Sustainability Book 2020

Nomura Research Institute

NRI

未来創発 Dream up the future.

Nomura Research Institute is creating a new future.

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

In our desire to creat 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.

SUSTAINABLE GOALS DEVELOPMENT GOALS



Sustainability Book 2020 Table of Contents

- 2 Message from the President
- 4 Sustainability Management

Feature

8 Dream Up the Future Forum 2019 Digital, Creating the Near Future

Co-create a safe and secure society

- 14 Contributing to Security Measures for Information Systems
- 16 Severing Funding for Crime and Protecting Society

Co-create an ideal future society

- 18 Swiftly and Appropriately Providing Reliable Support in the Event of an Accident
- 20 Technical Assistance for ASEAN Bond Market Cultivation

Co-create a thriving future society

- 22 Creating New Investment Opportunities for People
- 24 Fun Experiences for Creating Loyal Customers
- 26 Creating New Value via Co-Creation with Customers

- 28 Linking a Stance for Tackling Climate Change to Improved Corporate Value
- 30 Digital Transformation/Regional Revitalization

Support for human resources development

- 32 Cultivating the Next Generation to Create the Future
- 34 Assisting Young Generations to Support the Future of Japan and the World

Building relationships with stakeholders

- Global Dialog to Respond to the Requirements of Society
- 38 "The NRI Dream up the Future Awards" Internal Award System
- 40 Initiatives that NRI is part of
- 42 Sustainability topics: By the numbers
- 44 Assessments by the outside world
- 48 Global network
- 50 NRI group companies in Japan
- 51 Editorial policy

Message from the President

Shings Konomoto

Shingo Konomoto

Chairman and President & CEO, Representative Director, Member of the Board



In the 55 years since Nomura Research Institute, Ltd. (NRI) was established, we have continued our business of policy recommendations always ahead of the times, corporate strategy proposals, and the development and operation of information systems, etc.

We believe for NRI to keep growing, it is necessary for us to continue being indispensable for the world.

In order to do so, we will contribute to solving the various social issues occurring on a global scale, such as climate change and human rights problems, and further focus on businesses that contribute to those solutions.

In order to solve increasingly complicated social issues, NRI will strive to greatly contribute to society with its ability to provide consistent solutions from consulting to IT services.

Now, in the year 2020, the global crisis of COVID-19 is creating social unrest on a grand sale. We believe that working towards a solution is now an unavoidable responsibility for all countries and companies.

NRI has been continuously posting suggestions from

the NRI Group regarding COVID-19 countermeasures from March 24, 2020, under the title of "Proposals regarding Coronavirus Infection (COVID-19) measures." We contribute to solving social problems via such policy suggestions.

The problem of climate change is a major management challenge in the IT industry, which accounts for 90% of NRI business.

Technologies such as AI, IoT, and 5G generate large amounts of data and the energy consumption required for processing that data is increasing. NRI is committed to reducing CO2 emissions to 55% of FY2013 levels by FY2030, and is committed to its target of using 100% renewable energy by FY2050. We have currently achieved a 44% reduction in CO2 emissions compared to FY2013 levels, and are investigating the procurement of renewable energy to aim for further reductions.

We support our clients in solving social issues in their business, and hope to continue to be a company that co-creates social value with our clients. That is why we endorse initiatives such as the United Nations Global Compact (UNGC) and Task Force on Climate-related Financial Disclosures (TCFD), express our participation, and have also joined the World Business Council for Sustainable Development (WBCSD).

To ensure that we remain trusted by society and meet its expectations, we will remain ahead of the trends in new technologies while flexibly adapting as required. By promoting businesses that lead the the resolution of issues in future society, we hope to contribute to the creation of a sustainable future society and thereby fulfill our social responsibility.

We also persevere to sincerely listen to the opinions of various stakeholders inside and outside Japan, and govern our behavior accordingly.



Sustainability Management

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 via innovation and contributing to the resolution of social problems. Since being established in 1965, we have really solved social issues with our clients and contributed to the creation of a safe, secure, convenient, and affluent society via our core business of consulting and services such as IT solutions.

NRI Group Sustainability Management and Future Vision



*CSV: Creating Shared Value

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 the sustainability management of the NRI Group.

NIDI Committe D. Castal Maline

The sustainability management of the NRI Group is based on the financial targets defined in our Medium-Term Management Plan and the other two non-financial goals linked with our growth strategy, which are key issues

Koy NRI Group Initiative

for sustained growth and the resolution of social issues via value co-creation.

Resolution of Social Issues via Value Co-Creation (Efforts for CSV^{*1})

We categorize the resolution of social issues via value co-creation as "social value unique to NRI" and define it as indicated in the table.

Based on this, we organize relevance to the business of the NRI Group and conduct monitoring by incorporating it into the PDCA (the cycle of Plan, Do, Check, and Act) cycle of management.

ESG^{*2} Activities and Steps for Co-Creation

In FY2014, the NRI Group established an Environmental

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

NRI Group's 3 Soc	Key NRI Group Initiatives		
Co-create a thriving future society by driving new value.	Strive to create a future of continuous new value generation that leads to an abundant and safe society where all benefit.	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.	Strive to build a more livable society for all people by efficiently utilizing society's main resources of manpower, goods, capital and intellectual property to develop dynamic, strong industry.	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.	Strive to build a society safe and secure from accidents and disasters by strengthening cyber-security for information systems and other core social infrastructure.	IT Infrastructure Transformation Cybersecurity business Cloud & Data Center managed services Stable Service Operation Disaster Prevention & Reduction Policy & Disaster Recovery Support	

Promotion Committee (now the Sustainability Activities Committee) and Environmental Promotion Group (now the Sustainability & Responsibility Group), which promote environmental activities and social activities including the handling of human rights. In FY2018, we established the Social Value Creation Promotion Committee (now the Value Co-Creation Promotion Committee), which promotes value co-creation in the NRI Group.

We also promote environmental and social activities according to international standards, as our management foundation for supporting value co-creation. In regard to our environmental activities, we endorsed the Task Force on Climate-related Financial Disclosures (TCFD) of the Financial Stability Board in FY2018 to certify our environmental targets based on international standards, and in FY2019 we were selected as part of the "A List" for the Carbon Disclosure Project (CDP) international environmental ratings organization.

In regard to our social activities, we formulated a human rights policy in FY2018, formulated ethical guidelines for artificial intelligence in FY2019 for promoting the development and

utilization of artificial intelligence while reducing its negative aspects, evaluated our human rights impact, and published a human rights report. In regard to the promotion of value co-creation, we are investigating a framework for establishing value co-creation over the entire NRI Group and have been building a value co-creation leader network and building an internal website since FY2019. With our value co-creation leader network, we select human resources from each division and implement a program for cultivating leaders to inherit the value co-creation alive since NRI was established.



Executives and young employees discussing value co-creation

NRI Group ESG Activities and Steps for Co-Creation

December 2015: Paris Agreement June 2017: TCFD Final Report						
FY2014	FY2015	FY2016	FY2017	FY2018	From FY2019	
FY2014 Established Environmental Promotion Team Established Environmental Promotion Committee	Adopted NRI-EMS (environmental management system) g Shared Value."	FY2016 Established the Sustainability & Responsibility Group (consolidated the Environmental Promotion Group and CSR Promotion Group) Endorsed the Global Compact WE SUPPORT Set environmental targets Set environmental targets	FY2017 Changed name to Sustainability Activities Committee	FY2018 Established Social Value Creation Promotion Committee Investigated framework for establishing value co-creation Held ESG Briefing Session (February 2019) Disclosed TCFD scenario analysis Endorsed the TCFD (July 2018) TCFDD Interference BASED TARGETS SBTi certification (September 2018) SBTi certification (September 2018) SCIENCE BASED TARGETS Endorsed the RE 100 (February 2019) RE 1000 Set new environmental targets Formulated human rights policy Joined the WBCSD	Changed name to Value Co-Creation Promotion Committee (April 2020) Established value co-creation website Built value co-creation leader network Held ESG Briefing Session (February 2020) —TCFD scenario analysis (disclosed financial impact) Awarded A List and Supply Chain	
economic value. *2 Acronym for "Environment, Social, and Governance." Refers to non-financial aspects.		Selected for DJSI Asia Pacific for the first time (continuously selected until FY2019) MEMBER OF Dow Jones Sustainability Indices In Collaboration with RobecoSAM (©	Government Pension Investment Fund (GPIF) Selected for all ESG indicators (continuously selected until FY2019)	Selected for DJSI World for the first time (continuously selected until FY2019) Hence or Dow Jones Sustainability Indices In Collaboration with RobecoSAM (©	· · · ARRER	





Dream Up the Future Forum 2019 Digital, Creating the Near Future

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Based on our corporate philosophy of "Dream up the future," the NRI Group holds the annual Dream Up the Future Forum in order to make recommendations for the future and to provide suggestions for business. For the three years from 2017, we have thought about the ideal state of Japan and the world and corporate management in an age where digital transformation (DX) is progressing in a revolutionary manner, based on the theme of "Digital, Creating the Near Future."

In 2019, this culminated in our suggestions regarding economic society in the age of digital transformation, as well as issues concerning national and regional policies and corporate management and how to solve them. We had a speech by George Westerman from MIT, who is a pioneer in DX research, and provided insight into "Digital, Creating the Near Future" and how countries and corporations should proceed, via talks by NRI specialists.

[Keynote Address] Digital Transformation Declaration for Society and Industry

Shingo Konomoto, Chairman and President & CEO, Member of the Board, Nomura Research Institute, Ltd.

The "Survey of 10,000 Consumers" conducted by NRI found that despite the stagnant growth rate in real GDP and scheduled wage level shrinking since the 1990s, consumers have indicated that their subjective lifestyle satisfaction has been improving since around 2006. It also suggested that consumers with a high rate of utilizing digital services have high lifestyle satisfaction.

This is surely because of increased "consumer surplus" generated by digital platforms, or in other words, expansion in experience value provided to consumers by free digital services and e-commerce.

Scope of Consumer Surplus in Japan Generated by Digital Services

NRI estimates that the total amount of consumer surplus generated by digital services, both free and paidfor, was 161 trillion yen in 2016. This accounts for about 30% of the real GDP in Japan, which was 520 trillion yen in 2016, and proves that consumer surplus is at such a high level that it cannot be ignored as an economic activity.

We also estimated that the amount of consumer surplus generated by the four major social networking services alone (Line, Facebook, Twitter, and Instagram) was as much as 20 trillion yen annually.



New "GDP + i" Economic Index for the Digital Age

Since consumer surplus generated by digital transformation cannot be expressed as an actual monetary amount, it is a concept like imaginary number i. NRI proposes a new index for more accurately expressing the state of economic activity in the digital age, called GDP+i, which combines imaginary number i with GDP.

While GDP expresses physical satisfaction, consumer surplus can be thought of as generating lifestyle satisfaction via the creation of new value, or in other words, it expresses spiritual satisfaction.

Developed countries tend to feature a high correlation between lifestyle

satisfaction and the degree of progress in the digital transformation of society, rather than GDP per capita. In other words, in developed countries, it is necessary to focus on imaginary number i in order to realize affluence for citizens.

Improving Lifestyle Satisfaction via the Digital Transformation of Society

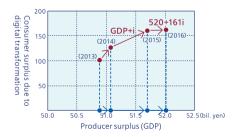
The EU has an index called DESI (The Digital Economy and Society Index),

which indicates the level of progress in digital transformation in EU member countries. According to NRI research, this index has high correlation with national lifestyle satisfaction. In order to increase the "imaginary number i" for lifestyle satisfaction, it

is necessary to robustly promote a digital strategy on the national level. In order to measure the true affluence of society, NRI has developed the Digital Capability Index (DCI) based on DESI. It indicates latent capacity for utilizing digital technologies to increase the lifestyle satisfaction of citizens.

In an estimate conducted by NRI on 31 prefectures, lifestyle satisfaction in each prefecture is more highly correlated to DCI than the average income of the corresponding prefecture, which indicates that the impact of the level of progress in digital public services is about as large as the usage of Internet.

Transition of "GDP + i" in Japan (2013 to 2016)



Use of Internet (30)	Digital public services (30)	Connectivity (20)	Human capital (20)
 Internet usage frequency Impact of Internet on lifestyle convenience Ratio of SNS users E-mail, online banking, Internet shopping, watching free videos 	 Online administrative procedures Joint system usage/ optimization between municipalities Information security, BCP 	 Rate of owning smartphone, tablet, or PC FTTH penetration No. of broadband contracts (by prefectural population) 	No. of successful Japan Information-Technology Engineers Examination examinees (by prefectural population) Human resources involved in computerization at local municipalities ICT education capacity of schools No. of ICT workers

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National/Regional Initiatives for Affluence via Digital Transformation

In order to improve the affluence and lifestyle satisfaction of citizens, it is necessary to build "digital government" for the digital transformation of government services, and in Japan, this means that the government should hasten the provision of common infrastructure, in particular the individual number system.

In addition to nationwide initiatives, the improvement of DCI is important for regional revitalization. According to NRI research, regional government, that is, cities, towns, and villages, are relatively trusted for providing personal information to, and surely have high potential for digital government.

Cities with a population of around 100,000 people have the optimal

size for promoting interaction and contain all the parties required to promote innovation, including citizens, government, corporations, and academic institutions, which means that they have the potential to realize higher productivity and citizen affluence via digital transformation.

In reality, we can see the signs of initiatives for digital transformation in various metropolitan areas, including Tsuruoka City in Yamagata Prefecture. At NRI, we hope to strongly support activities for regional revitalization via digital transformation.

Business Model Transformation Required by the Private Sector

The amount of data traffic around the world is continuing to rise. Despite this, upon estimating the current value generated by the data provided by consumers, we have found that consumer surplus has not been increasing at a rate consistent with the increase in the amount of data.

Many corporations are promoting DX to transform to a business model based on providing experience value customized for each customer, but results remain incomplete.

They must examine their business model and further brush up marketing to continue to generate experience value on a platform, under the leadership of their top management.

After three years of research, we feel that digital transformation, which is often seen as a growth strategy for Japan, is important from the perspective of increasing the lifestyle affluence or well-being of citizens.

[Special lecture] Changing Japanese Companies into "Digital Masters"

George Westerman, Senior Lecturer at MIT

How should companies survive in the age of a rapidly changing digital economy? According to my research, the digital transformation of corporations can be measured on two axes: digital capability and leadership capability.

Companies that have excellent capability for both and have achieved

a digital revolution are called "digital masters." Digital masters have sales per employee that are on average 9% higher than other companies in the same industry, and profitability that is 26% higher.

The DNA of Digital Masters

Digital capability does not refer to the



level of digital technology, but rather the ability to utilize digital technology to improve customer experience, business processes (operations), and business models. Leadership capability includes aspects such as a vision leading transformation, employee engagement, governance, and cooperation between IT and business.



[George Westerman]

Senior Lecturer at the MIT Sloan School of Management Author of three books, including "Leading Digital: Turning Technology into Business Transformation." As an expert in the field of DX, has published a large number of papers in top journals including Harvard Business Review and Sloan Management Review. Doctor of Harvard Business School

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NRI and the Digital Economy Initiative of MIT conducted a joint survey of 165 Japanese corporations in 2019 and as a result of comparing the results with a survey conducted on more than 900 companies over the world in 2018, leaders in Japan were found to consider their own companies to have an equivalent leadership capability with companies over the world, but in terms of digital capability, consider their companies to be lagging behind and have a particularly low score in regard to customer experience.

Making DX the Core Ability of a Company

Customer experience leads to increased customer understanding and sales, but rather than being a mere project to complete, it is the culmination of trial-and-error for the purpose of improvement. Second installment of a three-part series by NRI exploring the direction of "Digital, Creating the Near Future"

"Wealth of Nations in the age of Digital Capitalism"

Published by Toyo Keizai (April 2020)

Supervised by Shingo Konomoto, Chairman and President & CEO of Nomura Research Institute By the NRI Digital Economy Team, edited by Takeshi Mori

Boldly predicting the future of business, lifestyles, and society—Based on our corporate philosophy of "Dream up the future," NRI has made multifaceted insights on the form of "Digital, Creating the Near Future." This book is the second installment in a series, picking up where "Digital Capitalism" left off. We predict the future of business, lifestyles, and society in accordance with rapid innovations in technology, and propose a new economic index for measuring the affluence provided by digital transformation.



In terms of digital capability, work process reforms and business model enhancements are also required.

When it comes to leadership capability, it is also necessary to clearly define a vision for digital transformation in a top-down manner, take command to generate the power to promote digital transformation via governance, bridge the gap with IT, and ask "What else can we do now?" to expand the vision.

What companies need to become a digital master is to make DX their core capability, rather than a digital strategy.



Co-create a safe and secure society Contributing to Security Measures for Information Systems

Providing a Web application diagnosis tool based on technology supported by specialist knowledge and experience

Many Web applications^{*1} are released and updated on a daily basis. These applications are checked for vulnerabilities before release in order to avoid risks such as information leaks, and a tool is required for performing automatic diagnosis in order to improve the efficiency of inspecting a large number of items.

UBsecure Inc., part of the NRI Group, provides the Vulnerability Explorer (Vex) vulnerability diagnosis tool as a Web application to meet this demand. Engineers with rich experience in vulnerability diagnosis utilized their expertise to build an original algorithm. Since its release in 2007, Vex has continued to evolve together with its users in the system integrator and security vendor industry, as the diagnosis team at UBsecure Inc. reflects the diagnosis results of thousands of websites. As a result, the product achieved the top share in the Japanese market^{*2} for four consecutive years since FY2015, despite being a 100% domestic product.

The NRI Group supports the safety and security of society in various formats.







- *1 Application software used via a network, such as search engines, social media, and Web-based e-mail.
- *2 According to the "Network Security Business Survey Overview (for Markets)" of Fuji Chimera Research Institute, Inc.



17

Co-create a safe and secure society Severing Funding for Crime and Protecting Society

We support the adoption of risk management systems for financial institutions based on global standards

Many crimes that threaten the safety and security of lifestyles involve money, and financial systems are constantly exposed to the risk of abuse. The "dirty money" obtained via crime may be laundered into "clean money" and "clean money" may be converted into "dirty money" for funding activities such as terrorism, and governments and financial institutions are working together at the international level to tackle this problem.

The global standard is that financial institutions are required to identify such risks and implement appropriate countermeasures (take a risk-based approach) according to the characteristics of each business.

In order to achieve such advanced risk management, NRI started an adoption service in September 2019 for OFSAA FCCM^{*}, which is adopted by many major financial institutions, predominantly those in the West.

This has already led to adoption at Shinsei Bank, Limited and a major securities firm. At NRI, we hope to contribute to the creation of a safe and secure society in the specialty area where finance meets technology.

* The Financial Crime & Compliance Management function of the Oracle Financial Services Analytical Applications package software developed by Oracle Financial Services

Software Pte. Ltd. in the

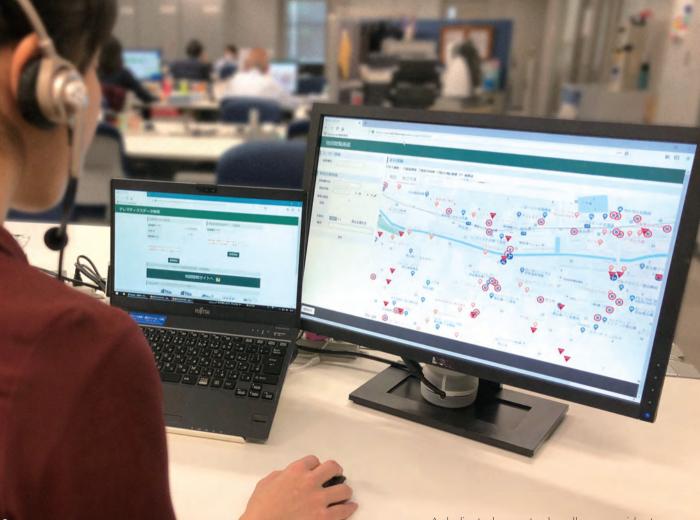
United States for risk

management.



10 REDUCED INEQUALITIES





A dedicated operator handles an accident

Co-create an ideal future society Swiftly and Appropriately Providing Reliable Support in the Event of an Accident

Providing an innovative accident handling service that utilizes cuttingedge telematics^{*} technology

Traffic accidents occur on roads with a low volume of traffic. What happens if you suffer a serious injury and nobody notices?

Aioi Nissay Dowa Insurance Co., Ltd., in conjunction with six companies including NRI, has developed a "Telematics Insurance Service System" as a new service for handling accidents that utilizes cutting-edge telematics technology. This service utilizes digital data such as travel data, driving behavior, and positioning information to transform conventional accident handling, which previously focused on telephone calls and paper documents, into an innovative and advanced service.

For example, when a vehicle collision is detected, the service can automatically determine whether an accident has occurred and notify a dedicated operator for accident handling. This enables swift and accurate support to be provided. Since detailed information such as the location, traffic signs, weather at the time of accident, and type of collision can be checked immediately after an accident, this helps reduce the time it takes until insurance money can be paid.

At NRI, we work together with our clients to co-create an affluent society via better services.









* A neologism combining "telecommunication" with "infomatics." Refers to a framework for providing various information and services by using onboard devices such as car navigation, GPS, and mobile communication systems.









Co-create an ideal future society Technical Assistance for ASEAN Bond Market Cultivation

Contributing to the development of financial/capital markets in emerging Asian countries

One of the causes of the Asian Financial Crisis in 1997 is said to be a double mismatch, that is, a currency mismatch and maturity mismatch, due to local financial institutions borrowing short-term funds in foreign currency from the international financial market and lending long-term funds in local currency to domestic companies. The finance ministries and central banks of ASEAN + 3 (Japan, China, and South Korea) are promoting the Asian Bond Markets Initiative (ABMI)* based on the idea that developing local bond markets and enabling the procurement of long-term funds in local currency will solve this double mismatch.

NRI has provided technical assistance for developing bond markets to countries such as Indonesia, Cambodia, Thailand, Vietnam, and Laos, based on the Japan-ASEAN Financial Technical Assistance Fund. As a result of various initiatives based on the ABMI, the scope of the bond market in local currencies is expanding in the ASEAN region.

NRI is contributing to the development of financial/capital markets in emerging Asian countries, including the development and cultivation of the capital market in Mongolia.







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9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Co-create a thriving future society Creating New Investment Opportunities for People

Contributing to the provision of investment services that can be easily started with a smartphone and a small amount of funds

18 years have passed since the government encouraged citizens to switch from saving to investment. However, many citizens face a high hurdle when it comes to investment. That is why LINE Financial Corporation and Nomura Holdings Inc. started the LINE Securities service in August 2019, which enables the 84 million active domestic users of the LINE application to buy and sell Japanese shares, ETFs, and investment trusts.

LINE Securities enables an account to be opened as early as the next business day, by capturing personal identification documents and a face photo via a smartphone. It also enables domestic shares to be traded as single shares, rather than the 100 shares that are normally required, which means that users can start investment from as little as several hundred yen. It also enables those busy during the day to conduct evening trading until 21:00. These features help lower the threshold to starting investment, and users of the application are steadily increasing.

At NRI, we provide back-office solutions for securities companies as well as knowledge and expertise in finance such as legal compliance and cooperation with accounting, and contribute to creating new investment opportunities to people via the swift launch of services.







Receiving a stamp with the YEBISU BAR app

まどえどール

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アビスとール

Co-create a thriving future society Fun Experiences for Creating Loyal Customers

Helping to strengthen the relationship with store customers via a smartphone app

In May 2018, Brierley + Partners Japan, a member of the NRI Group, NRI, and Sapporo Lion, Inc., which operates stores such as beer halls and restaurants, started providing a new point system called the YEBISU BAR app.

When delivering beer or beer cocktails, a member of staff stamps the app screen of each customer with a digital stamp. Customers that accrue points enjoy elevated status and receive benefits. A survey function also collects customer opinions. These efforts increase customer loyalty and make it easier to conduct marketing.

In November 2019, this framework received the highest platinum award in the Customer Experience and Engagement division of the Loyalty360 Customer Awards, one of the most prestigious awards in the field of loyalty marketing in the world. We will continue to create new services together with our clients.



Co-create a thriving future society





Co-create a thriving future society Creating New Value via Co-Creation with Customers

Conducted proof of concept using cutting-edge technology to achieve hospitality customized to individual user needs

During the period from December 4, 2019 to February 28, 2020, Japan Airlines Co., Ltd. (JAL) conducted a proof of concept* for a service utilizing the new JAL Lounge+ smartphone app at the JAL First Class Lounge at the international terminal of Narita Airport.

The app enables users to check the usage status of the lounge, order food at the lounge, reserve a shower room, or call staff.

Since the seat that the customer used to make an order or call staff can be identified using positioning technology that utilizes smartphone reception, customers can simply operate the app to receive meal service deliveries or staff attendance without leaving their seat. Since this eliminates the need for extra equipment around tables, it prevents the luxurious atmosphere from being disturbed.

This system was developed via the cooperation of JAL, NRI digital, Ltd., and Sato Holdings Corporation.

The three companies will pursue comfortable user experiences utilizing digital technologies in order to aim to achieve services based on new ideas.





* This proof of concept is a project of the "JAL Innovation Lab" open innovation initiative of JAL, which aims to utilize expertise both inside and outside the company to create new added value and businesses.



Co-create a thriving future society Linking a Stance for Tackling Climate Change to Improved Corporate Value

Assisting the formulation of long-term strategies and visions for companies via support for the TCFD recommendations

Of all the themes related to sustainability, interest in climate change is particularly high, due to the Paris Agreement 2015, SDGs, and the increasing frequency and intensity of abnormal weather in recent years.

The Task Force on Climate-related Financial Disclosures (TCFD) is an organization established by the Financial Stability Board, an international organization for the stabilization of financial systems, for the purpose of debating countermeasures for concerns on the impact of climate change on financial markets. The TCFD published recommendations in June 2017.

Many corporations and groups have expressed their support for the TCFD recommendations, particularly financial institutions over the world.

A defining feature of the TCFD recommendations is that they request corporations to disclose information regarding their corporate strategy to tackle climate change, upon evaluating the financial impact of climate change via scenario analysis.*

At NRI, we utilize a scenario analysis for complying with TCFD recommendations not only for the disclosure of information, but also to incorporate future goals in the long-term vision of our clients, so that we can contribute to improving the corporate value of our clients and improving the sustainability of society. Co-create a thriving future society Co-create an ideal future society and secure society





 A method of analyzing a strategy under multiple different conditions to handle risks when planning a strategy



Co-create a thriving future society Digital Transformation/Regional Revitalization

Contributing to regional revitalization based on rich experience in digital technologies and regional/industrial development

NRI supports the digital transformation and regional revitalization of Tsuruoka City^{*1}, which is based on both smart city promotion and the construction of digital government. We aim to build a local hub^{*2} that achieves both high productivity and autonomous economic growth by promoting the cultivation of advanced human resources, creation of high-quality employment, and the creation of industry with high added-value that contributes to society, via urban planning that utilizes digital technologies. At the same time, we also aim to build a well-being^{*3} community by achieving high-quality urban services that support the health of citizens and provide secure and comfortable lifestyles.

Furthermore, we have entered an agreement with the National Institute of Technology Tsuruoka College to accelerate efforts for new regional revitalization via the cooperation and coordination of industry, academia, and government in the digital age, while supporting the efforts of the college to produce large number of valuable human resources.

At NRI, we widely contribute to regional development the resolution of social issues based on our expertise and experience related to regional development and industrial development, as well as our rich experience with digital technologies and their utilization.



Co-create a thriving future society

- *1 The second most populous city in Yamagata Prefecture with a population of approximately 125,000.
- *2 A neologism referring to a city that is local but also has the functions of a hub for connecting with the world.
- *3 The state where all citizens are physically, mentally and socially well, and the ideals of individuals are realized.

Work experience event for junior high and high school girls

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Support for human resources development Cultivating the Next Generation to Create the Future

Supporting the career path choices of young generations via varied career education programs

In order to realize our corporate philosophy of "Dream up the future," it is essential to cultivate the next generation of human resources. The NRI Group provides various education programs for each academic year, 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 addition to conducting experience-based education programs such as an IT strategy experience program (for junior high school and high school students), consulting day experience program (for high school students), team building experience program (for high school students), we provide and lend out a teaching material called "The Secrets of Information Systems that Support Convenience (for Elementary School and Junior High School Students)."

NRI also supports the aim of the "Summer Rikochallenge" jointly held by the Gender Equality Bureau Cabinet Office, Ministry of Education, Culture, Sports, Science and Technology, and Keidanren (Japan Business Federation). From 2016, we have held work experience events for female junior high and high school students with an interest in science and technology during the summer vacation each year to support their formation of a future career plan.





NRI

Share the Next Value

Nomura Research Institute Group

Nomura Research Institute Group

Presentation review for the NRI Student Essay Contest

Support for human resources development

Assisting Young Generations to Support the Future of Japan and the World

Providing an opportunity for young people to focus on the future, consider actions which must be taken, and express their passionate ideas

The NRI Group has held the NRI Student Essay Contest every year since 2006. Based on our corporate philosophy of "Dream up the future," the NRI Group holds this annual contest as an opportunity for future generations of high school students and university (and graduate) students to focus on the future, to seriously consider actions which they must take, and to express their ideas to society.

In 2007, we established the "Tsinghua-NRI China Research Center" in collaboration with Tsinghua University, where we research Chinese economic, social, and industrial policies. From 2008, this center has been holding the "Tsinghua-NRI Cup: Japan-China Economic Presentation Contest" together with the Beijing Association of Japanese Teachers for students studying Japanese at universities in Beijing. This event not only tests students' ability to give a speech in Japanese, but also evaluates their power of persuasion and ability to conduct research and analysis on a set theme.

The NRI Group will continue to support the cultivation of the next generation of human resources.





Building relationships with stakeholders Global Dialog to Respond to the Requirements of Society

Listening to the opinions of stakeholders inside and outside of Japan and reflecting those opinions in sustainability management

Since 2012, the NRI Group has had opportunities for dialog with experts regarding sustainability. In FY2019, we exchanged opinions with BNP Paribas Asset Management*, which leads the world in sustainable finance, and Vigeo Eiris, an international ESG evaluation organization.

In January 2020, we held sustainability dialog with 20 partner companies that make up our business supply chain, where we shared our awareness of problems and issues regarding climate change and human rights, and exchanged opinions.

In February 2020, we held the 2nd ESG Briefing Session to explain the sustainability management of the NRI Group. At the event, we described our main activities in FY2019 to the media, institutional investors, and experts, and explained that we will be evaluating executive efforts for value co-creation at each division to reflect the performance of such efforts in bonuses from FY2020.

By continuing to hold discussions with various stakeholders, the NRI Group will ascertain demands from society, and then work to reflect the knowledge gained into our management.









* The asset management business of the BNP Paribas Group

"The NRI Dream up the Future Awards" Internal Award System

---Evaluating efforts for value co-creation

The NRI Group established the Dream up the Future internal award system in 2004 for evaluating efforts to contribute to the sustainable growth of the NRI Group via the resolution of social issues and cocreation with our clients. This section provides a report on the Dream up the Future award for FY2019.

Dream up the Future Award

The NRI Dream up the Future Award

Value Co-Creation Award (newly established in FY2019)

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 2019 Value Co-Creation Award

Co-creation of experience-based services utilizing artificial intelligence and data analytics

"CLASS EXPLORER" development team NRI digital, Services & Industrial Solution Division

[Reason for award] The CLASS EXPLORER membership system created by JAL Digital Experience, a joint venture of JAL and NRI, collaborated with various partner companies in different industries for the co-creation of new experiencebased services in the field of travel.

In this service, NRI uses data analytics and artificial intelligence to achieve digital transformation of concierge work, and assist the improvement of services via advanced digital marketing that analyses consumer interest and concern.



Dream up the Future 2019 Value Co-Creation Award

Building a highly functional data center as social infrastructure with stable operation

Manufacturer A data center establishment team (Data Center Service Division)

[Reason for award] The division supported the construction of a highly functional data center unprecedented in the world, as the innovative development site of Manufacturer A.

By participating in selecting the land, defining the requirements for the data center, creating the basic design, and helping out with everything from selecting the construction company to the design, construction, and operation, the division was truly able to create a data center together with the customer.



Dream up the Future 2019 Special Award

Digital transformation suggestions at the Dream Up the Future Forum "Digital, Creating the Near Future"

Dream Up the Future Forum Content Production Team Consulting Division, Dream up the Future Center

IReason for award] Over three years from 2017, the Consulting Division at the Dream up the Future Center developed research and gave digital transformation suggestions at the Dream Up the Future Forum "Digital, Creating the Near Future." This had great results, including the focus on "consumer surplus" and the proposal of the new GDP + i economic index.

14,000 copies of a book containing the results of the research, Digital Capitalism, was published in May 2018, and received the Okawa Publications Prize in FY2019. Further research was published in a sequel entitled Wealth of Nations in the age of Digital Capitalism in April 2020.



Initiatives that NRI participates

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 nonnational government entities that are actively working to counteract climate change.



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.



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.



DRIVING AMBITIOUS CORPORATECLIMATE ACTION

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.



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.



Setting environmental targets

The NRI Group set targets of reducing greenhouse gases 55% by fiscal 2030 compared to fiscal 2013, as well as 36% usage of renewable energy at data centers, and at least 70% of suppliers having set environmental targets according to SBT standards. Subsequently, our target was recognized by SBTi in September 2018. We have also set the additional goal of all the energy consumed in the NRI Group coming from renewable sources in fiscal 2050.

Sustainability topics: By the numbers

Company Name	Nomura Research Institute, Ltd.
Consolidated sales	528.8 billion yen (Fiscal 2019)
Market capitalization	1.4643 trillion yen
Number of employees (consolidated)	13,278

Greenhouse gas emissions 44% Reduction Results from fiscal 2019 (compared to fiscal 2013) Targets for fiscal 2030 55% Reduction

Number of employees at overseas offices

3,783 Ratio of employees at overseas offices 28.5%



Coverage ratio of environmental management system

94%

(Based on FY2019 greenhouse gas emissions)

NRI concurrently implements ISO 14001 and our unique NRI-EMS



Number and ratio of female managers

218 7.6% (as of April 1, 2020)

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

71.1% (Fiscal 2019)

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)

99.2% (Fiscal 2019)



260 employees took childcare leave, 190 of these employees were men.

Social contribution activity expenses

6.83 million yen (FY2019)

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.



Assessments by the outside world

— Inclusion in ESG stock indexes

ESG investments around the world totaled approximately US\$ 34,000 billion in 2018. NRI is a component of the major 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.

Dow Jones Sustainability Indices

In Collaboration with RobecoSAM 🐢

MSCI ESG Leaders Indexes*

The name of these indexes was changed from "Global Sustainability Indexes." NRI has been selected for the index for 4 consecutive years since 2016.



2019 Constituent MSCI ESG Leaders Indexes

FTSE 4 Good Developed Index

NRI has been selected for 14 consecutive years since 2006.



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 4 consecutive years since 2016.



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.

MCSI Japan ESG Select Leaders Index*

Selected for 3 consecutive years since July 2017.

MSCI (MSCI Japan ESG Select Leaders Index

MSCI Japan Empowering Women Index (WIN)*

Selected for 3 consecutive years since July 2017.

MSCI (WIN)

FTSE Blossom Japan Index

Selected for 3 consecutive years since July 2017.



FTSE Blossom Japan

S&P/JPX Carbon Efficient Index

Adopted for the second consecutive year from September 2018.

S&P/JPX Carbon Efficient Index

* 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.

Assessments by the outside world

—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.



Kurumin Mark

Since 2007, NRI has been continually recognized by the Minister of Health, Labour and Welfare as a

childcare supporting company that has met certain criteria by achieving planned goals based on the Act on Advancement of Measures to Support Raising Next-Generation Children.



Health and Productivity Management Organization (White 500)

Public-private collaborative organization Nippon Kenko Kaigi recognized NRI for the 4 consecutive year since February 2017 as an outstanding enterprise engaging in efforts for health and productivity management.



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.



-Awards from Private Organizations

Certified as a CDP climate change A list company for the first time

 CDP^* highly rates the strategy, handling, and information

disclosure of NRI regarding climate change, and selected us as a climate change A list company, the highest rank, for the first time in January 2020.



Selected for the CDP Supplier Engagement Leaderboard for the first time

CDP* highly rates the handling of greenhouse gas emission reductions and climate change risk reductions of NRI over our entire supply chain, and selected us for their leaderboard, the highest rank, for the first time in February 2020.



Selected for the Bronze Class of the Sustainability Award 2020 by RobecoSAM

NRI is highly rated for its world-class level of sustainability efforts and information disclosure, and was selected in February 2020 for the Bronze Class of the Sustainability Award 2020 by RobecoSAM, a research and evaluation company involved in international sustainability investment.

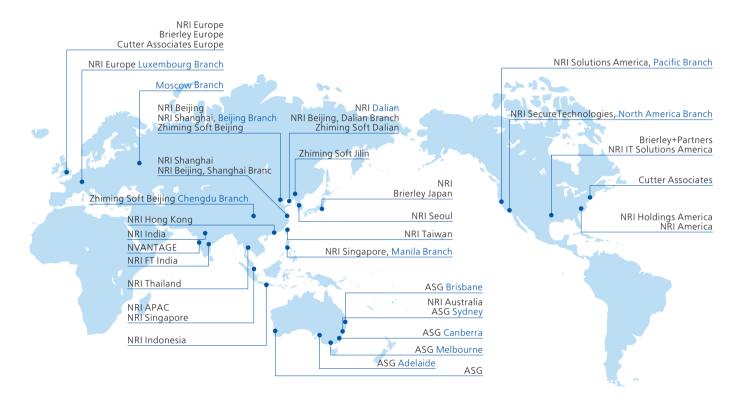


22nd NIKKEI Annual Report Awards

Our Integrated Report 2019 received an award for excellence at the 22nd NIKKEI Annual Report Awards (held by the Nikkei Inc. Cross-Media Advertising & Business Bureau and supported by The Japanese Institute of Certified Public Accountants), for being edited from the perspective of investors, making it easy to understand an overview of the management strategy, and, in particular, for having made exceptional effort in describing opportunities and risks.

*An international non-profit organization that runs an information disclosure platform regarding the environmental performance of corporations and municipalities.

Global network



Nomura Research Institute, Ltd. Moscow Branch

NRI SecureTechnologies, Ltd. North America Branch

Nomura Research Institute Holdings America, Inc.

Nomura Research Institute America, Inc.

Nomura Research Institute IT Solutions America, Inc. Pacific Branch

Brierley+Partners, Inc. www.brierley.com

Brierley Europe Limited

Brierley+Partners Japan, Inc.

Cutter Associates, LLC www.cutterassociates.com/index.cfm

Cutter Associates Europe, Ltd.

Nomura Research Institute Europe Limited Luxembourg Branch Nomura Research Institute (Beijing), Ltd. beijing.nri.com.cn/jp Shanghai Branch Dalian Branch

Nomura Research Institute Shanghai Limited consulting.nri.com.cn Beijing Branch

Nomura Research Institute (Dalian), Ltd.

Zhiming Software Beijing, Ltd. www.zhimingsoft.cn Chengdu Branch

Zhiming Software Dalian, Ltd.

Zhiming Software Jilin, Ltd.

Nomura Research Institute Asia Pacific Private Limited

Nomura Research Institute Hong Kong Limited www.nrihk.com

Nomura Research Institute Singapore Pte. Ltd. Manila Branch Nomura Research Institute Taiwan Co., Ltd. www.nri.com.tw

Nomura Research Institute Seoul Co., Ltd. www.nri-seoul.co.kr

Nomura Research Institute Consulting and Solutions India Private Limited india.nri.com

Nomura Research Institute Financial Technologies India Pvt. Ltd. www.nrifintech.com

NVANTAGE India Private Limited

PT. Nomura Research Institute Indonesia

Nomura Research Institute Thailand

ASG Group Limited www.asggroup.com.au Sydney Office Canberra Office Melbourne Office Brisbane Office Adelaide Office

Nomura Research Institute Australia Pty. Ltd.

49

NRI group companies in Japan

Nomura Research Institute, Ltd.

Chairman and President & CEO, Representative Director, Member of the Board Shingo Konomoto www.nri.com/jp/

Tokyo Head Office / Headquarters

Otemachi Financial City Grand Cube, 1-9-2 Otemachi, Chiyoda-ku, Tokyo 100-0004, Japan TEL.+81-3-5533-2111

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

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.co.jp

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

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

NRI System Techno, Ltd.

Planning, Development, and Operations for Ajinomoto Group Information Systems www.nri-st.co.jp

UBsecure, Inc. Diagnostic service and consulting service related to information security www.ubsecure.jp DSB Co., Ltd. Middle and Back-office Services for Securities and Financial Institutions www.daiko-sb.co.jp

NRI Mirai, Ltd. Office Service to NRI Group Companies by People with Disabilities and Fixed Point Investigation of Disabilities and Employment 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

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

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

Sustainability Book 2020 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

https://ir.nri.com/en/ir/library/report.html

ESG Databook

https://www.nri.com/en/sustainability/library/back_ number

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 fiscal 2019 (April 1, 2019 to March 31, 2020), but also addresses some events from the past, some activities after April 1, 2020, and certain plans for future activities.

Trademarks

All proper names, including names of companies and products, found in the Sustainability Book 2020 are trademarks or registered trademarks of the respective companies.

Disclaimer

The Sustainability Book 2020 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

Nomura Research Institute, Ltd. Sustainability & Responsibility Group

E-mail : sustainability@nri.co.jp Otemachi Financial City Grand Cube 1-9-2 Otemachi, Chiyoda-ku, Tokyo 100-0004, Japan Tel : +81(3)5877-7555 Fax : +81(3)3243-7400



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]

Wind power station at Gotland, the largest island in Sweden This island has set a target of all energy used by companies and households on the island to come from renewable energy generated on the island, excluding fuel for the cement industry.

Nomura Research Institute Group

Nomura Research Institute, Ltd.

Otemachi Financial City Grand Cube 1-9-2 Otemachi, Chiyoda-ku, Tokyo 100-0004, Japan https://www.nri.com/en





This booklet is made of LIMEX, a new material mainly made from limestone, a sustainable natural resource. LIMEX uses almost no water in the

manufacturing process and can reduce water consumption by 99 % (1,567 m³ per 1 ton) in comparison to normal printing paper.

LIMEX can reduce CO₂ emissions by 27 % in comparison to normal printing paper (568 kg per 1 ton) and by 37 % in comparison to polypropylene plastic (707 kg per 1 ton).

A "universal design" font has been used in this book for ease of reading.