STAR-IV back office system as a solution for securities companies. As an optional service, we began providing the "STAR Mobile Service" in June 2021, enabling securities salespersons to use mobile devices to perform entry of various information and procedures required when performing sales activities outside the company. It is already used by many securities companies.

Securities salespersons can use mobile devices to perform explanations and advance procedures required for trading, order input based on customer consent using electronic signatures and also responses to inquiries and the creation of daily sales reports. This facilitates working out of the office and from home, and contributes to work style reforms and sales style reforms that have accelerated due to COVID-19. It also creates the benefit of eliminating the need for customers to come to branches.

Furthermore, the service performs information management based on advanced security measures such as inhibiting the saving of files on mobile devices and the acquisition and accumulation of positional information when receiving digital signatures.

NRI will continue to support the creation of customer contact points matching the times.
Co-creation of a thriving society

Contributing to the creation of a vibrant super-aging society

We are making proposals aimed at the expansion of employment opportunities through employment surveys and behavioral studies of seniors

The employment environment for seniors is undergoing significant change such as the expansion of teleworking, continued employment and raising of mandatory retirement age by companies, diversification of work styles and values, and adaptation to digitalization. In April 2021, it became mandatory for companies to make an effort to “secure employment opportunities until 70”*1 and work styles for people in their late sixties and higher are expected to further diversify in future.

NRI Social Information System Services implements studies on employment awareness and behavior for seniors every year. In 2021, it conducted a survey on the impact of COVID-19, and interest in concurrent jobs and side jobs*2. As a result, while a majority of people who had increased telework or work from home strongly felt an impact on their health and responded that they had “weakened legs” or “reduced physical strength,” it was also revealed that there is an increase in the number of seniors who want a place to work even beyond the age of 70 by combining a variety of work styles such as concurrent jobs. Going forward, it is expected that there will be an increase in “senior parallel workers” flexibly designing work styles to match the work objectives, health conditions and lifestyles of each person.

The NRI Group will lead a vibrant super-aging society enabling participation in local communities and personal development by enabling seniors to work.

*1 “Revised Act on Stabilization of Employment of Elderly Persons” (Effective from April 1, 2021).
*2 Internet survey of 3,000 men and women aged 50 to 79 nationwide (implemented in March 2021).
Co-creation of a thriving future society

Creating new customer experiences with DX

Proceeding with initiatives to maximize value provided to customers by combining online and offline information

We have entered an era in which people purchase products after comparing them on the Internet. With the popularization of social media, customers have more contact with companies. Such changes have brought about the necessity for companies to provide customers experiences that match these new times.

Japan Airlines, JALUX and NRI Digital jointly conducted a proof of concept for a seamless purchasing experience using OMO*1 combining offline and online. Using OMO OnBoard developed by NRI Digital, the status of store visitors' access to websites (online behavior) was integrated with how they spend their time in store (offline behavior) based on AI cameras, 3D distance sensors and records of entering and leaving the store (check-in function). It is an initiative to estimate needs and concerns based on behavioral analysis, leading to real-time distribution of product information and coupons, and appropriate staff responses.

In future, we aim to link to the creation of new value such as personalized content through a variety of contact points in the customer journey*2.

The NRI Group will utilize the power of digital technology to promote the creation of a new customer experience merging online and offline.

*1 "Online Mergers with Offline". A marketing method that eliminates the boundary between online (Internet) and offline (real stores) to provide services optimized for each customer and enhance the customer experience.

*2 Customers’ behavioral, thinking and emotional processes in purchasing behavior.
Co-creation of a thriving future society

Supporting Education of the Next Generation of Young People

We are promoting digitalization of education in Western Australia

In June 2021, NRI Group company ASG (ASG Group Limited) became part of the LIFT Alliance established to provide comprehensive ICT services to the Western Australian Government’s Department of Education. LIFT Alliance will work with local specialist IT companies to provide an all-in-one service including solutions development, application management, infrastructure establishment, and advisory. It will provide support through the power of digital technology to contribute to the realization of a new ICT operating model for the Department, enabling the vision of approximately 500,000 students making up the next generation of Australia to increase their own potential.

ASG will also work with the Department on expanding IT-related work programs that it has engaged in for some time for the creation of opportunities for upliftment of indigenous Australians. The initiatives are being conducted with the objective of providing IT jobs to indigenous people throughout all of Australia.

The NRI Group will continue to contribute to the resolution of a variety of issues through the provision of cutting-edge IT solutions and consulting to Australia.
Commenced provision of “Support Service for Net -Zero*1 CO₂ Emissions of Investment and Financing Portfolios” for financial institutions*2

In the finance industry implementing initiatives to address climate change issues, there are growing movements to measure the CO₂ emissions from investment and financing portfolios. The Net Zero Banking Alliance*3 made up of major banks worldwide aims to reach net-zero CO₂ emissions from investment and financing portfolios in financial institutions by 2050. Meanwhile, reducing the CO₂ emissions from investment and financing portfolios presents many challenges such as ascertaining emissions, integrated management of data and setting appropriate targets, making the initiative difficult to implement.

To address these conditions, NRI commenced provision of “Support Service for Net -Zero CO₂ Emissions of Investment and Financing Portfolios” for Japanese financial institutions. It supports clients’ strategy formulation and approaches to portfolio companies to achieve these by providing unique CO₂ estimate data specializing in Japanese companies and conducting engagement support consulting with portfolio companies. We will support the response to global needs, while also supporting the acquisition of new earnings opportunities.

Going forward, NRI will provide services contributing the the resolution of issues and enhancement of value of client companies while tracking the needs and issues of society related to climate change.

*1 Meaning that the value obtained by subtracting the volume of CO₂ captured and removed from CO₂ emissions is zero.

*2 The emissions of portfolio companies are multiplied by the percentage stake in those companies to calculate the CO₂ emissions deemed to be indirectly produced by a financial institution through its investment and financing.

*3 An initiative by major global banks launched with guidance by the United Nations in April 2021.
Co-creation of an ideal future society

Contributing to the realization of a sustainable society through logistics innovation

We are conducting initiatives aimed at the realization of the Physical Internet*¹ gaining attention as a logistics system

Logistics is a form of social infrastructure essential for our lives. However, the Japanese logistics industry currently faces many challenges such as an increase in small packages due to the expansion of demand for Internet shopping, deterioration of transportation efficiency, aging of drivers and the labor shortage. The Physical Internet is something gaining attention as a means for improving this situation. This is a system for increasing the operation and usage rate of resources related to logistics (people, vehicles, fuel and warehouses) by sharing trucks and warehouses. The initiative has begun in Europe and the United States, and it is gaining attention in Japan where logistics issues are piling up.

Yamato Group Research Institute is working with NRI to conduct studies and communication to increase recognition of the Physical Internet. Two NRI logistics experts joined the activities of Yamato Group Research Institute as visiting researchers, and were responsible for the planning and operation of a session at the 8th International Physical Internet Conference (IPIC)*² held in 2021. It was the first time Japanese initiatives were communicated to the world at IPIC.

NRI will continue to contribute to the realization of a sustainable society through logistics innovation through activities aimed at the realization of the Physical Internet in Japan.

*1 The Internet is a system for highly efficient use of lines enabling the transmission of multiple sets of communication data on a single line. Similarly, this is a logistics system for increasing the operating rate by sharing means of transportation and warehouses.

*2 The highest level conference on the Physical Internet that began in 2014, with the latest research reports by experts worldwide and awards being conducted.
Co-creation of an ideal future society

Promoting the realization of a resource recycling society

We will promote market distribution of recycled materials through the traceability*¹ of materials using digital technology

As plastic waste has become a global social issue, initiatives to establish an environment for promoting the use of recycled plastic have begun by using DX to realize traceability in the life cycle of plastic products.

In August 2021, Mitsui Chemicals, Inc., IBM Japan, Ltd. and NRI agreed to the establishment of consortium*² aimed at the realization of a resource recycling society. The three objectives are the promotion of use of recycled plastic based on traceability, support for coordination between stakeholders related to resource recycling, and the creation of an incentive system for people and companies who contribute to resource recycling. We will establish an environment for facilitating the use of recycled plastic by companies by ensuring reliability such as whether it is really recycled material and that it does not contain harmful substances when companies use recycled plastic. It is anticipated that companies supporting the intent of the consortium will join in future.

NRI will utilize its navigation capabilities for guiding the transformation of society and companies and its problem-solving capabilities to engage in the resolution of social issues through co-creation with diverse partners.

*¹ Being able to record and track data such as information on material properties and quality, the ratio of recycled material and the number of times recycled in a format utilizing blockchain technology that cannot be falsified.

*² A group of multiple individuals and/or organization conducting activities for a common purpose.
Co-creation of an ideal future society

Contributing to the realization of carbon neutrality

We are engaged in the creation of systems for the visualization of reductions in greenhouse gas emissions through changes in consumer behavior.

Japan has set the target of becoming carbon neutral in 2050. The key to the realization of this is raising environmental awareness of consumers and changing their behavior to voluntarily select environmentally friendly goods and services. This is the starting point for encouraging initiatives by companies, and a virtuous cycle reducing greenhouse gas emissions of the country as a whole can be expected to be created. The key point here is the creation of a system for quickly ascertaining the volume of emissions by consumers and companies.

NRI is devising the CN Shift Platform as a mechanism for efficient and timely visualization of emissions. The volume of emissions is automatically calculated by using IoT wherever possible to automatically gather data on consumers’ purchasing behavior and the use of goods and services and data on companies activities emitting greenhouse gases. By performing simulations on the effect on reducing emissions and comparisons of target and actual volumes, the process of reducing emissions is visualized, contributing to further enhancement of measures. At present a proof of concept is being carried out with the aim of providing service in one to two years.

NRI will continue to conduct businesses that contribute to the realization of carbon neutrality in future.

*1 A state in which greenhouse gas emissions are effectively zero.
*2 Technology for connecting all things such as televisions, speakers and cars to the Internet.
Co-creation of a safe and secure society

Supporting the overseas deployment of infrastructure through public-private partnerships

We are supporting the overseas deployment of infrastructure systems*1 aimed at the resolution of global social issues and contribution to the sustained economic growth of Japan

Countries have great needs for the establishment of infrastructure forming the foundation for people’s lives and socioeconomic activity, and the global market for this is expected to expand further. The Infrastructure System Export Strategy formulated by the Japanese government in 2013 promotes public-private partnerships and orders to Japanese companies for overseas infrastructure projects are steadily growing. To achieve further growth, it is vital to strategically capture demand while tracking international changes and needs, such as business investment in infrastructure, infrastructure O&M*2 combining digital technology, and infrastructure with high environmental performance aimed at the realization of a carbon-free society.

NRI supported the formulation of Infrastructure System Overseas Promotion Strategy 2025, a new medium to long-term strategy announced by the Japanese government. We conducted a variety of research and analysis on topics such as structural reforms in infrastructure-related industries brought about by digital technology and decarbonization, and the impact of COVID-19 on overseas infrastructure projects, and made proposals such as targets for the results of the overseas promotion strategy and medium to long-term action plans.

NRI will continue to provide support aimed at the overseas promotion of infrastructure systems through the exchange of opinions and policy proposals with the relevant ministries and agencies.

*1 Infrastructure systems and mechanisms that form the foundation for people’s lives and socioeconomic activity, such as electricity, water, transportation, telecommunications and medicine.

*2 Abbreviation of Operation and Maintenance.
We are engaged in the reduction of traffic accidents through joint development of a fleet management service.

Thailand is a country with a very large number of traffic accidents, and the traffic accident death rate of 32.7* per 100,000 people is the highest in Asia and the third highest in the world. The reduction of traffic accidents is a significant social issue for Thailand.

In order to resolve this issue, NRI Thailand is collaborating with a logistics company that is part of Thailand’s largest conglomerate to develop a fleet management service. We are promoting the provision of a service that combines the logistics company’s solution for ascertaining predictors of accidents based on driving behavior data on truck drivers and enabling remote driving guidance using voice-based warnings, with consulting utilizing NRI’s DX knowledge in the automotive industry and local business network.

Going forward, we will add solutions for reducing CO₂ and resolving air pollution to this service, and aim to make it social infrastructure that can be used by users of commercial vehicles worldwide.

NRI Thailand will utilize its knowledge of the automotive industry in Thailand and digital technology to support the creation of a society where people can live in safety.

* From the 2018 report on traffic accidents by the World Health Organization (WHO).
Activities to Spread "Value Co-Creation"

Even since it was founded, the NRI Group has been engaged in “value co-creation” with the desire to contribute to the resolution of social issues.

Here we describe the activities to promote “value co-creation” carried out so that each employee considers the value of the existence of the NRI Group and the significance of value co-creation, finds the role that they should perform and puts it into practice.

The sentiment behind "Value Co-Creation"

Contributing to the resolution of social issues through value co-creation to continue to be an indispensable presence

The NRI Group’s mission is to “discern society for the future and implement it” and “build customer trust and establish relationships for mutual growth,” and has contributed to the resolution of social issues for the creation of a sustainable future society. This is nothing special for us, but rather part of the DNA that has run through the NRI Group since it was founded, and normally put into practice in our business. Medium-Term Management Plan 2022 defines the “NRI Group’s 3 Social Values” and restates that the Group will seek co-creation befitting NRI.

<table>
<thead>
<tr>
<th>NRI Group’s 3 Social Values</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Co-create a thriving future society by driving new value.</strong></td>
</tr>
<tr>
<td><strong>Co-create an ideal society by effectively utilizing its resources.</strong></td>
</tr>
<tr>
<td><strong>Co-create a safe and secure society by advancing its infrastructure.</strong></td>
</tr>
</tbody>
</table>
Creating a space to think about "Value Co-Creation"

Connecting through value co-creation
Activities to promote “value co-creation” are carried out so that each employee can ask themselves about the value of the existence of the NRI Group and the significance of value co-creation, and link this to what they put into practice. For example, the Value Co-Creation Promotion Committee supports activities in the workplace by creating a place for organizations to share their initiatives and establishing an environment in which organizations can easily coordinate. Furthermore, to promote “value co-creation” throughout overseas Group companies, articles in English are published in the online company newsletter.

Value Co-Creation Leader Network Activities
To reaffirm that “resolution of social issues through value co-creation” is in the NRI Group’s DNA, and instill it in each employee, Value Co-Creation Leaders are appointed from among junior to mid-level leaders in a variety of departments. Value Co-Creation Leaders lead the efforts to address the challenges faced in their respective departments with passion for the creation of social value and the resolution of social issues. Furthermore, the observations and ideas found through activities are shared through dialogue among Value Co-Creation Leaders, the President and officers.
Internal award system for evaluating contributions to value co-creation and resolution of social issues

The NRI Dream up the Future Awards

The NRI Group presents the Dream up the Future Awards to employees and teams who have made efforts to contribute to the sustainable growth of the NRI Group via the resolution of social issues and co-creation with our clients.

This section provides a report on the Dream up the Future awards for FY2021.

**Value Co-Creation Award**
Awarding employees and teams that create one of three types of social value unique to NRI (co-creation of an energetic future society, co-creation of an optimal society, and co-creation of a safe and secure society) via collaboration with our clients or other departments.

**Special Recognition**
Awarding employees and teams that contribute to the resolution of social issues and activities suitable for a company creating future society, which do not correspond to the value co-creation award.

Dream up the Future Award 2021 Value Co-Creation Award

Launch of the new company EARTHBRAIN

"EARTHBRAIN" Team

[Reason for award] EARTHBRAIN was jointly established by four companies leading the front line in different industries for the purpose of bringing about DX in the construction industry to dramatically improve safety, productivity and environmental performance. It is also a Con-Solutions initiative merging the NRI Group's consulting and IT solutions, and the challenge of bringing together the expert knowledge of companies in different industries for accelerated implementation of DX smart construction business presents a new future as an good example of “DX2.0" transforming business models.

**DIGITAL TRANSFORMATION OF CONSTRUCTION PROCESSES CREATES NEW VALUE**

- **Acquire data at construction site**
- **Convert into valuable data to visualize and optimize the construction site.**
- **New value created by digital transformation**
  - Improvement of productivity in construction production processes
  - Safe construction sites optimized with digital twins
  - Utilize simulation technology to improve environmental adaptivity of construction
Dream up the Future Award 2021 Value Co-Creation Award

Development and demonstration of remote measurement system installed in products with high environmental performance

Telemetry System Development Team

[Reason for award] In response to issues related to the telemetry system (data collection and remote tracking system) of Manufacturing Company A developing products with high environmental performance, a telemetry system for products with high environmental performance was newly developed in a short period based on a scrum framework formed by Company A and NRI. It produced results in testing even with the stringent condition of being a one-off, and also met Company A’s expectations by producing results in live implementation. This contributes to the realization of carbon neutrality.

Dream up the Future Award 2021 Value Co-Creation Award

Development and provision of university co-op tray check payment system

University Co-Op Tray Check Payment Team

[Reason for award] In response to the pressing issue of reducing fixed costs of a university co-op that arose during the COVID-19 pandemic, the Tray Check Service was proposed and developed as a method of non-contact payment in which students take photos of the meals on their trays. The speedy implementation in three months was praised by Ehime University Co-op, and optimized labor and equipment expenses, in addition to contributing to the realization of optimized society and future society as a measure leading to a new store experience for students.
Proposals related to social problems during the COVID-19 pandemic

[Reason for award] We assessed changes in society during the COVID-19 pandemic, provided an outlook for the vaccination rate in Japan and proposed a strategy for preventing the spread of infection centered on vaccines based on data on vaccinations and infections in other countries. It was important input for establishing the direction of Japan's vaccine policy. Furthermore, we researched, analyzed and communicated the actual state of "effectively unemployed" numbering more than 1 million nationwide who are struggling with decreases in part-time and casual employment shifts during the COVID-19 pandemic. This gained the attention of many media outlets, and indicated how to support the effectively unemployed to a wide audience including the government.

Visualization of “effectively unemployed” who have lost half or more of their work shifts and are not receiving leave benefits

[Reason for award] In response to the vaccination projects being implemented by the national government and local governments, we were involved from the system design phase, and provided comprehensive support including design and process management of systems for ensuring the smooth implementation of vaccination, establishment of the vaccination system, and education of people working at vaccination sites. The Project was completed by leading difficult coordination spanning the government and the private sector including the Cabinet, relevant ministries and agencies, local governments, medical institutions and pharmaceutical companies. As a result, the overall vaccination rate in Japan increased, and contributed to fostering safety and sense of security for the people of Japan.

Completed the project while closely coordinating with relevant institutions
Dream up the Future Award 2021 Special Recognition

Research reports and proposal activities on digital currency

Study Group on the Future of Currency and Banking Team

[Reason for award] The Study Group on the Future of Currency and Banking was launched and operated under NRI’s initiative for the purpose of presenting the issues and outlook for central bank digital currencies. The study group held meetings with experts in industry and academia, and considered real solutions for the promotion of central bank digital currency throughout society. By aggregating and communicating different views and new discussions on the purpose of implementation and strategies for promotion throughout society as a progress report, it contributed to building the process for exchanging opinions between private-sector business operators and central banks.

Initiatives for Central Bank Digital Currency

Objective of Activities

Fulfilling the role of “working together” in initiatives by the government and private sector aimed at digitalization of payment and settlement

Content of Activities

Understanding the direction of action by domestic and foreign government authorities

Realistic proposals on design and framework

Understanding of direction of private sector enterprises including non-banks and platforms

Method of Activities

Exchange of opinions with overseas authorities

Periodic meetings with domestic authorities

Discussion in Study Group on the Future of Currency and Banking

Individual interviews

Coordinating with industry groups

People waiting for vaccinations in front of the gate at the Yokohama Office

Vaccination site

Coordination of various departments to realize smooth and flexible operation

Vaccination site

Dream up the Future Award 2021 Special Recognition

Creation of COVID-19 workplace vaccination reservation site, and establishment and operation of vaccination system

Workplace Vaccination Team

[Reason for award] We secured COVID-19 vaccines, prepared the vaccination system and created a workplace vaccination reservation site in the short period of just over two weeks. By smoothly implementing workplace vaccinations for approximately 26,000 people inside and outside the NRI Group, we contributed to ensuring people involved in the NRI Group are safe and have peace of mind. Furthermore, as questions are being raised about the issue of vaccine waste, we also fulfilled NRI’s social responsibility by using all vaccines secured without waste through flexible operation.
ESG Topics

ESG is an acronym for the three terms Environment, Social, and Governance, which are the three aspects that a company should emphasize in aiming for sustainable growth.

For companies, properly responding to the issues faced in each aspect is thought to be the driving force for the growth of a healthy company, which in turn enhances the sustainability of society as a whole.

Here, we report on ESG activities undertaken by the NRI Group, as well as social contribution activities and sustainability activities conducted by group employees.

The NRI Group cites "reduction of environmental impact for preserving global environment" as one of the materialities (important issues) in sustainability management. In addition to expanding the "joint-use service" business, we have promoted activities to reduce greenhouse gas emissions for society as a whole, such as system migration to data centers with excellent environmental performance and relocation of major offices such as the head office to energy-efficient buildings.

NRI Group Greenhouse Gas Emissions Results and Targets (Scope1 + 2)

<table>
<thead>
<tr>
<th>Year</th>
<th>Greenhouse gas (Scope1 + 2) emissions (Thousand t-CO₂)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>120</td>
</tr>
<tr>
<td>2021</td>
<td>40</td>
</tr>
<tr>
<td>2030 (FY)</td>
<td>0</td>
</tr>
</tbody>
</table>

Result 72% reduction

Target Net zero
Environmental targets

In February 2022, the NRI Group set new environmental targets for 2030 because the environmental target of “72% reduction of greenhouse gas emissions by the NRI Group by FY2030 (compared to FY2013)” set in FY2020 with SBT1.5°C certification is expected to be achieved ahead of schedule.

<table>
<thead>
<tr>
<th>Category</th>
<th>FY 2030 targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope</td>
<td></td>
</tr>
<tr>
<td>1+2</td>
<td>• NRI Group Net zero greenhouse gas emissions</td>
</tr>
<tr>
<td></td>
<td>• NRI Group 100% use of renewable energy</td>
</tr>
</tbody>
</table>

Initiatives for the TCFD Final Report

In July 2018, the NRI Group announced its support for TCFD final recommendations* at an early stage for an operating company other than a financial institution. Responses to TCFD have been repeatedly discussed in the Sustainability Promotion Committee, and progress is announced in ESG briefings. In FY2021, we identified risks and opportunities for the securities solutions business, and calculated their financial impact.

* TCFD (Task Force on Climate-related Financial Information Disclosures) recommended in June 2017 that companies should disclose corporate climate change-related information from the four aspects of governance, strategy, risk management, indicators and targets.*

Financial impact expected in the capital markets & wealth management solutions business

— Calculate the impact of each climate change event on sales and expenses in the capital markets & wealth management solutions business
Initiatives aimed at decarbonization of data centers

Of the five data centers owned by NRI, electric power in the three large-scale facilities was switched to renewable energy, and the renewable energy usage rate across all data centers exceeded 80%. Building 2 of Osaka Data Center II which began construction in November 2021 received certification under the Program for Business Adaptation Pursuant to the Act on Strengthening Industrial Competitiveness (Program for Business Adaptation to Reduce Environmental Load of Energy Use) from the Ministry of Economy, Trade and Industry and the Ministry of Internal Affairs and Communications as capital expenditure expected to balance reduction of environmental load of energy use and the creation of added value.

Trajectory of women working at NRI

NRI is engaged in promotion of women's participation and advancement in the workplace to enable each person to utilize their diverse experiences and values to fulfill their unique potential. As part of this, they are introduced on "Trajectory of Women Working at NRI —NRI Women's Spur" within the official site providing a real-life-sized view of the work styles and lifestyles of the women working at NRI.

Response to the Revision of the Corporate Governance Code

In response to the revision of the Corporate Governance Code stipulated by Tokyo Stock Exchange, Inc. in June 2021, we reviewed our approach based on our corporate philosophy and strategy, and confirmed that this conforms with the principles applied to NRI. The status of implementation of the principles is indicated in the Corporate Governance Report, and NRI’s approach on the requirements for each principle are disclosed in the NRI Corporate Governance Guidelines and official site.

Establishment of NRI Group Business Partner Code of Conduct

NRI established the NRI Group Business Partner Code of Conduct setting forth matters on human rights, the environment, safety & health, etc. to be followed by business partners to engage in the realization of a sustainable society throughout the entire supply chain. We are informing business partners and obtaining letters of consent to the Code of Conduct through our portal site and dialogue.
Expert Dialogue
In order to understand global sustainability trends and reflect these in management strategy and risk management, we have dialogue with experts inside and outside Japan every year. In FY2021, we exchanged opinions with three experts on positioning of sustainability in the Medium-Term Management Plan, promotion of diversity and ESG trends.

- Takeshi Mizuguchi (President of Takasaki City University of Economics)
- Emi Onozuka (Investment Advisor, Vice President and COO of Japan Catalyst, Monex Group)
- Yasushi Hibi (Managing Director of Conservation International Japan)

ESG Briefing Session
In February 2022, we held an ESG briefing for media, institutional investors and ratings organizations via ZOOM webinar with 96 people from 67 organization participating. In addition to explaining NRI's sustainability management, we also introduced value co-creation initiatives and ESG activities.

Sustainability Dialog with Partners
In February 2022, we held an ESG briefing for media, institutional investors and ratings organizations via ZOOM webinar with 96 people from 67 organization participating. In addition to explaining NRI's sustainability management, we also introduced value co-creation initiatives and ESG activities.
NRI Student Essay Contest 2021
We hold a contest for students who will be the custodians of future society based on our desire to provide them with opportunities to think about the future of Japan and the world. In FY2021, we welcomed journalist Akira Ikeyama and non-fiction writer Hazuki Saisho as special members of the judging panel, and determined the winning works from a total of 3,043 submissions in the high school and university sections combined.

<Titles of the winning works>
• High school section: The Era of Ethical Fashion Beginning in Bangladesh - Textile Workshop Clothes Mom
• University section: A Fledgling Doctor’s Sickbay - A Place for Health Consultations for Local Residents by Student Doctors.

Career Education Programs
We provide various education programs for elementary school students, junior high school students and high school students based on the idea that we want the young generation to select their own future and career and become adults that can fulfill their potential in society. In FY2021, we provided programs while giving consideration to prevention of the spread of COVID-19 such as limiting the number of people accepted and implementing them online.

Pavilion at Kidzania Fukuoka
NRI became an official sponsor of the Kidzania career and social experience facility for children. We plan to run the Business Innovation Center pavilion enabling children to experience solving social issues using the latest technology at Kidzania Fukuoka (Fukuoka-shi, Fukuoka), which is scheduled to open on July 31, 2022.
Opening a café within an office where diverse employees work vibrantly

The special subsidiary NRI Mirai, which has employees with disabilities, opened Sora Café Mirai providing authentic drip coffee within the Kiba office building. The staff learned how to make delicious coffee such as the measurement of coffee beans and the time dripping from a specialized instructor. This is a new initiative in which NRI Mirai employees directly provide service, and the coffee carefully dripped one cup at a time has been well received among employees.

Use of environmentally friendly banana paper

NRI Financial Graphics, which conducts operations such as printing, binding and processing of the NRI Group’s documents, is proceeding with the utilization of environmentally friendly paper. In FY2021, it introduced One Planet Paper®, the first fair trade certified paper in Japan, which is made using Japanese paper technology by adding forest-certified pulp to banana stalks (fiber), and used it in a variety of applications such as cards, envelopes and postcards.

Provision of sustainable menu in office café

A sustainable menu using ingredients likely to become food loss is offered every week in the café located in the Yokohama office. The initiative began in July 2021, and reduced food loss by a total of 100kg as of December that year.
We communicate ESG information not only in Japan, but also overseas. Two examples of media coverage in FY2021 are provided below.

President Konomo appeared in the ESG Talk (Sustainable Japan segment) and published every Monday) interview article with leaders actively commenting on ESG in Japan By The Japan Times, which is the English language newspaper with the longest history in Japan. The content of the interview was published on YouTube, in the printed version of The Japan Times and the website.

The Japan Times Published on August 30, 2021
NRI received coverage in the Stories of Change booklet published by CDP Worldwide, an international NGO that runs an information disclosure platform regarding the environmental performance of corporations and local governments. It introduces NRI’s approach to climate change problems and past environmental initiatives, in addition to new initiatives such as DX3.0 for realizing a paradigm shift for society using digital technology.

Stories of Change
Published on December, 2021
Participation in Initiatives

NRI actively participates in sustainability-related initiatives. We declare our commitment to the principles and goals advocated by the initiatives, and strive toward transformation in our management and business activities. In fiscal 2019 we signed Business Ambition for 1.5°C.

**UNGC (United Nations Global Compact)**

The UN Global Compact is a voluntary initiative in which businesses and organizations operate as upstanding members of society and help create global frameworks for achieving sustainable growth by exercising creative, responsible leadership.

**WBCSD (World Business Council for Sustainable Development)**

The WBCSD was founded in 1995 to promote international interest and action pertaining to environmental conservation and economic development. Its purpose is to make sustainable development recommendations that come from the business world.

**JCI (Japan Climate Initiative)**

This network bolsters communication and exchange of opinions between various companies, local governments, groups, NGOs, and other non-national government entities that are actively working to counteract climate change.

**COOL CHOICE**

This is an initiative promoted by the Ministry of the Environment to reduce greenhouse gas emissions through making all kinds of "smart choices" that contribute to a decarbonized society.

*An initiative is a group or the activities of parties that come together to tackle common problems or issues.*
**TCFD (Task Force on Climate-related Financial Disclosures)**

NRI endorses the TCFD Final Report, established by the Financial Stability Board, an international organization for the stabilization of the global economy.

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**RE100 (Renewable Electricity 100%)**

This environmental initiative was established to reduce the environmental impact arising from business activities. Its goal is to meet 100% of power needs for business activities with renewable energy.

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**Science Based Targets initiative (SBTi)**

This initiative seeks to have companies set reduction targets that are consistent with scientific knowledge in order to keep the average global temperature increase below 2°C.

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**Business Ambition for 1.5°C**

A joint letter by the United Nations Global Compact (UNGC), Science Based Targets initiative (SBTi), and We Mean Business that requests corporations to set a target of limiting the future rise in temperature to 1.5 degrees Celsius.
### Sustainability topics: By the numbers

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Nomura Research Institute, Ltd.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consolidated sales</strong></td>
<td>611.7 billion yen (Fiscal 2021)</td>
</tr>
<tr>
<td><strong>Market capitalization</strong></td>
<td>2.4550 trillion yen</td>
</tr>
<tr>
<td><strong>Number of employees (consolidated)</strong></td>
<td>16,512</td>
</tr>
</tbody>
</table>

**Greenhouse gas emissions**

72% Reduction
Results from fiscal 2021 (compared to fiscal 2014)

**FY 2030 target**
Carbon neutral

### Coverage ratio of environmental management system

86%
(Based on FY2021 greenhouse gas emissions)

NRI concurrently implements ISO 14001 and our unique NRI-EMS

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*Unless otherwise noted, the numerical values listed here are all current as of March 31, 2022.*
Number and ratio of female managers

274 9.2%
(as of April 1, 2022)
NRI has formulated an action plan based on the Act on Promotion of Women’s Participation and Advancement in the Workplace. Our target is to increase the ratio of female employees serving as managers to at least 8.5% by the end of fiscal 2022.

Ratio of annual paid leave taken

67.1%
(Fiscal 2021)
Each office continues to implement independent measures for promoting the work-life balance of each and every employee.

Ratio of employees returning to work after taking childcare leave (Total for both men and women)

98.3%
(Fiscal 2021)
243 employees took childcare leave, 175 of these employees were men.
*Includes leave for childcare purposes (partner childbirth leave)

Social contribution activity expenses

1,292 million yen (FY2021)
NRI selects public enterprises that match its goal of social contribution by contributing to the public interest and the interest of the general public.
Expenses for social contribution activities include the provision of money, the provision of goods, the opening of facilities, the activities of employees, and the research and development expenses for the creation of the future society and regional development.
Recognition—Inclusion in ESG stock indexes

The amount of global ESG investment in 2020 was approximately 4,000 trillion yen. NRI has been selected as a constituent of numerous prevalent ESG stock indexes.

Dow Jones Sustainability World Index
Dow Jones Sustainability Asia Pacific Index
Adopted by the World Index from 2018 and the Asia Pacific Index from 2016.

Euronext Vigeo World 120 Index
Made up of the top 120 companies from an ESG perspective (including 19 Japanese companies) selected from among the top 1,500 companies in terms of market capitalization that are headquartered in Europe, North America or the Asia-Pacific region. NRI was selected for the first time in November 2021.
MSCI ESG Leaders Indexes*
An index developed by US-based MSCI made up of companies with a high rating for ESG. NRI has been selected for six consecutive years since 2016.

FTSE 4 Good Developed Index
An index developed by FTSE, which is a subsidiary of the London Stock Exchange, that evaluates the corporate activities of companies that satisfy internationally recognized standards on corporate responsibility, and was made to promote investment in such companies. NRI has been selected for 16 consecutive years since 2006.

Sompo Sustainability Index
An index made up of approximately 300 Japanese companies with excellent ESG. NRI has been selected as a constituent for ten consecutive years since August 2012.

Sustainalytics
Netherlands-based Sustainalytics selects companies engaged in particularly excellent initiatives in ESG. NRI has been selected as a Top-Rated ESG Company in Software & Services for two consecutive years.

* THE INCLUSION OF Nomura Research Institute, Ltd IN ANY MSCI INDEX, AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS OR INDEX NAMES HEREIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT OR PROMOTION OF Nomura Research Institute, Ltd BY MSCI OR ANY OF ITS AFFILIATES. THE MSCI INDEXES ARE THE EXCLUSIVE PROPERTY OF MSCI. MSCI AND THE MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES.
Recognition — Inclusion in ESG stock indexes

NRI has been a constituent of all four domestic stock indexes that the Government Pension Investment Fund (GPIF) selects since the fund originally began selecting them.

- **2021 Constituent MSCI Japan Empowering Women Index (WIN)**
- **2021 Constituent MSCI Japan ESG Select Leaders Index**
- **FTSE Blossom Japan**
- **FTSE Blossom Japan Sector Relative Index**
- **S&P/JPX Carbon Efficient Index**
Awards from private organizations

Certified by CDP as a Climate Change A List Company for the third consecutive year

NRI has been certified by CDP* as the highest rated Climate Change A List company for the third consecutive year since 2020 in recognition of its climate change strategy, response, and information disclosure.

* A not-for-profit charity that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts

Third for inclusion in the CDP Supplier Engagement Leaderboard for the second consecutive year

NRI was selected by CDP for the third consecutive year in recognition of its efforts to reduce greenhouse gas emissions and climate change risk throughout the supply chain.

Highest rating of AAA in MSCI’S ESG rating

MSCI’s ESG rating analyzes ESG (environment, social, governance) risks inherent to industries, and the ability to manage such risks compared with peer companies, and rates them in seven steps from AAA to CCC. NRI received the highest rating of AAA for the first time in FY2021.

Selected in the Silver Class for S&P Global’s Sustainability Award 2022

NRI was selected in the Silver Class for the second consecutive year in Sustainability Award 2022 run by US-based S&P Global, which is an global ESG investment research and rating organization. The Company was selected in the Bronze Class in 2020.
Recognition — Awards from private organizations

**Received the Gold award in the Loyalty360 Awards run by the US Association for Customer Loyalty**

The NRI Group’s Brierley+Partners received the Gold award in the Supplier segment of the 2021 Loyalty360 Awards run by Loyalty360 (US Association for Customer Loyalty).

**DEALWATCH AWARDS 2020**

NRI’s unsecured Sustainability-linked Bonds received the “Innovative Debt Deal of the Year” award in the Bonds Segment at the DEALWATCH AWARDS 2020 run by Refinitiv Japan K.K.

**Selected as a company with "Excellent TCFD Disclosure" announced by GPIF**

NRI was selected among the “Companies selected by GPIF’s external asset managers for excellent TCFD disclosure” announced by the Government Pension Investment Fund (GPIF).

*The Task Force on Climate-Related Financial Disclosures established by the Financial Stability Board, an international organization for the stabilization of the global economy.

**10th in the IDC FinTech Rankings Top100 global ranking of financial IT service companies**

IDC FinTech Rankings Top100 covers financial IT service companies worldwide accounting for one third of overall revenue in finance-related business, and ran them by evaluating the previous year’s revenue and percentage accounted for by financial IT services based on surveys by IDC Financial Insights, unique research and market analysis. NRI was ranked 10th due to customer DX support and the expansion of overseas business, being included in the ranking for the 12th consecutive year.
Accreditations by the central government

**Highest level (Level 3) Eruboshi Certification**
In January 2017, NRI was designated by the Minister of Health, Labour and Welfare as a company that showed excellence in initiatives based on the Act on Promotion of Women’s Participation and Advancement in the Workplace.

**Platinum Kurumin Certification**
In 2018 NRI received this certification as a company among those recognized with the Kurumin Mark which has implemented and is using systems for balancing childcare with work to a considerable degree and is engaged in high-level efforts.

**Health and Productivity Management Organization (White 500)**
Public-private collaborative organization Nippon Kenko Kaigi recognized NRI for the 6 consecutive year since February 2017 as an outstanding enterprise engaging in efforts for health and productivity management.

**Nadeshiko Brand**
The Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange select listed companies with outstanding performance promoting women's success in the workplace. NRI has been selected for six consecutive years since 2017.
The Future Goal of Sustainable Society

— Shift to "plus-sum capitalism" making both environmental and economic achievements

Hello. I am Kazuo Tase from SDG Partners. I am always very impressed by the pioneering initiatives in various areas by the people at Nomura Research Institute, Ltd.

The world is currently experiencing extremely rapid changes in the direction toward "the next phase of capitalism" including the spread of SDGs and the evolution and deepening of decarbonization and ESG investment, and the direction of "geopolitical risk" including Ukraine, Myanmar and Afghanistan. This can actually be explained along one axis of value change, but here I would like to share my opinion on the next phase of capitalism.

In the general flow of sustainability including ESG investment, we are entering an era in which business is held accountable for external economies and external diseconomies throughout the entire supply chain transcending the the social impact directly produced by a company. Specific examples are (1) a legal system is being established in the framework of "business and human rights" to hold a company accountable for children working far up the supply chain even if the company itself does not directly infringe upon human rights, and (2) rules are being established in "decarbonization" to count the greenhouse gases emitted by a company when it uses aircraft for business travel or uses a cloud server even if the carbon dioxide is not directly emitted by the company.

This movement will expand to biodiversity in future. The Taskforce on Nature-Related Financial Disclosures (TNFD) forming rules on biodiversity has formed a scale for evaluating the impact of
Changes targeted by ESG investment will ultimately reach “Plus-sum capitalism”

A world view that ultimately boils down to one’s own survival

Capitalism until now

Early capitalism

Pre-modern

Jungle law. The strong take everything and the weak are killed off

Monopoly and exploitation are allowed under certain rules

Zero-sum capitalism

Capitalism targeted by ESG

People who harm the interests of others or the natural environment even indirectly are not allowed to make money

Plus-sum capitalism

Only those who expand the rights of others and improve the natural environment are granted the right to make money

Capitalism realizing the paradox of balancing the environment and the economy

What it should be beyond

We are here now

A world view in which one is only fulfilled once contributions are made to others

corporate activities throughout the supply chain on biodiversity. It is a rule framework that holds a company accountable even if it does not kill living organisms, such as for damage to forests cleared for farmland to cultivate palm oil if the company sells products using palm oil.

The formation of these rules is being carried out in one clear direction. This is a "departure from zero-sum capitalism." Until now, the rules allowed making money even if this produced external diseconomies, but we are moving toward a condition in which "companies that indirectly create negatives for society must not make money." The initial steps have already been completed. Actually, there is a further extension of this direction. It is "plus-sum capitalism" that overturns the existing paradigm by stating that "money must not be made unless it is a business that makes people happy and increases natural assets." In fact, "Nature Positive" forming the basis for this has been discussed at the Davos Forum since 2020, and Toyota Motor mentioned "Future Positive" in an executive presentation in February 2022. We must move in the paradoxical direction of "people and the earth improving as companies make money." The is the future targeted by current SDGs and ESG investment.

Brand Story

We are

NRI Group

When others give up, we step up.
When others say it’s impossible, we find a ray of light.
No challenge is too big for we aim at nothing less than to build a better world.
We are a diverse team united by a single purpose, and a will to get things done.
We envision the future and create a roadmap to get there. The more difficult the task, the more we double down, seeking answers to questions that were never asked before.
We confront hard facts without fear.
We temper passion with cool logic.
The world is changing – the future is uncertain.
Let us walk the distance together.
Let us walk together not only to solve your business issues, but to build greater confidence.
and light the path ahead.
Now is the time to move forward.
Let us show you the true value of NRI.
Global network

As of April 2022

17 COUNTRIES & REGIONS  44 SUBSIDIARIES

EUROPE  Denmark  Ireland  Luxembourg  Russia  United Kingdom

ASIA PACIFIC  Australia  China  Hong Kong  India  Indonesia  New Zealand  Philippines  Singapore  South Korea  Taiwan  Thailand

NORTH AMERICA  United States
Nomura Research Institute Holdings America, Inc.
Nomura Research Institute America, Inc.
Nomura Research Institute IT Solutions America, Inc.
Core BTS, Inc.
Brierley+Partners, Inc.
Brierley Europe Limited
Cutter Associates, LLC
Cutter Associates Europe, Ltd
Nomura Research Institute Europe Limited
野村総合研究所（北京）有限公司
野村総合研究所（上海）有限公司
野村総合研究所（大連）有限公司
北京智明創發有限公司
大連智明創發有限公司
吉林智明創發有限公司
Nomura Research Institute Asia Pacific Private Limited
Nomura Research Institute Hong Kong Limited
Nomura Research Institute Singapore Pte. Ltd.
野村総合研究所台湾有限公司
Nomura Research Institute Seoul Co., Ltd.
Nomura Research Institute Consulting and Solutions India Private Limited
Nomura Research Institute Financial Technologies India Pvt. Ltd.
PT. Nomura Research Institute Indonesia
Nomura Research Institute Thailand
ASG Group Limited
Nomura Research Institute Australia Pty Ltd
Australian Investment Exchange Limited
Planit Test Management Solutions Pty Ltd
Planit Software Testing Limited (NZ)
Planit Software Testing Limited (UK)
Planit Testing India Private Limited
Planit Philippines Corporation
NRI group companies in Japan

As of April 2022

Nomura Research Institute, Ltd.
President & CEO, Chairman,
Member of the Board, Representative
Shingo Konomoto
www.nri.com/en

Tokyo Head Office / Headquarters
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1-9-2 Otemachi, Chiyoda-ku, Tokyo
100-0004, Japan
TEL.+81-3-5533-2111

Kiba Center
Tower N, 1-5-15 Kiba,
Koto-ku, Tokyo 135-0042, Japan

Yokohama Center
Yokohama Nomura Building,
4-4-1 Minato Mirai, Nishi-ku,
Yokohama, 220-0012, Japan

Osaka Center
Nakanoshima Festival Tower West,
3-2-4 Nakanoshima, Kita-ku,
Osaka 530-0005, Japan

NRI Netcom, Ltd.
Web Business Systems and Web Branding Strategies
www.nri-net.com

NRI SecureTechnologies, Ltd.
Information Security Solutions
www.nri-secure.com

NRI Workplace Services, Ltd.
Workplace-related Services for NRI Group Companies

NRI Data i Tech, Ltd.
IT Infrastructure Development and Operations Support
www.n-i-tech.com

NRI Social Information System Services, Ltd.
Supporting Community and Work Activities for Seniors
www.nri-social.co.jp

NRI Process Innovation, Ltd.
Business Process Outsourcing Services
www.nri-pi.com/en

NRI System Techno, Ltd.
Planning, Development, and Operations for Ajinomoto Group Information Systems
www.nri-st.co.jp/en

UBsecure, Inc.
Diagnostic service and consulting service related to information security
www.ubsecure.jp/en

DSB Co., Ltd.
Middle and Back-office Services for Securities and Financial Institutions
www.daiko-sb.co.jp

DSB Information System Co., Ltd
Solutions that assist the clients' digital transformation
www.dsb-is.co.jp

NRI Mirai, Ltd.
Office Service to NRI Group Companies by People with Disabilities and Fixed Point Investigation of People with Disabilities
www.nri-mirai.com

Zhiming Software Japan, Ltd.
Outsourcing Software Development Services and Technical Support Services
www.zhimingsoft.jp

NRI Retail Next, Ltd.
Research and Practices for Proof of Concept in Retail IT Solution Field

Brierley+Partners Japan, Inc.
Loyalty Marketing
www.brierley.com

NRI Digital, Ltd.
Digital Business Consulting Service, Digital IT Solution Service, and Digital Analytic Service
www.nri-digital.jp

NDIAS, Ltd.
Cyber Security Business Centered on Security Diagnosis of In-vehicle Electronic Products
ndias.jp/en

Financial Digital Solutions, Ltd.
Development of Financial Digital Solutions
www.financial-ds.jp

Nippon Securities Technology Co., Ltd.
Total Solutions for Finance and Securities
www.nstec.jp/english
Editorial Policy

Nomura Research Institute has published a sustainability report since FY 2005 to give our stakeholders an understanding of the NRI Group’s initiatives for sustainability (including corporate social responsibility). The report also aims to facilitate internal and external communication and to raise the level of our initiatives.

Starting in fiscal 2017, information on sustainability activities and results is available in this Sustainability Book, through information disclosed on the Internet, and through our Integrated Report.

We have tried to ensure that the Sustainability Book contains articles of interest to our stakeholders along with the information that the NRI Group wants to convey, and to present it in an interesting and easy-to-read format. On the Internet, we disclose information throughout the year. In addition to our ESG Data Book, the disclosed information also includes sustainability initiatives conducted by the NRI Group for sustainable growth of society.

Integrated Report

ESG Databook

Organizations covered in this report
This report focuses on NRI’s activities, but also covers some activities of the entire NRI Group and Group Companies.

Period covered by this report
This report primarily covers FY2021 (April 1, 2021 to March 31, 2022), but also addresses some events from the past, some activities after April 1, 2022, and certain plans for future activities.

Trademarks
All proper names, including names of companies and products, found in the Sustainability Book 2022 are trademarks or registered trademarks of the respective companies.

Disclaimer
The Sustainability Book 2022 contains not only past and present facts about the NRI Group, but also plans and forecasts based on information acquired as of the date of publication. Depending on changes in various conditions, there is the possibility that the results and events of these future business activities may differ from the plans and schedules listed herein.

The names of organizations, names of executive positions, etc., listed herein are current as of the time of the activities or reporting.

Inquiries about the Sustainability Book
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These elephant statues are charity art that are displayed at the entrance of our Yokohama Center (Yokohama Nomura Building). These works of art are sold at charity events held in various locations by an organization called Elephant Parade®. The proceeds of the event are used to protect the Asian Elephant, an endangered species. NRI participates in this event and was the first Japanese corporation to purchase one of the works of art.

[Regarding the cover photo]
Aizu-Wakamatsu Wind Farm in Aizu-Wakamatsu, Fukushima. Electric power used in the Yokohama Center (Yokohama Nomura Building) is supplied by this wind farm. It is procured using the “Good Around” renewable energy bidding system based on the partnership agreement between Yokohama City and 13 municipalities in Tohoku. Part of the electricity charges are returned to the local community as “regional revitalization funds.”