NIPPON SIGNAL

REPORT 2024

NIPPON SIGNAL REPORT 2024

Group Philosophy

Our Mission

We help realize a more secure
and comfortable society
through superior technologies
that provide safety and reliability.

Our Vision

We strive to become a global company
by pursuing world-leading technologies
with ingenuity and passion
to inspire our customers' *Kando*.*

* *Kando* is a Japanese word that describes the sense of awe
and the emotion you feel when experiencing something
beautiful and amazing for the first time. It is the moment
when your expectations are exceeded – you feel *Kando*.

Our Values

1. Emphasize "safety and reliability" above all.
   …… *Mono-zukuri* (Manufacturing)
2. Strive to improve customer value by taking the customer's perspective.
   …… *Koto-zukuri* (Business)
3. Take on challenges for your own growth.
   …… *Hito-zukuri* (Education)
4. Preserve the environment and contribute to the development of local communities
   …… *Machi-zukuri* (CSR)
5. Have dreams and share them
   …… *Michi-zukuri* (Creation of the future)

Our Code of Conduct: Six Commitments

1. Working for Customers' *Kando*
2. Fair Corporate Activities
3. Proper Information Disclosure and Communication with Society
4. Respect for Human Rights and Creation of a Good Working Environment
5. Environmental Protection and Proactive Social Contribution Activities
6. Proper Management of Company Assets and Information

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Editorial Policy

The Group publishes NIPPON SIGNAL REPORT for its customers, shareholders, investors, and other stakeholders, to provide comprehensive updates on the Group's management strategy, business activities, performance results, and financial and non-financial information.

In preparing these reports, the International Integrated Reporting Framework of the International Integrated Reporting Council and the Guidance for Collaborative Value Creation released by the Japanese Ministry of Economy, Trade and Industry were referenced, and we aim to ensure ease of understanding with regard to our business model, value creation, and ESG (environmental, social and governance) initiatives that form their basis.

In the NIPPON SIGNAL REPORT 2024, we have created content focused on the relationship between our business activities and the Sustainable Development Goals (SDGs) relevant to us, in order for more people to better understand our enhancement of corporate value by means of social contribution through products and services that we promote.

Note on Forward-Looking Statements

NIPPON SIGNAL REPORT contains statements on the future plans, forecasts, and prospects of the Group. They reflect the predictions made by us and are based on the information available at the time this report was published. Please note that they may differ from the actual results due to the progress and circumstances surrounding future business activities.

Nippon Signal's Main Business Domains

From railways and stations to the cities, and Japan to the world.
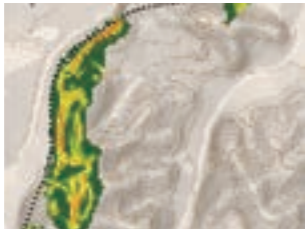
The Group strives to pursue outstanding technology for "safety and reliability," while expanding our business locations.
As a company supplying a wide range of solutions to support safety and comfort, we contribute to the evolution of infrastructure.

Works of Group Companies

Nursing care robots

Users can step on this equipment from the back, a novel riding style, to enjoy free mobility.

Magnetic resonance imaging units

Providing leading-edge medical devices that use magnetic force to capture cross-sectional images of a living body to support high-precision diagnoses.

Computed Tomography

Providing leading-edge medical devices that detect microscopic lesions with high clarity using advanced digital technology.

Solar power generation

Contributing to accelerating the spread of clean energy by installing solar power generation systems on building rooftops.

Transport Infrastructure business

🚆 Railway Signal Systems   🏛 Smart Mobility Systems

Railway Signal Systems

Remote monitoring system

Cloud-based systems to collect, accumulate, and analyze information on railway facilities, areas along train lines, and services using wayside IoT networks and onboard imaging systems.

Interlocking control panel

A device that links signals and point machines in train station premises to secure safe operation of trains.

Automatic operation (conventional line trains)

We have been developing an automatic train operation device that allows safe and stable transportation on conventional lines, which has led to the realization of GoA2.5*[1] on the JR Kyushu Kashii Line in March 2024.

Communications-Based Train Control (CBTC) systems

Train control systems using wireless communication, to reduce system life-cycle cost.

Railway Signal Systems

Water-resistant point machines

We strengthened the water-resistant function of simplified water-resistant railway point machine by improving the cover. This has enabled steady operation even when the upper part of a point machine is under water.

Slope failure prediction technologies

Systemization of "location" prediction for slope failure, to protect transportation infrastructure from torrential rain.

Smart Mobility Systems

Bus Rapid Transit (BRT)*[2]

Delivered a traffic right control system for alternating traffic in bus-only road sections for Kyushu Railway Company

Automatic operation (cars)

A system that connects signal information with cars using 5G to assist smooth preliminary decelerations and starting preparations.

Smart Mobility Systems

Traffic lights

Controlled by traffic signal controllers to indicate red, green or yellow signals to drivers and pedestrians.

Pedestrian supporting applications

We support people with visual impairment and senior citizens to cross intersections safely using a smartphone.

Mobile Virtual Network Operator (MVNO)

Network provision service business. An exclusive closed dual system wireless network service that utilizes common lines.

ICT Solution business

AFC   R&S

Automatic Fare Collection (AFC) Systems

Platform safety monitoring systems via image analysis

A system to detect hazard on station platforms using image processing devices attached to existing surveillance cameras.

Platform screen doors

We ensure safety and security on platforms, with a wide range of platform screen doors to fit various types of stations and vehicles.

Automatic passenger gates

We participate in verification tests for gates that let passengers through with facial recognition or tap-to-pay credit cards, which is a step toward future applications of ticketless passenger gates.

Multilingual ticket vending machines

We provide clear and user-friendly multilingual automatic ticket vending machines and information display systems for stations.

AFC

Parking lot management systems

We provide a range of devices and solutions, including the PARK-LOC® system and network-linked payment machines.

Security gates

We provide total security environments that are people-friendly, from entry and exit systems for people and vehicles, to office security.

Robotics and Sensing (R&S)

Multiple handling vehicle*[3]

Humanoid robots for work at height aimed at eliminating heavy-lifting work from railway maintenance operations and improving its efficiency.

Automatic floor cleaning robots

These robots clean floors unattended, accurately detecting peripheral obstacles using lasers and ultrasound sensors.

R&S

Automatic X-ray baggage checking equipment

This checking equipment adopting world's first compact X-ray source precisely and speedily detects the presence of dangerous items.

Ground penetrating radars

Detecting underground cavities and buried objects using underground sensing technology that applies radio wave and communication technologies.

Body scanners

Automatically detects prohibited items concealed on a person walking through the scanner.

*1 GoA2.5 is a grade of automated train operation in which an attendant, who is not a driver, is present in the cab of the first car.
*2 BRT stands for Bus Rapid Transit System.

*3 Developed jointly with West Japan Railway Company and Man-Machine Synergy Effectors, Inc.

Value Creation Process

The Group is engaged in new value creation to contribute to "solving social issues" and "advancing infrastructure," through value chains founded on "safety and reliability," while keeping an eye on global environmental changes.

We aim to achieve sustained growth by accelerating the process of development and real-world implementation of products that are suited to the market needs, carrying out business structure reforms, and strengthening our business foundation.

INPUT

As of March 31, 2024

Financial capital

Shareholders' equity **82.8** billion JPY

Interest-bearing debts **18.7** billion JPY

Manufactured capital

Capital investment **4.3** billion JPY

Intellectual capital

R&D expenses **2.9** billion JPY

Human capital

Number of employees **2,946**

Human capital investments (non-consolidated) **90** million JPY

Social and relationship capital

Nippon Signal operation coverage **30** countries and regions

Business Activities

Value chain

Marketing

Development and design

Construction work and management

Safety and Reliability

Manufacturing

Maintenance services

Others (services, overseas)

Growth Strategy

Long-Term and Medium-Term Management Plans ➡P13

Strengthening the Foundation Underpinning Sustained Growth

Sustainability Initiatives ➡P35

OUTPUT

Railway Signal Systems

Smart Mobility Systems

Automatic Fare Collection (AFC) Systems
(Station Network Systems)

Robotics and Sensing (R&S)

OUTCOME

Value provided to society

Contribution to the SDGs

SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS

➡P35

Top Interview

With the Medium-Term Management Plan (Realize-EV100) as our new goal, we will uphold safety and reliability as an enterprise engaged in social infrastructure and continue to be a sustainable growth company

Hidehiko Tsukamoto
President and Chief Executive Officer

Q. How do you rate the Company's performance up to the previous fiscal year?

A. Amid soaring prices of raw materials and an unstable international situation, we were able to accelerate the development and real-world implementation of new products.

In addition to difficulties in sourcing some components, such as semi-conductor chips, and soaring raw materials prices, we have faced harsh circumstances due to the unstable international situation, including the coup in Myanmar and Russia's invasion of Ukraine. Nevertheless, we pursued management based on the concept of "Supporting the Next Stage of Infrastructure." We accelerated the development and real-world implementation of products in new businesses. In the Transportation Infrastructure area, this included the Haga-Utsunomiya LRT railway system, automatic operation on the JR Kyushu Kashii Line, and CBTC[1] with the use of carriage information devices on the Seibu Tamagawa Line, while in the ICT Solutions area, we won orders for MaaS cloud-based payment systems and humanoid heavy machinery robots. In the Smart Mobility Systems area, we worked on a new solution in the form of a subscription business for MVNO[2] services for the police.
In terms of the expansion of our business overseas, we won large orders for the Cairo Metro Line 4 (railway signal system, platform screen doors), the Manila Subway Line (railway signal system), the Delhi Metro Line 8 (railway signal system), and the double-tracking of the Huadong Line (railway signal system) in Taiwan. We will continue to promote our global business this fiscal year.
On the other hand, in the post-COVID-19 era, there has been a dramatic change in the movement of people and goods on the social infrastructure that we are engaged in, and the transportation revenues of the railway operators that are our major customers are not expected to return to pre-COVID-19 levels. There has also been a sharp increase in the need for investment that will help reduce fixed costs and improve operational efficiency with the use of DX. Customers' needs have also become much clearer than we envisaged when we formulated the previous Medium-Term Management Plan (24 Medium-Term Management Plan). Against the backdrop of such changes in the business environment, we have formulated a new Medium-Term Management Plan (28 Medium-Term Management Plan) "Realize-EV100" and have determined to put the combined strength of the entire Nippon Signal Group toward the achievement of this plan.

*1 CBTC: Communications-Based Train Control, a signal safety technology that controls train operation by using communications between trains and wayside equipment
*2 MVNO: Mobile Virtual Network Operator Network provision service business

Top Interview

Q. What are the priority initiatives in 28 Medium-Term Management Plan "Realize-EV100"?

A. Our priority initiatives are to realize 3 things: the Next Stage of New Business and New Products, the Next Stage of International Business, and the Next Stage of Manufacturing.

In 28 Medium-Term Management Plan, we have declared a target of realizing consolidated net sales of 150.0 billion yen, ROE of 10% or more, and ROIC of 9% or more. From this fiscal year, we will promote ROIC-oriented management to address the realization of management that is conscious of cost of capital and stock price. In addition to numerical targets, we have presented specific scenarios for *what* we will do and *by when* within the company, and we will aim to realize 28 Medium-Term Management Plan through further promotion of new DX-based businesses, the deployment of decarbonization solutions, and the improvement of manufacturing efficiency.
Our top priorities within that are to realize 3 key next stages. The first is to realize the Next Stage of New Business and New Products. We will promote the expansion of sales of new products, such as CBTC for domestic market, automatic operation on railways (GoA2.0[*1] and GoA2.5[*2]), and humanoid heavy machinery robots, and the deployment of new DX-based services, such as CBM[*3], IDONEO (MaaS cloud-based payment service), MVNO, solar power services, and infrastructure inspections using drones.
The second is to realize the Next Stage of International Business. We will aim to win orders for 2nd-phase projects overseas, such as the extension and double-tracking of completed projects, expand our markets in India, Africa, and Taiwan, and improve profitability.
Finally, the third is the Next Stage of Manufacturing. We will work on areas such as establishing a manufacturing system suitable for the DX era, such as wireless and networked systems, the manufacture of equipment that can stand up to the force of disasters, the strengthening of manufacturing capabilities by bringing manufacturing in-house within the Group in the medium term, and the maximization of Group value.

Basic Concept of "Realize-EV100" – Goals to Realize by Our 100th Anniversary –

Realize 3 things

Next Stage of New Business and New Products
New business through DX
Labor-saving products
Decarbonization solutions

Next Stage of International Business
Expansion of India, Africa, and Taiwan markets
Increase of profitability
Strengthening of local capability

Next Stage of Manufacturing
Increasing design and manufacturing efficiency
Reinforcing human resources in software
Optimization of efficiency of the whole group

*1 GoA2.0 is a level of automated train operation in which there is a driver on board who can switch to manual operation in an emergency.
*2 GoA2.5 is a level of automated train operation in which an attendant, who is not a driver, is present at the head of the train.
*3 CBM: Condition Based Maintenance, a predictive maintenance approach in which maintenance is carried out only when deemed necessary according to condition-based criteria.

In addition to these three approaches, we have endorsed the TCFD and, in our aim to halve greenhouse gas emissions by 2030 and reach net zero emissions by 2050, the initiatives include product development that is conscious of reducing environmental impact, such as compact, energy-saving devices, the widespread adoption of eco-label products, the reduction of CO_2 emissions in manufacturing processes, and the introduction of clean energy.

Q. What is the short-term management plan for this fiscal year?

A. This fiscal year, as the first year of 28 Medium-Term Management Plan, we will particularly focus our efforts on the Next Stage of Manufacturing.

In our efforts up to last fiscal year, we conducted activities to propose and win orders for new products in each area, based on the concept of "Next Stage Accelerating Real-world Implementation," and achieved a certain measure of success. With rapid changes in the social environment expected, based on the concepts that we have adopted to date, we must move forward with the real-world implementation of new products and services together with our customers in Japan and overseas.
On the other hand, faced with drastic changes such as difficulties in securing semiconductor chips and other components due to the COVID-19 pandemic, soaring consumer prices, and rising labor costs, our ability to address these changes is inadequate, and issues in manufacturing, such as the increase in inventory assets and the deterioration of cost ratios, have been brought into sharp relief. As such, this fiscal year, as the first year of the new Medium-Term Management Plan, we will focus particular efforts on the Next Stage of Manufacturing. Specifically, (1) by upgrading our core system, we will strive for the visualization of progress in manufacturing and improvements in operational efficiency, optimize production lead times, improve cost ratios, and curb inventory assets, in our efforts to streamline manufacturing and improve profitability. (2) We will also strive to improve profitability by standardizing drawings and re-using design assets, centered on international projects.

	Previous year (FY2022)	Results (FY2023)	Targets (FY2024)
Net sales	85.4 billion JPY	98.5 billion JPY	100.0 billion JPY
Operating margin	6.0%	6.9%	8.0%
ROE	4.6%	5.7%	5.8%
Equity ratio	61.2%	58.6%	Around 60%

Top Interview

Q. What are the drivers of sustainable growth?

A. What is needed for sustainable growth is "human resources." In addition to bringing new energy through dialogue with employees and customers, we will also work on human resources development.

For Nippon Signal to grow sustainably in these unpredictable VUCA* times, in addition to developing our people, we must create workplace environments that are brimming with diversity to make it easier for every individual employee to demonstrate their abilities and create a culture in which our people can work with a sense of reward. The Nippon Signal Group is working to ensure diversity through such means as increasing the recruitment of non-Japanese employees and female engineers. One way of building a rewarding workplace culture is our emphasis on dialogue.

Last fiscal year, I started creating opportunities to hold direct dialogues with employees of various age groups and with employees at our overseas bases, as a way of revitalizing internal communication. The new discoveries and insights that these dialogues have imparted are being used to improve day-to-day operations in a kind of virtuous circle.

We have also reinstated the various in-house events (e.g. sports days and staff trips) that had been put on hold during the COVID-19 pandemic. The experience of transcending boundaries between divisions and departments and cooperating with each other while passing a baton has, I feel, helped to foster a sense of unity.

We are also placing efforts into the Railway Festival, an event in which we open up our Kuki Plant to the general public, as an important opportunity for interaction with the local community. The Railway Festival staff come up with proposals for activities themselves and attract large numbers of visitors to the event every year. By taking that autonomy and passion of our employees on board and putting them to use in day-to-day strategies, I hope to foster self-awareness and a sense of reward in those staff as members of the Nippon Signal Group.

Further, in human resources development, we are placing efforts into the development of specialist personnel with initiatives such as software knowledge and skills contests, technical forums where engineers gather to present outcomes, and participation in the Skills Competition.

I also want every one of our employees to declare their own intentions to solve social issues and to take on the challenge of realizing those intentions without being afraid of risks. I believe that bringing together those intentions and taking on challenges alongside their colleagues will help our people to work with vitality and connect to their own continued growth and the growth of the company. To realize 3 things of the new Medium-Term Management Plan, we will enhance diversity within the company, with no regard to nationality, gender, or other attributes, to realize sustainable growth.

*VUCA: Acronym for four words "volatility, uncertainty, complexity, and ambiguity," representing a state of unpredictability that is changing at a dizzying pace.

Q. Please send a message to our stakeholders.

A. To meet the expectations of our stakeholders, we will create innovation that transcends the boundaries of our businesses and grow on a global scale.

The Nippon Signal Group has long walked side-by-side with our stakeholders as we solved social issues in infrastructure. We will continue to value dialogue and cooperation with our many and varied stakeholders, including our customers, shareholders and investors, government organizations, local communities, and academic institutions.

Our stakeholders, who are important partners of the Nippon Signal Group, are making efforts and addressing the solutions of social issues every day. As a united force, the entire Nippon Signal Group will work together with our stakeholders and continue to create innovation and make growth investments that transcend the boundaries of our businesses for the resolution of social issues.

In 28 Medium-Term Management Plan , in terms of management that is conscious of investors, we will conduct well-balanced growth investments and returns of profits to stakeholders, while securing financial stability. We will also pursue appropriate information disclosures in our ongoing quest to be a global company with sustainable growth.

I hope you will continue to hold expectations of the Nippon Signal Group's further advancement toward the future and that you will lend us your unwavering support.

Long-Term Management Plan

Vision-2028 "Evolution 100"

100th Anniversary

2019　2020　2021　2022　2023　**2024　2025　2026　2027　2028**

21 Medium-Term Management Plan　24 Medium-Term Management Plan　28 Medium-Term Management Plan　**"Realize-EV100"**

New Medium-Term Management Plan "Realize-EV100"
(FY2024-FY2028)

■ **Basic Concept of "Realize-EV100"** – To Be Realized by the 100th Anniversary of the Foundation –

Realize 3 things

Next Stage of New Business and New Products
New business through DX
Labor-saving products
Decarbonization solutions

Next Stage of International Business
Expansion of India, Africa, and Taiwan markets
Increase of profitability
Strengthening of local capability

Next Stage of Manufacturing
Increasing design and manufacturing efficiency
Reinforcing human resources in software
Optimization of efficiency of the whole group

+

Realization of sustainability management

IR and SR conscious of investors and share price

Human capital

SDGs activities

■ **Numerical Targets**

	FY2023 (results)	FY2024	FY2028
Net sales	98.5 billion JPY	100.0 billion JPY	150.0 billion JPY
ROE	5.7%	5.8%	10% or higher
ROIC	4.6%	5.0%	9% or higher
Environmental target: Reduction of greenhouse gas emissions (compared with 2013)	50% reduction by 2030 and net zero by 2050		

■ **Nippon Signal Group's Vision**

100th Anniversary*	Supporting infrastructure evolution with safety and comfort
Our goal	To become a corporation group respected around the world as an infrastructure provider of the DX era

*Date established: December 27, 1928

Realization of a super smart society

Focus areas to date

Automatic operation	Robots
CBM	Security
Cashless payment	Medical and nursing care

Smart O&M*1
Smart Mobility MaaS
Smart city Low-carbon society
Sensing robotics
International Businesses

Safety　Security　Comfort　Reliability
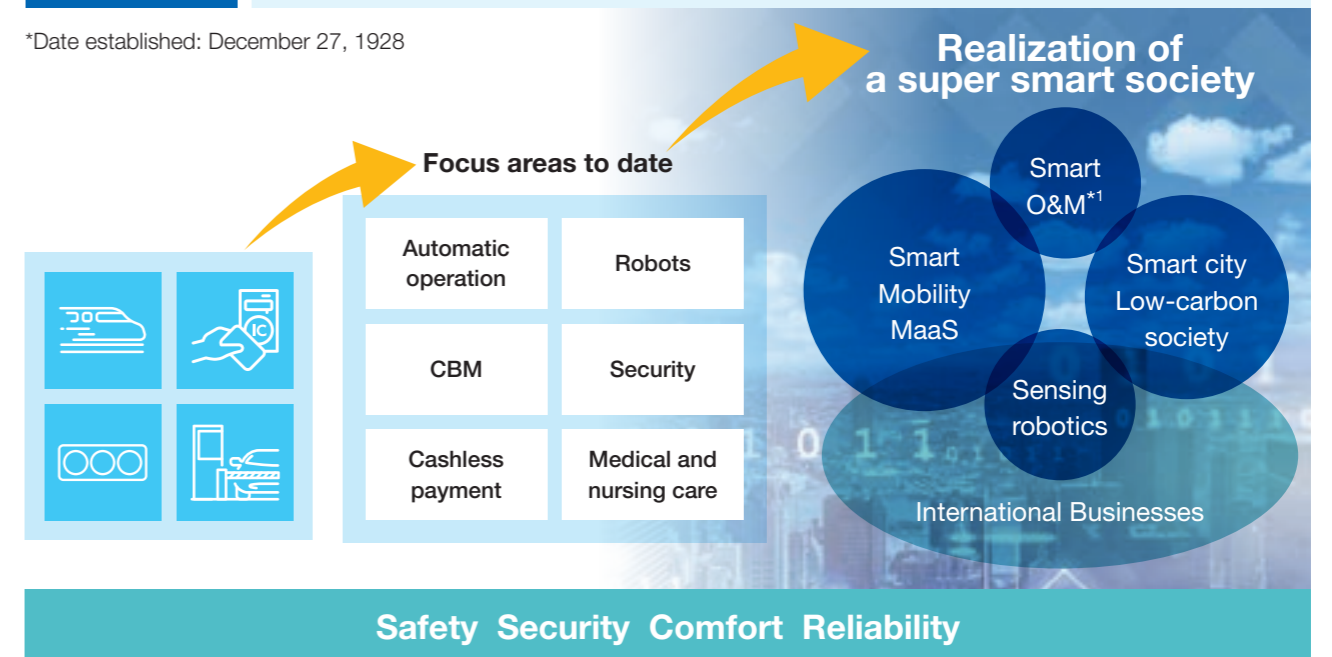
*1 O&M: Operation and Maintenance Operation and maintenance management

■ **Businesses supported by Nippon Signal Group**

With our mission of helping to realize a more secure and comfortable society through superior technologies that provide safety and reliability, we aim to provide products and solutions for the social and daily life infrastructure of the next generation.

"One-stop solution provider" connected by networks

O&M Disaster prevention and mitigation
IT Parking
Station
Safety on platforms
Robots
Decarbonization solutions
Automatic operation CBTC
BRT
Medical
Security
ANSHIN Center
Traffic lights networking
Automatic operation
Maintenance
Payment
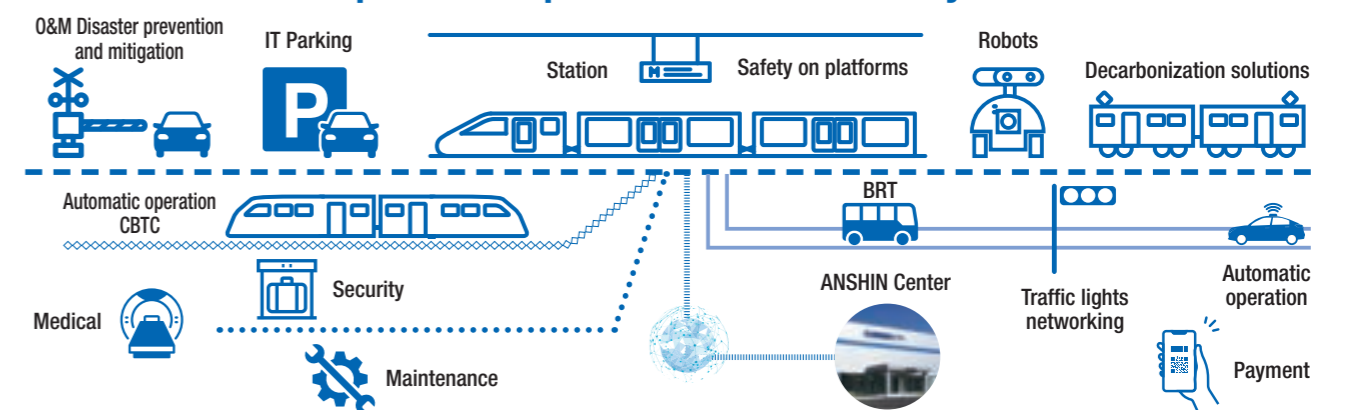
Cooperation, cross-section, and integration among businesses and the Group companies

Safer and more comfortable　Total support for mobility

Realize MaaS that supports the transformation of public transport

New Medium-Term Management Plan "Realize-EV100"

■ Progress status of the Previous Medium-Term Management Plan (24 Medium-Term Management Plan)

Supporting the Next Stage of Infrastructure
Collaborative value creation with customers, expansion of international business, and strengthening of profitability

Segment	Results
🚆 **Railway Signal Systems**	● Real-world implementation of CBTC for domestic market (Toei Oedo Line, Seibu Tamagawa Line) and development of CBM ● Launch of Utsunomiya LRT
🚉 **Smart Mobility Systems**	● Real-world implementation of KURU LINK (Hitahikosan Line BRT) and automatic operation (Kesennuma Line BRT) ● Sales expansion of MVNO
🏦 **AFC**	● Introduction of cashless payment system and devices to railway operators ● Real-world implementation of cloud-based parking lot payment system
🤖 **R&S**	● Orders for heavy machinery robots ● Orders and sales of X-ray baggage checking equipment
🌐 **International**	● Orders for large-scale projects in Egypt, Philippines, India, Taiwan, etc.

	FY2022 (results)	FY2023 (results)	FY2024 (forecast)	FY2024 (Previous Medium-Term Management Plan target)
Net sales	85.4 billion JPY	98.5 billion JPY	100.0 billion JPY	130.0 billion JPY
Operating margin	6.0%	6.9%	8.0%	11.0%
ROE	4.6%	5.7%	5.8%	10.0%

■ Background of formulation of the new Medium-Term Management Plan (28 Medium-Term Management Plan)

Changes in external environment	
1 Labor shortage	2 Force of disasters (earthquake, extreme weather events, etc.)
3 DX, decarbonization	4 Aging infrastructure
5 Seamless mobility needs	6 Increased frequency of cyber-terrorist crimes

Growing needs	
1 Automatic operation, unmanned stations	2 Disaster-resistant devices and systems
3 Wireless, networking	4 Preventive maintenance, labor-saving on maintenance work
5 MaaS, cloud-based payment	6 Secure private cloud

Increased demand for safety and convenience

■ Priority initiatives in the new Medium-Term Management Plan (28 Medium-Term Management Plan)

Priority Initiative (1) Next Stage of New Business and New Products

Targeting new markets with future growth potential, we will promote the development of core technologies and the real-world implementation of new products, and aim for business growth through share acquisition.

■ Net sales of new business and new products
■ Net sales of existing businesses and existing products
(Billion yen)

	FY2024	FY2028
Net sales of new business and new products	15.0	35.0
Net sales of existing businesses and existing products	85.0	115.0
Total	100.0	150.0
Sales ratio of new business and new products	15%	23%
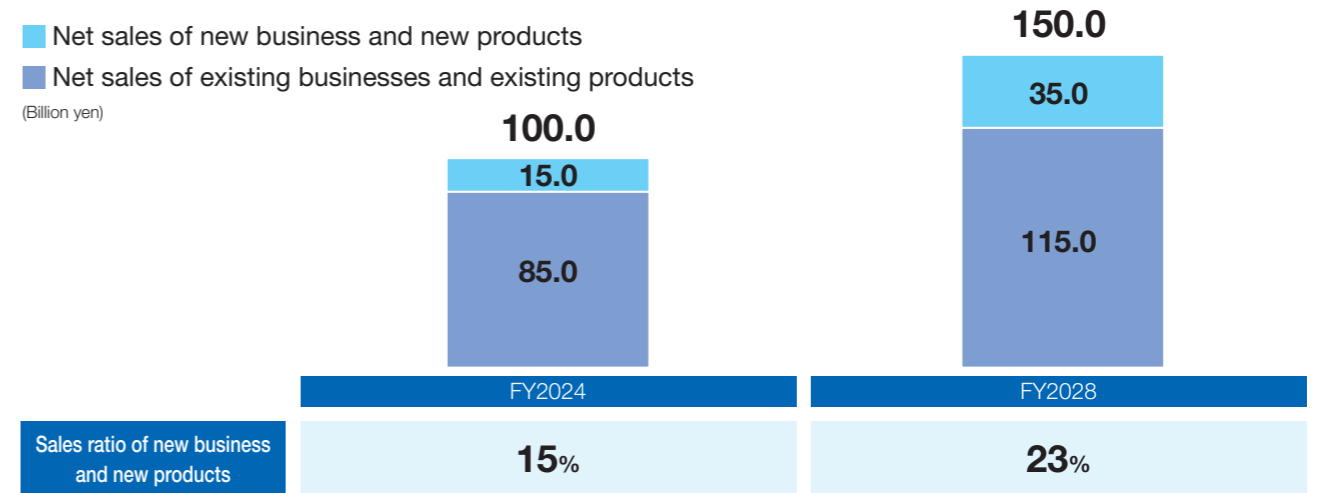
Segment	Products
🚆 **Railway Signal Systems**	CBTC, Automatic operation, O&M services, etc.
🚉 **Smart Mobility Systems**	Automatic operation, Vehicle-infrastructure coordination, MVNO, etc.
🏦 **AFC**	Cloud-based payment, cloud-based parking lots, etc.
🤖 **R&S**	3D sensor market Heavy machinery robot market

New Medium-Term Management Plan "Realize-EV100"

Priority Initiative (2) Next Stage of International Business*

China **8.0** billion JPY

Bangladesh **13.0** billion JPY

Taiwan **20.0** billion JPY

Other **8.0** billion JPY

Africa **10.0** billion JPY

India **23.0** billion JPY

Southeast Asia **30.0** billion JPY

Total **100.0** billion JPY or more
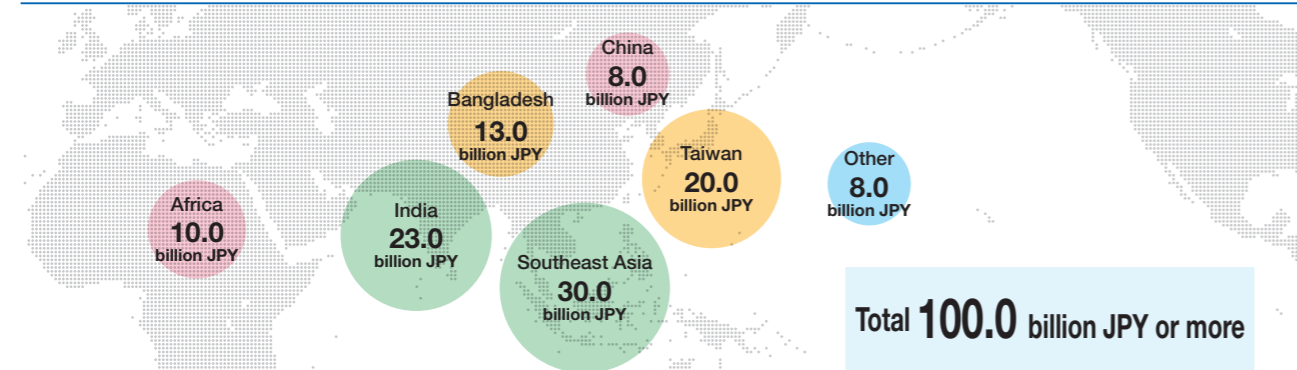
*Image of net sales in the Nippon Signal's international business by area during 28 Medium-Term Management Plan (FY2024 - FY2028)

Priority Initiative (3) Next Stage of Manufacturing

Manufacturing in the era of software first

- **Visualization and efficiency improvement with data utilization**
- **Promotion of in-house production of core technologies within the Group**
- **Development of design and manufacturing talent**
- **Optimization of manufacturing across the Group**

Aim to secure stable supply and quality in individual plants and to improve profitability

Responses for the realization of management conscious of capital costs and share price

The Company will conduct well-balanced growth investments and returns of profits to shareholders, while securing soundness of capital and financial strategies. We will strive for investments in R&D, the establishment of production systems, and the development of human resources, among others, with the aim of establishing a stable earning structure and management base from a long-term perspective, as well as strengthening our financial position. For shareholders, under a basic policy on appropriation of surplus of continuing stable dividends and implementing returns of profits based on performance, we have set immediate targets of a consolidated dividend payout ratio of 30% or higher and a lower-limit indicator DOE of 2.0% in principle.
We will also advance improvements on both the earnings and equity fronts in our efforts to enhance PBR and ROIC.

- As an indicator for the realization of PBR of 1.0 or higher, we will plan for ROE of 10.0%* or higher.
- We will set a target of ROIC of 9.0%* or higher against an expected WACC of 6.0%.
  (*Numerical targets for the final year of the Medium-Term Management Plan)

We review our cross-shareholdings every fiscal year, taking into consideration their necessity for purposes such as growth investment and business alliances, and we will continue to reduce such holdings.

Trends in Dividend Per Share and Payout Ratio

- Dividend per share (Yen)
- Payout ratio

Payout ratio **30**% or higher
Lower-limit indicator DOE **2.0**%

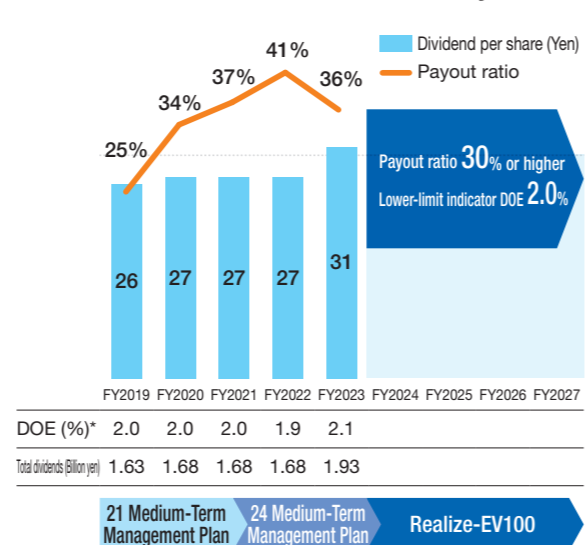|	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Payout ratio	25%	34%	37%	41%	36%				
Dividend per share	26	27	27	27	31				
DOE (%)*	2.0	2.0	2.0	1.9	2.1				
Total dividends (Billion yen)	1.63	1.68	1.68	1.68	1.93				

21 Medium-Term Management Plan | 24 Medium-Term Management Plan | Realize-EV100

*DOE (Dividend on consolidated net assets) = Total annual dividend ÷ Average consolidated net assets during the period

Non-financial Information (ESG Initiatives)

E

❶ Reduction of CO_2 emissions from products
1) Products of lower power consumption
2) Increased maintainability of products
3) Provision of energy saving solutions, etc.

❷ Clean electric power procurement
Introduction of solar power generation, etc.

❸ Emission control in business activities

- Labor-saving Streamlining
- CBM
- Automatic operation
- Robot
- Decarbonization solutions

Plant | Office
Towards decarbonization

Nippon Signal's initiatives for decarbonization (conceptual image)

S

| HR system reforms and promoting diverse working styles | Increasing digital literacy through reskilling | Systematic and continual training of model skills and engineers | Business development taking root in overseas regions and job creation |

Increasing engagement of employees and improving the ratio of male taking childcare leave

Continue and strengthen community-based efforts of contribution to society

G

- ▶ Business management using ROIC, evaluation and review of business portfolio to achieve once or more PBR
- ▶ Dialogue with shareholders and investors, review of cross-held shares, establishment of BCP and risk management

Major Initiatives of Human Resources Strategy

① Human Resources Vision of Nippon Signal Group

Promote recruitment and development of human resources centering around fail-safe technology to adapt to the drastically changing external environment and realize global business development.

- Self-discipline
- Sense of mission
- Challenging spirit
- Co-creation ability

② Basic Concept of Human Resources Strategy

- Philosophy
- Organizational strength
- Diversity
- Individual strengths

- Nippon Signal Group Philosophy
- Increase of engagement
- DE&I* promotion
- Human resources management based on continuity and change
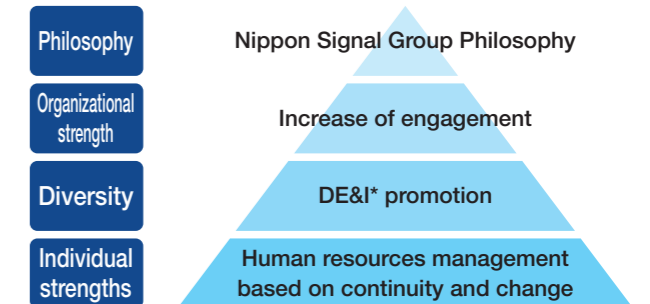
Address issues to find solutions through coordination of efforts in each layer.

*DE&I: Diversity, Equity and Inclusion

③ Major Initiatives of Human Resources Strategy

1 Increase of engagement
- Ensuring quality and volume of employees
- Maintaining physical and mental health
- Activating organization through common objectives, better communications and increased motivation

2 DE&I promotion
- Offering diverse opportunities to show great performance
- Flexible work style
- Participation of women
- Participation of global talent

3 Human resources management based on continuity and change
- Inheritance of technologies including fail safe
- Inheritance of manufacturing technologies
- Recruitment and development of DX human resources

New Medium-Term Management Plan "Realize-EV100"

Railway Signal Systems

Vision

Co-creation partners beyond the relationship with customers

Main Strategies

1 Expanding markets of next-generation traffic signal safety system
- Contribute to labor-saving and decarbonization by expanding CBTC for domestic market, automatic operation, and O&M solutions markets
- Realize high-level QCD by standardizing product composition

2 Product strategy for co-creation of customer's structural reform
- Provide railway signal safety systems in line with changing market needs through transformation from hardware to software
- Simplify railway signal safety systems and enhance maintenance capabilities by building fail-safe networks

3 Develop systems for the survival of public transport in regional areas
- Reduce equipment and achieve labor-saving through packaging

Strategic Products "Next-generation railway signal safety system"

Ground equipment | On-vehicle equipment | ANSHIN Center Services

CBTC | **O&M Solutions** | **Automatic Operation**

Smart Mobility

Vision

One-stop solution provider for road traffic to solve issues of business operators

Main Strategies

1 Activities for dissemination of automatic operation
- Solving issues of local governments and operators through real-world implementation of KURU LINK.
- Promoting the dissemination of automatic operation with smart poles and I2X devices

2 Building an environment for easier mobility through MaaS-related services
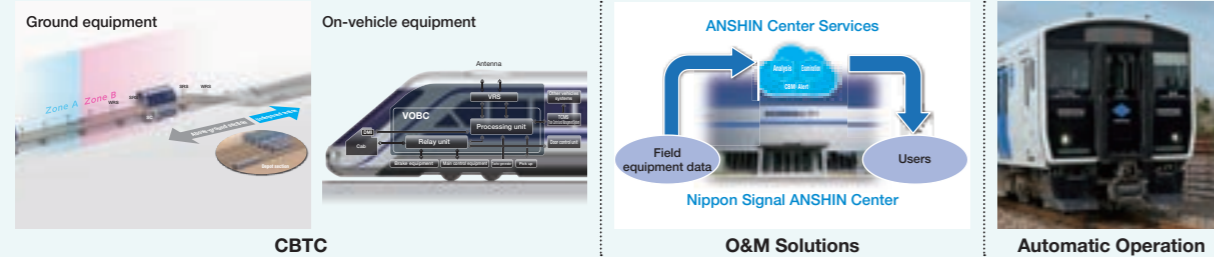- Increasing number of cashless terminals and high-speed PICS installed and expanding BLE*-based services
- Contribution to reduction of fixed costs by enhancing transmission wireless system for traffic signals (MVNO)

Strategic Products "KURU LINK & I2X (vehicle-infrastructure coordination)"

KURU LINK | **I2X**
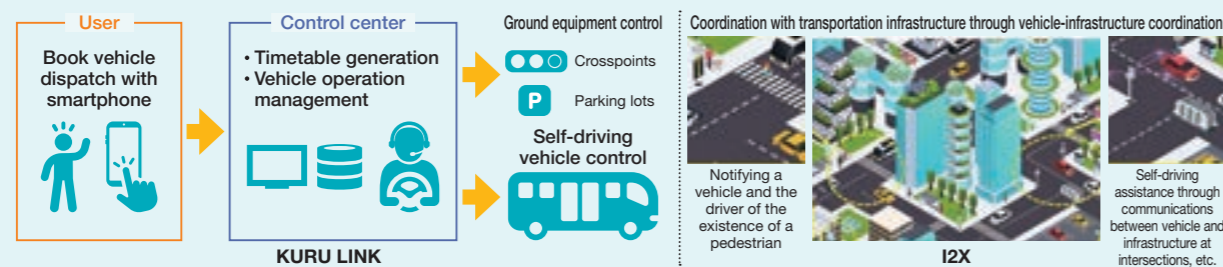
*BLE: Bluetooth Low Energy, a short-range wireless communications technology
A power-efficient mode of communication that is part of Bluetooth

AFC Business

Vision

Real (facilities/services) innovation to "Realize motivation for mobility"

Main Strategies

1 Expansion of ABT*1 solution which leads user/business operator services
- High-value-added ticket gate that supports various authentication methods such as credit card, QR, and facial recognition

2 Provision of a system for safe and unmanned (laborsaving) station
- Increase in market share with enhanced line-up of platform screen doors and contribution to labor-saving with CBM

3 Provision of a cloud-based parking lot system
- Strengthening business capabilities through MSS*2 collaboration tailored to users

*1 ABT: Account Based Ticketing, a ticketing system for travel that uses unique IDs
*2 MSS: Mobility Service Server, a cloud-based parking lot system

Strategic Products "Cloud-based payment systems," "station monitoring systems" and "cloud-based parking lot systems"

Cloud-based payment system | **Station monitoring system** | **Cloud-based parking lot systems**
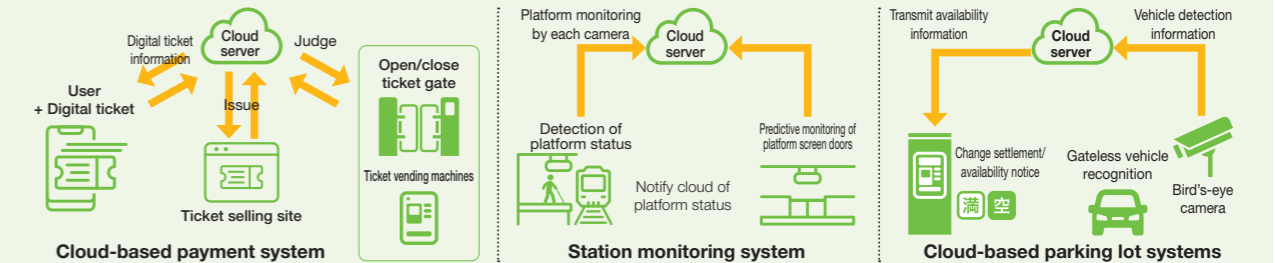
R&S Business

Vision

Create products having overwhelming competitiveness in robotics and sensing segments to win the position of market leader

Main Strategies

1 Strive to establish our robots as de facto standard for work at height
- Downsize heavy machinery robots and promote a de-facto standard by enhancing tools for work at height

2 Expand service robot market by launching promotion activities
- Establish brand as a manufacturer of service robots, such as cleaning robots, security robots, and AMR

3 Win the position of market leader with cutting-edge technology in sensing segment
- Win the position of market leader through early realization of mass-production of competitive new LiDAR, by combining cutting-edge technologies and our proprietary technologies

Strategic Products "Heavy machinery robots," "next-gen 3D LiDAR," etc.

Example of laser ranging Image

Heavy machinery robots | **Next-gen 3D LiDAR**
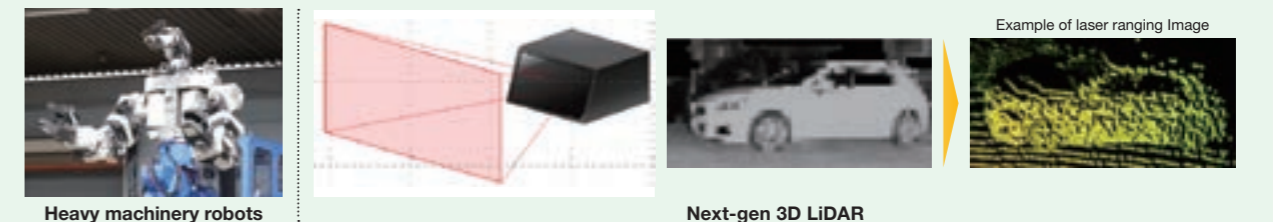
Business Report

FY2023 Transport infrastructure business

Segment-basis sales ratio

54.7%

Orders received (¥ million)

FY2021	FY2022	FY2023
44,018	61,672	83,002

Net sales (¥ million)

FY2021	FY2022	FY2023
48,831	47,037	53,936

Segment profit (¥ million)

FY2021	FY2022	FY2023
5,267	5,119	6,212

Railway Signal Systems

Main Business Field
- Automatic Train Control (ATC) system
- Automatic Train Stop (ATS) system
- Centralized Traffic Control (CTC) system
- Electronic interlocking system
- Level crossing protection device
- Display device
- SPARCS (Communications-Based Train Control System), etc.

Smart Mobility Systems

Main Business Field
- Traffic control system
- Traffic signal controller
- Traffic light
- Mobile Virtual Network Operator (MVNO)
- Pedestrian Information Communication Systems (PICS), etc.

In Railway Signal Systems, we received orders for and recorded sales of Automatic Train Control systems, interlocking systems, Communication-Based Train Control systems and other products for railway operators in the domestic market.

We are currently developing automated driving systems using the existing signal safe products currently in use in regional railroads. We will focus on developing products which contribute to our customers' labor-saving.

In overseas markets, we received orders for and recorded sales of Railway Signal Systems in Taiwan, India, and other countries.

Especially, in Taiwan, we have successfully received orders for the renewal of electronic interlocking system, and the renovation of transformers, electric power monitoring control system, and telecommunication system for the Huadong Line where our value was recognized for the system already implemented. We continuously realize improvement of convenience for citizens and ease traffic congestion, and we are committed to contribute to making the city more comfortable and safer by taking full advantage of our experience of working in many countries.

For Smart Mobility Systems, particularly Road Traffic Safety Systems, we received orders for and recorded sales of traffic control systems and parking meters. We also actively participated in various automated driving demonstration projects, providing products and technologies that contribute to the "Vehicle-Infrastructure Cooperative System" linking automated vehicles with traffic lights and roadside sensors.

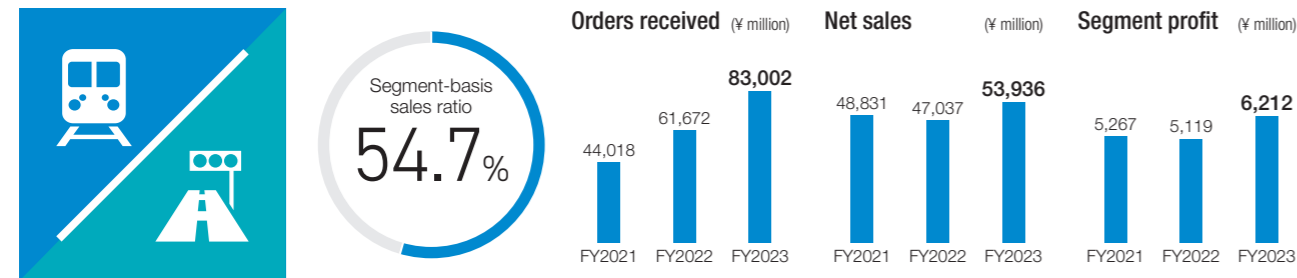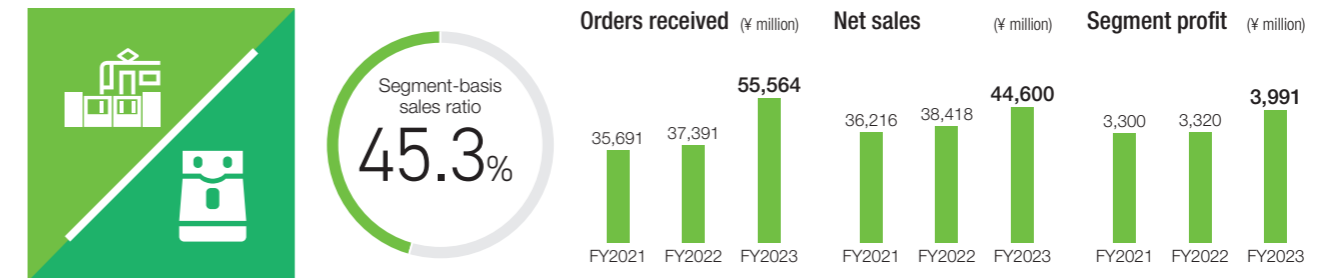Going forward, we will continue to work on realizing the Vehicle-Infrastructure Cooperative System and automatic operation services and develop new solution businesses, including wireless communication-based systems using MVNO (network provision service business).

FY2023 ICT Solution business

Segment-basis sales ratio

45.3%

Orders received (¥ million)

FY2021	FY2022	FY2023
35,691	37,391	55,564

Net sales (¥ million)

FY2021	FY2022	FY2023
36,216	38,418	44,600

Segment profit (¥ million)

FY2021	FY2022	FY2023
3,300	3,320	3,991

Automatic Fare Collection (AFC) Systems

Main Business Field
- Automatic passenger gate
- Automatic ticket vending machine
- Automatic fare adjustment machine
- Platform screen door
- Gated parking lot management system
- Centralized payment PARK-LOC® parking lot management system
- Security gate, etc.

Robotics & Sensing (R&S)

Main Business Field
- Robotics
- 3D Laser Ranging Image Sensor
- Ground-Penetrating Radar (EMS)
- OA device (maintenance), etc.

In AFC Systems, particularly Station Service Network Systems, we received orders for and recorded sales of platform screen doors, ticket vending machines, passenger gates, parking lot equipment and other products in the domestic market. For train stations, while diversifying a lineup of platform screen doors, we are also proactively engaged in sales promotion of our platform monitoring system which is working with our 3D laser ranging image sensors. The system detects trains on tracks and the status of door openings and alerts passengers, which contributes to both labor-saving and higher reliability in safety.

In overseas markets, we received orders for and recorded sales of AFC systems and platform screen doors in Bangladesh, Egypt, and other countries.

For upcoming initiatives, in anticipation of full-scale development of MaaS (Mobility as a Service), a seamless mobility linkage between not only railroad services and automobiles but also diverse mobility options, we will create new businesses, including the provision of new products compatible with payment systems in the new smart mobility society and the provision of services linked to various terminals using the service linkage platform "iDONEO."

In R&S field, which focuses on robotics and sensing, we received orders for and completed sales of 3D laser ranging image sensors to be installed in platform screen doors and construction and agricultural equipment, X-ray baggage checking equipment for the speedy detection of the presence of dangerous items, and other products. Based on the basic concept of fail-safe, we will contribute to realizing a future society in which humans and robots work together by integrating the latest robotics technologies with our core technologies, such as sensors and image analysis, which we have cultivated through our past experience.

Board Member Messages

The Group began its new Medium-Term Management Plan "Realize-EV100" in FY2024.
Here are messages from our board members that embody Nippon Signal's vision and growth strategy for the realization of the new Medium-Term Management Plan.

Building the foundations of sustained operation for over 100 years

I am in charge of manufacturing, which is the foundation of Nippon Signal's business activities and business administration that will realize the sustainable enhancement of corporate value. In the area of manufacturing, to reach the Next Stage of Manufacturing , we will aim to improve product quality to a standard that will give us recognition as a brand. To establish the Nippon Signal brand, we will need to enhance the quality of individual employees' work and boost our ability to improve operations. All employees have a clear understanding of Nippon Signal's raison d'etre represented in our corporate philosophy, and their own roles therein, and they engage diligently in their day-to-day work. In this way, we will realize various goals, such as the streamlining of operations, maximum use of group resources, securing of appropriate profits, returns to stakeholders, and reinvestment in growth. In doing so, we will enhance the value of the Nippon Signal brand.
In my other area of responsibility of business administration, I will focus on the management of internal and external risks, as well as human resource development. We will work to establish an environment in which our people can shine through various initiatives, such as pursuing comfortable working environments for employees, raising their motivation, and cultivating a corporate culture in which employees accept diversity and help each other. By making the outcomes of our "manufacturing prowess" even greater in this way, we will build the foundations that will allow us to survive until the 100th anniversary of our foundation and beyond for another 100 years.

FUJIWARA Takeshi

**Director and
Executive Vice President
Executive Vice President and
Executive Officer**

In charge of business administration, In charge of Mono-zukuri, and Responsible for TQM Promoting Dept.

Aim to become a solution provider for the DX age

Nippon Signal has committed to our stakeholders to become an infrastructure provider for the DX era that will support "infrastructure evolution" safely and comfortably. To realize our vision, we will pursue initiatives to capture a position as a provider of one-stop solutions through co-creation with customers, deploy new product businesses across the Group, with the Business Innovation Promotion Department playing the central role as leader of in-house innovation, and build IT systems that will allow employees to handle their work without stress.
In the area of technology and R&D of which I am in charge, we have set "continuing to provide IT systems that support transportation infrastructure" as our mission. Transportation infrastructure must not only be robust to ensure safety and reliability; it must also be compatible with existing systems and user-friendly. Equipping the latest IT systems with these characteristics will mark the true worth of Nippon Signal.
We have already started the real-world implementation of transportation infrastructure products that have anticipated the DX era, including NTCS[1], MVNO[2], and I2X[3]. In the area of ICT solutions, we will further advance the development of IT systems that support ease of mobility, based on the concepts of high security and robotics. In this way, we will continue our endeavors to secure our leading position in each domain.

[1] Next stage Train Control System
[2] Mobile Virtual Network Operator … Network provision service business
[3] Infrastructure-to-Everything …Vehicle-infrastructure coordination

SAKAI Masayoshi

**Director and
Deputy Chief Executive Officer**

In charge of business management, Responsible for Kuki Plant, Responsible for transport infrastructure business, In charge of technology, research and development, and Responsible for Group IT Strategy Dept.

Business structural reform from new perspectives

After the COVID-19 pandemic, business structural reforms, including the promotion of DX, have progressed, and the state of the social infrastructure market is on the verge of fundamental change. This fiscal year, the first year of the new Medium-Term Management Plan "Realize-EV100," Nippon Signal will accelerate its shift from goods to services and the real-world implementation of products in new areas. We are endeavoring to give shape to initiatives that will provide a foothold toward our 100th anniversary in 2028.
Under these circumstances, the basic policy of the Osaka Branch Office that I oversee is the transformation and implementation of business structures, including DX promotion, in the social infrastructure market. All employees are sharing what actions they need to take, such as the bolstering of front loading, the promotion of activities that extend across businesses and organizations, and the enhancement of information sensitivity to be victorious in market competition. All branches are pursuing activities of this kind.
The Osaka Branch Office, which is based in the Kansai region, soon to host the Expo 2025 Osaka, Kansai, Japan, is fortunate to have more opportunities than other regions for the reform and implementation of business structures. While remaining strongly conscious of this fact, we will continue to propose theories from new perspectives, without being swayed by conventional frameworks, and untiringly pursue business structure reforms and new value creation.

HIRANO Kazuhiro

**Director and
Managing Executive Officer**

Chief General Manager, Osaka Branch Office, and Responsible for western Japan area

Promoting solutions with the latest DX

ICT Solution business's product range supports various social infrastructure businesses, including railway operators. Ticket vending machines, passenger gates, and platform screen doors seen in railway stations, security gates in office buildings, and parking lot systems realize the safe, comfortable movement of people.
NS cloud-based MaaS has realized ABT[1] systems that use today's digital technologies to let passengers purchase tickets with a smartphone and travel smoothly anywhere. The services we offer use a variety of media, including IC cards, QR codes, and even credit cards. On the other hand, we are also working to reduce the burden and costs of infrastructure maintenance imposed on operators, concentrating our efforts on the development of various robots and the realization of CBM[2].
In our new Medium-Term Management Plan "Realize-EV100," with our aims of comfortable travel that makes users smile, with the aims of lightening the burden on operators by making system maintenance easier, and offering systems that have less environmental impact, based on the safe and reliable technologies that we have cultivated to date, we will leverage the mechatronics and sensing technologies in which we excel to promote solutions that use the latest in DX.
You may look forward to the services of Nippon Signal's ICT Solution business that are highly reliable and offer greater convenience.

[1] ABT: Account Based Ticketing, a ticketing system for travel that uses unique IDs
[2] CBM: Condition Based Maintenance, a system for effective and efficient maintenance based on the condition of the equipment

GOTO Ryuichi

**Director and
Managing Executive Officer**

Deputy in charge of business management, In charge of Utsunomiya Plant, Responsible for ICT Solution business, and Responsible for branch offices

Raise consciousness of reform to be victorious in global competition

With the end of COVID-19 pandemic, the business environment surrounding Nippon Signal has changed significantly. In addition to the changing business of our clients, particularly railway operators, the way that people work is also changing. Meanwhile, investors are turning an increasingly severe gaze on Nippon Signal. Under these circumstances, there is a growing number of issues that we must address as a company listed on the Prime Market. They include contribution to the SDGs, the promotion of ESG-oriented management and human capital management, and further, corporate management that emphasizes cost of capital. We will engage in management that is conscious of our investors and our stock price, including the improvement of our PBR (price-to-book ratio), which has fallen below 1. Nippon Signal faces a turning point at which, unless we accomplish transformation, we will be left behind. As well as holding steadfastly to Nippon Signal's founding spirit of "safety and reliability," I hope to be involved in management with a strong will to not merely react to change, but anticipate it. As a Board Member with experience outside the Company, refusing to be content with merely following precedent, I will encourage Nippon Signal's transformation and contribute to the sustainable enhancement of corporate value.

HORIE Toru

Managing Executive Officer

Responsible for business administration, General Manager, Global Strategy Division

Feature: AFC (Automatic Fare Collection) Business

Alongside the evolution of station infrastructure and automatic fare collection system

Among the various solutions that support transportation infrastructure provided by Nippon Signal, automatic fare collection systems at train stations have become the most familiar presence for many users. From the past to the present, and onward to the future. This feature article presents our initiatives in AFC which continue to evolve while incorporating market needs and new technologies.

The Dawn *1927 -*
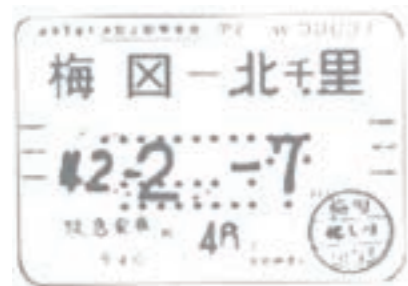
Japan's first automatic passenger gates

The first automatic passenger gates in Japan are thought to be the turnstile gates that were introduced on a section of the Teito Rapid Transit Authority (currently Tokyo Metro) from Asakusa Station to Ueno Station in 1927. With flat-rate fares, passengers could enter the station by inserting a coin directly into the turnstile and pushing the rotating arm. Tickets were hard cards that had the information printed on them in advance, and its position was merely to assist humans (ticket clerks). It was about 40 years later, during Japan's rapid growth period, that automatic passenger gates began to be introduced on a large scale.

In 1966, commercial trials of automatic passenger gates were conducted at Kintetsu Abenobashi Station, and the operation of automatic passenger gates started on a commercial line the following year with the opening of Hankyu Kitasenri Station. At the time, because of different information processing methods were used for regular train tickets and commuter passes, they were each handled by separate, dedicated automatic passenger gates. The method of processing information contained in regular tickets, such as section and fare, involved reading the different lengths of a magnetic bar code on the back of the ticket. For commuter passes, Hole-punched type (the optical punch hole method) was used, in which information on stations and validity periods was input by punching holes in the center of the pass.

Turnstile passenger gates

Commercial trial at Kintetsu Abenobashi Station

Hole-punched type commuter pass

Popularization period *1960s - 1980s*

Advances in data writing and reading technologies

The history of the development of automatic passenger gates can also be described as the history of ticket data writing and reading technologies.

In 1971, the Congress of Japan Railway Cybernetics established standards for magnetic tickets and station codes, paving the way for the widespread adoption of automatic fare collection systems on railroads in Japan. However, even with the establishment of these standards, writing and reading technologies in those early days were far less stable than they are today. For actual operation to be considered, various technical barriers needed to be overcome. The systems needed to enable accurate, smooth ticket gate operations to cope with the commuter rush that was starting to become a serious social issue in the Tokyo metropolitan area around that time. For example, the same machines had to be able to handle both commuter passes and Edmondson railway tickets (the standard size of train tickets used by railways around the world, including Japan). In addition, if simply inserting a ticket into the automatic passenger gate at a slight angle were to cause errors, disruptions to the flow of people in the same aisle would be a frequent occurrence. For this reason, technology to prevent this problem needed to be developed.

Edmondson railway ticket

Japan's first full-scale automatic fare collection system

Nippon Signal was one of the first to research and develop automatic passenger gates in the late 1960s. In 1966, we concluded a technological partnership with an American company, Advanced Data System (ADS), and in 1969, we sold four automatic passenger gates to Tokyo Monorail Co., Ltd. In December 1971, we sold on Japan's first full-scale automated fare collection system (ticket issuing, examination of ticket, fare adjustment) that was introduced on the Sapporo Municipal Subway in the lead-up to the Sapporo Winter Olympics. With 104 passenger gates, 88 ticket vending machines, 21 fare adjustment machines, 24 money exchange machines, 14 monitoring devices, 14 recording devices, and 7 commuter pass issuing machines, this system tested the practicality of a total automatic fare collection system using tickets and commuter passes with information recorded magnetically. Because this system was developed when the Congress of Japan Railway Cybernetics was still in the process of considering unified standards, the system used Our original specifications for the size and recording methods of tickets and commuter passes. For the commuter passes, the medium used to record the magnetic information was an envelope with one transparent side, and a piece of paper with the period and section for which the pass was valid printed on it, which was inserted into the envelope. When the pass was renewed, the paper pass was replaced, and the magnetic information was rewritten on the medium. Even in an era in which people's lives were becoming more affluent amid Japan's soaring economic growth, this system adopted an environmentally friendly mechanism of re-using the magnetic medium.

Sapporo Municipal Subway passenger gate

Feature: AFC (Automatic Fare Collection) Business

Alongside the evolution of station infrastructure and automatic fare collection system

Expansion Period *1990s - 2000s*

Automatic passenger gates spread throughout the Tokyo metropolitan area

In 1990, the use of automatic passenger gates picked up even further pace. The East Japan Railway Company was pursuing a project of installation within a 100-km area of the Tokyo metropolitan area. Because the railroads in the Kanto area had a complex network of mutual through services and train lines, the introduction of automatic passenger gates took longer than in the Kansai area. However, the establishment of new magnetic recording methods paved the way for their introduction at more stations.

As the conversion to automatic passenger gates in stations in the Tokyo metropolitan area progressed, one challenge remained. That was the automation of transfer gates between railway companies. Transfer gates presented the difficulty of having to process two commuter passes or tickets issued by different railway companies. Nippon Signal quickly developed a product that enabled correct processing by inserting two tickets or commuter passes held by one passenger into the machine together, on top of the other.

Tokyo Station in 1990

In 1995, progress was being made in the introduction of automatic passenger gates for the Shinkansen. The automatic passenger gates for the Shinkansen required advanced functions that conventional lines did not have. They needed to be able to process a combination of up to four tickets, including the basic fare ticket, express ticket, and reserved seat ticket, at high speed. Nippon Signal successfully achieve the development of Shinkansen passenger gates and delivered them to many stations.

A massive fare payment network unlike any seen around the world

With the 2000 appearance of "Passnet," which allowed passengers to travel on the Kanto region's 17 major railways with a single card, the use of magnetic card tickets spread. After that, when "PASMO," a common IC card ticket, was launched by the major private railways, subways, and bus services in the Tokyo metropolitan area in 2007, mutual usage with "Suica," the East Japan Railway Company's own IC card ticket, began, and the era of IC card tickets leading up to the present day started.

At the time, 57 railway operators and bus operators (currently: 26 railway operators and 76 bus operators) participated in "PASMO," making it a massive fare payment network unlike any seen around the world. The

automatic fare collection system these operators used needed to accommodate extremely complex fare calculations, including approximately 3 quintillion (10^{16}) combinations of stations and the different fare structures of all the operators. Nippon Signal established a specialist fare verification center (Fare Network Center), which verified approximately 1.3 billion fare variations, and worked on the establishment of basic technologies that would allow passengers to use PASMO with peace of mind. Our involvement in the success of PASMO is a source of great pride for Nippon Signal as a company that aims to support the evolution of infrastructure.

Taking Japan's high-quality station infrastructure to the world

In the 2000s, while providing Japanese railways with the latest automatic passenger gates, fare adjustment machines, and automatic ticket vending machines that supported magnetic cards and IC card tickets, Nippon Signal concentrated its efforts on global business expansion. Starting with the Beijing Subway (China) in 2003, we delivered automatic ticket issuing equipment to a number of overseas railways, primarily in Asia. With a track record spanning half a century, a certainty of quality, and innovation, Nippon Signal's automatic passenger gates have been well received overseas, and they are now in service in the Chennai Metro (India) and the Dhaka Mass Rapid Transit (Bangladesh). Local culture

has been taken into consideration in the automatic passenger gates installed overseas. In the Chennai Metro, a pincer system has been adopted that acts as a barrier to control passenger entry. This system stops passengers from passing through in a way that is not seen in Japan. The tickets are also in a style that suits local needs, such as plastic coin-shaped IC media and single-use IC cards.

Dhaka Mass Rapid Transit

Transformation Period *2010 - Present*

Next-generation automatic passenger gates that are smart and multifunctional

The method of data storage used for railway tickets has changed over the years from paper tickets to magnetic tickets and onto contactless IC cards. Further, in recent years, the use of digital tickets using QR codes has become increasingly widespread.

There are great expectations that the accommodation of QR codes by passenger gates will lead to the revitalization of local communities through greater convenience of public transport through MaaS (Mobility as a Service) and collaborations with other services, such as shopping and restaurants, in areas along the railway lines. Nippon Signal has already delivered to railway operators in various parts of Japan QR code reader terminals that enable ticketless train travel. These terminals let passengers pass through the passenger gates by tapping a QR code displayed on their smartphones. Nippon Signal not only makes the terminals, but has also worked on "Yoka Tabi Signal.com," a portal site for digital ticket sales. We have developed and operated a service in which passengers who have registered as members of this site can purchase a digital ticket by selecting the stations where they will board and leave the train, and travel on the trains by reading the QR code on the ticket screen.

Nippon Signal is currently proceeding with the development of a "multi-authentication passenger gate" to meet the further needs for convenience and safety. This passenger gate supports four types of authentication method, namely transportation IC cards (Suica, PASMO, etc.), QR codes, cEMV (contactless Europay, Master, Visa)

credit cards, and facial recognition. The adoption of multiple authentication methods will provide benefits for both the railway operators and their patrons. For example, QR codes will expand the potential for rolling out services in collaboration with nearby facilities and events, cEMV credit cards will increase the convenience for travelers from overseas, and facial recognition will offer the convenience of being able to pass through the passenger gate with one's face alone, as well as providing detection of suspicious individuals and a deterrent effect against terrorist incidents.

Nippon Signal is also working on the development of the "passenger gate of the future." This stylish, futuristic passenger gate would allow hands-free entry and exit with the use of Bluetooth, and it also features a traffic information system using 3D images. Also, by adapting the milli-wave radar angle estimation technology that we have cultivated in the area of railway signals, we have realized the comfortable use of passenger gates with the use of speedy information processing. Moreover, this passenger gate of the future has a variety of ingenious features designed to accommodate the labor shortages that are becoming a serious social issue, such as the adoption of block construction to ease the burden of installation.

Nippon Signal will continue to contribute to the future evolution of automatic passenger gates, while capturing the changing needs of railway operators, passengers, and local communities.

Multi-authentication passenger gate

Passenger gate of the future

Feature: # Automatic Operation

Automated operation of conventional railway lines (GoA2.5, GoA2.0) forms the foundation for maintaining and developing the railway transportation network.

Conventional line trains fulfill important roles as the transportation that connects regions and as infrastructure that supports local economies. Based on years of accumulated signal safety technology, Nippon Signal has realized automatic operation of conventional line trains through collaboration with the Kyushu Railway Company (JR Kyushu) and the Railway Technical Research Institute (RTRI). In March 2024, JR Kyushu started the "GoA2.5 Autonomous Operation" on the Kashii Line (Saitozaki to Umi section), marking the first time in Japan that a staff member other than the driver is stationed at the front of the vehicle.

Expectations for automatic operation for conventional line

As the working population decreases due to the rapid aging of society, a shortage of drivers has become an urgent problem in the Japanese railway industry. Under these circumstances, there is a need for automatic operation systems that will enable safe and accurate transportation services without skilled drivers. The introduction of automatic operation systems will brings various benefits that contribute to maintaining high-quality transportation services. These include reducing the costs associated with training drivers, expanding opportunities for diverse personnel, including the elderly, and lessening the effort required to arrange staffs.

Features of newly-developed automatic operation systems

In collaboration with JR Kyushu and RTRI, Nippon Signal has been working on the development of automatic operation systems since 2017, in anticipation of the future of railway infrastructure. A prototype model was completed in 2019. For approximately three years after that, we worked to perfect the system by conducting test runs and verification operations with commercial trains. In the test runs, all functions required for automatic operation were checked, including the accuracy of braking control and stop positions under various conditions, such as rain, snow, and assumptions of full occupancy. In the verification operations using commercial trains, new functions were developed to improve safety, based on events that occur in actual operations. For example, a slip prevention mode w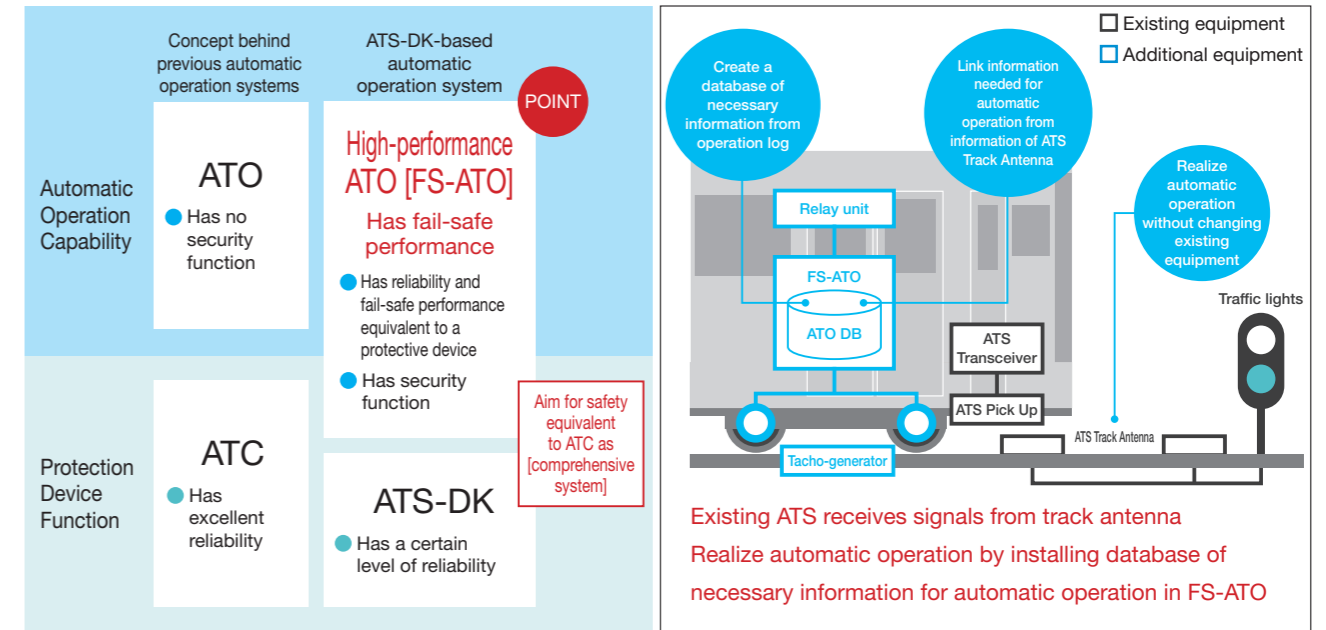as added to prevent a wheel slip due to snow. The value of the system, whose development Nippon Signal was involved in, includes making automatic operation possible on railway lines that have both ATS (Automatic Train Stop) control and level crossings. The use of previous automatic operation systems had been limited to railway lines without level crossings, that had platform screen doors installed at each station, and for which ATC (Automatic Train Control) had been adopted, based on standards established by the national government. ATC ensures safety by constantly transmitting control information to moving trains via the rails. On the other hand, ATS transmits control information only at points where track antenna is installed. ATC is believed to be safer and more reliable than ATS. The automatic operation system installed on the Kashii Line, as a comprehensive system with ATS at its core, ensures safety on a par with ATC through the combination of ATS-DK (automatic train operation device) and a newly developed FS-ATO that has fail-safe performance and security function.

● Concept of automatic operation system developed

● GoA2.0

Existing ATS receives signals from track antenna
Realize automatic operation by installing database of necessary information for automatic operation in FS-ATO

Accelerate widespread adoption by working on two types of automatic operation (GoA2.5 and GoA2.0)

Automatic operation realized by the system whose development Nippon Signal was involved in is called GoA2.5. Grades of Automation (GoA) are standards that indicate the level of automated train operation (with GoA4 referring to completely driverless operation). At GoA2.5, the train is operated automatically from its departure at one station to its stop at the next station with the press of a button by an automatic operation attendant. As there is no driver on board, the attendant on board will conduct emergency stop procedures in the event of an emergency. This is Japan's first commercial operation at GoA2.5 level on a line that has both ATS control and level crossings.
In March 2024, Nippon Signal started automatic operation at GoA2.5 level on the JR Kyushu Kashii Line, and at the same time, launched verification operations at GoA2.0 level on the JR Kyushu Kagoshima Line (section between Orio and Futsukaichi stations). Unlike GoA2.5, GoA2.0 is a level of semi-automated train operation in which a driver is on board the train. This allows the driver to make manual interventions flexibly according to the situation, while the train's speed is controlled automatically. It also has additional features, such as allowing automatic operation control after manual intervention and the ability to simplify wayside equipment. Given such benefits in terms of safety and costs, there are great expectations that GoA2.0 will be applied to key sections of main lines.
Going forward, Nippon Signal, together with JR Kyushu and other railway operators, will continue to promote and advance GoA2.5 and GoA2.0 automatic operation systems and to expand the lines on which these systems are introduced.

*1 GoA2.0 is a level of automated train operation in which there is a driver on board who can switch to manual operation in an emergency.
*2 GoA2.5 is a level of automated train operation in which an attendant, who is not a driver, is present at the head of the train.

● Steps toward realization of automatic operation on conventional lines

2017	Selected as manufacturer of automatic operation concept
2019	Prototype model completed and test runs started
	Night test runs started at the Kokura General Rolling Stock Center and on the Kashii Line (section between Saitozaki and Kashii stations)
Dec. 2020	Verification runs started (December 24, 2020)
	Transitioned to phase of verification operations with commercial trains
	Kashii Line (12.9-km section between Kashii and Saitozaki stations)
Feb. 2022	Verification operations section extended
	Verification runs began on Kashii Line (25.4-km section between Saitozaki and Umi stations)

Aug. 2022 - Aug. 2023	Third-party committee "ATS-DK-based GoA2.5 Automatic Operation System Realization Review Committee"
Mar. 2023	Began GoA2.0 test runs on Kagoshima Line (67.4-km section between Akama and Kurume stations)
Jun. 2023	Received SAKATA Memorial Award (Grand Prize) from Japan Railway Engineers' Association
Mar. 2024	Mar. 16: Began GoA2.5 (commercial operation) and GoA2.0 (verification operation)
	● GoA2.5 commercial operation on the Kashii Line: Began automatic operation on entire 25.4-km line
	● GoA2.0 verification operation on main line: Section between Orio and Futsukaichi stations (section controllable by the device: 151.6-km section between Mojiko and Arao stations) Realized the longest GoA2.0 section on a single line in Japan

First realized in Japan
Conventional lines (with level crossings)
Automatic operation
World's first operation with ATS

Feature: # Global Network

Main Themes of International Businesses

We will strive to enhance profitability through various efforts, from the performance of projects to ongoing business development through maintenance services, extension projects and Phase 2 projects on existing railways and market development, as well as business development rooted in megacities.

Our international businesses began with the export of level crossing gates to the State Railway of Thailand in 1946, and we now provide Japanese transport infrastructure to 30 countries and regions. We will continue to aggressively pursue the development of our global network and contribute to the economic development of countries around the world, with focus on our railway signal systems, AFC systems, PSD systems, and traffic signal systems that have been adopted in major cities including the Delhi Metro Line 8, for which SPARCS, our CBTC system, was adopted in 2018 and upgraded to a fully unattended operation in 2020.

Initiatives

1. **Promotion of megacities strategy leveraging overseas subsidiaries**
2. **Receipt of definite orders and smooth implementation of Phase 2 projects in cities where the Group already operates**
3. **Expansion of maintenance businesses rooted in individual regions**

Received orders in succession for renewal of conventional rail in Taiwan and Phase 2 projects of urban transportation systems in India and Indonesia

In January 2024, we received a construction order for double-tracking, equipment renewal, and renovation of a conventional line in Taiwan (Huadong Line: Hualien to Chihben), where Nippon Signal's electronic interlocking system and other equipment have long been in operation.

We also received orders, one after another in March and April, 2024, for signal systems on extension sections as part of Phase 2 projects of Ahmedabad Metro (commenced full-line operation in October 2022) and of Jakarta MRT (commenced full-line operation in March 2019), for both of which Nippon Signal had delivered signal systems.

The continued adoption of our systems shows each of these clients' high appreciation of the steady operation of our systems delivered to date. We will draw on the experience we have accumulated on existing sections to implement these projects efficiently while giving highest priority to safety, and contribute to creating safe and comfortable cities by improving the convenience of local residents and easing traffic congestion.

Jakarta Mass Rapid Transit (MRT)

SPARCS wayside radio antenna

30 countries and regions

Railway Signal Systems | Automatic Fare Collection Systems | PSD | Smart Mobility Systems

Egypt
Cairo Metro Line 4 Signal and PSD systems

Liberia
Traffic signal equipment in Monrovia

Uganda
Traffic signal equipment in Kampala

UAE
Dubai Monorail

India
Indian Railways
Chennai Metro
Bengaluru Traffic signal systems
Delhi Metro Line 8
Ahmedabad Metro

Ahmedabad Metro SPARCS
Chennai Metro Automatic ticket vending machines
Delhi Metro Line 8 SPARCS

Turkey
Turkish Railways

Izmir suburban line
Izmir suburban line operation management system

Bangladesh
Dhaka MRT Line 6

Dhaka MRT Line 6 SPARCS
Dhaka MRT Line 6 PSD

Myanmar
Myanmar Railways
Traffic control system in Yangon

Thailand
State Railway of Thailand
Bangkok Red Line

China
Beijing Subway Line 15
Beijing Subway Airport Express Line
Beijing Subway Line 13
China State Railway Group Co., Ltd.

Beijing Subway Line 15 SPARCS
Beijing Subway Line 13 Automatic passenger gates

Korea
Busan Metro
Gimpo Goldline
Gwangju Metropolitan Rapid Transit
Parking system for Rep. of Korea

Gimpo Goldline SPARCS

Taiwan
Taiwan Conventional Rail
Taiwan High Speed Rail
Taiwan MRT Circular Line
Parking system for Taiwan

Taiwan High Speed Rail
Conventional Rail
Taipei Station CTC Center
AFC systems

Indonesia
Railways in Indonesia
Jakarta Mass Rapid Transit (MRT)

Jakarta Mass Rapid Transit (MRT) SPARCS
Jakarta Mass Rapid Transit (MRT) automatic passenger gate

Vietnam
Line 1 of the Ho Chi Minh Urban Railway

Philippines
Manila Subway Line Signal system

Argentina
Argentine Railways (ADIF, SOFSE)

Roca Line
Roca Line Interlocking system

UK
Spain
Iran
Iraq
Pakistan
Algeria
Cairo Office
Saudi Arabia
Dhaka Office
Tanzania
Nippon Signal India Pvt. Ltd.
South Africa
Australia
New Zealand
United States
Panama
Brazil
Nippon Signal Bangladesh Pvt. Ltd.
Yangon Office
Beijing Nippon Signal Co., Ltd.
Taipei Office
Nippon Signal Technology Taiwan Co., Ltd.
Manila Office

*CBTC: Communications-Based Train Control
*SPARCS: Simple-structure and high-Performance ATC by Radio Communication System

Research and Development

We will focus on labor-saving for transportation infrastructure through digital transformation (DX), as well as on themes that lead to energy conservation and CO_2 reduction to create a decarbonized, recycling-oriented society, and accelerate the development of new solutions and products.

Basic Policy	Sensing technologies that interweave electromagnetic waves, and image analysis using AI, have been positioned as shared foundational technologies for the Company. We will use them to create various new products for achieving ongoing business growth as we move ahead towards 2028 (100th anniversary) and contributing to the resolution of social issues.

❶ AI/Image Analysis Technologies

We are engaged in developing products including Station Platform Safety Monitoring Support Systems that utilize image analysis of video from cameras installed at stations, automatic luggage checking equipment that uses X-ray images to automatically determine hazardous items inside luggage, and crew support systems that detect signs from obstruction warning signal devices of level crossing obstructions based on image analysis of images from cameras positioned at the front of the train.

Crossings

Tracks

Stations/public spaces

Forward monitoring (crew support) × AI

Obstacle warning signal detection

Leaving signal

Inspection vehicle × AI

Platform monitoring

White cane detection

High security devices

Camera installed on the dashboard in train driver's cab

Camera

Image processing unit

*Realized with the same camera and hardware

LS railway crossing obstacle detector

Under development

● Electrical equipment diagnosis   Under development

● 2DLS wayside monitoring

● 2DLS platform monitoring

● X-ray security baggage scanners
● Body scanners

❷ Wireless/Sensing Technologies

We are developing a next generation CBTC radio equipment that utilizes software defined radio technology and is smaller and uses less power than conventional models.

Adaptable to CBTC for direct train service between two railways with the software-based implementation of filtering, modulation, and demodulation, the core functions of radio equipment
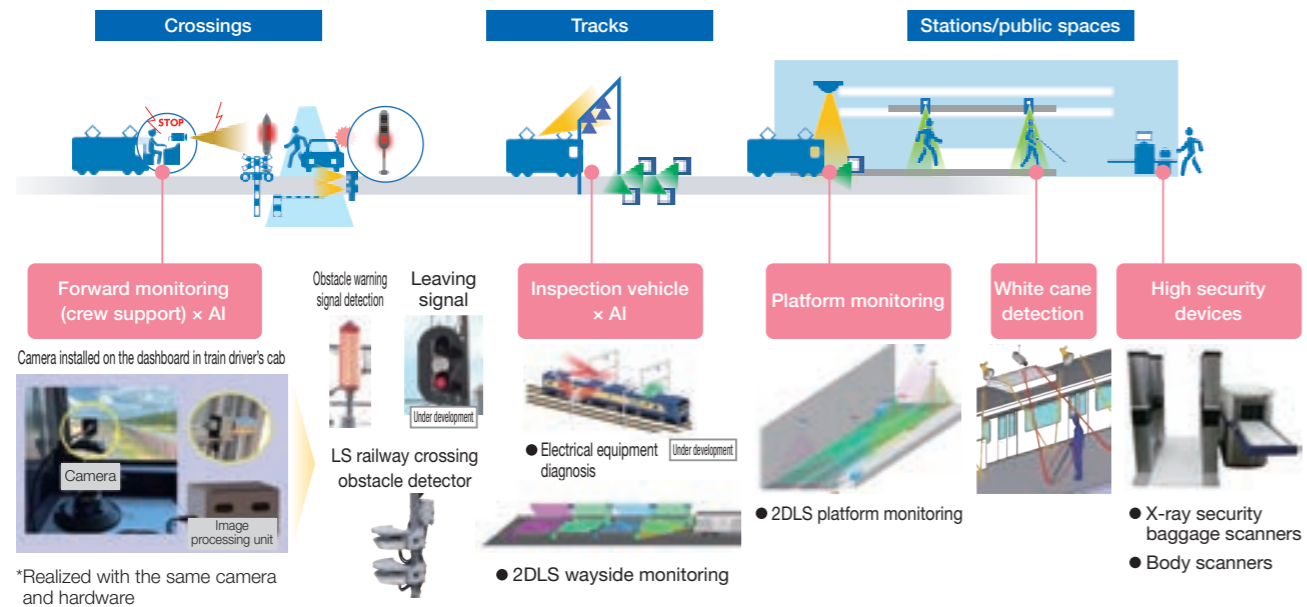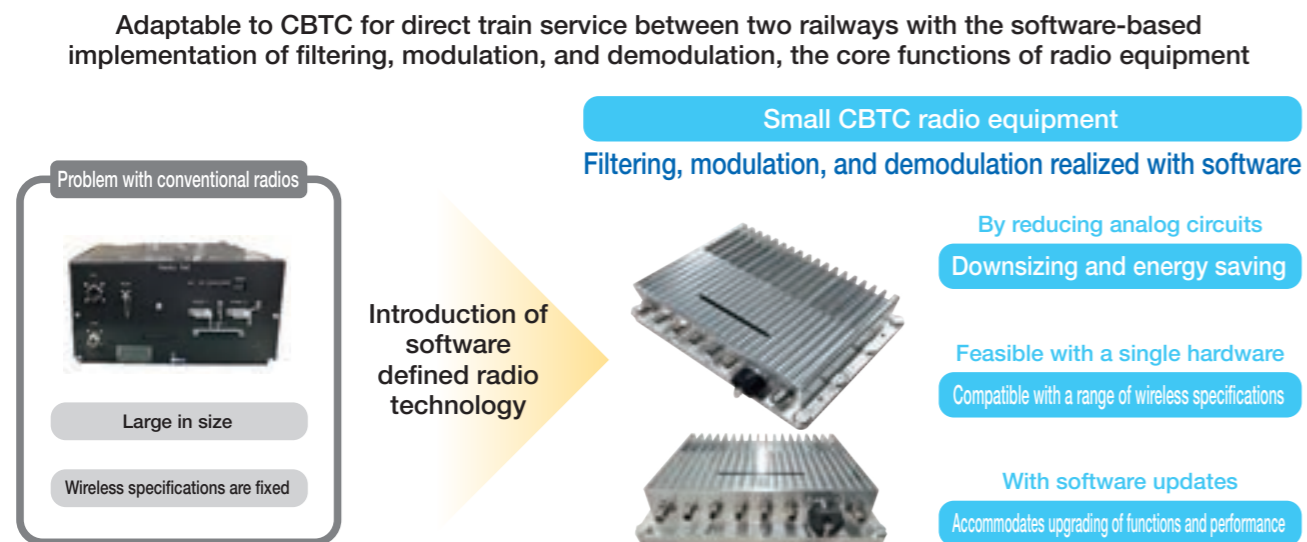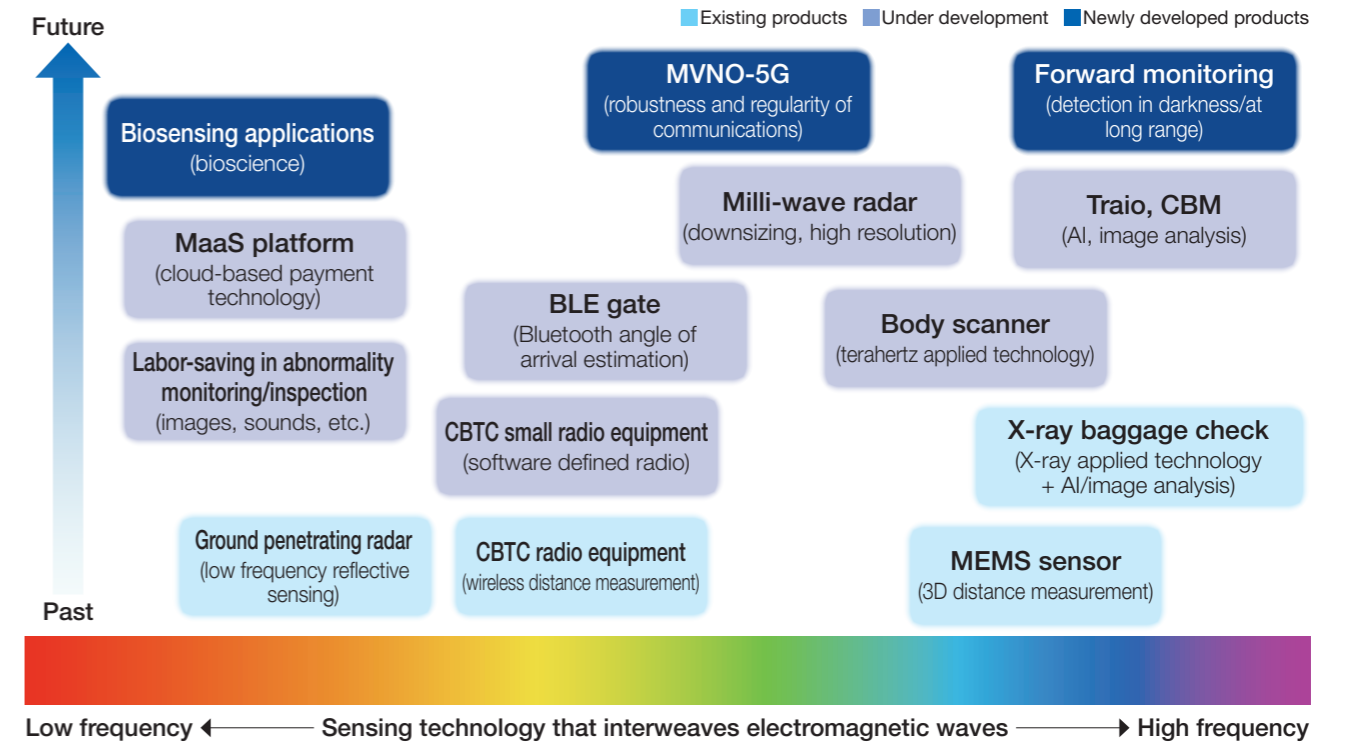
Problem with conventional radios

Large in size

Wireless specifications are fixed

Introduction of software defined radio technology

Small CBTC radio equipment

Filtering, modulation, and demodulation realized with software

By reducing analog circuits
Downsizing and energy saving

Feasible with a single hardware
Compatible with a range of wireless specifications

With software updates
Accommodates upgrading of functions and performance

❸ Core Technology Evolution

In the new Medium-Term Management Plan for 2028, we aim to realize new value creation by evolving our core technologies through innovation on the base of sensing technology that interweaves electromagnetic waves.

Future

■ Existing products ■ Under development ■ Newly developed products

MVNO-5G (robustness and regularity of communications)

Forward monitoring (detection in darkness/at long range)

Biosensing applications (bioscience)

Milli-wave radar (downsizing, high resolution)

Traio, CBM (AI, image analysis)

MaaS platform (cloud-based payment technology)

BLE gate (Bluetooth angle of arrival estimation)

Body scanner (terahertz applied technology)

Labor-saving in abnormality monitoring/inspection (images, sounds, etc.)

CBTC small radio equipment (software defined radio)

X-ray baggage check (X-ray applied technology + AI/image analysis)

Ground penetrating radar (low frequency reflective sensing)

CBTC radio equipment (wireless distance measurement)

MEMS sensor (3D distance measurement)

Past

Low frequency ◄—— Sensing technology that interweaves electromagnetic waves ——► High frequency

❹ Outdoor Driving/Adjustment Test Facility for CBTC

We established a new outdoor driving/adjustment test facility at the Kuki Plant for the purposes of actual vehicle driving demonstration for the customers of SPARCS (Nippon Signal's CBTC), checking of system configuration, and employee training on installation and testing/adjustment of equipment.
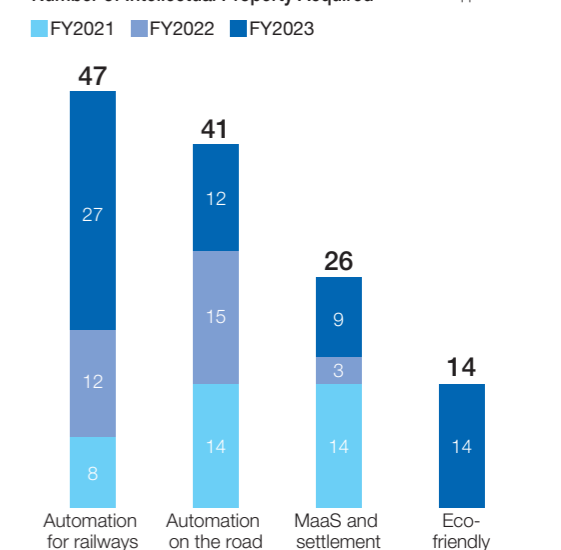
❺ Intellectual Property Initiatives

[Acquisition of Intellectual Property]

Nippon Signal promotes the acquisition of intellectual property linked with its business strategy to achieve the real-world implementation of new business and new products that meet the changing needs of customers, with the aim of creating new businesses. Specifically, we are expanding our intellectual property, including patents, with a focus on such areas as automation for railways, automation on the road, MaaS (Mobility as a Service) and settlement, and eco-friendly. We are also pressing ahead with the acquisition of intellectual property concerning the shared foundational technologies for our business (sensing, wireless, and network technologies and AI/image analysis technologies).

[Rewards for Employee Inventions]

Nippon Signal has established a system to reward inventions made by employees, in accordance with the provisions on employee inventions in the Patent Act. To increase the incentive toward employee inventions, bonuses are paid at the time of invention, at the time of patent registration, and when the invention contributes to profit.

Number of Intellectual Property Acquired Number of applications

■ FY2021 ■ FY2022 ■ FY2023

	Automation for railways	Automation on the road	MaaS and settlement	Eco-friendly
Total	47	41	26	14
FY2023	27	12	9	14
FY2022	12	15	3	
FY2021	8	14	14	

Nippon Signal's Material Issues

The Group will balance social and corporate values through five types of *zukuri* (a Japanese word for creation) or business activities to achieve the United Nation's 17 Sustainable Development Goals (SDGs) to Transform Our World and the Group Philosophy.

Social contributions and disaster relief through products and services

Reduction of environmental impacts to create a decarbonized, recycling-oriented society

Promotion of social welfare

Transportation infrastructure development and disaster relief support

1 Mono-zukuri (Manufacturing)

2

Nippon Signal Group Philosophy

Our Mission
We help realize a more secure and comfortable society through superior technologies that provide safety and reliability.

Our Vision
We strive to become a global company by pursuing world-leading technologies with ingenuity and passion to inspire our customers' *Kando*.

Our Values
1. Emphasize "safety and reliability" above all. ...... *Mono-zukuri* (Manufacturing)
2. Strive to improve customer value by taking the customer's perspective. ...... *Koto-zukuri* (Business)
3. Take on challenges for your own growth. ...... *Hito-zukuri* (Education)
4. Preserve the environment and contribute to the development of local communities. ...... *Machi-zukuri* (CSR)
5. Have dreams and share them. ...... *Michi-zukuri* (Creation of the future)

Our Code of Conduct: Six Commitments
1. Working for Customers' *Kando*
2. Fair Corporate Activities
3. Proper Information Disclosure and Communication with Society
4. Respect for Human Rights and Creation of a Good Working Environment
5. Environmental Protection and Proactive Social Contribution Activities
6. Proper Management of Company Assets and Information

Michi-zukuri (Creation of the future)

Koto-zukuri (Business)

3

5

Machi-zukuri (CSR)

Hito-zukuri (Education)

4

Construction of platforms in which diverse employees are able to feel empowered in their work

Active global partnership

Support for high-quality education, cultural activities, and women in the workplace

Environmental preservation

Basic Policy on CSR

SDGs

We hope to realize a more secure and comfortable society for people around the world, and "Our Mission" in the Group Philosophy sets out the idea.

Details: ➡ P61

Environmental Policy

SDGs

We provide eco-friendly products and services, and also reduce the environmental impact throughout the product life cycle, from product development to final disposal, to achieve a synergy between business activities and environmental protection efforts.

Details: ➡ P49

Health Management

SDGs

Under the Health Declaration made on April 1, 2022, Nippon Signal has launched initiatives on health management designed to fulfill our social responsibility based on our corporate philosophy of "safety and reliability," and to continue to advance as a company with sustainable growth.

Details: ➡ P57

Basic Policy on Information Security

SDGs

The Group is engaged in group-wide information security initiatives under this Basic Policy, with the aims of protecting the information assets of the Group from accidents, disasters, criminal acts, and other threats, and of responding to the trust of our customers and society.
Details: ➡ https://english.signal.co.jp/environment/information_security/

Basic Policy on Internal Control System

SDGs

1. System to ensure that the execution of duties by Directors and employees complies with laws and regulations and the Articles of Incorporation
2. System for the storage and management of information concerning the execution of duties by Directors
3. Rules and other systems for management of risks of loss
4. System to ensure that the execution of duties by Directors is conducted efficiently
5. System to ensure appropriateness of business operations of the Group comprising the Company and its subsidiaries
6. Matters regarding Directors and employees assigned to assist the Audit and Supervisory Committee in their duties and matters regarding the independence of such Directors and employees from the Directors (excluding Directors who are Audit and Supervisory Committee Members)
7. System for Directors, employees, etc. of the Company and the Group companies to report to the Company's Audit and Supervisory Committee, and other systems regarding reports to the Audit and Supervisory Committee
8. Policy on processing of expenses arising from the execution of duties by the Audit and Supervisory Committee
9. Other systems to ensure that audits by the Audit and Supervisory Committee are conducted effectively

Details: ➡ P66

Policy for Determining Remuneration, etc. for Individual Directors

SDGs

The remuneration of Directors (excluding Directors who are Audit and Supervisory Committee Members) is decided under a remuneration scheme to provide Directors with healthy incentive to pursue medium-to-long-term improvements in corporate value while also accomplishing short-term performance targets. Remuneration for each Director is set at an appropriate level, based on their responsibilities.

Details: ➡ P66

Basic Approach on Eliminating Anti-social Forces and Status of Establishment of Such Approach

SDGs

From the perspective of practicing social justice, the Group will have no relationship with anti-social forces whatsoever in either direct or indirect ways. In the event that the Group is subjected to unreasonable demands from anti-social forces, we will categorically reject such unreasonable demands, in coordination with relevant administrative organizations such as the police and legal experts such as attorneys as necessary.

Sustainability Initiatives

Nippon Signal's Value Creation | Nippon Signal's Vision and Growth Strategy | **Sustainability Initiatives** | Data Section

Nippon Signal's Material Issues

1 Social contributions and disaster relief through products and services

SDGs | Group Philosophy

In recent years, the low birthrate and aging population, shrinking workforce, changing lifestyles, and environmental issues have become important issues in rural areas. The advantage of the ATS-DK[*1] based automatic train operation system (FS-ATO)[*2] developed by Nippon Signal is that it can realize GOA2.5 automatic operation without a large initial investment, allowing trains to be operated with staff onboard who are not drivers. It is expected that automation and mechanization of operation duties will enhance safety, reduce training costs, and solve social issues such as the decline in workforce.

*1 ATS-DK: JR Kyushu's signal protective system. This system performs continuous speed checks.
*2 FS-ATO: High-performance automatic train operation device with reliability and fail-safe performance equivalent to a protective device.

2 Reduction of environmental impacts to realize a decarbonized, recycling-oriented society

SDGs | Group Philosophy

SPARCS (Communications-Based Train Control System) can reduce CO_2 emissions by approximately 70%* per annum compared with conventional train control systems. The adoption of SPARCS began with the realization of a completely Communications-Based Train Control System for Beijing Subway Line 15 in 2011, followed by expansion into other countries including India, Indonesia, South Korea, and Egypt. In 2024, we received order from the Gujarat Metro Rail Corporation Limited of the state of Gujarat, India, for a set of signal systems of Ahmedabad Metro Phase 2 project. We are also working hard to win bulk orders in Japan for systems with automatic operation functions.

*Prerequisite **Line types:** Conventional railway line, steel wheels, double track
Number of carriages: 6 (total number of carriages) **Track length:** 7.5 km
Stations: 4 (1 machine room) **Intervals between transceivers:** 300 m (number of track circuits: 50 tracks)

3 Transportation infrastructure development and disaster relief support

SDGs | Group Philosophy

Nippon Signal is pursuing solutions that support transportation infrastructure that people can use with peace of mind and in comfort, even in a future where the aging population with a low birth rate and labor shortages have progressed. We have collaborated with West Japan Railway Company to develop part of our "Traio" platform that uses IoT technology to provide remote monitoring, automation of inspections, and CBM. With this system, we realize next-generation operation and maintenance (O&M) that enables work to be done without having to travel to the site. In addition, regarding disaster relief support, we contribute to the commercialization of BRT using sections on the JR Hitahikosan Line, which had been hit by the Northern Kyushu Torrential Rain.

4 Construction of platforms in which diverse employees are able to feel empowered in their work

SDGs | Group Philosophy

We provide human rights training on a regular basis with the aim of creating an organization that does not violate human rights in our increasingly globalized corporate activities and supply chains. We are also working to enhance our staff dormitories as part of the creation of an environment in which our employees can work energetically. Signalio Nanasato and Signalio Utsunomiya are our studio dormitories for unmarried employees that accommodate diverse individuals, where younger employees of diverse gender and nationalities live. A corporate childcare facility, Signalio Kids, is attached to Signalio Utsunomiya to secure an environment that will allow employees to surmount changes in their life stages and continue to work with peace of mind.

5 Support for high-quality education, cultural activities, and women in the workplace

SDGs | Group Philosophy

As the main supporter of the Pacific Music Festival (PMF), Nippon Signal co-sponsors this international educational music festival for fostering young musicians founded by Leonard Bernstein, a distinguished conductor and composer of the 20th century. We also co-sponsor Bolero: Plaza of Children's Dream, a project organized by world-renowned pianist, Michie Koyama, to support recovery efforts from the Great East Japan Earthquake. Nippon Signal supports the "from Saitama to the World" scholarships system (organizer: Saitama Center for Go Global Students) and has implemented the NIPPON SIGNAL Global Challenge Scholarships for aspiring young people challenging themselves overseas.

6 Environmental preservation

SDGs | Group Philosophy

Ever-increasing emissions of greenhouse gases (e.g., carbon dioxide, methane, chlorofluorocarbon) since the industrial revolution are having serious impacts on the global environment, such as extreme weather events and global warming. Nippon Signal is also expected to conduct its business activities in an environmentally-friendly manner. Nippon Signal is pushing forward activities that contribute to conservation of the global environment, such as the use of renewable energy and forestry conservation, and continually engages in forestry activities, with the Forest of Nippon Signal opened in Yaita City, Tochigi Prefecture.
We are also conducting private power generation with solar panels installed in its dormitories for unmarried employees, Signalio Nanasato and Signalio Utsunomiya.

7 Active global partnership

SDGs | Group Philosophy

Achieving SDGs requires global partnerships with countries, corporations, citizens, and academic institutions across the globe. Nippon Signal operates projects in 30 countries and regions, and we contribute to the creation of infrastructure in countries across the globe, mainly in Asia, by providing train control systems, AFC (Automated Fare Collection system), platform screen doors, and other products. We also actively network with people in emerging countries, such as those in Asia and Africa, and facilitate the creation of business partners and talent development, in an effort to support the development of these countries.

8 Promotion of social welfare

SDGs | Group Philosophy

Nippon Signal Group recognizes that, as a corporate group involved in transport infrastructure of a highly public nature, we should be a group that can help save lives in the event of an unexpected accident or a disaster. We are continuing our scheme to encourage officers and employees of Group companies in Japan to obtain lifesaving skill certifications issued by local fire authorities. Nippon Signal continues to be a co-sponsor of the Gold Concert, a music contest for people with disabilities, presenting the Nippon Signal Award to grand prize winners. We donate a portion of the proceeds from our Railway Festival to support the reconstruction from the Great East Japan Earthquake. We also collect donations around the date of the anniversary of our founding each year under a matching gift* scheme. We have made donations to many organizations including the Japanese Foundation for Cancer Research, Saitama Rehabilitation Center, and Saitama Adapted Sports Association.

*Matching gift is a system where the Company adds a certain contribution to the amount of donations made by employees and donates the sum.

Sustainability Initiatives

Nippon Signal's Value Creation | Nippon Signal's Vision and Growth Strategy | **Sustainability Initiatives** | Data Section

E Environment

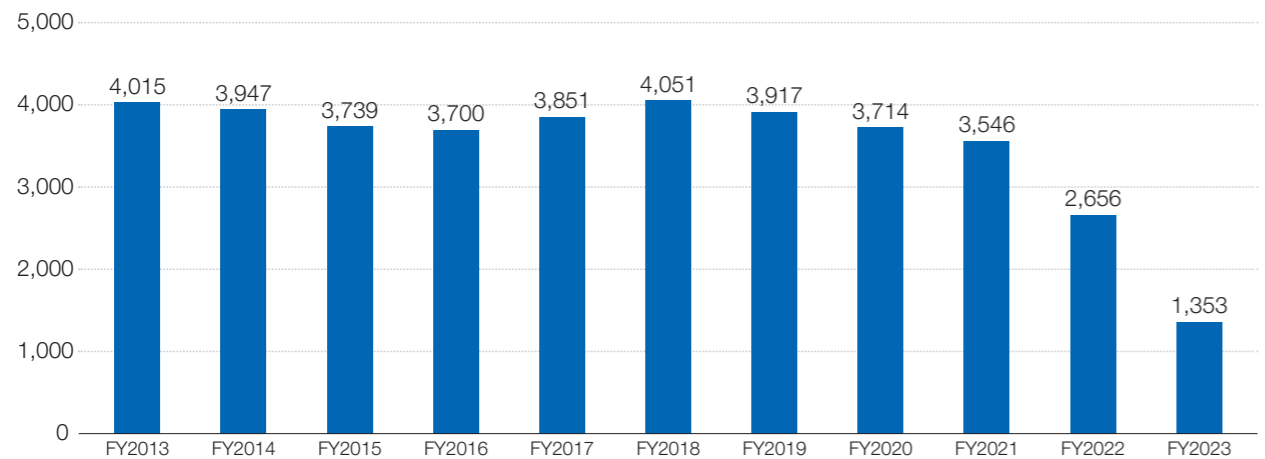## Response to TCFD (Task Force on Climate-related Financial Disclosures)

The Nippon Signal Group contributes to a sustainable society through environmentally friendly manufacturing, facilities that emit less greenhouse gases when in use, and popularization and maintenance of railways that are the means of transportation with low environmental load.
As part of such initiatives, the Nippon Signal Group declared its support of the Task Force on Climate-related Financial Disclosures (TCFD) on December 23, 2021, recognizing that climate change affects sustained growth. We will carry out the following initiatives in accordance with the TCFD recommendations.

Task Force on Climate-related Financial Disclosures (TCFD) was established by the Financial Stability Board (FSB) to discuss matters on climate-related disclosures. The Task Force recommends firms and other entities to grasp and disclose the risks and opportunities that climate change poses on their business.
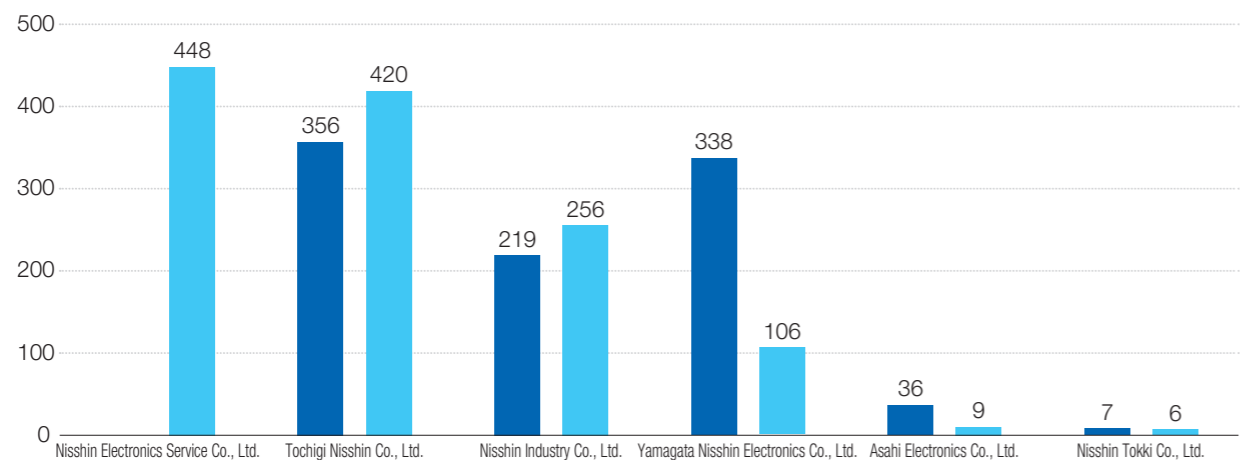
Trends in CO_2 Emissions

● Trends in emissions from business activities (Scopes 1 and 2) (Nippon Signal, non-consolidated) (Unit: tons)

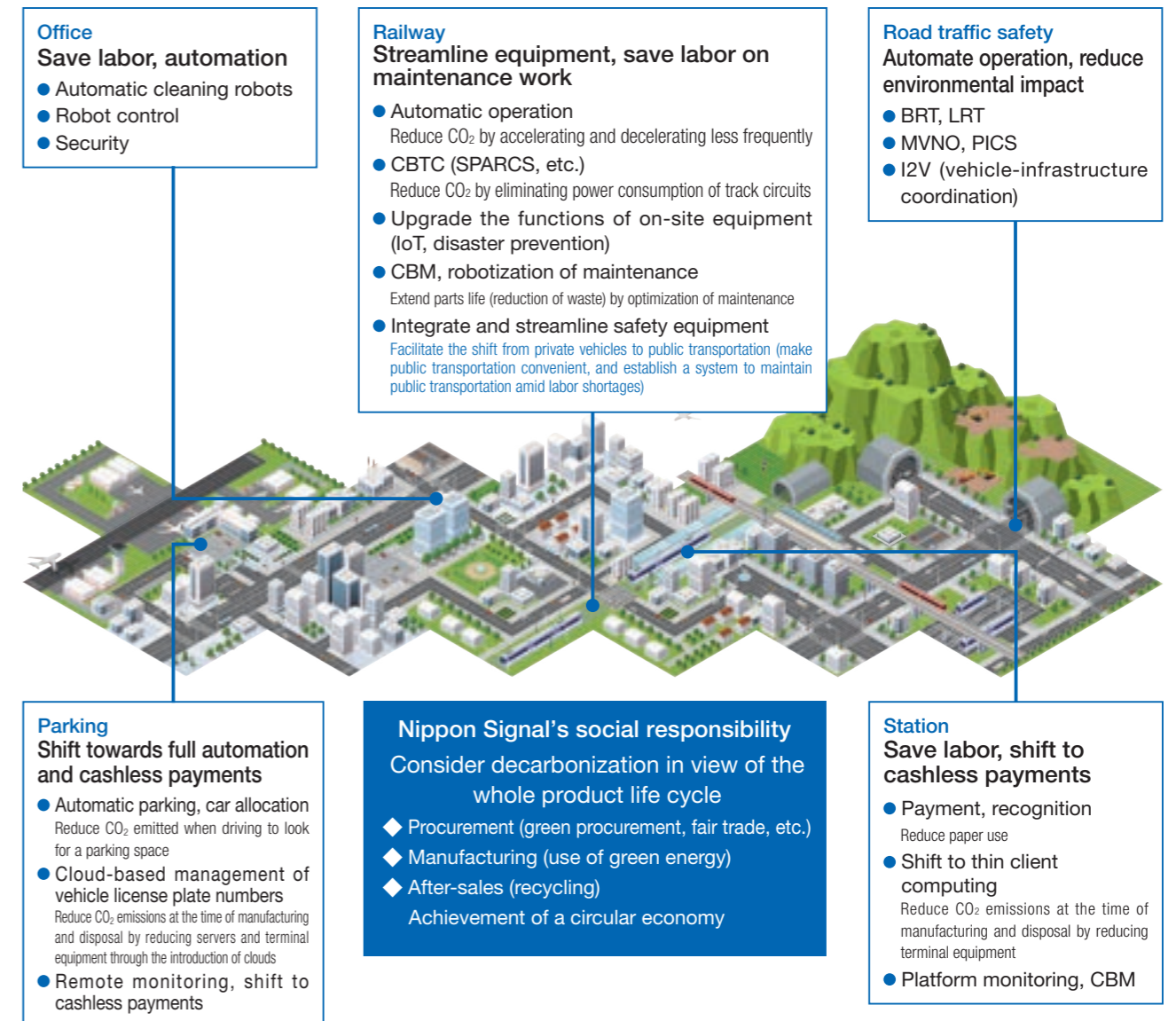| FY	Emissions
FY2013	4,015
FY2014	3,947
FY2015	3,739
FY2016	3,700
FY2017	3,851
FY2018	4,051
FY2019	3,917
FY2020	3,714
FY2021	3,546
FY2022	2,656
FY2023	1,353

The Group has been gradually shifting to the use of green electricity since FY2022, which has resulted in a significant decrease in emissions.

● Trends in emissions from business activities (Scopes 1 and 2) (Group companies) ■ FY2022 ■ FY2023 (Unit: tons)

Company	FY2022	FY2023
Nisshin Electronics Service Co., Ltd.	—	448
Tochigi Nisshin Co., Ltd.	356	420
Nisshin Industry Co., Ltd.	219	256
Yamagata Nisshin Electronics Co., Ltd.	338	106
Asahi Electronics Co., Ltd.	36	9
Nisshin Tokki Co., Ltd.	7	6

We keep track of CO_2 emissions of Group companies and take action to reduce them. Emissions decreased significantly at the companies that have completed the shift to green electricity.

Initiatives for Environment Beneficial Products, R&D

Office
Save labor, automation
● Automatic cleaning robots
● Robot control
● Security

Railway
Streamline equipment, save labor on maintenance work
● Automatic operation
Reduce CO_2 by accelerating and decelerating less frequently
● CBTC (SPARCS, etc.)
Reduce CO_2 by eliminating power consumption of track circuits
● Upgrade the functions of on-site equipment (IoT, disaster prevention)
● CBM, robotization of maintenance
Extend parts life (reduction of waste) by optimization of maintenance
● Integrate and streamline safety equipment
Facilitate the shift from private vehicles to public transportation (make public transportation convenient, and establish a system to maintain public transportation amid labor shortages)

Road traffic safety
Automate operation, reduce environmental impact
● BRT, LRT
● MVNO, PICS
● I2V (vehicle-infrastructure coordination)

Parking
Shift towards full automation and cashless payments
● Automatic parking, car allocation
Reduce CO_2 emitted when driving to look for a parking space
● Cloud-based management of vehicle license plate numbers
Reduce CO_2 emissions at the time of manufacturing and disposal by reducing servers and terminal equipment through the introduction of clouds
● Remote monitoring, shift to cashless payments

Nippon Signal's social responsibility
Consider decarbonization in view of the whole product life cycle
◆ Procurement (green procurement, fair trade, etc.)
◆ Manufacturing (use of green energy)
◆ After-sales (recycling)
Achievement of a circular economy

Station
Save labor, shift to cashless payments
● Payment, recognition
Reduce paper use
● Shift to thin client computing
Reduce CO_2 emissions at the time of manufacturing and disposal by reducing terminal equipment
● Platform monitoring, CBM

(Abbreviations)
CBTC: Communications-Based Train Control, a signal safety technology that controls train operation by using communications between trains and wayside equipment.
CBM: Condition Based Maintenance, a predictive maintenance approach in which maintenance is carried out only when deemed necessary.
BRT: Bus Rapid Transit, a bus system that ensures shorter travel time and punctuality and increases transportation capacity by combining articulated buses, public transportation priority systems, bus only roads, bus lanes, etc.
LRT: Light Rail Transit, a track-based transportation system that adopts low-floor vehicles as well as improved tracks and tram stops, resulting in superior features in terms of easiness of getting on and off, punctuality, shorter travel time, and comfort.
MVNO: Mobile Virtual Network Operator
PICS: Pedestrian Information and Communication Systems, systems that support safe transit by providing information about names of intersections, the status of traffic lights for pedestrians, etc., which is made possible through mutual exchange of information between communication devices installed at intersections and other locations and mobile devices owned by pedestrians.
**I2V:** Infrastructure to Vehicle, infrastructure- to-vehicle communications.

E Environment

Disclosure in Accordance with TCFD Recommendations

● Governance

The Nippon Signal Group regards the addressing of climate change as a significant sustainability challenge. Our Company-wide Environmental Committee, chaired by the Executive Officer in charge of environment and involving heads of each site, manages the process in accordance with the targets and plans for each fiscal year. The Board of Directors provides supervision based on the reports on matters and progress.

The Company-wide Environmental Committee and its chair are accountable for climate-related matters.
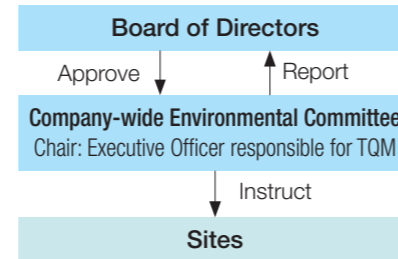
[Company-wide Environmental Committee/Board of Directors]

The Company-wide Environmental Committee met four times in total during FY2023. Information disclosed in relation to the TCFD and important matters deliberated by the Company-wide Environmental Committee were reported to the Board of Directors four times in total.

Important matters reported to the Board of Directors were revision of the Environmental Policy and establishment of the Environmental Action Guidelines, a plan to increase in stages the number of companies participating in the Company-wide Environmental Committee in accordance with the TCFD, and the results of the 6th Stage Environmental Action Plan.

[Climate-related monitoring]

The outcomes of climate-related monitoring are sent from divisions and departments to the Environmental Secretariat of sites and affiliated companies and reported from the Environmental Secretariat of sites to the TQM Promoting Department. The TQM Promoting Department reports them to the Executive Officer responsible for TQM Promoting Department, and matters of particular importance are reported at the Board of Directors meetings. Monitoring instructions are given through the route opposite to reporting.

● Strategy (Scenarios Adopted)

In considering scenario analyses, we have consulted AR6 SSP1-1.9 and SSP5-8.5 of the Intergovernmental Panel on Climate Change (IPCC) and set two scenarios, namely, (1) a world in which the average temperature rise in 2100 is below 1.5°C (1.5°C Scenario), and (2) a world in which the average temperature rise in 2100 is 4°C (4°C Scenario).

● Risk Management

[Process for managing climate-related risks]

The Nippon Signal Group sorts out, evaluates, and manages climate-related risks listed below, deliberates their validity at the Company-wide Environmental Committee, and reports them to the Board of Directors.

    a) Transition risks (policy and regulations, market, technology, users' behavioral changes)

    b) Physical risks (natural disasters, infectious diseases, temperature rises)

[Process for evaluating climate-related risk management]

As with other conventional risks, we multiply the probability of occurrence by the scale of damage to judge the severity of near-, mid-, and long-term risks in the 1.5°C and 4°C scenarios respectively. We judge the urgency of response in accordance with the severity.

[Decision-making process for mitigating, transferring, accepting, or controlling climate-related risks]
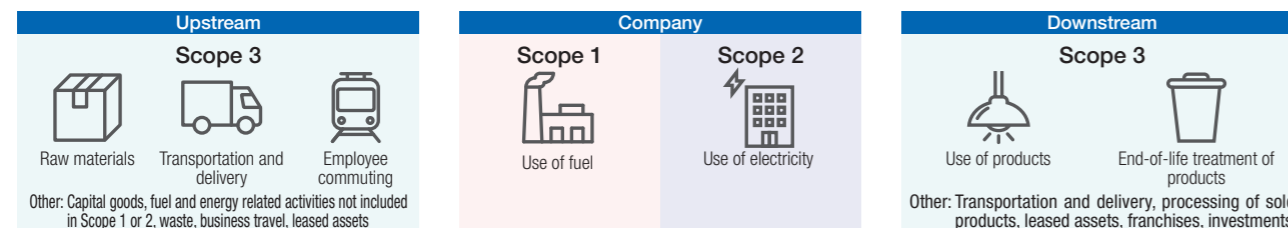
Instructions are given to the Nippon Signal Group's sites after decisions are made by the Company-wide Environmental Committee (Board of Directors if the matter is of particular importance).

The sites make specific decisions, led by their Environmental Committee Members. Coordination between sites and reporting on each site's decisions take place at Environmental Secretariat meetings, to which the TQM Promoting Department serves as the secretariat.

Decisions made by each site are made known to divisions and departments by Environmental Committee Members.

● Indicators and Targets (Life Cycle CO₂ Emissions)

The Nippon Signal Group will work on the reduction of greenhouse gases based on Scopes 1 to 3 set by the SBT Initiative. In particular, we will measure Scope 3 emissions for each category and make efforts to reduce GHG emissions, particularly those related to the use and end-of-life treatment of our products, with activities starting in the early design stages.

Board of Directors

Approve ↓ ↑ Report

Company-wide Environmental Committee
Chair: Executive Officer responsible for TQM

↓ Instruct

Sites

Upstream	Company		Downstream
Scope 3	Scope 1	Scope 2	Scope 3
Raw materials / Transportation and delivery / Employee commuting	Use of fuel	Use of electricity	Use of products / End-of-life treatment of products
Other: Capital goods, fuel and energy related activities not included in Scope 1 or 2, waste, business travel, leased assets			Other: Transportation and delivery, processing of sold products, leased assets, franchises, investments

Strategy Based on Scenario Analyses

According to our analysis, the changes in society to keep the temperature rise below 1.5°C will bring about carbon taxation and other legislation, changes in market needs, and other changes, and will push up demand for the Nippon Signal Group's decarbonization solutions. If the temperature increases by 3-4°C, there will be a rise in physical risks associated with severe disasters caused by climate change, and it may seriously affect the Nippon Signal Group's supply chain including our own offices and plants. Our analysis also suggests that there will be a rise in demand for disaster-resistant products.

We reviewed the scenario analysis published in FY2023, and added specific figures for large financial impacts in relation to the environment. Some items were added in accordance with changes in the environment.

Near term : –FY2024, **Mid term** : –FY2030, **Long term** : FY2030–, <u>Underlined</u> : Risks that have large financial impacts, Red : Added items

1.5°C Scenario

Risks			Implications for Nippon Signal	Responses of Nippon Signal
Transition risks				
Carbon tax on suppliers, introduction of emissions trading system	Near term		● <u>Substantial increase in electricity costs (1)</u>	● The 6th Stage Environmental Action Plan: systematically secure green electricity to achieve a green energy procurement rate of 60% as the Nippon Signal Group ● Drive energy saving efforts and use of renewable energy (introducing energy-efficient equipment and power generation facilities) towards achieving GHG emissions reduction targets[*1] (6th Stage Environmental Action Plan)
	Mid term		● Rise in business costs (carbon tax, emissions trading) ● <u>Rise in purchasing prices led by the transfer of costs of materials (iron, plastic), etc. to the prices (2)</u>	● Expand decarbonization policy to Group companies ● Shift to products with reduced hardware use ● Present Green Procurement Guidelines including those in line with the Framework Convention on Climate Change and keep track of compliance
	Long term		● Sustained high electricity costs	● Continue to save energy and use renewable energy
Rapid change in procurement and investment behaviors aimed at a decarbonized society	Near term		● <u>Additional costs arising from having to make environment-related capital investments ahead of schedule</u>	● Make capital investments while saving energy
	Mid term/Long term		● Increased competition in environmental performance (products with greater environmental impact will lose competitive power) ● Failure to respond appropriately will lead to the loss of trust in society and business opportunities ● Rise in costs for adapting to circular economy	● Reduce environmental impact of Nippon Signal's main products in accordance with SBT Scope 3[*2] ● Develop products and services that will help reduce GHG emissions ● Support TCFD and conduct scenario analyses, disclose information in accordance with the framework

*1 Long-term targets for GHG emissions reduction (SBT Scope 3) will be presented in the 6th Stage Environmental Action Plan

*2 SBT, or Science Based Targets, are the GHG emissions reduction targets required under the Paris Agreement. Scope 3 covers indirect emissions.

4°C Scenario

Risks			Implications for Nippon Signal	Responses of Nippon Signal
Physical risks				
Increased severity and sharp rise in the frequency of natural disasters	Near term		● <u>Wind and flood damage to production bases</u> ● <u>Suspension of parts supply due to supply chain disruption</u> ● Restriction on outdoor work due to extreme heat, rise in air conditioning costs	● Business continuity planning: disaster preparedness at production bases, manufacture of same product at multiple production bases, diversifying suppliers, securing means of transportation ● Secure in-house power generation and power storage capacity ● Improve outdoor work environments (roofs, spot air conditioning, etc.)
	Mid term		● Decline in new capital investments due to customers being hit by disasters ● <u>Decrease in new infrastructure developments due to increased costs for disaster preparedness</u>	● Develop disaster-resistant products (waterproof, etc.) ● Propose MaaS and other optimal means of transit that take advantage of existing infrastructure facilities
	Long term		● Decline in operation rates of existing infrastructure due to changes in areas that are susceptible to disasters	● Propose systems that can be maintained at low costs
Regional epidemic of infectious diseases	Near term		● Decline in operation rates of production plants including parts factories ● Reduction of production due to disruption in parts supply	● Automate production processes, utilize IT for business talks ● Secure parts and product inventory
	Mid term/Long term		● Decline in new capital investments due to weaker dominance of public transportation	● Develop products for use against infectious diseases (temperature check, traceability, etc.)

Sustainability Initiatives

Nippon Signal's Value Creation | Nippon Signal's Vision and Growth Strategy | **Sustainability Initiatives** | Data Section

E Environment

Opportunities

Opportunities		Implications for Nippon Signal	Responses of Nippon Signal
Expand sales of products and solutions that support customers' decarbonization efforts	Near term	● Rise in orders for energy-saving products (3)	● Adopt energy-saving designs for existing products
	Mid term/Long term	● Rise in orders to replace existing products for the purpose of decarbonization ● Increased requests for proposals for decarbonization solutions	● Decarbonization plan consisting of design improvement and change of products (including discontinuing products) ● Offer solutions that will help reduce GHG emissions
Expand sales of products and solutions that support the strengthening of customers' infrastructure	Near term	● Rise in orders for products for securing substitute power source in case of power failure and products to prepare for flooding	● Generate solar power and develop products with storage batteries ● Develop waterproof products for outdoor use
	Mid term/Long term	● Rise in orders to replace existing products following customers' works to strengthen infrastructure ● Increased requests for proposals for solutions that enable speedy recovery from disasters	● Develop products that can stay functional during a disaster ● Develop products that contribute to speedy recovery from disasters
Expand sales of solutions that will help counter infectious diseases (new normal)	Near term	● Increase in bookings and payments made through channels other than counters and ticket machines	● Expand sales of ticket gates that support mobile bookings and payments
	Mid term/Long term	● Increased requests for proposals for solutions that enable capturing of congestion information and equalizing of the flow of people ● Increased requests for proposals for solutions that enable full automation of site works	● Develop and propose solutions to capture the flow of people and forecast congestion ● Develop and propose remote monitoring and operation solutions
Create and expand new businesses	Mid term/Long term	● Increased requests for proposals for disaster detection solutions	● Development plan for technologies to detect disaster occurrence to infrastructure

(1) Nippon Signal and six Group companies that engage in manufacturing and maintenance used 9,761 MWh of electricity in FY2023. Our electricity costs remain at a high level mainly due to electricity contract rate hikes, since the electricity contract rates rose significantly around FY2022. If we use the same amount of electricity, electricity costs will be 80 million to 100 million yen higher than those in 2021 or earlier (including approximately eight million yen for a special contract for CO_2-free electricity).

(2) As steelmaking using electric furnaces, hydrogen reduction steelmaking, and plastics made from raw materials containing CO_2, among others, become widespread, materials produced from processes that involve high costs but low environmental load are expected to become common. In addition to price fluctuations caused by supply and demand balance, material prices may increase due to environmental measures taken.

(3) In our mainstay Railway Signal Systems business, we develop SPARCS, a communication-based train control (CBTC) system, and roll it out to Railway operators in Japan and overseas. With lower electricity consumption and reduced hardware equipment, SPARCS can reduce CO_2 emissions by approximately 7 0% compared with conventional train control systems. This system has been in operation since 2012 on the Beijing Subway Line 15. Being adopted by Delhi Metro and Jakarta Mass Rapid Transit (MRT), among other railway operators, it first became widespread overseas. Orders and inquiries have been increasing in Japan as well, with orders received in 2019 for installation on the Toei Subway Oedo Line. Sales is expected to rise further due to the support for decarbonization and environmentally friendly products.

● Results of Impact Review by Scenario Analysis
[Products and services]
- To reduce greenhouse gases throughout the life cycle, we will drive forward the development of products with reduced hardware use. This includes concentrating equipment, removing cables (going wireless), and supporting payments that use general-purpose devices.
- We will drive forward the development of disaster-resistant products in response to increase in disasters due to abnormal weather. Such products include waterproof products and products that come with batteries or power generation equipment to cope with power outages.

[Supply chain/Value chain]
- We will diversify suppliers and secure means of transportation to prepare for damage to parts manufacturing plants and disruption to logistics caused by disasters due to abnormal weather. This includes design and development using parts that can be procured from multiple suppliers.
- We will drive forward the development of products and systems that help maintain social infrastructure at the time of disasters and contribute to speedy recovery.

[Investment related to R&D]
- A 21.0-billion-yen investment in R&D has been planned and being made based on the Nippon Signal Group 28 Medium-term Management Plan (management plan for FY2024–FY2028). We focus on CBM, automatic operation, payment and recognition, and robots that resolve issues in achieving a decarbonized society. All of these contribute to greenhouse gas reduction by allocating limited human and physical resources efficiently.
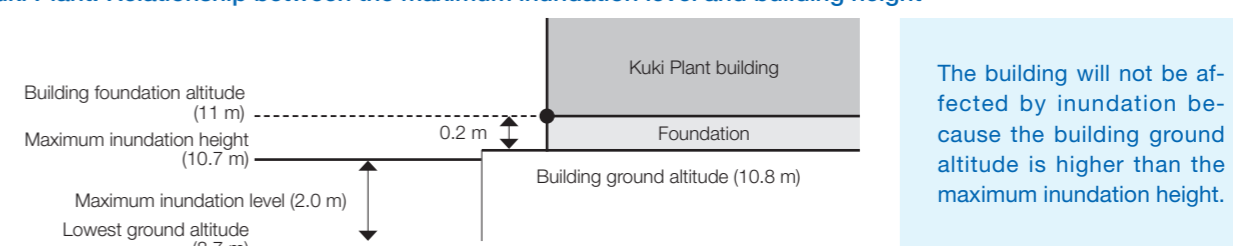
[Business operation]
- We mainly engage in businesses that support infrastructure for railways, which are environmentally friendly means of transportation.
- Manufacturing and use of our products cause little direct greenhouse gas emissions. We use green electricity for manufacturing and strive to adopt energy-saving designs.
- Shown below are our main manufacturing sites' hazard maps for flood and inundation. No factory or site is at a particularly hazardous location that affects business continuity.

*Source: Hazard Map Portal Site

	Kuki Plant	Utsunomiya Plant	Ageo Factory
Hazard map			
Site hazard level	■ Inundation of 1.0–below 2.0 m ■ Inundation of 2.0–below 3.0 m Classified as inundation risks of 1.0–below 2.0 m inundation for the building area (hazard level 3) and 2.0–below 3.0 m inundation for the regulating reservoir (hazard level 4).	No inundation risks.	■ Inundation below floor level (0.2–below 0.5 m) ■ Other inundation (0–below 0.2 m) [Flooded roads, etc.] Classified as inundation risks of 0.2–below 0.5 m inundation for the building area.

Kuki Plant: Relationship between the maximum inundation level and building height

Building foundation altitude (11 m)
Maximum inundation height (10.7 m)
0.2 m
Kuki Plant building
Foundation
Building ground altitude (10.8 m)
Maximum inundation level (2.0 m)
Lowest ground altitude (8.7 m)

The building will not be affected by inundation because the building ground altitude is higher than the maximum inundation height.

[Transition risks, physical risks, and climate-related opportunities in value and degree of impact]
• Transition risks
Soaring electricity prices have had the largest impact and are likely to have a significant impact in the future as well. Additional electricity costs amount to approximately 50 million yen for Nippon Signal (non-consolidated) and 10 million yen for Group companies that engage in manufacturing. If we are unable to sufficiently pass them on to product prices or make up for them in another way, there is a risk of downward pressure on the profit.
The Nippon Signal Group will continue to strive for energy saving, and electricity procurement will be reviewed from time to time in light of social circumstances and other factors.

• Physical risks
Disasters on our manufacturing sites may temporarily cause risks of a significant impact, such as suspension of manufacturing and shipping. Nippon Signal's manufacturing lines, however, can flexibly produce a wide variety of products in small quantities and are therefore expected to recover at a relatively early stage.
To prepare for the case where our suppliers and logistics networks are affected by a disaster, we promote the use of general-purpose products and diversification of suppliers.

Sustainability Initiatives

Nippon Signal's Value Creation | Nippon Signal's Vision and Growth Strategy | **Sustainability Initiatives** | Data Section

E Environment

• Opportunities

We are expanding sales of waterproof products, products with batteries, products with emergency power switching functions, and other products that respond to physical risks. The demand for such products is expected to grow further. For example, we recorded a certain amount of sales of waterproof point machines and traffic lights with batteries in FY2023. Products that respond to physical risks in a broad sense include cableless systems and remote monitoring systems, the demand for which is also expected to grow further.

[Capital allocation to (capital investment in) climate-related risks and opportunities]

Aiming to operate using 100% green electricity, the Nippon Signal Group is shifting to green electricity procurement. By May 2023, the following manufacturing sites have completed the shift to green electricity.

Nippon Signal

	Start of green electricity procurement	Additional cost (unit price)	Electricity use in FY2023 (MWh)	Additional cost in FY2023 (thousand yen)
Kuki Plant	October 2022	0.83 yen/kWh	2,871	2,383
Ageo Factory	October 2022	0.83 yen/kWh	783	650
Utsunomiya Plant	May 2023	0.83 yen/kWh	2,495	2,070

Group companies

	Start of green electricity procurement	Additional cost (unit price)	Electricity use in FY2023 (MWh)	Additional cost in FY2023 (thousand yen)
Nisshin Tokki Co., Ltd.	March 2022	0.7 yen/kWh	215	179
Asahi Electronics Co., Ltd.	January 2023	0.83 yen/kWh	96	79
Yamagata Nisshin Electronics Co., Ltd.	April 2023	1.1 yen/kWh	753	828

Other manufacturing sites will gradually shift to 100% green electricity as well.

If all manufacturing companies of the Nippon Signal Group procure 100% green electricity, estimated additional costs will be as follows:

	Additional cost (estimated unit price)	Electricity use (MWh) (Actual annual use in FY2023)	Estimated annual additional cost (thousand yen)
Nippon Signal (3 sites*[1])	1 yen/kWh	6,148	6,148
Group companies that engage in manufacturing*[2]	1 yen/kWh	1,064	1,064
Total	1 yen/kWh	7,212	7,212

*1 Kuki Plant, Utsunomiya Plant, Ageo Factory
*2 Nisshin Electronics Service Co., Ltd., Yamagata Nisshin Electronics Co., Ltd., Nisshin Tokki Co., Ltd., Tochigi Nisshin Co., Ltd., Nisshin Industry Co., Ltd., Asahi Electronics Co., Ltd.
*3 Additional cost (unit price) may change depending on social circumstances.
  Changes in additional costs due to the introduction of power generation facilities and other factors are not included.

• Capital investments related to energy saving

In FY2023, we made the following capital investments related to energy saving.
◆ Installed energy-saving shields to and applied heat insulation paint around outdoor units

Location	Timing	Cost	Energy-saving effect (catalogue value)
Nippon Signal Co., Ltd. Kuki Plant	May–June 2023	Approx. 10 million yen	Approx. 10%

Although accurate results cannot be calculated due to differences in outside temperatures and other environmental conditions, energy use was lower than that of other sites despite extreme heat in summer 2023. We therefore believe that a certain level of energy-saving effect has been achieved.
In FY2024, we will make the same investments at other sites.

◆ Installed a heat exchange ventilation system

Location	Timing	Cost	Energy-saving effect
Nippon Signal Co., Ltd. Utsunomiya Plant	August–September 2023	Approx. 2 million yen	2.6 kl (crude oil equivalent)

Energy-saving shields

Heat insulation paint (white part)

[Acquisition/Sale]

• No large-scale business acquisitions or sales are scheduled, and no significant impact of acquisitions/sales on direct or indirect environmental data is expected.

[Access to capital]

• We do not invest in businesses that directly emit greenhouse gases.

● Emissions from main supply chain CO_2 (Scope 3) categories and calculation method

We have estimated CO_2 emissions from categories that are thought to account for a large portion of total emissions from the Nippon Signal Group's corporate activity. The estimates will be reviewed going forward.

(Unit: tons)

	FY2013 (estimated)	FY2022	FY2023	FY2030 (target)	Reduction measures
Scope 1	1,000	683	787	300 (-487)	Use of electric vehicles and fuel-efficient vehicles
Scope 2	4,000	1,665	566	0 (-566)	Shift to green electricity
Scope 3	238,800	188,499	230,214	120,400 (-109,814)	Reduction of CO_2 emissions at the time of product use, reduction of raw materials
Category 1	100,000	83,894	123,259	61,500 (-61,759)	Resource saving, green procurement
Category 2	3,500	3,036	3,247	2,500 (-747)	Green procurement
Category 4	2,000	1,715	1,355	1,000 (-355)	Improvement of transportation efficiency, introduction eco-friendly cars
Category 5	500	457	362	400 (target achieved)	
Category 6	400		350	300 (-50)	Use of online meetings
Category 7	800	647	663	500 (-163)	Eco-driving, use of public transportation
Category 11	80,000	56,129	59,665	25,500 (-34,165)	CBTC, power and resource saving
Category 12	30,000	25,621	30,834	20,200 (-10,634)	Resource saving
Category 13	0		479	500 (target achieved)	
Other	21,600	17,000	10,000	8,000 (-2,000)	Improvement of operational efficiency
Total	243,800	190,847	231,567	120,700 (-110,867)	50% reduction from FY2013

[Calculation methods for Scope 3]

The Group calculates its CO_2 emissions using the methods shown below. (○ : Calculated, × : Not calculated)

Scope 3	Details	Whether emissions are calculated	Calculation method and grounds
Category 1	Raw materials	○	Calculated based on purchases for each internally set item group
Category 2	Capital goods	○	Calculated based on the value of actual capital investment (items that can be assessed based only on monetary value are used)
Category 3	Fuel and energy related activities not included in Scope 1 or 2	×	Expected to be small due to increased use of green energy
Category 4	Upstream transportation and delivery	○	Estimated by calculating the emissions from Group companies' transportation based on the fuel consumption method and including emissions from other companies' transportation based on the ratio of transportation costs
Category 5	Waste generated in operations	○	Calculated based on the volume of industrial waste and general waste (calculated by using the data for incineration services)
Category 6	Business travel	○	Emissions from business travel by company owned cars are included in Scope 1, and those from business travel by other means are calculated based on the number of employees (10 business trips per year)
Category 7	Employee commuting	○	Calculated only for car commuting based on the commuting distance and using the emission coefficient for gasoline (commuting 24 days per month, fuel efficiency of 20 km/ℓ)
Category 8	Upstream leased assets	×	Emissions from leased vehicle fuel are included in Scope 1, and those from other leased assets are not calculated (estimated to be small)
Category 9	Downstream transportation and delivery	×	Estimated to be small because most are delivered to locations of use and little delivery is done by customers
Category 10	Processing of sold products	×	Estimated to be small because most are delivered as finished products and little processing is done by customers
Category 11	Use of sold products	○	Calculated by quantifying lifetime electricity consumption, based on each product group's electricity consumption (when in standby mode and in operation), operation rate, and estimated life expectancy (all products are powered by electricity)
Category 12	End-of-life treatment of sold products	○	Calculated based on the mass of each product group (calculated by using the data for incineration services)
Category 13	Downstream leased assets	○	Calculated by quantifying annual electricity consumption, based on each product group's electricity consumption (when in standby mode and in operation) and operation rate (all products are powered by electricity)
Category 14	Franchises	×	No franchise systems in place
Category 15	Investments	×	No large-scale investments in projects that emit greenhouse gases

*Greenhouse gas (GHG) emissions are calculated for CO_2 only. We will calculate methane (CH4) emissions when clearer data becomes available on leakage at the time of fossil fuel mining and other emissions that indirectly affect us. (Nippon Signal's business does not have any direct links to emissions from livestock, etc.)

E Environment

[Calculation formulas]

CO_2 emissions are calculated based on the calculation formulas and examples below.

Scope 3	Details	Calculation formula and example
Category 1	Raw materials	Σ [Purchases for each internally set item group × Emission coefficient] Example: Sheet metal stamped products (onboard, small equipment) 10,000,000 yen × Can and sheet metal products 0.00971 = 97,100 kg = 97.1 t
Category 2	Capital goods	Σ [Purchase price of non-current assets × Emission coefficient for the closest item] Example: Preparation of equipment for online meetings 1,000,000 yen × Communications machinery and related equipment 0.00272 = 2,720 kg = 2.72 t
Category 4	Upstream transportation and delivery	Σ Each site {Σ Each partner company (Σ Fuel used by each vehicle model category × Emission coefficient for each vehicle model category) / Share of partner companies' transportation costs} Example: Utsunomiya Plant: Partner Company A: Fuel used by gasoline light cargo vehicles 4 kℓ × Emission coefficient for gasoline light cargo vehicles 2.32 = 9.28 t Utsunomiya Plant: CO_2 emissions from all partner companies 600 t / Share of partner companies 0.8 (80%) = 750 t
Category 5	Waste generated in operations	Σ Each site (Σ Volume of each type of waste × Emission coefficient for each type of waste) Example: Kuki Plant: Plastic waste 30 t × Incineration services: Industrial waste: Plastic waste 2.55 = 76.5 t
Category 6	Business travel	Σ Number of employees × Average number of business trips per year × Emission coefficient Example: 1,000 employees × 10 business trips on average × Average for all business trips 0.030 = 300 t
Category 7	Employee commuting	Σ [Commuting distance of car commuters × 2 (round-trip) × 24 (commuting days per month) × 12 (months per year) / 20 (fuel efficiency: 20 km/ℓ) × Emission coefficient for gasoline cars] Example: One-way commuting distance 30 km × 2 × 24 × 12 / 20 × Emission coefficient 0.00232 ≒ 2 t
Category 11	Use of sold products	Σ Each product [{Electricity consumption when in standby × (1 - operation rate) + electricity consumption when in operation × operation rate} × 24 (hours) × 365 (days) × Estimated life expectancy × Number of shipments] × Emission coefficient for each electricity supplier Example: Automatic ticket gates: {0.2 kW when in standby × 0.5 + 0.4 kW when in operation × operation rate 0.5} × 24 × 365 × 7 (estimated life expectancy) × Number of shipments 50 × Emission coefficient for each electricity supplier (national average) 0.00435 ≒ 400 t
Category 12	End-of-life treatment of sold products	Σ [Each product (Mass × Emission coefficient for incineration services* × Number of shipments)] Example: Fare adjustment machines: 0.2 t × Incineration services 0.0472 × 50 ≒ 0.47 t
Category 13	Downstream leased assets	Σ Each leased product [{Electricity consumption when in standby × (1 - operation rate) + electricity consumption when in operation × operation rate} × 24 (hours) × 365 (days) × Number in operation] × Emission coefficient for each electricity supplier Example: Transceivers: 0.02 kW when in operation × operation rate 1 × 24 × 365 × Number of shipments 500 × Emission coefficient for each electricity supplier (national average) 0.00435 ≒ 381 t

[CO_2 emissions in 2023]

CO_2 emissions increased in 2023 mainly due to an increase in raw material purchases (Scope 3, category 1). The significant increase from the previous fiscal year is attributable to the improvement of the business environment, which has returned to normal from the difficulty in obtaining raw materials due to semiconductor shortages in the previous fiscal year.

As indicated in the calculation methods and calculation formulas, emissions are calculated by multiplying purchases by emission coefficients. Increased purchases therefore results in increased CO_2 emissions according to the calculation.

Going forward, we intend to change the method and calculate based on mass instead of monetary value. We will also hold dialogues and track the status of green energy adoption and other measures taken by suppliers, based on which we will calculate emissions accurately and strive to reduce emissions.

● Waste Management

Waste reduction is included in the 6th Stage Environmental Action Plan (see pages 52 and 53), and waste volume is managed with targets in place. We strive to reduce the volume of final disposal by reducing and reusing packaging materials and pallets, looking for collection service operators capable of higher-level recycling (material recycling instead of thermal recycling), and taking other measures.

The Nippon Signal Group will not only continue to strive for waste reduction in business operations but also take action to reduce Nippon Signal products that are disposed of as waste, such as extending product life and making products smaller, lighter, and cableless. This also leads to the reduction of life-cycle greenhouse gas (GHG) emissions that fall under SBT's Scope 3, category 12 (end-of-life treatment of sold products).

● Digitalization of Industrial Waste Manifests and Introduction of Waste Management System (Software)

Effective from FY2024, the Group has digitalized its industrial waste manifests[1] and introduced Waste Management System (software). This ensures the storage of manifests on the JWNET[2] server. The introduction of Waste Management System prevents missed updates of disposal operators' permits and contracts, ensuring compliance.

In addition, the Nippon Signal Group will centrally manage general waste and valuables as well and work on the reduction of CO_2 emissions from waste and increase in the recycling rate.

[1] A system where businesses that discharge industrial waste issue specific documents and appropriate disposal of industrial waste is tracked by managing the documents.
[2] Japan Industrial Waste Information Center, which operates the digital manifest system.

● Water Management

Shown below is our water use in FY2023.

(Unit: m³)

	Water supply	Well water (groundwater)	Grey water (recycled water)	Industrial water supply	Total water intake	Total wastewater
Nippon Signal Co., Ltd.	31.5	22.5	0	0	54.0	54.0

*No wastewater is treated in-house. All wastewater is discharged untreated to third parties (sewers).

The Group will continue to strive for water saving and take action to conserve diverse water resources. The Company-wide Environmental Committee deliberates on water management as well.

● Green Energy Procurement

The Nippon Signal Group is gradually shifting to the use of green energy. In addition to using 100% green electricity, we will improve the efficiency of, as well as shift to electricity from, other types of energy and take other measures, thereby reining in green-house gas emissions.

	Timing of green electricity introduction	CO_2 emissions reduced in FY2023* (t)
Nippon Signal Co., Ltd. Kuki Plant	October 2022	1,407
Ageo Factory	October 2022	384
Utsunomiya Plant	May 2023	1,222
Nisshin Tokki Co., Ltd.	March 2022	92
Asahi Electronics Co., Ltd.	January 2023	47
Yamagata Nisshin Electronics Co., Ltd.	April 2023	344

*Calculated by multiplying the amount of electricity used after the introduction of green electricity by the emission coefficient for the plan before the introduction

*The building owner of the Nippon Signal head office has completed the transition to 100% green electricity.

● Introduction of Environmental Management System (Software)

We have introduced Environmental Management System (software) to centrally manage the Group's environmental information and outcomes of environmental activities. The system has been in operation since July 2023.

The Environmental Management System (software) manages the following matters.

- CO_2 Emissions (Scopes 1 to 3)
- Energy use (electricity, gas, petroleum)
- Water use (water intake, wastewater)
- Waste volume

Inputs
Information from other internal systems
- Purchase of parts, shipping of products
- Technical information (product electricity consumption, etc.)
- Information on commuting, business travel, etc.
- Logistics information
- Waste management information, etc.

Environmental Management System (software)

Outputs
- TCFD reports/IR
- Act on Rational Use of Energy
- Environmental Committee materials

E Environment

FY2024 Quality, Environment & Safety Policies

Quality, Environment & Safety Policies

● Basic Policy
We strive to become a global company by pursuing world-leading technologies with ingenuity and passion to inspire our customers' Kando.

● Policy
To materialize the basic framework for the 28 Medium-term Management Plan, "Support the next stage of infrastructure," the Group will achieve all persons' safety and high-quality products and services through process optimization. We will also contribute to the achievement of a sustainable society, and aim to win reliability from people around the world.
As a premise for ensuring quality, we will establish a culture where we do not conceal, do not turn a blind eye, and create an atmosphere that allows employees to speak up.

Environmental Management

Our environmental efforts represent the essence of our business activities.

● Environmental Philosophy
Nippon Signal promotes initiatives to protect and improve the environment in an effort to create a better world for everyone and build a more comfortable society through safe and reliable technology.

Revision of the Environmental Policy

Our Environmental Policy has been in place since 2 0 0 2. We have revised the Environmental Policy to align it with the TCFD's initiatives, for which we declared support in December 2021.

● Environmental Policy
We provide eco-friendly products and services, and also reduce the environmental impact throughout the product life cycle, from product development to final disposal, to achieve a synergy between business activities and environmental protection efforts.

① We make clear and disclose the impact of our business activities on the environment and the impact of the environment on our business activities[1], while curbing environmental pollution and improving our sustainable environmental management system.

② We comply with legal regulations related to the environment, as well as agreements with stakeholders. In addition, we set ambitious targets that meet expectations from society and engage in sustainable economic activities by achieving the targets.

③ In product research and development, we calculate[2] to the extent possible and minimize the environmental load of the process from manufacturing and procurement to disposal. In addition, we promote the development of products and services that support activities of low environmental load, giving back our expertise to a wider society.

④ To realize the aims of this environmental policy, we conduct risk assessments on future environmental impacts[3] based on cutting-edge findings. We establish the highest goals and targets for protecting the environment within achievable technical and financial limits and conduct periodic reviews to ensure continued improvement.

⑤ We roll out this policy as part of educational and awareness-raising activities and disclose the policy to the general public as well, in order to enhance each employee's awareness toward the environment and encourage them to implement the policy proactively.

[Explanation]
1. We make clear not only the impact of our business activities on the environment (transition risks and opportunities) but also the impact of the environment on our business activities (physical risks and opportunities).
2. We calculate and disclose life cycle CO_2 emissions based on Scopes 1 to 3 set by the SBT initiatives.
3. We identify, assess, and manage future environmental impacts.

Establishment of the Environmental Action Guidelines

Along with the revision of the Environmental Policy, we established the Environmental Action Guidelines, which set out specific environmental initiatives of Nippon Signal. We have thus made clear what each employee should do to solve social issues related to the environment.

● Environmental Action Guidelines
① We make clear the impact of our business activities on climate change, and set and take action toward greenhouse gas emissions targets that are in line with containing future global temperature rise within 1.5°C of pre-industrial levels. In the meantime, we incorporate climate change into our BCP as part of business activities and contribute to solutions to such issues through our products and services, so that we can adapt to climate change and maintain a safe and comfortable life in society.

② We make clear the impact of our business activities on natural ecosystems. We minimize the destruction of ecosystems in development projects related to our business activities.

③ We protect water, as well as forest resources that nurture water. We neither take in large volumes of water that affect local lives nor discharge such volumes of wastewater that exceed treatment and recovery capacity. We take appropriate measures to prevent logging and development related to our business activities from causing natural disasters.

④ We strive to prevent chemical substances from causing environmental impacts (air, water, and soil pollution), as well as damaging the health of all persons including our employees. We conduct risk assessments always based on the latest information, and promptly take measures, such as banning the use or handling with care. We also disclose information and take appropriate measures on chemical substances used in the past, once environmental impacts become clear.

⑤ We set our eyes on a recycling-oriented society, and as a general rule, develop and design products on the premise that they will be recycled. We use common parts and adopt designs that are easy to disassemble, as well as establish systems for a circular economy in logistics, packaging, maintenance, and services.

⑥ We engage in resource and energy saving activities. To use finite resources efficiently, we extend product life, carry out optimal maintenance and replacement, and promote development activities for the achievement of functions with less hardware resources and energy.

⑦ In procuring and purchasing necessary resources, we check for and ban hazardous substances, and preferentially procure and purchase materials, parts, and products that have less environmental load, taking into account transportation as well.

⑧ We provide environmental education in accordance with fields and position levels, so that each employee can carry out environmental conservation activities expected from society.

⑨ To achieve the Environmental Policy more effectively, we hold dialogues with suppliers and customers, where information including calculated environmental load is exchanged and value including targets is shared. We cooperate closely with government agencies, local communities, and relevant organizations, and actively participate in environmental conservation activities in society as a whole.

⑩ We actively disclose environment-related information to achieve a secure society.

[Explanation]
Each item in the Environmental Action Guidelines respectively aims to meet the following expectations from society.
① Response to global warming (TCFD) ② Biodiversity ③ Protection of water and forest resources
④ Management of chemical substances ⑤ Recycling-oriented society (circular economy) ⑥ Energy saving and resource saving
⑦ Green procurement ⑧ Environmental education ⑨ Cooperation with customers and suppliers ⑩ Information disclosure

● Structure
In order to promote the fusion of environmental conservation activities and environmental management, the Group has been operating an Environmental Management System based on ISO 14001, through the Company-wide Environmental Committee, comprised of representatives from five production facilities and chaired by the Executive Officer responsible for TQM Promoting Department.
To accelerate decarbonization, three consolidated Group companies that engage in production joined the Company-wide Environmental Committee in the fiscal year ended March 31, 2023, and one consolidated Group company that engages in maintenance in the fiscal year ending March 31, 2025. In order to achieve the provision of eco-friendly products and services, we aim to reduce environmental impact from the developmental stage onward, make continual improvements based on the PDCA cycle, and be a sustainable growth company.

● Environmental Audit
We regularly implement internal and external audits to verify compliance with, and the effectiveness of, the Environmental Management Systems.
Internal audit: Regularly implemented audits based on audit guidelines
External audit: Annual audits by ISO certification institutions; no cases of nonconformance were found in the audit conducted in the fiscal year ended March 31, 2024.

● Environmental Risk Management
After identifying environmental risks posed by the business operations at specific sites, emergency response training is conducted regularly to help us avoid and mitigate risks.

● Environmental Compliance
Information on environmental laws and ordinances is managed and shared, and periodic checks are implemented to confirm compliance. In the fiscal year ended March 31, 2024, there were no legal violations or accidents related to the environment.

E Environment

Quality Management

We engage in business activities based on our Group Philosophy: "We help realize a more secure and comfortable society through superior technologies that provide safety and reliability." We determine priority matters and quality targets for each fiscal year, in accordance with our quality policy. We operate a quality management system based on ISO 9001, through our Company-wide QA Committee, chaired by the Executive Officer responsible for TQM Promoting Department. Each division and department engages in quality enhancement by establishing a quality management plan based on the priority matters and making efforts for continual improvement based on the PDCA cycle.

RQMS Management

RQMS (Railway Quality Management System; ISO/TS22163:2017[1]) is a quality management system standard for the rail industry. It includes the requirements appropriate for the railway market, in addition to the requirements of ISO 9001:2015. Nippon Signal attained certification in the fiscal year ended March 31, 2020.
We passed the periodic review in the fiscal year ended March 31, 2024 and the certification remains valid.

[Explanation]
1. ISO/TS 22163:2017 transitioned to ISO 22163:2023 on July 25, 2023. We underwent the periodic review in the fiscal year ended March 31, 2024 based on the standard before the transition.

Green Procurement Guidelines

Based on its environmental policy of providing eco-friendly products and services, Nippon Signal enacted the Green Procurement Guidelines in 2005. When purchasing commercially available electric and electronic components or items with designated specifications from manufacturers or suppliers, we select and preferentially procure raw materials and components that are friendly toward the environment while also taking into account quality, price, and delivery date. The Green Procurement Guidelines are updated regularly to comply with the latest versions of the Act on the Assessment of Releases of Specified Chemical Substances in the Environment and the Promotion of Management Improvement, the EU's RoHS Directive, the REACH regulation, and other rules.
In addition, we encourage suppliers to acquire certification for Environmental Management Systems, conduct green procurement, and manage and eliminate the use of regulated chemical substances from the perspective of supply chain management.

● **Responsible Procurement of Minerals**
The Nippon Signal Group Philosophy Code of Conduct states, "As a member of the international community, we will not have involvement whatsoever with forced labor or child labor." This is applicable to procurement decisions as well.

Environment & Quality Education and Awareness Raising

Nippon Signal conducts regular training for internal environmental and quality auditors to ensure appropriate environmental activities and improve quality management.

● **Environmental and Climate Change Education**
With the understanding that all employees should proactively address environmental issues (especially climate change), we will implement level- and division/department-specific education programs. In the fiscal year ended March 31, 2024, three education program sessions took place.

	Topic	Purpose	Intended target
April 13, 2023	New employee education Basics of decarbonization and the SDGs	Learn about the necessity of environmental initiatives, social trends, and Nippon Signal's environmental activities	New employees
September 21, 2023	Product assessment education	Deepen the understanding of product assessment (environment) that improves corporate value, and take advantage of the understanding in conducting business	Design divisions and departments
January–March 2024	Seminar for a thorough learning of the basics of decarbonized procurement	Learn about the calculation of environmental load related to procurement, as well as examples of activities carried out in cooperation with suppliers, and become able to promote decarbonization	Material (procurement) divisions and departments

● **Eco Test and QC Exam**
We encourage our employees to take the Certification Test for Environment Specialists (Eco Test)[*1] and acquire rank 3 or higher certification in the Quality Control Examination (QC Exam)[*2] with the aim of raising their awareness of, and helping them acquire knowledge on, the environment and quality. Employees who have passed the Eco Test or acquired rank 3 or higher certification in the QC Exam both exceeded 70% by the fiscal year ended March 31, 2024.

*1 Eco Test: A test scheme organized by the Tokyo Chamber of Commerce and Industry through which people aim to acquire knowledge on environmental issues
*2 QC Exam: An examination scheme organized by the Japanese Standards Association through which knowledge on quality management is evaluated

Social Contribution to the Environment

● **Global Environment Protection and Volunteer Activities**
Each office (head office, branch offices, plants, affiliated companies, etc.) of the Nippon Signal Group carries out unique global environment protection and volunteer activities.

● **Forestry activities at the Forest of Nippon Signal**
In 2019, we opened the Forest of Nippon Signal in Tochigi Prefecture, home to the Utsunomiya Plant. We planted 2,700 wild cherry trees in the first year. Forest conservation activities have taken place on a constant basis, including tree planting, weeding, and other tree growing activities in the spring of the fiscal year ended March 31, 2024.

Global environment protection activity	Site
Voluntary cleaning of areas around sites	Kuki Plant, Utsunomiya Plant, Ageo Factory, head office, branch offices, etc.
Food drive*, where employees collect food items and donate them to children's cafeteria and other organizations	Ageo Factory, Osaka Branch Office
Maintenance of roadside flower beds, participation in flower planting	Kyushu Branch Office
Picking up of garbage around tourist sites, cleaning of railway facilities (station buildings)	Yamagata Nisshin Electronics Co., Ltd.

*Food drive: An activity where the organizer collects unused leftover food items and donates them to food bank organizations, local welfare facilities and organizations, etc.

Environmental Performance

Since the fiscal year ended March 31, 2006, the Group has continued to formulate environmental action plans, based on which it has pursued reductions in environmental impacts. We have reviewed the 5th Stage Environmental Action Plan (FY2019–FY2021) and have been promoting the 6th Stage Environmental Action Plan since the fiscal year ended March 31, 2023.

Environmental targets		Environmental indicators		FY2022	FY2023
1	Decarbonization	❶ Energy use reduction rate	Target	1% or more reduction from the previous fiscal year	1% or more reduction from the previous fiscal year
			Result	5.3%	-3.7%
		❷ Green energy procurement rate	Target	20% or higher/year as the Group	40% or higher/year as the Group
			Result	38.5%	76.9%
		❸ Contribution to the environment by improving business operations	Target	100% achievement rate	100% achievement rate
			Result	Achieved at six sites	Achieved at six sites
2	Reduction in and sorting of industrial waste generated	❶ Reduction in industrial waste generated	Target	0.5% or more in emission units from the previous fiscal year	0.5% or more in emission units from the previous fiscal year
			Result	18.7%	29.4%
		❷ Sorting of industrial waste	Target	100% achievement rate	100% achievement rate
			Result	Achieved at five sites	Achieved at four out of five sites

Sustainability Initiatives

Nippon Signal's Value Creation | Nippon Signal's Vision and Growth Strategy | **Sustainability Initiatives** | Data Section

E Environment

Environmental targets		Environmental indicators		FY2022	FY2023
3	Social contribution related to the environment	❶ Promotion of regional environmental activities	Target	Four times or more a year at each site	Four times or more a year at each site
			Result	Achieved at all sites (148 times in total)	Achieved at all sites (111 times in total)
		❷ Environmental/SDGs education	Target	Four times a year	Four times a year
			Result	Conducted four times	Conducted four times
4	Products	❶ CO₂ emissions from (Nippon Signal) products and systems	Target	Discussion on calculation formula	Measurement (Disclosure of calculation formulas: only those related to products)
			Result	Calculated emissions for major categories in SBT Scope 3	Disclosed in the Integrated Report

[FY2023 Results]

In the fiscal year ended March 31, 2024, energy use increased by 3.7% from the previous fiscal year, despite the target of 1% or more reduction. This is due to extreme heat in the summer and an increase in production compared with the previous fiscal year. CO_2 emissions, however, decreased significantly as Nippon Signal's manufacturing sites (Kuki Plant, Utsunomiya Plant, and Ageo Factory) have been powered by 100% green electricity since May 2023.

We will strive for energy saving in the fiscal year ending March 31, 2025 by making capital investments for better air conditioning and heating efficiency.

We achieved most of the other targets.

Reduction of the Environmental Impact from Our Products

● Eco-Label Products

We rank products by our level of eco-friendliness. Products that meet our internal criteria have been approved as eco-label products. Multiple eco-label products are approved every year, and the system has produced certain results, such as ripple effects of ideas on other products. While keeping the eco-label system, we have launched new initiatives to achieve a 46% reduction of greenhouse gases (SBT Scopes 1 to 3) throughout the product life cycle by 2030 and carbon neutrality by 2050.

We will calculate life cycle CO_2 emissions for each product group and prioritize high-emission products in taking measures. Our activities will take the following directions, in addition to making products smaller and lighter and saving energy, which we have been pursuing in developing eco-label products.

	Details	Contribution to the reduction of greenhouse gas emissions
1	Hardwareless/General-purpose products	Reduce Categories 1 and 12 emissions, which account for a substantial proportion of SBT Scope 3 emissions, to zero; and achieve a significant reduction of Category 11 emissions
2	Circular economy	Achieve reduction by converting SBT Scope 3 Category 12 emissions to Category 5 emissions, which Nippon Signal can control, and by replacing former products that have high environmental impacts
3	Power generation and power storage	Contribute to a decarbonized society although not reducing SBT Scope 3 emissions

External Evaluation of ESG

● CDP

In 2023, we received a B (Management) score from the CDP* in the climate category. This is above the average score of C (Awareness) in the electrical and electronic field.

We will continue to actively disclose environmental information to investors, carry out activities that are lacking, and aim to be a company whose environmental load is even lower than society expects.

*CDP: An international environmental non-profit organization (NGO) established in the UK in 2000. It sends questionnaires to major companies around the world on behalf of investors, analyze and evaluate (rank) the answers, and disclose the results. Approximately 23,000 companies (approximately 2,000 Japanese companies) answered in 2023, which exceeds two-thirds of global market capitalization.

S Society

Human Resource Investments

Percentage of Female Workers in Managerial Positions, Percentage of Male Workers Taking Childcare Leave, and Differences in Wages between Male and Female Workers

❶ Nippon Signal

		Fiscal year under review		
		Differences in wages between male and female workers[*3]		
Percentage of female workers in managerial positions[*1]	Percentage of male workers taking childcare leave[*2]	All workers	Regular workers	Part-time and fixed-term workers
3.8%	92%	70.8%	75.5%	71.2%

*1. The percentage has been calculated based on the provisions of the Act on the Promotion of Women's Active Engagement in Professional Life (Act No. 64 of 2015). Women account for 14.8% of all workers. Secondees to other companies are excluded, while secondees from other companies are included.
*2. The percentage of workers taking childcare leave, etc. or leave for the purpose of childcare under Article 71-4, Item 2 of the Ordinance for Enforcement of the Act on Childcare Leave, Caregiver Leave, and Other Measures for the Welfare of Workers Caring for Children or Other Family Members (Ordinance of the Ministry of Labor No. 25 of 1991) has been calculated based on the provisions of the Act on Childcare Leave, Caregiver Leave, and Other Measures for the Welfare of Workers Caring for Children or Other Family Members (Act No. 76 of 1991). Secondees to other companies are included, while secondees from other companies are excluded.
*3. The percentage has been calculated based on the provisions of the Act on the Promotion of Women's Active Engagement in Professional Life (Act No. 64 of 2015). Equal wages are paid for equal work regardless of gender, and the pay gap derives from differences in male-to-female ratio for the number of workers in each rank. Secondees to other companies are excluded, while secondees from other companies are included.

❷ Consolidated Subsidiaries

		Fiscal year under review		
			Differences in wages between male and female workers[*3]	
Name	Percentage of female workers in managerial positions[*1]	Percentage of male workers taking childcare leave[*2]	All workers	Regular workers	Part-time and fixed-term workers
Nisshin Electronics Service Co., Ltd.	3.6%	100%	51.7%	77.6%	61.8%

*1. The percentage has been calculated based on the provisions of the Act on the Promotion of Women's Active Engagement in Professional Life (Act No. 64 of 2015). Women account for 6.7% of all workers. Secondees to other companies are excluded, while secondees from other companies are included.
*2. The percentage of workers taking childcare leave, etc. or leave for the purpose of childcare under Article 71-4, Item 2 of the Ordinance for Enforcement of the Act on Childcare Leave, Caregiver Leave, and Other Measures for the Welfare of Workers Caring for Children or Other Family Members (Ordinance of the Ministry of Labor No. 25 of 1991) has been calculated based on the provisions of the Act on Childcare Leave, Caregiver Leave, and Other Measures for the Welfare of Workers Caring for Children or Other Family Members (Act No. 76 of 1991). Secondees to other companies are included, while secondees from other companies are excluded.
*3. The percentage has been calculated based on the provisions of the Act on the Promotion of Women's Active Engagement in Professional Life (Act No. 64 of 2015). Equal wages are paid for equal work regardless of gender, and the pay gap derives from differences in male-to-female ratio for the number of workers in each rank. Secondees to other companies are excluded, while secondees from other companies are included.

Basic Policy

The source of the Group's value creation lies in human resources. Our Values in the Group Philosophy include *Hito-zukuri* (education), and we are committed to developing human resources who take on challenges for their own growth.

Our priorities for the fiscal year ended March 31, 2024 were "diverse workstyles for a next-generation HR system reform," "development of personnel for digital transformation (DX) through reskilling and development of young and mid-level employees to nurture next-generation leaders," and "health management that invigorates the organization by promoting employee health and aims to improve corporate value by increasing productivity."

Initiatives to Adopt Diverse Workstyles for a Next-Generation HR System Reform

❶ Diversity & Inclusion Initiatives

We are taking action to promote women's active engagement by setting KPIs in the general employer action plan for the percentage of women in managerial positions, number of women in engineer positions, and percentage of employees who used the childcare leave system. While engineers, many of whom have engineering backgrounds, account for a substantial proportion of our employees and the percentage of female employees is relatively small, we are working to improve their retention rate and support career advancement by creating an environment that facilitates women's active engagement.

Sustainability Initiatives

Nippon Signal's Value Creation | Nippon Signal's Vision and Growth Strategy | **Sustainability Initiatives** | Data Section

S Society

To hire non-Japanese human resources, we actively recruit from Japanese universities that drive globalization and overseas universities where a relatively high proportion of graduates join Japanese companies. Aiming to run an organization where diverse human resources play an active role, we offer training programs for managerial employees that focus on diversity management and harassment prevention.

To increase the diversity of our workforce, we recruit without setting quotas for arts and sciences backgrounds, and assign employees with arts backgrounds to engineering divisions and departments. Going forward, we will consider recruiting talented human resources through alumni contacts, introducing a system to rehire former employees, and introducing a training program for Japanese employees to facilitate understanding of different cultures.

❷ Initiatives to Promote Workstyles Unbound by Time or Location

We have introduced flexible working hours, staggered working hours, and remote working to allow employees to choose from diverse options as to when and where to work, in accordance with changes in the social environment and their life events. In addition, we introduced in October 2023 a new system that allows employees to choose to work only in specific geographic areas, advancing the creation of an environment where employees can choose their workstyles in accordance with personal circumstances. To promote such diverse workstyles and achieve organizational growth at the same time, we consider it important to maintain and improve individual and organizational productivity. To this end, we promote digitalization of business operations, web meetings, and other initiatives and work to establish a new workplace environment. In addition, we constantly monitor and control our systems, provide education and training, and conduct accident drills as cybersecurity measures associated with digitalization.

❸ Childcare Support Initiatives

By promoting flexible workstyles, we support balancing work and childcare and facilitate male employees' participation in childcare. Relevant systems were revised in July 2022 as described below.

- Expanded the scope of employees eligible to apply for restriction on overtime and holiday work and take leave to take care of the sick/injured
- Expanded the scope of employees eligible for flexible working hours for childcare and flexible working hours before childbirth
- Removed core hours for employees who work by flexible working hours before childbirth or due to childcare, nursing care, or doctor's visits

To support employees who try to balance work and childcare, we created "Guidebook to Support Balancing Work and Childcare" with input from parents in the company. The guidebook is distributed to employees who became new parents. The contents include the flow from going through pregnancy to taking childcare leave and returning to work, tips for sharing housework and choosing a day-care center, and recommendations for books on childcare.

Initiatives for Human Resources Development and Reskilling to Increase Corporate Value

❶ Initiatives to Establish Corporate Culture

Working in line with its philosophy of safety and reliability, the Group seeks to remain a corporate group upon which society relies. To achieve this aim, the Group must build relationships of trust with stakeholders, backed by the proper behavior of each staff member. The Group added Our Code of Conduct to Nippon Signal Group Philosophy to provide a foundation for these relationships of trust. Our Code of Conduct serves as a standard of behavior to be followed by all officers and employees of the Group. The Group encourages all employees to respect laws, ordinances, and other rules. The Group is also working to build an organization with the capacity to quickly discover problems on its own and address them. As part of our initiatives, we regularly hold education programs for all employees, featuring case studies that offer lessons. This equips participants with basic knowledge on safety and reliability necessary as Nippon Signal employees, as well as gives them opportunities to think proactively about the impact of our products on society and bring back the findings to their work.

We set division- and department-specific targets based on company policies and share the targets at division and department meetings held every six months, so that all employees can drive forward management strategies. To achieve the division- and department-specific targets, each employee decides what they should do more of, based on individual targets and competencies expected from each job function. In collaboration with managerial employees, they strive to materialize what they have decided. In addition, we give awards to employees with outstanding achievements and employees who have set examples for others. We also offer overseas training opportunities to high achievers in internal contests.
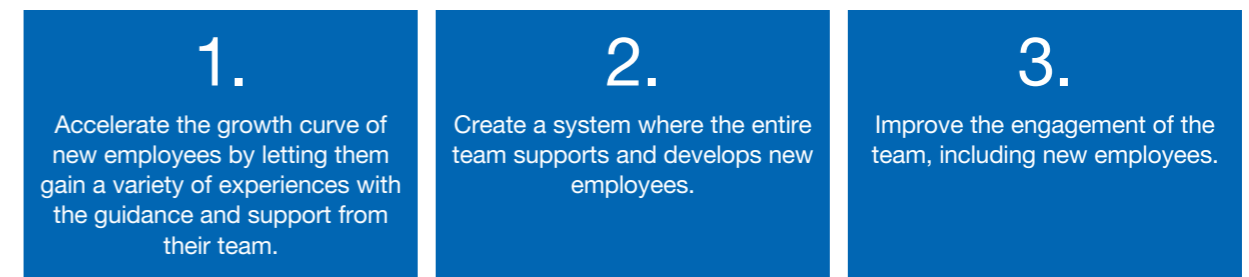
❷ Initiatives to Enhance Digital Literacy of All Employees

We have set "Strengthening of development capabilities and establishment of design and production frameworks adapted to DX" as a priority in our medium-term management plan and provided DX literacy education to all employees in the fiscal year ended March 31, 2023. In the fiscal year ended March 31, 2024, we identified improvement and reform themes at each department and promoted DX to address them. When recruiting, we put our efforts into securing human resources who have backgrounds mainly in software, as well as AI, images, communications, and other fields that can contribute to DX.

❸ Initiatives to Educate Young Employees

To train young employees, we evolved the conventional OJT system into our original "*Tetsuatsu* Program" in 2019.

The *Tetsuatsu* Program was named after the proverb, "Strike while the iron is hot (*Tetsu ha atsui uchiniute*)." It is an education program for new employees, where they gain a variety of experiences by taking advantage of their ability to think flexibly and learn quickly. In organizations that welcome new employees, managers become leaders, and assistant managers and buddies (senior colleagues) play their roles in supporting the growth of new employees. The team thus join forces for the task. Through this program, we aim to involve all the people around new employees in human resources development and let themselves grow by being close to new employees.

Based on the idea described above, we roll out the *Tetsuatsu* Program with the following three objectives.

1.	2.	3.
Accelerate the growth curve of new employees by letting them gain a variety of experiences with the guidance and support from their team.	Create a system where the entire team supports and develops new employees.	Improve the engagement of the team, including new employees.

In the fiscal year ended March 31, 2024, we implemented a program that include not only vertical interactions centered around managers but also horizontal perspectives, in order to create a culture of development and engagement across ranks and departments.

❹ Leadership Development

From the fiscal years ended March 31, 2023 to the fiscal years ended March 31, 2024, we held meetings where the President himself communicated the top management's vision to employees in their third to fifth year at the Company as well as to managerial employee candidates. This served as an opportunity for employees to increase motivation toward work, broaden their horizons, and seek to improve their skills. To develop next-generation leaders, we also offered a training program for managerial employee candidates selected from each department, who are expected to assume managerial positions in a few years. The program covered such themes as broad views and perspectives, clarification of one's vision, and value-adding planning and proposal within the organization or to customers, business partners, and other stakeholders.

To develop leaders, we work on the development of executives by making clear the requirements for executives and conducting training for the development of next-generation executives, which creates leaders who play an active role in the future. In addition, we appoint future leaders as corporate managers of Group companies before promoting them to Nippon Signal's management team members. We actively exchange personnel across the Group and strive to develop executives as the entire Group.

❺ Reskilling and Relearning Initiatives

To facilitate employees' self-development, we subsidize fees for correspondence courses and provide allowances to employees who have obtained official qualifications recommended by the Company. In April 2023, we expanded the scope of employees eligible for monthly allowances and increased the amount of such allowances, thereby raising pay for employees who actively engage in self-development. To facilitate education that is necessary for work, we regularly expand the scope of official qualifications eligible for allowances based on interviews with each division and department. In addition, managerial employees learn the status of their subordinates' self-development through development interviews and give advice as necessary. As learning opportunities outside the Company, we have the My Vision Leave System for employees who have reached 55 years of age and worked for the Company for 10 years or longer, allowing them to think about their future and take the opportunity for self-improvement. We also have a system to send our employees to study at International University of Japan.

Sustainability Initiatives

Nippon Signal's Value Creation | Nippon Signal's Vision and Growth Strategy | **Sustainability Initiatives** | Data Section

S Society

Health Management and Organizational Invigoration Initiatives

❶ Promotion of Health Management

In April 2022, we formulated the Nippon Signal Group Health Declaration. Having focused our efforts on increases in the health checkup consultation and health guidance participation rates, sports events and exercising campaigns in collaboration with the Health Insurance Society to encourage employees to exercise regularly, and seminars to improve health literacy, we were recognized as one of the Certified Health & Productivity Management Outstanding Organizations (large enterprise category) two years in a row from 2023.

2024
健康経営優良法人
Health and productivity

Nippon Signal Group Health Declaration

Nippon Signal Group's philosophy is to help realize a more secure and comfortable society through superior technologies that provide safety and reliability. Employees and their families, who support the Group's activities, are irreplaceable assets, and it is most important that they are healthy and empowered. The Company, employees, and the Health Insurance Society will join forces and take active measures to create an environment where each and every employee and their families are physically and mentally healthy at work and live happy lives. Nippon Signal Group will press ahead with the creation of an environment where employees can actively maintain and enhance their health, and keep moving forward as a company that achieves sustainable growth.

Date of formulation: April 1, 2022

Hidehiko Tsukamoto
President and Chief Executive Officer,
Nippon Signal Co., Ltd.

Described below are our key initiatives.

(1) Physical health
- We will follow up after health checkups, increasing the specific health guidance participation rate and enhancing health guidance offered by healthcare workers.
- To encourage employees to exercise regularly, we will continue to hold sports events and roll out exercising campaigns.

(2) Mental health
We will conduct stress checks, mental health seminars, etc. Measures will be taken for early detection and prevention of mental health issues, including follow-up on employees assessed as highly stressed.

(3) Future health
- We will strengthen measures against smoking.
- We will hold seminars to increase health literacy.
- We will promote the use of our Healthcare Leave system

❷ Initiatives to Increase Employee Engagement

Since 2021, we have conducted an employee awareness survey every year to improve employee engagement. The survey results are fed back to the management team and heads of divisions and departments, as well as used to identify issues to be resolved. We thus take advantage of the survey to set the agenda for the creation of a rewarding workplace. The agenda for 2023 was strengthening communication across divisions and departments. We worked to increase employee engagement by supporting voluntary establishment of internal employee networks and taking other measures.

Indicators and Targets

We have set the following KPIs to overcome personnel challenges to materialize our management strategy.

KPI	FY2022	FY2023	Target	Target FY
Percentage of employees taking childcare leave	Male 80% / Female 100%	Male 92% / Female 100%	Male 50% or higher / Female 90% or higher	FY2025
Percentage of women in managerial positions	3.7%	3.8%	5%	FY2025
Number of women in engineer positions	FY2019 17% increase (48)	FY2019 19% increase (49)	FY2019 20% increase (50)	FY2025
Number of non-Japanese employees hired	1	2	2	Every year
Training investment per employee	64,228 yen	75,949 yen	90,000 yen	Every year
Percentage of employees engaging in self-development (obtaining new official qualifications or taking correspondence courses)	43.5%	50.2%	50%	Every year

S Society

Major Initiatives

● FURUHATA Yohei Receives the Order of the Rising Sun, Gold Rays with Rosette

FURUHATA Yohei, Adviser (former Representative Director and Chairman) of Nippon Signal, received the Order of the Rising Sun, Gold Rays with Rosette in the autumn 2023 Decoration Ceremony. The award honors outstanding achievements in society. His achievements as President of Nippon Signal, Chairman of Japan Association of Signal Industries, and Deputy Chair of Japan-Africa Relations Committee of Japan Association of Corporate Executives, among others, were recognized.

● Nippon Signal Employees Receive the Order of the Sacred Treasure, Silver Rays and the Sainokuni Young Meister Award

OHATA Katsuyuki from the Production Department of Kuki Plant received the Order of the Sacred Treasure, Silver Rays in the autumn 2023 Decoration Ceremony. The award is given to those who fulfilled their duties and produced results, in light of the complexity, difficulty, and responsibilities associated with duties of public nature. His long years of contribution to society through his work related to skills examinations was recognized. In addition, KAJIWARA Daisuke from the Production Department of Kuki Plant received the Sainokuni Young Meister Award. He has excellent skills that stand out among young engineers below 30 years of age working in Saitama Prefecture, and was recognized as exemplary in job performance and daily life.

● Japan Association of Corporate Executives Internship Program

We took part in the Japan Association of Corporate Executives Internship Program for the seventh time in 2023, after the first participation in 2017.

Our program offers an opportunity to learn about the basics of railway technology and unwavering pursuit of safety, from the perspective of manufacturing that supports transportation infrastructure.

Comments from the participants who learned from manufacturing sites included, "I was able to understand the meaning of 'safety and reliability' Nippon Signal aims for," and "I gained substantial insight, which I hope to take advantage of in thinking about my future and getting into the real world."

● National Skills Competition

By participating in the National Skills Competition, we facilitate the creation of an organized and continuing educational base for "NS Meisters," personnel able to compete on a global stage and take charge of manufacturing for the future. We participated in the electrical equipment assembly trade category. This category requires acquisition of broad knowledge and techniques in areas including electronic circuit design, circuit board design, program design, repair and measurement, etc. along with advanced soldering skills. We have been participating in the national competition each year since our first participation in 2016. The competition requires not only a wide range of knowledge and skills but also mental strength, as well as the ability to make judgements and decisions. By offering such experience, we aim to develop human resources who can proactively think, act, and grow.

● NS Skills Contest

As part of our activities aimed at enhancing our technological capabilities in manufacturing, and nurturing engineers and supervisors who will be role models for others, we hold NS Skills Contests.

The competition involves assembling and wiring, and we use our own tasks, printed circuit boards, and other parts. New tasks are set every year, as the competition also provides a development opportunity for human resources who plan the tasks.

To enhance manufacturing skills as the Group as a whole by increasing opportunities to demonstrate skills and technologies acquired in day-to-day work and compete based on speed, accuracy, and aesthetics, we have held the annual contest since 2013.

Sustainability Initiatives

Nippon Signal's Value Creation | Nippon Signal's Vision and Growth Strategy | **Sustainability Initiatives** | Data Section

S Society

CSR (Social Contribution) Activities

As a company involved in the transportation infrastructure business, which is closely linked to the lives of the public, Nippon Signal Group is highly aware of the importance of coexisting with society and is thus inspired to conduct social contribution activities on a Groupwide basis.

Basic Policy on CSR Activities

We hope to realize a more secure and comfortable society for people around the world, and "Our Mission" in Nippon Signal Group Philosophy sets out the idea. Offering valuable products and services to society through superior technologies that provide safety and reliability and solving societal issues will create business opportunities, which will, in turn, increase corporate value.

Taking advantage of the characteristics of our transportation infrastructure business, we will strive to contribute to society consistently while appreciating our ties with stakeholders to help realize safe and comfortable lives for people in Japan and around the world. The maximum amount of expenditure for such activities is approximately 1% of our ordinary profit and will be reviewed in accordance with the expansion of the business.

Major Initiatives

● Matching Gift

We have collected anniversary donations on the date of the anniversary of our founding (February 16) since the fiscal year ended March 31, 1994, under a matching gift* scheme. In the fiscal year ending March 31, 2025, we made a donation to Noto Railway, which suffered damage from the January 2024 Noto Peninsula Earthquake, to support reconstruction. We also make annual donations to the Japanese Foundation for Cancer Research.

*Matching gift is a system where the Company adds a certain contribution to the amount of donations made by employees and donates the sum.

● Donation to Areas Affected by the 2024 Taiwan Eastern Offshore Earthquake

After the Taiwan Eastern Offshore Earthquake occurred on April 3, we donated aid money to contribute to the reconstruction of affected areas through early restoration of infrastructure.

Hualien County, where damage was particularly severe, is home to Nippon Signal's project to the double-tracking of the Huadong Line.

● Co-sponsoring Bolero: Plaza of Children's Dream and Booth Exhibition

Bolero: Plaza of Children's Dream is a music event organized by Michie Koyama, a pianist from Sendai. The purpose of the event is to let children who experienced the Great East Japan Earthquake have dreams and hope. Since the fiscal year ended March 31, 2024, we have not only co-sponsored the event but also continued our booth exhibition to further contribute to hito-zukuri (education) and machi-zukuri (CSR) for the future.
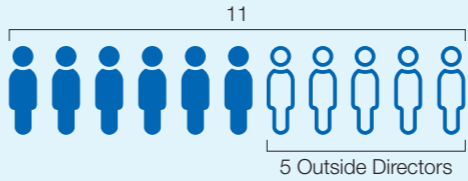
G Corporate Governance

Corporate Governance

Nippon Signal Group (the Group) has been working to improve the transparency of its decision-making process and construct a corporate governance system that properly incorporates supervisory and check functions.

Basic Policy

The Group's basic policy in corporate governance is to conduct management that gives priority to and satisfies all stakeholders while making contributions to society.

To genuinely implement these basics, the Group will make ongoing management structural reforms that aim to strengthen corporate governance. The Group will also enhance the management structure so that it can respond flexibly and swiftly to changes in the environment surrounding management.

Corporate Governance System at a Glance (as of June 21, 2024)

Organizational format	Company with an Audit and Supervisory Committee

Number of Directors (including Outside Directors)

11

5 Outside Directors

Number of Audit and Supervisory Committee Members (including Outside Directors)

4

3 Outside Directors

Term of Directors (excluding Directors who are Audit and Supervisory Committee Members)	1 year
Term of Directors who are Audit and Supervisory Committee Members	2 years
Has Executive Officer System	Yes
Advisory body to the Board of Directors	Nomination and Remuneration Advisory Committee
Accounting Auditor	Grant Thornton Taiyo LLC

Basic Policy on Corporate Governance

Nippon Signal (the Company) has transitioned to a Company with an Audit and Supervisory Committee, of which the majority of members are Outside Directors, to strengthen the monitoring functionality of the Board of Directors. The Company aims to enhance its corporate value by ensuring highly transparent management and further enhanced corporate governance by appointing Directors who are Audit and Supervisory Committee Members with voting rights.

The Company currently has a total of eleven Directors, five, or about half, of whom are Outside Directors that have also been designated as Independent Officers as defined by Tokyo Stock Exchange, Inc. Of the four Audit and Supervisory Committee Members, three, or a majority, are Outside Directors, as required by laws and regulations.

In order to enhance debate regarding the nomination of officers and their remuneration, and raise the objectivity and transparency of the decision-making process, the Nomination and Remuneration Advisory Committee was established as an advisory body to the Board of Directors. This committee is made up of a majority of Outside Directors that are designated as independent directors. The Company has also established the Advisory Board, which is an advisory body for Representative Directors. This board consists of outside experts with sophisticated and specialized knowledge on business management.

The Company has instituted an Executive Officer System to accelerate and improve the efficiency of managerial decision-making and to enable the flexible execution of business as well as the Group Business Planning Committee to enhance governance in the Group management.

The decisions on significant matters regarding the Company are based on two procedures: a request for decision and a resolution by the Board of Directors. These procedures are set out in the standards for reference formulated by the Board of Directors.

The Board of Directors deliberates on matters requiring a resolution under laws, regulations or the Articles of Incorporation, and important matters related to business operation, including the formulation of short- and medium-term management plans. It also decides on matters stipulated under the Board of Directors regulations and the standards for reference. In addition, the Group Business Planning Committee carries out deliberation and reporting related to the execution of duties under short- and medium-term management plans of the Group companies.

Executive Officers make up the Committee of Directors, a venue for discussions and reports on the execution of duties based on short- and medium-term management plans. Executive Officers are also delegated authority for business execution.

G Corporate Governance

Competence Required of Directors (Knowledge, Experience, and Capabilities)

The Group aims to remain to be a provider that supports infrastructure evolution with safe and trustworthy solutions. In order to lead sustainable business growth, the Company selects as Directors those who possess strong acumen and experience as a corporate manager, deep insight into technological development surrounding the Company, capabilities to drive the expansion of business domains conducted on a global scale, and expert knowledge that contributes to corporate governance.

[Directors selected from within the Company]
The Company selects those who possess strong acumen for overall management, with knowledge of the business environment surrounding the Company and the industries it belongs to, understanding of the Company's strengths and issues through manufacturing, technological research and development, marketing, and sales activities, and experience in management administration such as accounting, legal affairs, and risk management.

[Outside Directors]
The Company selects those who can provide advice on management strategies and perform an effective supervisory function on management by drawing on advanced and specialized knowledge and experience in fields other than the Group's business domains, while appropriately ensuring well-rounded diversity. In addition, to fully incorporate views from objective and independent standpoints into corporate management, candidates for Outside Directors need to satisfy the requirements for independent directors/auditors as stipulated by Tokyo Stock Exchange, Inc. Furthermore, they account for one-third or more of all Directors and at least one of them need to have corporate management experience at another company.
The skills matrix of the Company's Board of Directors is as follows.

Knowledge, Experience, and Capabilities the Company's Directors Possess

Name	Status	Corporate management	Finance and accounting	Risk Management Legal affairs	Global experience	Technology/ R&D	Manufacturing	Sales/ Marketing
TSUKAMOTO Hidehiko	Representative Director	●		●	●	●	●	●
FUJIWARA Takeshi	Director	●	●	●	●		●	●
SAKAI Masayoshi	Director	●				●	●	●
HIRANO Kazuhiro	Director	●						●
GOTO Ryuichi	Director				●		●	●
INOUE Yuriko	Director (Independent Outside)			●				
MURATA Yoshiyuki	Director (Independent Outside)	●		●	●	●		●
TOKUBUCHI Yoshitaka	Audit and Supervisory Committee Member	●	●	●			●	
TOKUNAGA Takashi	Audit and Supervisory Committee Member (Independent Outside)			●	●			
SUZUKI Masako	Audit and Supervisory Committee Member (Independent Outside)	●		●				●
AIZAWA Toshihiko	Audit and Supervisory Committee Member (Independent Outside)	●	●	●	●			●

Note: The skills matrix above shows the Directors' expertise which the Company particularly expect them to exhibit.

(Reference) Criteria for Independence of Outside Officers
The Company prescribes the following criteria for the independence of Outside Officers to objectively determine the independence of Outside Officers. If an Outside Officer falls under any of the following items, the Company determines that the Outside Officer is not sufficiently independent from the Company. An Outside Officer designated as an Independent Officer as stipulated under Tokyo Stock Exchange, Inc. shall endeavor to maintain independence as prescribed in this Criteria until resignation. If the Outside Officer loses his/her independence, the Outside Officer shall notify the Company in advance (or as soon as possible after the event under unavoidable circumstances).

1. A person who is, or has been in the past 10 years, a business executor(*1) or Non-executive Director at the Group (i.e. the Company or its subsidiaries).

2. Any person (party) who has fallen under any of the following items (1) to (8) in the past three years.
   (1) A party for whom the Group is a major business partner(*2) or a business executor of such party
   (2) A major business partner of the Group(*3) or a business executor of such partner
   (3) A consultant, accounting professional, or legal professional who has received a significant amount of money(*4) or other property from the Group other than officer remunerations (if a party who receives such property is a corporation, association, or any other entity, a party who belongs to the relevant entity)
   (4) A current major shareholder(*5) of the Group or a business executor of such shareholder
   (5) A business executor of a corporation of which the Group is a current major shareholder(*5)
   (6) A person who belongs to the appointed audit firm for the statutory audit of the Group
   (7) A business executor of an entity whose Outside Officer is also a business executor of the Group
   (8) A person, an officer or other business executor of a corporation, association, or any other entity who receives a large amount of donation or grant(*8) from the Group

3. If a person who falls under 1. or 2. above is a key person(*7), close relatives (spouse, first or second degree relatives) of such person

4. A person who has assumed the office of Outside Officer for more than eight years in total

(*1) A business executor refers to a person who executes the duties of a Director (excluding an Outside Director), Executive Officer, or employees, etc.
(*2) A party for whom the Group is a major business partner refers to a party who has business transactions with the Group, with total amount of sales in any of the fiscal year within the last three fiscal years exceeding 2% of the consolidated net sales of such business partner.Such business partner shall include its parent company and important subsidiaries if such business partner is a corporation.
(*3) A major business partner of the Group refers to a party with whom the Group has business transactions, with total amount of sales in any of the fiscal year within the last three fiscal years exceeding 2% of the consolidated net sales of the Group, or a party who has made a loan to the Group in the amount at 2% or more of the consolidated total assets of the Company at the end of the most recent fiscal year. Such business partner shall include its parent company and important subsidiaries if such business partner is a corporation.
(*4) A significant amount of money refers to the yearly average money exceeding 10 million yen over the three most recent fiscal years.
(*5) A major shareholder refers to a shareholder who holds, directly or indirectly, 10% or more of the total voting rights. Such major shareholder shall include its parent company or important subsidiaries if such major shareholder is a corporation.
(*6) A large amount of donation or grant refers to a yearly average amount exceeding 10 million yen over the three most recent fiscal years.
(*7) A key person refers to a Director, Corporate Officer, Executive Officer, business executor who serves as a General Manager or in a higher rank, or business executor who has authority equivalent to that of a General Manager or higher position.

Corporate Governance System

*1 Nomination and Remuneration Advisory Committee: Serves as an advisory body to the Board of Directors; consists primarily of Outside Directors, who raise the transparency and objectivity of procedures regarding remuneration for officers or appointment of candidates for officers by participating in the decision process.
*2 Advisory Board: Serves as an advisory body to the Representative Directors; consists of outside experts with sophisticated and specialized knowledge on business management who provide advice and suggestions on business management from an elevated perspective.
*3 Risk Management Committee: Controls compliance risks and all other types of risks under the direction of the Board of Directors; chaired by the President and Chief Executive Officer.
*4 Internal Audit Department: Provides assistance with internal management control activities by auditing the management and operation processes; monitors all managerial activities — such as purchasing, sales, and accounting — to provide information based on the monitoring results as well as advice and suggestions on remediation and efficiency improvement.
*5 Company-wide QA Committee: Checks on the status of quality management in order to achieve company-wide quality improvement; chaired by the Executive Officer responsible for TQM Promoting Department.
*6 Company-wide Environmental Committee: Promotes constant improvement of the company-wide environmental management system; chaired by the Executive Officer responsible for TQM Promoting Department.
*7 Company-wide Information Security Committee: Works on IT governance, including appropriate use of information network systems and information assets; chaired by the Executive Officer responsible for Group IT Strategy Department.

G Corporate Governance

Reason for nomination as Outside Director and an outline of expected roles

Name	Audit and Supervisory Committee Member	Grounds for Election	Concurrent Post(s) (as of June 21, 2024)	Number of Board of Directors Meetings Attended
INOUE Yuriko	—	Ms. INOUE Yuriko has high level of professional knowledge and experience as an expert on intellectual property rights. The Company has appointed her to continue as Outside Director in expectation that advice on its management and strategies including corporate law and data governance will be provided and an effective supervisory function on management will be demonstrated.	• Professor, Business Law Department, Graduate School of Law, Hitotsubashi University • Outside Director, Dai-ichi Life Holdings, Inc.	12 out of 13 meetings held 92%
MURATA Yoshiyuki	—	Mr. MURATA Yoshiyuki has ample experience, an impressive track record, and knowledge as a business manager. The Company has appointed him to continue as an Outside Director so that these qualities will be applied within its business administration, and an effective supervisory function on management will be demonstrated.	• Representative Director and Executive Vice President, Daiwa House Industry Co., Ltd. • Outside Director, Fujita Corporation	11 out of 13 meetings held 85%
TOKUNAGA Takashi	●	Mr. TOKUNAGA Takashi possesses professional knowledge and abundant insight on risk management. The Company has decided that he will offer beneficial advice and opinions on the Company's management. The Company has appointed him as an Outside Director who is an Audit and Supervisory Committee Member in expectation that he will offer advice on its management supervisory function by making use of his capabilities in his specialized field.	—	10 out of 10 meetings held 100%
SUZUKI Masako	●	Ms. SUZUKI Masako possesses a wealth of experience, achievements, and knowledge in the management of human resources and health support service businesses. The Company has appointed her as an Outside Director who is an Audit and Supervisory Committee Member in expectation that she will offer advice on the Company's management supervisory function based on her professional experience and knowledge in management developed through her career.	• Outside Director, JAPAN POST INSURANCE Co., Ltd. • External Director, Unite and Grow Inc.	10 out of 10 meetings held 100%
AIZAWA Toshihiko	●	Mr. AIZAWA Toshihiko has ample experience, an impressive track record, and knowledge as a business manager, management consultant, and professor of a graduate school of management. The Company has appointed him as Outside Director who is an Audit and Supervisory Committee Member in expectation that he will offer advice on management strategy development, corporate restructuring, digital transformation, new business development, etc., and demonstrate an effective supervisory function on management.	• Representative Director, TSUNAGU·Partners Co., Ltd. • Professor, Graduate School of Management, GLOBIS University • Representative Director, Quantum Leaps Food Innovation Co., Ltd.	—

Evaluation of the Board of Directors' Effectiveness

The Company takes steps to periodically verify that the Board of Directors is functioning effectively. Based on the findings of those verifications, an evaluation of the effectiveness of the Board of Directors is performed to identify issues and promote ongoing improvement activities.

In the survey conducted in February 2024, responses were received on items regarding measures for enhancing the structure, operating procedures, and meeting discussions of the Board of Directors.

The secretariat of the Board of Directors gathered and processed responses and submitted the results to the Board of Directors for thorough discussion and analysis.

Through this process, it was determined that the Board of Directors was highly effective overall. This decision was prefaced on the assessment that the Board of Directors was sufficiently diverse and balanced, that it engaged in free and open discussion, and that it was appropriately exercising its supervisory function.

In this year's survey, although the overall rating was higher than "mostly appropriate," items regarding the "content (quality) and quantity of reference materials" and "sufficient time is given for discussion on important agenda items," among others, were found to have room for improvement.

The Company will improve the quality of reference materials and strive for more focused discussions and substantial deliberations at meetings of the Board of Directors. The Company also aims to enhance the effectiveness of the Board's deliberations regarding medium-term management issues by providing more opportunities for dialogue between the Representative Director and the Audit and Supervisory Committee as well as Outside Officers.

Training for Officers

The Company utilizes training by external organizations and holds biannual officer training sessions to help new Executive Officers acquire the necessary skills for exercising high levels of leadership and taking part in management.

In addition, officers are encouraged to actively take advantage of opportunities for further education, including inter-industry exchange forums and other external seminars.

Officer Remuneration

The remuneration of Directors (excluding Directors who are Audit and Supervisory Committee Members) comprises fixed compensation based on rank as well as performance-linked compensation tied to both short-term performance and medium- to long-term performance. This scheme is employed to provide Directors with healthy incentive to pursue medium- to long-term improvements in corporate value while also accomplishing short-term performance targets. Remuneration for each Director is set at an appropriate level, based on their responsibilities. Payments are made within the amounts decided by resolution of the general meeting of shareholders and in accordance with the policy approved by the Board of Directors, after consulting the Nomination and Remuneration Advisory Committee and taking into consideration the opinions of the Audit and Supervisory Committee.

1. Matters on the Composition of Compensation

Fixed compensation is decided based on rank with consideration paid to the duties of given Directors, the highest level of employee remuneration, and the remuneration levels of other companies.

Performance-linked compensation consists of two layers; one linked to medium- to long-term performance and another linked to short-term performance.

Compensation linked to medium- to long-term performance is decided each year on an individual basis based on the rate of accomplishment of targets set for each Director (excluding Directors who are Audit and Supervisory Committee Members). Compensation linked to short-term performance is calculated by dividing the amount equivalent to 2.0%–2.5% of the ordinary profit of a given fiscal year among all Directors (excluding Directors who are Audit and Supervisory Committee Members) and Executive Officers. Ordinary profit has been selected as the performance indicator because the Group considers the increase of profitability as a medium- to long-term challenge and the Medium-Term Management Plan includes an ordinary profit target.

The ordinary profit for the previous fiscal year, which had been forecast to be 6,800 million yen, amounted to 7,893 million yen in actuality. Outside Directors are only paid fixed compensation and not performance-linked compensation, considering that they bear supervisory function.

The Group does not have a stock compensation scheme at the moment, as each officer purchases treasury shares every month and on a constant level through the officers shareholding association, and the Company is taking a management approach that is conscious of the shareholders' viewpoint.

2. Matters on Delegation of Authority to Determine Remuneration, etc. for Individual Directors (excluding Directors who are Audit and Supervisory Committee Members)

In the fiscal year ended March 31, 2024, the Board of Directors decided at a meeting held on June 21, 2024, to delegate the authority to determine the amount of remuneration for individual Directors (excluding Directors who are Audit and Supervisory Committee Members) to President and Chief Executive Officer TSUKAMOTO Hidehiko. He has determined the specifics. The authorities to determine the amount of fixed compensation for each Director and to evaluate the achievement level of managerial goals to be reflected to performance-linked compensation have been delegated. These authorities have been delegated because the Representative Director is the appropriate person to evaluate the achievement level concerning managerial goals while overseeing the performance of the Company as a whole.

To ensure appropriate exercise of authority by the Representative Director, the Board of Directors takes into account the opinions of the Audit and Supervisory Committee and consults with the Nomination and Remuneration Advisory Committee about the original proposal and receives a report from the committee.

The Nomination and Remuneration Advisory Committee consists of three or more Directors and is chaired by a Representative Director. The committee is comprised of a majority of Independent Outside Directors to ensure objectivity and appropriateness of its judgement.

Group Governance Structure

The Company dispatches Directors and Audit & Supervisory Board Members to Group companies to help elect their Representative Directors, as well as offer guidance and supervision. The Company's corresponding departments receive daily reports on the financial standing and how businesses are being run at individual subsidiaries.

The Group Business Planning Committee holds quarterly meetings, where it receives reports on the management, financial results, and risk management systems of the entire Group and offers the necessary guidance.

Major Initiatives

• Providing positive support, cultivating abilities and offering guidance for formulating strategies and improving management
• Understanding the financial standing and progress in management plans at the Group Business Planning Committee
• Conducting extraordinary audits when necessary

Internal Control System

The Company revised its Basic Policy on Internal Control System, at a Board of Directors meeting held in April 2024, to match the new organizational format while carrying on the basic ideas of the original policy. The Company will constantly review the policy in its effort to create a more appropriate and effective internal control system.

G Corporate Governance

The revised Basic Policy is as stated below.

1. **System to ensure that the execution of duties by Directors and employees complies with laws and regulations and the Articles of Incorporation**
(1) The Board of Directors shall make decisions for the company on matters required by laws, regulations or the Articles of Incorporation, as well as on basic matters concerning execution of duties as stipulated by the Board of Directors regulations, and supervise the execution of duties by Directors and Executive Officers.
(2) By having more than one Outside Director continually, the Company shall strive to maintain and strengthen its supervisory function over the execution of duties by the Directors.
(3) The Company shall have a Committee of Directors, a body that deliberates and reports on the state of execution of business in accordance with short- and medium-term management plans, so as to build a structure that enables appropriate and efficient decision-making.
(4) Each member of the Audit and Supervisory Committee, under the auditing structure in which they cooperate with Accounting Auditors and internal audit divisions/departments, shall offer opinions at Board of Directors meetings as needed and work alongside Outside Directors who are not Audit and Supervisory Committee Members to keep a check on the Company's decision-making.
(5) The Full-time Audit and Supervisory Committee Members shall regularly hold liaison meetings with chiefs of administrative and operational divisions/departments to conduct audits of the status of specific business operations.
(6) Recognizing that compliance with laws and regulations is the "foundation of trust," the Company shall provide strict ethical training based on the Nippon Signal Group Philosophy to all internal officers and employees.
(7) The Company shall compile a Compliance Manual summarizing the key points to be noted in compliance and distribute it to all employees, as well as regularly offer education/training sessions in order to make knowledge take root among them and to cultivate awareness.

2. **System for the storage and management of information concerning the execution of duties by Directors**
(1) To ensure appropriate and secure storing of records on the execution of duties by Directors, the Company shall employ a storage system that minimizes the risk of destruction, etc. to the greatest extent possible.
(2) With regard to important documents related to the execution of duties by Directors such as the minutes of meetings of the Board of Directors, the Audit and Supervisory Committee, and the Committee of Directors, as well as documents circulated when requesting internal approval, the Company shall record the content in paper or electromagnetic format and limit the persons who handle them so as to ensure higher security, in addition to making efforts for the preservation of information.

3. **Rules and other systems for management of risks of loss**
(1) In order for the Group to minimize damage to its management resources and to maintain continuous growth, and aiming to correctly identify, analyze, assess and appropriately manage risks, the Group shall establish the Risk Management Regulations.
(2) The Group shall have in place a Risk Management Committee, a body that oversees risk management of the entire Group under the direct control of the Board of Directors and chaired by the Representative Director.
(3) The Risk Management Committee shall instruct Group companies and all Company divisions to regularly identify, analyze, and evaluate risks. To address serious risks that are expected to emerge in the medium to long term, response meetings shall be held by direction of the Chair to take suitable measures. The Committee shall also take budgetary measures as needed.

4. **System to ensure that the execution of duties by Directors is conducted efficiently**
(1) The Group shall have an Executive Officer system, based on the belief that separating management decision-making function and business execution function leads to faster and efficient decision making in management and enables flexible business execution. Executive Officers shall make up the Committee of Directors, where they report on their own business execution as well as learn about the progress of and check the appropriateness of business execution of other Executive Officers. Executive Officers with titles shall also attend the meetings of the Board of Directors and present their opinions as needed or give report on matters of importance to business execution.
(2) The Representative Director shall set up an Advisory Board, which is the advisory body to the Representative Director consisting of outside experts with sophisticated and specialized knowledge on business management, and seek its advice on the analysis of business activities and risk management from an objective viewpoint.
(3) Various rules and regulations concerning approval authorities and procedures for requesting decisions shall be established in order to clearly define the roles and responsibilities of each division/department and individual employee. With regard to companywide themes, however, committees and project teams shall enter into proactive action and divisions/departments shall work together across boundaries to consider the theme in order to address the issues required by the management.
(4) Planning functions of the administrative divisions/departments shall be strengthened so as to facilitate the swift and efficient execution of duties by Directors.

5. **System to ensure appropriateness of business operations of the Group comprising the Company and its subsidiaries**
(1) The Nippon Signal Group Philosophy shall be set up as a common philosophy of the Group aimed at enhancing corporate value and allowing the Group to contribute to international and local communities.
(2) The Company shall take the initiative to set direction for the Group and check the appropriateness of the entire Group in order to ensure the appropriateness of business as a corporate group and to generate synergy.
(3) Corresponding departments shall receive daily reports on the financial standing and how businesses are being run at individual subsidiaries, while officers are placed at subsidiaries to check that the subsidiaries are properly managed.
(4) The Group Business Planning Committee shall call on the representative directors of subsidiaries to attend its quarterly meetings, where it receives reports on the management, financial results, and risk management systems of the entire Group and offers necessary guidance.
(5) The Company's compliance helpdesks for whistleblowing (compliance hotlines) shall be set up with diversity promotion and diverse styles of working in mind, ensuring that whistleblowers do not suffer disadvantageous treatment, and both inside and outside of the company so that users may contact whichever suits them.
(6) An external lawyer who is independent of the Company's management answers the calls to the internal compliance helpdesk for whistleblowing, which is also available to subsidiaries. This way, the Company can detect violation of laws across the Group at early stages and maintain sound workplace environments.

6. **Matters regarding Directors and employees assigned to assist the Audit and Supervisory Committee in their duties and matters regarding the independence of such Directors and employees from the Directors (excluding Directors who are Audit and Supervisory Committee Members)**
(1) Assignment or transfer of employees who assist in the duties of the Audit and Supervisory Committee shall be done with full consideration to its purpose and taking into account the opinion of the Audit and Supervisory Committee.
(2) No Directors will be designated to assist in the duties of the Audit and Supervisory Committee.
(3) The employees assigned to assist in the duties of the Audit and Supervisory Committee shall follow the orders of the Audit and Supervisory Committee with regard to its duties, and not take direction or orders from Directors who are not Audit and Supervisory Committee Members.

7. **System for Directors, employees, etc. of the Company and the Group companies to report to the Company's Audit and Supervisory Committee, and other systems regarding reports to the Audit and Supervisory Committee**
(1) Directors, employees, etc. of the Company and Group companies shall make a report to the Audit and Supervisory Committee without delay on offence of laws or other matters that would seriously affect the Company and Group companies.
(2) Directors, employees, etc. of the Company and Group companies shall help the Audit and Supervisory Committee with their execution of duties, give reports to them on business operations by having them attend the Board of Directors meetings and other important meetings or providing them with materials, as well as exchange opinions with them from time to time.
(3) Directors ensure that persons who report something to the Audit and Supervisory Committee do not suffer disadvantageous treatment for having made such reports.

8. **Policy on processing of expenses arising from the execution of duties by the Audit and Supervisory Committee**
Processing of expenses arising from the execution of duties by the Audit and Supervisory Committee shall be carried out without delay by the division/department in charge upon confirming the content of expenses claimed by the Audit and Supervisory Committee Members.

9. **Other systems to ensure that audits by the Audit and Supervisory Committee are conducted effectively**
(1) The Representative Director shall hold regular meetings with the Audit and Supervisory Committee to exchange opinions on issues that need to be addressed by the Company and issues concerning audits of the Group, among others.
(2) The Audit and Supervisory Committee Members shall attend and give opinion as needed at statutory meetings and other important meetings including those of the Committee of Directors, the Risk Management Committee, and the Group Business Planning Committee.
(3) The Audit and Supervisory Committee Members shall also attend meetings designed to cultivate awareness for business innovation and corporate value improvement, such as presentations on the quality improvement of business operation by employees, to enhance the effectiveness of audits.

Dialogue with Shareholders and Investors

The Company avoids holding its General Meeting of Shareholders on dates on which many companies hold their meetings to make it easier for shareholders to take part in the General Meeting of Shareholders and to exercise their voting rights. Notices of convocation are provided electronically well in advance on Tokyo Stock Exchange, Inc.'s website and the Company's website along with disclosure of the English translation of proposals. In addition, the Company facilitates the exercise of voting rights through the creation of an environment that enables the electronic exercise of voting rights through the use of a platform for said purpose, as well as live streaming of the General Meeting of Shareholders.

The Company considers dialogue with shareholders and other investors to be one of the most important tasks for management. Accordingly, the Company has launched an investor relations section on its website to disclose information in a timely and appropriate manner. The Company organizes financial results briefings for institutional investors and posts the materials on its website, and creates other opportunities for constructive dialogue with investors in an effort to enhance its corporate value.

Cross-Shareholdings

The Company engages in cross-shareholdings when deemed necessary for purposes such as sustaining or enhancing business alliances or sales transactions, or maintaining financial transactions and other collaborative business relationships.

The Company recognizes that it is desirable to keep cross-shareholdings at a minimum from the perspective of maintaining and improving corporate value. Based on this recognition, the Board of Directors determines the rationality of individual holdings on an annual basis by evaluating the holding purpose, the associated gains or losses, transaction volumes, counterparty performance, and future relationships. Those cross-shareholdings that are deemed to lack meaningfulness will be sold.

Voting rights attached to cross-shareholdings will be exercised by voting in favor of proposals judged to contribute to corporate value and against those judged to detract. Discussions with the counterparty will be arranged as necessary to discuss proposals.

The Company currently does not have uniform standards for exercising voting rights due to the need for comprehensive decisions that take into account non-financial information pertaining to each company.

Should a company express its intent to sell shares of the Company's stock possessed as a cross-shareholding, the Company will respond appropriately and without implying that transactions will be curtailed or taking other steps to interfere with the sale.

Anti-Takeover Measures

To maintain and enhance both its corporate value and the common value of shareholders, the Company established measures against the acquisition of large quantities of its shares. These anti-takeover measures were approved by resolution at the Ordinary General Meeting of Shareholders in June 2010 and put into place thereafter. Following the expiration of these anti-takeover measures, resolutions to extend the period of the measures were approved at the Ordinary General Meetings of Shareholders held in June 2013, in June 2016, in June 2019, and in June 2022.

For details about the anti-takeover measures, please see the Company's website (Japanese only).
➡ https://www.signal.co.jp/ir/shareholder/

Risk Management Structure

The greatest risk to the Group is failing to maintain safety and reliability. To ensure that safety and reliability is always maintained, the Company has established several regulations that clearly define the boundaries of authority and responsibility. Group divisions work in line with these regulations as they take actions to control risks.

The Risk Management Committee, which is placed under the direct control of the President and Chief Executive Officer, is responsible for countering actions that would impede sound corporate management and addressing risks and compliance issues that threaten to damage corporate value or those that a division cannot handle on its own.

The Risk Management Committee instructs all Company divisions and Group companies to regularly identify, analyze, and evaluate risks. To address serious risks that are expected to emerge in the medium to long term, response meetings are held by direction of the Chair to take suitable measures.

Compliance Promotion Structure

Compliance promotion activities are advanced under the guidance of the Risk Management Committee, which is chaired by the President and Chief Executive Officer. In 2010, the Compliance Manual was created, and the Company began holding regular compliance training to spread and entrench compliance awareness.

In addition, the Company has set up compliance hotlines as compliance helpdesks for whistleblowing. In 2015, the Company added an outside lawyer as a contact point.

Business Continuity Planning

The Group works on transport infrastructure that is indispensable to society. In contributing to society, the Group understands that it has a responsibility to try to swiftly restore operations in the wake of a natural disaster, an act of terror, or any other calamity so that products and services can be provided.

For these reasons, the Group has formulated a Business Continuity Plan (BCP) to cope with disasters and accidents such as large-scale earthquakes. It takes into account many different risks such as securing supply for materials and the procurement of fuel while working to restore operations. The Group will continue reviewing issues and working to improve its BCP.

With the spread of COVID-19, the Group has developed its Regulations on Response to Natural Disasters and Novel Infection and set out provisions regarding employee safety and business continuity, based on the expansion of international businesses and new work styles such as telework.

Creation of the Earthquake Initial Response Manual

As part of the BCP, the Group has created the Earthquake Initial Response Manual. It specifies initial response actions to be taken in the event of a large-scale earthquake. The Group conducts regular drills at individual locations to help quickly form a local response headquarters and a voluntary fire brigade.

Establishment of Nippon Signal Group Philosophy and Our Code of Conduct

Principle 2.2 of Japan's Corporate Governance Code, which was formulated by Tokyo Stock Exchange, Inc., requires companies to formulate and put into practice a code of conduct that is to be followed by their staff members in Japan and other countries. The Group's corporate activities are supported by many different stakeholders, including customers, business partners, shareholders and investors, employees, and local communities. Working in line with its philosophy of safety and reliability, the Group seeks to remain a corporate group upon which society relies. To achieve this aim, the Group must build relationships of trust with stakeholders, backed by the proper behavior of each staff member.

The Group added Our Code of Conduct to Nippon Signal Group Philosophy in April 2016 to provide a foundation for these relationships of trust. Our Code of Conduct serves as a standard of behavior to be followed by all officers and employees of the Group.

The Group encourages all employees to respect laws, ordinances, and other rules. The Group is also working to build an organization with the capacity to quickly discover problems on its own and address them.

G Corporate Governance

Corporate Executives (as of June 21, 2024)

Directors

TSUKAMOTO Hidehiko
President and Chief Executive Officer

Apr. 1982	Joined NIPPON SIGNAL CO., LTD.
May. 2005	General Manager of AFC Systems Sales Dept. of Railway Signal Systems Division
Jun. 2006	Executive Officer
Jun. 2010	Director, Managing Executive Officer
Jun. 2014	Deputy Chief Executive Officer
Apr. 2015	Representative Director, Executive Vice President and Chief Operating Officer
Jun. 2016	President and Chief Executive Officer (to present)
Jun. 2020	Chief Executive Officer
Apr. 2021	President and Chief Executive Officer and Chief Operating Officer (to present)

FUJIWARA Takeshi
Director and Executive Vice President

Apr. 1983	Joined NIPPON SIGNAL CO., LTD.
Jul. 2009	General Manager of Private Railways Sales Dept. of Railway Signal Systems Division
Jun. 2010	Executive Officer
Apr. 2013	Managing Executive Officer
Jun. 2013	Director
Apr. 2016	Chief General Manager of Sales and Marketing Head Office
Apr. 2019	Responsible for Domestic Businesses and Branch Offices
Apr. 2020	Deputy Chief Executive Officer, Responsible for Domestic and Overseas Businesses and Branch Offices
Jun. 2020	Responsible for Smart Mobility Systems Promotion Division
Apr. 2022	In charge of Business Management, Responsible for Transport Systems, Smart Mobility Systems Promotion Division, and Branch Offices
Apr. 2024	Director and Executive Vice President (to present) Executive Vice President and Executive Officer (to present) In charge of business administration, In charge of Mono-zukuri, Responsible for TQM Promoting Dept. (to present)

SAKAI Masayoshi
Director

Apr. 1985	Joined NIPPON SIGNAL CO., LTD.
Jun. 2014	Chief General Manager of Kuki Plant of Mono-zukuri Division
Apr. 2016	Executive Officer, Chief General Manager of Research & Development Center of Technical Development Head Office, Chief General Manager of Visionary Business Center
Apr. 2020	Senior Executive Officer, In charge of Research and Development, Chief General Manager of R&D Section, Chief General Manager of ANSHIN Center, General Manager of Safety Technology Research Dept., General Manager of Advanced Railway System Development Section
Apr. 2021	Managing Executive Officer, Responsible for Kuki Plant (to present), In charge of Technology, Research and Development (to present), Chief General Manager of R&D Section, General Manager of IP Management Dept., General Manager of Advanced Railway System Development Section, Responsible for TQM Promoting Dept.
Jun. 2021	Director (to present)
Apr. 2023	Responsible for Railway System Business, Responsible for Smart Mobility Systems Division
Apr. 2024	Deputy Chief Executive Officer (to present) In charge of business management, Responsible for transport infrastructure business, Responsible for Group IT Strategy Dept. (to present)

HIRANO Kazuhiro
Director

Apr. 1983	Joined NIPPON SIGNAL CO., LTD.
May. 2011	Chief General Manager of Transport Information Systems Division
Jun. 2014	Executive Officer, Chief General Manager of Railway Signal Division of Business Division
Apr. 2019	Senior Executive Officer, Chief General Manager of Railway Signal Division
Apr. 2020	Chief General Manager of Transport Systems Division
Apr. 2021	Managing Executive Officer (to present), Responsible for Transport Systems, Chief General Manager of Transport Systems Division and Responsible for Smart Mobility Systems Promotion Division
Apr. 2022	Chief General Manager, Osaka Branch Office (to present), Responsible for western Japan area (to present)
Jun. 2022	Director (to present)

GOTO Ryuichi
Director

Jun. 1992	Joined NIPPON SIGNAL CO., LTD.
May. 2011	General Manager of JR Sales Dept. of Railway Signal Systems Division
Jun. 2014	General Manager of Chubu Branch Office
Apr. 2019	Officer
Apr. 2020	Executive Officer, and Chief General Manager of AFC Systems Division
Apr. 2023	Managing Executive Officer (to present) Responsible for Utsunomiya Plant (to present) Responsible for AFC Systems Division and Robotics & Sensing Division
Apr. 2024	Deputy in charge of business management (to present) Responsible for ICT Solution business and Responsible for branch offices (to present)
Jun. 2024	Director (to present)

INOUE Yuriko
Outside Director

Nov. 1993	Full-time Lecturer of Graduate Schools for Law and Politics, The University of Tokyo
Apr. 2004	Professor, Graduate School of Law, Kobe University
Oct. 2010	Professor, Graduate School of International Corporate Strategy, Hitotsubashi University
Apr. 2018	Professor, Business Law Department, Graduate School of Law, Hitotsubashi University
Jun. 2018	Outside Director, NIPPON SIGNAL CO., LTD. (to present), Outside Director, Dai-ichi Life Holdings, Inc. (to present)
Apr. 2020	Professor, Business Law Department, Graduate School of Law, Hitotsubashi University (to present)

MURATA Yoshiyuki
Outside Director

Apr. 2009	President and Representative Director, Taisei Housing Corporation
Apr. 2011	Executive Officer, Taisei Corporation
Apr. 2013	Managing Executive Officer, Taisei Corporation
Jun. 2013	Member of the Board, Taisei Corporation
Apr. 2015	President and Chief Executive Officer, Representative Director, Taisei Corporation
Jun. 2020	Vice Chairman, Representative Director, Taisei Corporation
Jun. 2021	Outside Director, NIPPON SIGNAL CO., LTD. (to present), Director and Executive Vice President, Daiwa House Industry Co., Ltd.
Apr. 2022	Outside Director of Fujita Corporation (to present)
Jun. 2022	Representative Director and Executive Vice President, Daiwa House Industry Co., Ltd. (to present)

Directors who are Audit and Supervisory Committee Members

TOKUBUCHI Yoshitaka
Director (Full-time Audit and Supervisory Committee Member)

Apr. 1982	Joined NIPPON SIGNAL CO., LTD.
Jul. 2006	General Manager of Production Control Dept. of Kuki Plant
Jun. 2008	Executive Officer, General Manager of Corporate Strategy Dept.
May. 2011	Managing Executive Officer
Jun. 2011	Director
Jun. 2014	Deputy Executive Officer
Apr. 2018	Chief General Manager of Business Administration Division
Apr. 2019	Director and Executive Vice President, Executive Vice President and Executive Officer
Jun. 2021	(Full-time) Audit & Supervisory Board Member
Jun. 2023	Director (to present)

TOKUNAGA Takashi
Outside Director (Full-time Audit and Supervisory Committee Member)

Apr. 1986	Joined National Police Agency
Feb. 1998	First Secretary of Embassy of Japan in the People's Republic of China
Apr. 2008	Professor of Graduate School of Public Policy, The University of Tokyo
Sep. 2013	Chief of Aomori Prefectural Police Headquarters
Oct. 2014	Councilor, Cabinet Secretariat
Aug. 2016	Deputy Director General of Commissioner General's Secretariat, National Police Agency
Apr. 2019	Deputy Secretary General, Headquarters for Promoting Development of Specified Complex Tourist Facilities Areas
Jan. 2020	Secretary General of Japan Casino Regulatory Commission
Jun. 2023	Outside Director, NIPPON SIGNAL CO., LTD. (to present)

SUZUKI Masako
Outside Director (Audit and Supervisory Committee Member)

Apr. 1972	Joined Nippon Yusen Kabushiki Kaisha
Jul. 1983	Joined Temporary Center Inc.
Apr. 1999	Executive Officer of Pasona Inc.
Sep. 2004	Director, Senior Managing Executive Officer of Pasona Inc.
Dec. 2007	Director, Senior Managing Executive Officer of Pasona Group Inc.
Jun. 2010	Director, Vice President of Benefit One Inc.
Jan. 2016	President of Benefit One Health care Inc.
Jun. 2016	Outside Director of JAPAN POST INSURANCE Co., Ltd. (to present)
Jul. 2019	Executive Advisor of Pasona Group Inc.
Dec. 2019	President and Representative Director of Pasona Force Inc.
Mar. 2023	Outside auditor of Unite and Grow Inc. (to present)
Jun. 2023	Outside Director, NIPPON SIGNAL CO., LTD. (to present)

AIZAWA Toshihiko
Outside Director (Audit and Supervisory Committee Member)

Apr. 1985	Joined COSMO OIL CO., LTD.
Jul. 1995	Joined Andersen Consulting (currently Accenture Japan Ltd.)
Sep. 1999	Joined Booz Allen Hamilton, Inc.
Aug. 2000	Joined Accenture Japan Ltd.
Sep. 2002	Executive Partner of Accenture Japan Ltd.
May. 2006	Director of The Daiei, Inc.
Feb. 2007	Representative Director and Chief Executive Officer of am/pm Japan Co., Ltd.
Aug. 2009	Representative Director of TSUNAGU Partners Co., Ltd. (to present)
Apr. 2010	Professor of Graduate School of Management, GLOBIS University (to present)
Jun. 2012	Director of SPARX Group Co., Ltd.
Dec. 2020	Representative Director of Quantum Leaps Food Innovation Co., Ltd. (to present)
Jun. 2024	Outside Director, NIPPON SIGNAL CO., LTD. (to present)

Executive Officers and Deputy Executive Officers

Chief Operating Officer	TSUKAMOTO Hidehiko
Executive Vice President and Executive Officer	FUJIWARA Takeshi
Deputy Chief Executive Officer	SAKAI Masayoshi
Managing Executive Officers	HIRANO Kazuhiro
	GOTO Ryuichi
	HORIE Toru
Executive Officers	MIKUNI Hiroyuki
	NAMIKI Yutaka
	TAGAMI Hideaki
	MACHIYAMA Shinichi
	HIRAMOTO Masayuki
	NAKAZAWA Mutsuo
	FURUKAWA Satoru
Deputy Executive Officers	MINAMI Junichi
	FUJIMOTO Hiromasa
	AOKI Yoshinori
	UNO Masazumi
	ISHIKAWA Tatsuya
	IIZUKA Yuri
	ISHIGE Takaharu

History of Innovation

Pursuit of New Pinnacles of Safety, Accuracy, Comfort, Speed and Volume

The history of Nippon Signal is also the history of a continuous pursuit of innovation, and the history of the evolution of Japan's transportation infrastructure. Commitment to further innovation is the unchanging DNA of the Group that has been passed down from our founding until today.

Value created by Nippon Signal

1928–1950s

Foundation of Nippon Signal and Modernization of Railway Signals

The Railway Nationalization Act, promulgated in 1906, nationalized major thoroughfares throughout Japan, and transportation demand saw a sharp spike thereafter. Nippon Signal Co., Ltd. was established in December 1928 via a merger of three companies, and was tasked with modernizing and realizing domestic production of railway signals.
Photograph: a mechanical interlocking system delivered to Kyoto Station in 1914. Reproduced from a Mimura Factory postcard (Railway Museum collection).

1929 A technical collaboration agreement with General Railway Signal Company of the United States is concluded with the aim of achieving domestic production of world-leading signal equipment.
1931 Made-in-Japan traffic signal equipment is produced and installed at the Nihonbashi, Gofukubashi, and Sakurabashi intersections.
1958 Production of parking meters commences.

Major events especially in the railway industry

1928–1950s
- Opening of the section of the Tokyo Underground Railway between Asakusa and Shimbashi
- Opening of the section of the Osaka Municipal Subway between Namba and Tennoji
- Establishment of the Teito Rapid Transit Authority (TRTA)
- Opening of the Kanmon submarine tunnel, the world's first undersea tunnel
- Establishment of Japanese National Railways (JNR) (a railway business transferred from the Ministry of Transport)
- Electrification of the Senzan Line is completed, and operation commences

1960s–1980s

Evolution of Electronics Technologies and Start of New, Forward-Looking Businesses

The opening of the Tokaido Shinkansen marked the beginning of a new era, and the Company's electronics technologies proceeded to evolve in the Automatic Train Control (ATC) and Centralized Traffic Control (CTC) systems used for the Shinkansen. We contributed to the development of Japan's transportation infrastructure by creating various new products geared toward the needs projected to arise in the future as post-Shinkansen businesses are developed.

1963 Production of Pasca 205 miniature commercial calculator commences.
1964 ATC and CTC systems produced by Nippon Signal are adopted for use on the segment of the Tokaido Shinkansen Line connecting Tokyo Station and Shin-Osaka Station.
1970 Production of PARK-LOC® system commences.
1972 Production of Japan's first comprehensive automated ticket gate system commences and this system is installed for use on the segment of the Sapporo Municipal Subway connecting Kita-Nijuyo-Jo Station and Makomanai Station.
1984 An automatic boarding control system for aircraft is developed.

1960s–1980s
- Tokyo Monorail commences operation
- The Tokaido Shinkansen Line commences operation
- The Sanyo Shinkansen Line commences operation
- Modernization of power is completed for JNR main lines (total abolition of steam locomotives)
- The Tohoku Shinkansen and Joetsu Shinkansen Lines commence operation
- Privatization and division of JNR into each JR company
- Opening of the Seikan tunnel (Seikan ferry services are abolished, and the Tsugaru-Kaikyo Line commences operation)

1990s–2010s

Technological Progress and Network Business Development

The transition from analog technologies to digital technologies and from hardware to software enable Nippon Signal to acquire technologies for realizing high-speed processing of massive quantities of data. With these technologies, we contribute to the dense, on-time operation, and complex interoperable equipment of railways, to support the mobility of 40 million people living and working in the Tokyo metropolitan area.

1998 Production of the Eco Scan® microelectromechanical system optical scanner commences.
2003 The Visionary Business Center is established to facilitate the creation of new products and new businesses.
2007 Mutual use of common IC cards (Suica and PASMO) commences, and Nippon Signal performs upgrades to all automatic passenger gates.
2009 The Overseas Division is established to boost competitiveness in overseas markets.
2009 Order-taking and manufacturing of platform screen doors commence on a full scale.

Eco Scan®, microelectromechanical system optical scanner

1990s–2010s
- Birth of the Tokaido Shinkansen "Nozomi"
- The Yamagata Shinkansen (a mini-shinkansen running on converted narrow-gauge railway lines) commences operation
- Driverless trains commence operation on the Tokyo Waterfront New Transit Waterfront Line (Yurikamome)
- The Nagano Shinkansen (from Takasaki to Nagano; later part of the Hokuriku Shinkansen) commences operation
- Okinawa Urban Monorail, the first railway in Okinawa since the end of the Second World War, commences operation
- The Kyushu Shinkansen (from Yatsushiro to Kagoshima Chuo Station) commences operation
- Toyama Light Rail commences operation
- Taiwan High Speed Rail commences operation

2011–

Aiming to Mark the 100th Anniversary (2028) by Becoming a Corporate Group that the World Needs

Leveraging the technological prowess it cultivated in Japan, Nippon Signal accelerates global expansion efforts centered on Asian and other emerging countries. In these efforts, we are developing systems compatible with the Mobility as a Service (MaaS) revolution and new digital transformation, as well as solutions for addressing global warming, shrinking workforce and other social issues.

2011 The SPARCS (Simple-structure and high-Performance ATC by Radio Communication System), the first Communications-Based Train Control System in the world, is developed and put into use on the Beijing Subway Line 15.
2017 The ANSHIN Center is established to provide IoT platform base functions.
2017 SPARCS is installed on the Delhi Metro Line 8 (Magenta Line).
2018 The CLINABO® automatic floor cleaning robot is developed.
2019 Nippon Signal participates in verification tests and projects related to the provision of signal information to self-driving vehicles.
2021 Won the Award of Excellence of the Public Construction Golden Quality Award in Taiwan.
2022 Dhaka Mass Rapid Transit (MRT) Line 6 of Bangladesh commenced operation.
2024 GoA2.5 automatic operation is realized on the Kashii Line, Kyushu Railway Company.

CLINABO® automatic floor cleaning robot

2011–
- The Kyushu Shinkansen (Kagoshima route) commences operation on all sections
- Cruise Train "Seven Stars in Kyushu" commences operation
- 50th anniversary of the opening of the Tokaido Shinkansen
- The Hokuriku Shinkansen (Kanazawa extension) commences operation
- The Hokkaido Shinkansen commences operation
- Okinawa Urban Monorail extension commences operation
- Takanawa Gateway Station on JR Yamanote Line opens
- The Nishi Kyushu Shinkansen (from Nagasaki to Takeoonsen) commences operation
- Utsunomiya Light Rail commences operation
- The Hokuriku Shinkansen Tsuruga extension commences operation

Financial and Non-Financial Highlights (Years ended March)

Financial Data (¥ million)[3]

	2015	2016	2017	2018[1]	2019	2020	2021	2022	2023	2024
Orders received[4]	99,713	83,258	88,659	99,581	113,347	118,604	85,185	79,709	99,063	138,566
Net sales[5]	100,416	90,593	82,134	83,770	99,857	111,675	92,755	85,047	85,456	98,536
Operating income	8,377	7,162	4,269	2,061	7,000	8,912	5,713	5,390	5,112	6,824
Income before income taxes and minority interests	9,111	8,038	5,315	3,192	7,916	9,662	7,282	6,531	6,027	8,047
Net income attributable to owners of parent	5,413	4,994	3,500	2,051	5,306	6,584	4,916	4,503	4,075	5,346
R&D expenses	3,291	3,419	3,078	2,587	2,401	2,887	2,753	2,628	2,838	2,956
Capital investment	1,953	3,502	3,035	3,564	1,903	2,459	2,912	2,516	2,669	4,300
Depreciation and amortization	1,701	1,685	1,787	1,968	2,128	2,066	2,052	2,170	2,380	2,362
Total assets	120,573	121,434	124,298	127,322	137,643	137,971	141,356	134,086	146,019	165,295
Net assets	74,764	79,801	79,252	79,401	82,135	79,648	84,694	86,740	89,351	96,821
Cash flows from operating activities	14,917	4,152	369	(305)	3,291	9,160	1,145	2,099	1,715	6,771
Cash flows from investing activities	(2,774)	(5,963)	(1,013)	(4,153)	(2,437)	(4,600)	(1,911)	(2,344)	(3,597)	(2,982)
Free cash flow	12,142	(1,811)	(644)	(4,458)	854	4,560	(766)	(244)	(1,881)	3,788
Cash flows from financing activities	(6,502)	(1,412)	(492)	3,111	426	(4,367)	1,354	(6,750)	3,911	(338)
(Yen)										
Earnings per share (EPS)	79.37	73.24	51.59	31.42	81.29	103.34	78.82	72.21	65.34	85.71
Book value per share (BPS)	1,091.55	1,167.75	1,195.14	1,216.17	1,258.04	1,276.99	1,357.90	1,390.71	1,432.57	1,552.35
Dividend per share	20	22	23	24	25[6]	26	27	27	27	31
(%)										
Return on equity (ROE)	7.7	6.5	4.4	2.6	6.6	8.1	6.0	5.3	4.6	5.7
Return on assets (ROA)	7.8	6.6	4.3	2.3	6.0	7.0	4.6	4.7	4.2	5.1
Equity ratio	61.8	65.6	63.8	62.4	59.7	57.7	59.9	64.7	61.2	58.6
Payout ratio	25.2	30	44.6	76.4	30.8	25.2	34.3	37.4	41.3	36.2

Non-Financial Data[3]

Personnel Data

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Number of Employees[7]	1,207	1,232	1,254	1,278	1,255	1,232	1,265	1,261	1,230	1,185
Average age of employees	41 yrs & 6 mos	41 yrs & 10 mos	41 yrs & 6 mos	41 yrs & 10 mos	42 yrs & 6 mos	42 yrs & 10 mos	42 yrs & 9 mos	42 yrs & 11 mos	42 yrs & 11 mos	43 yrs & 7 mos
Average length of service of employees	17 yrs & 9 mos	17 yrs & 11 mos	17 yrs & 2 mos	17 yrs & 1 mos	17 yrs & 4 mos	18 yrs & 3 mos	18 yrs & 2 mos	18 yrs & 3 mos	18 yrs & 10 mos	19 yrs & 3 mos

Environmental Data[8]

Inputs	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Electricity (1,000 kWh)	8,282	7,867	7,613	7,850	8,456	7,986	7,645	7,361	7,021	9,483
Gas (km^3)	311	285	310	332	347	349	309	296	289	291
Fuel (petroleum) (kl)	28.6	29.5	30.9	31.9	31.6	32.9	25.4	27.3	29.1	32.1
Water (km^3)	73	54	51	54	51	50.2	54.6	54.9	58.0	52.2
Outputs										
CO_2 (tons)	3,947	3,739	3,700	3,851	4,051	3,917	3,714	3,546	2,656	1,465
Wastewater (km^3)	73	54	51	54	51	50.2	54.6	54.9	58.0	52.2
Non-industrial waste (tons)	269	223	206	218	262	264	224	196	183	181
Industrial waste (tons)	447	412	292	394	324	364	253	248	149	110
Recycling rate (%)	98.8	99.0	99.4	99.5	99.6	99.4	99.3	99.2	98.8	98.1

*1 The Company has applied the Partial Amendments to Accounting Standard for Tax Effect Accounting (ASBJ Statement No. 28, February 16, 2018) from the start of fiscal 2019. Management indicators and other important data related to fiscal 2018 have been retroactively revised to reflect this newly applied standard.
*2 The Company has applied the Accounting Standard for Revenue Recognition (ASBJ Statement No. 29, March 31, 2020) from the start of fiscal 2022. Management indicators and other important data related to the fiscal year ended March 31, 2022 and thereafter are those after the application of the said accounting standards, etc.
*3 Financial data is presented on a consolidated basis, while non-financial data is presented on a non-consolidated basis.

*4 Orders received are exclusive of consumption tax and other taxes.
*5 Net sales are exclusive of consumption tax and other taxes.
*6 The dividend per share for the fiscal year ended March 31, 2019, which amounted to 25 yen, included a commemorative dividend of 1 yen for the 90th anniversary of the foundation of Nippon Signal Co., Ltd.
*7 The number of employees includes staff on loan from other companies to Nippon Signal, and excludes Nippon Signal staff on loan to other companies and temporary employees.
*8 The figures for the environmental data are those for the sites of Kuki Plant, Utsunomiya Plant, Ageo Factory, Yamagata Nisshin Electronics Co., Ltd. and Nisshin Tokki Co., Ltd.

Corporate Data

Corporate Overview (as of March 31, 2024)

Name of Company:	Nippon Signal Co., Ltd.
Date Established:	December 27, 1928
Paid-in Capital:	¥10 billion
President and CEO:	TSUKAMOTO Hidehiko
Number of Employees:	2,946 (consolidated)
Accounting Auditor:	Grant Thornton Taiyo LLC

Overseas Offices

Taipei Branch   Dhaka Office   Yangon Office

Manila Office   Cairo Office

Consolidated Subsidiaries

Nisshin Electronics Service Co., Ltd.

Nisshin IT Field Service Co., Ltd.

Sendai Nisshin Electronics Co., Ltd.

Chubu Nisshin Electronics Co., Ltd.

Nisshin Industry Co., Ltd.

Tochigi Nisshin Co., Ltd.

Nisshin Tokki Co., Ltd.

Nisshin Software Engineering Co., Ltd.

Nisshin Electric Construction Co., Ltd.

Yamagata Nisshin Electronics Co., Ltd.

Sapporo Nisshin Electronics Co., Ltd.

Fukuoka Nisshin Electronics Co., Ltd.
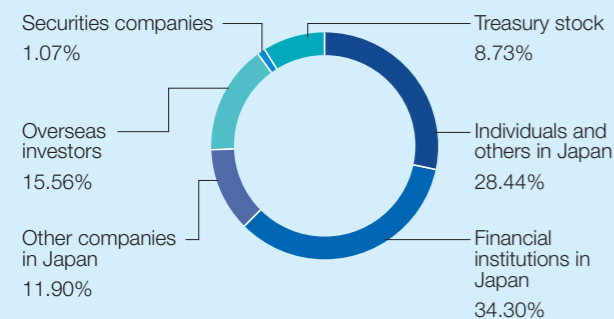
Asahi Electric Co., Ltd

Non-Consolidated Subsidiaries

Nisshin Enterprise Co., Ltd.

Nisshin Okabe Nikoh Co., Ltd.

Nisshin TECHNO Engineering Co., Ltd.

Nisshin Hutech Co., Ltd.

Saitama Union Service Co., Ltd.

Yokohama Techno Engineering Service Co., Ltd.

Hokumei Electric Industry Co., Ltd.

Beijing Nippon Signal Co., Ltd.

Nippon Signal India Pvt. Ltd.

Nippon Signal Technology Taiwan Co., Ltd.

Nippon Signal Bangladesh Pvt. Ltd.

Stock Information (as of March 31, 2024)

Number of Shares of Common Stock Issued:	68,339,704
Stock Exchange Listings:	Tokyo Stock Exchange, Prime Market
Number of Shareholders:	13,554
Shareholder Registration Agent:	Mizuho Trust & Banking Co., Ltd.

Distribution of Shares by Shareholder Category

Securities companies 1.07%
Treasury stock 8.73%
Overseas investors 15.56%
Individuals and others in Japan 28.44%
Other companies in Japan 11.90%
Financial institutions in Japan 34.30%

Major Shareholders

Shareholder	Number of Shares Held (thousand)	Investment Ratio (%)
The Master Trust Bank of Japan, Ltd. (trust account)	6,527	10.47
Fukoku Mutual Life Insurance Company	4,793	7.68
Nippon Signal Group Employees Shareholding Association	4,056	6.50
The Nippon Signal Trading-Partner	3,338	5.35
Mizuho Bank, Ltd.	2,200	3.53
West Japan Railway Company	2,050	3.29
GOVERNMENT OF NORWAY	1,828	2.93
Custody Bank of Japan, Ltd. (trust account)	1,486	2.38
MUFG Bank, Ltd.	1,372	2.20
Aioi Nissay Dowa Insurance Co., Ltd.	1,214	1.95

*1 Fukoku Mutual Life Insurance Company has placed 730,000 shares of Nippon Signal stock in a retirement benefit trust separate from the aforementioned shares it holds. It reserves the right to give instructions on how to exercise related voting rights.

*2 5,968,382 treasury shares have been deducted for the purpose of calculating the investment ratio.

Domestic Offices and Plants

Head Office
Shin Marunouchi Building, 1-5-1 Marunouchi, Chiyoda-ku, Tokyo 100-6513 Japan
Phone: +81-3-3217-7200 Fax: +81-3-3217-7300

Osaka Branch Office
8F, Osaka Fukoku Seimei Building, 2-4 Komatsubara-cho, Kita-ku, Osaka, Osaka 530-0018 Japan
Phone: +81-6-6312-3851 Fax: +81-6-6312-8597

Kuki Plant
1836-1 Ooya, Aza, Ezura, Kuki, Saitama 346-8524 Japan
Phone: +81-480-28-3000 Fax: +81-480-28-3800

Utsunomiya Plant
11-2 Hiraide Kogyo Danchi, Utsunomiya, Tochigi 321-0905 Japan
Phone: +81-28-660-3000 Fax: +81-28-660-3033

Ageo Factory

Hokkaido Branch Office   Tohoku Branch Office

Chubu Branch Office   Kyushu Branch Office

Morioka Office   Akita Office   Saitama Office   Tochigi Office

Kanazawa Office   Yamanashi Office   Shizuoka Office   Mie Office

Kyoto Office   Hiroshima Office   Shikoku Office   Okinawa Office

For further details, please refer to our website.
➡ https://english.signal.co.jp/aboutus/branch/

NIPPON SIGNAL