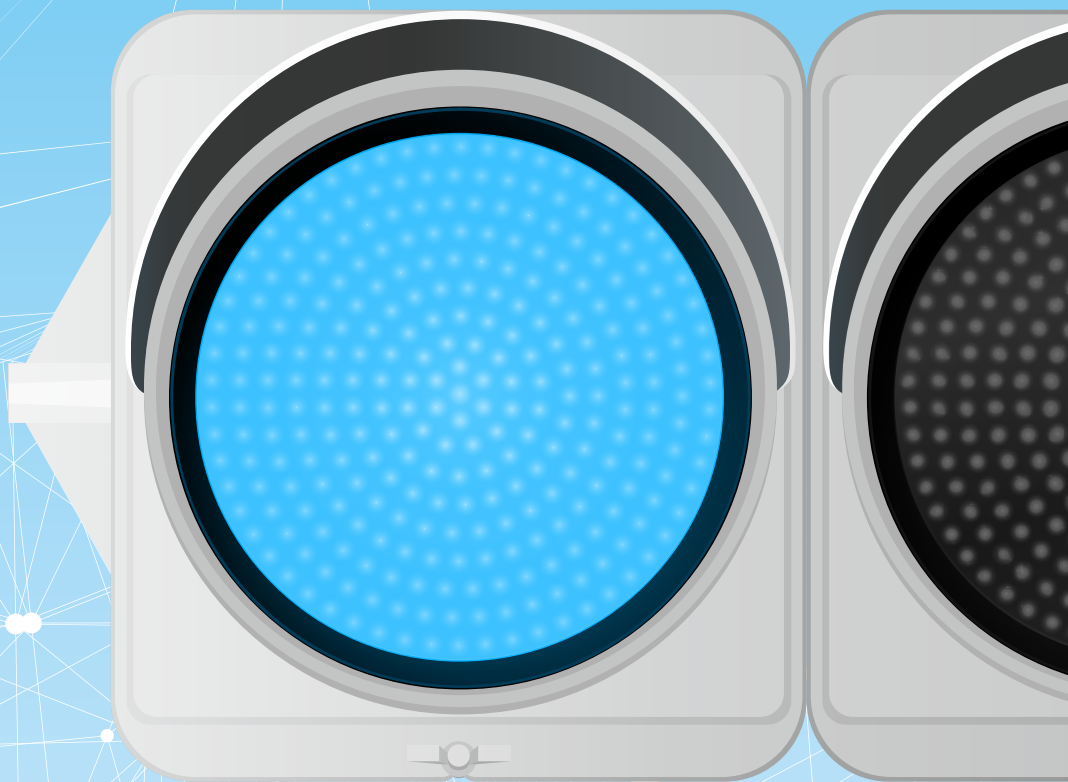




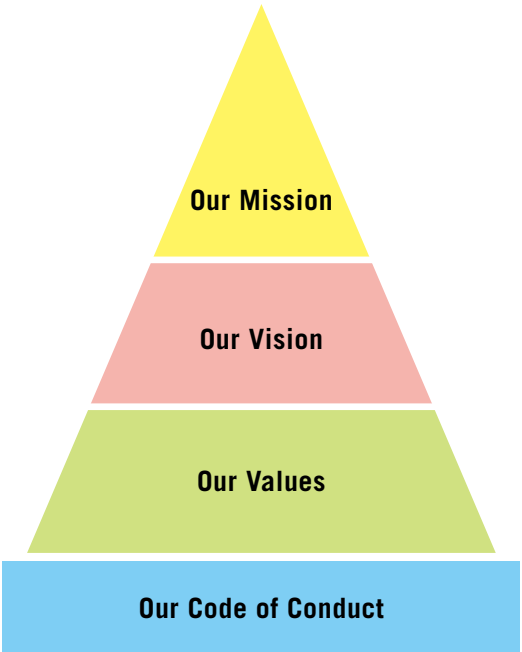
Safety with a smile



# NIPPON SIGNAL REPORT 2019



# 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*.\*

\* *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

### CONTENTS

**Editorial Policy**  
The Nippon Signal Group publishes annual integrated reports (Nippon Signal reports) for its customers, shareholders, investors, and other stakeholders to facilitate understanding of the Group's efforts to help resolve social issues and increase corporate value through its business activities. 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 in order to ensure ease of understanding with regard to the value creation stories arising from our business model and the strengths that underpin the Group's competitiveness.

*Nippon Signal Report 2019* covers the “Evolution 100” long-term management plan and the 2021 medium-term management plan that were launched in the fiscal year ending March 31, 2020, to paint a picture of Nippon Signal's vision, its management strategies for creating value, and the operating foundations that support these efforts.

### Section 1

#### Vision of the Nippon Signal Group

- 2 | Nippon Signal's History of Innovation
- 4 | The Nippon Signal Group's Value Creation Story
- 6 | Long-Term Management Plan Evolution 100

### Section 2

#### Management Strategy for Value Creation

- 8 | To Our Stakeholders
- 14 | New Domains of Evolution 100

### Section 3

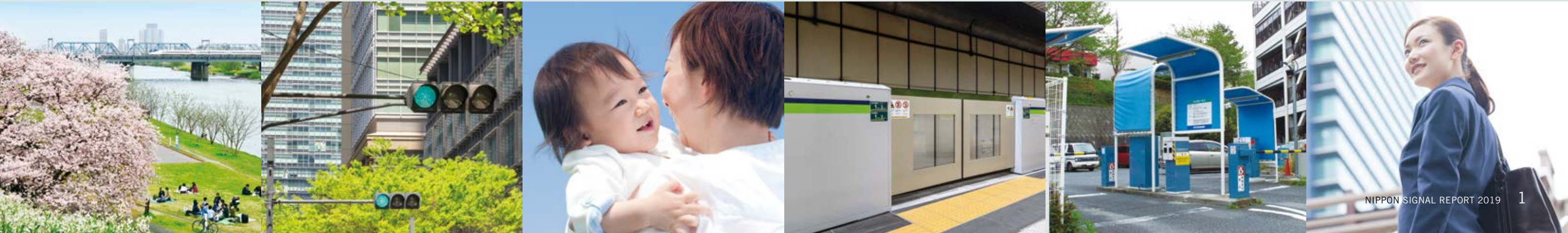
#### Data Section

- 16 | Corporate Executives
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**Note on Forward-Looking Statements**  
*Nippon Signal Report 2019* contains statements on the future plans, forecasts, and prospects of the Nippon Signal 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.

**Scope of Report**  
Nippon Signal Co., Ltd. and the 13 consolidated affiliates  
\*The report also includes information on non-consolidated affiliates.

**Report Period**  
Fiscal year ended March 31, 2019 (from April 1, 2018 to March 31, 2019)  
\* The report covers some activities that fall outside this period.





# Nippon Signal's History of Innovation



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 was established via a merger of three companies and was tasked with modernizing and realizing domestic production of railway signals.

**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, Kurehabashi, and Sakurabashi intersections.



**1958** Production of parking meters commences.



1960s–1980s

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

The opening of the Shinkansen marked the beginning of a new era, and Nippon Signal's electronics technologies proceeded to evolve in the centralized traffic control (CTC) and automatic train control (ATC) 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** CTC and ATC systems produced by Nippon Signal are adopted for use on the segment of the Tokaido Shinkansen Line connecting Tokyo Station and Shin-Osaka Station.

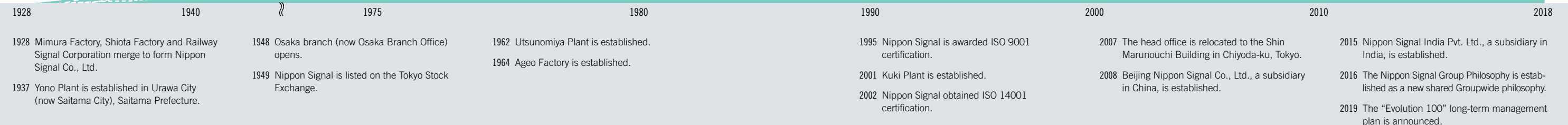
**1970** Production of PARK-LOC® system commences.

**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.

Smart City Systems  
Automatic Fare Collection (AFC) Systems  
Smart Mobility Systems  
Railway Signal Systems



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

Nippon Signal's history of innovation is a chronicle of its ongoing quest to achieve new pinnacles of speed, safety, accuracy, volume, and comfort. It would not be an exaggeration to say that the history of Nippon Signal is the history of Japan's transportation signals. The commitment driving us forward on this quest is the unchanging DNA of Nippon Signal that has been passed down from our founding until today.



1990s–2010s

## Technological Progress and Network Business Development

The transition from analog technologies to digital technologies and from hardware to software enables Nippon Signal to acquire technologies for realizing high-speed processing of massive quantities of data. With these technologies, we contribute to the dense, ontime operation, complex inter-operable facilities 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** Reciprocal 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.



2011~

## Acceleration of Global Expansion and Start of New Long-Term Management Plan

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 focus on the development of systems compatible with the Mobility as a Service (MaaS) revolution and new digital transformation.

**2011** The SPARCS simple-structure and high-performance ATC by radio communication system 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.



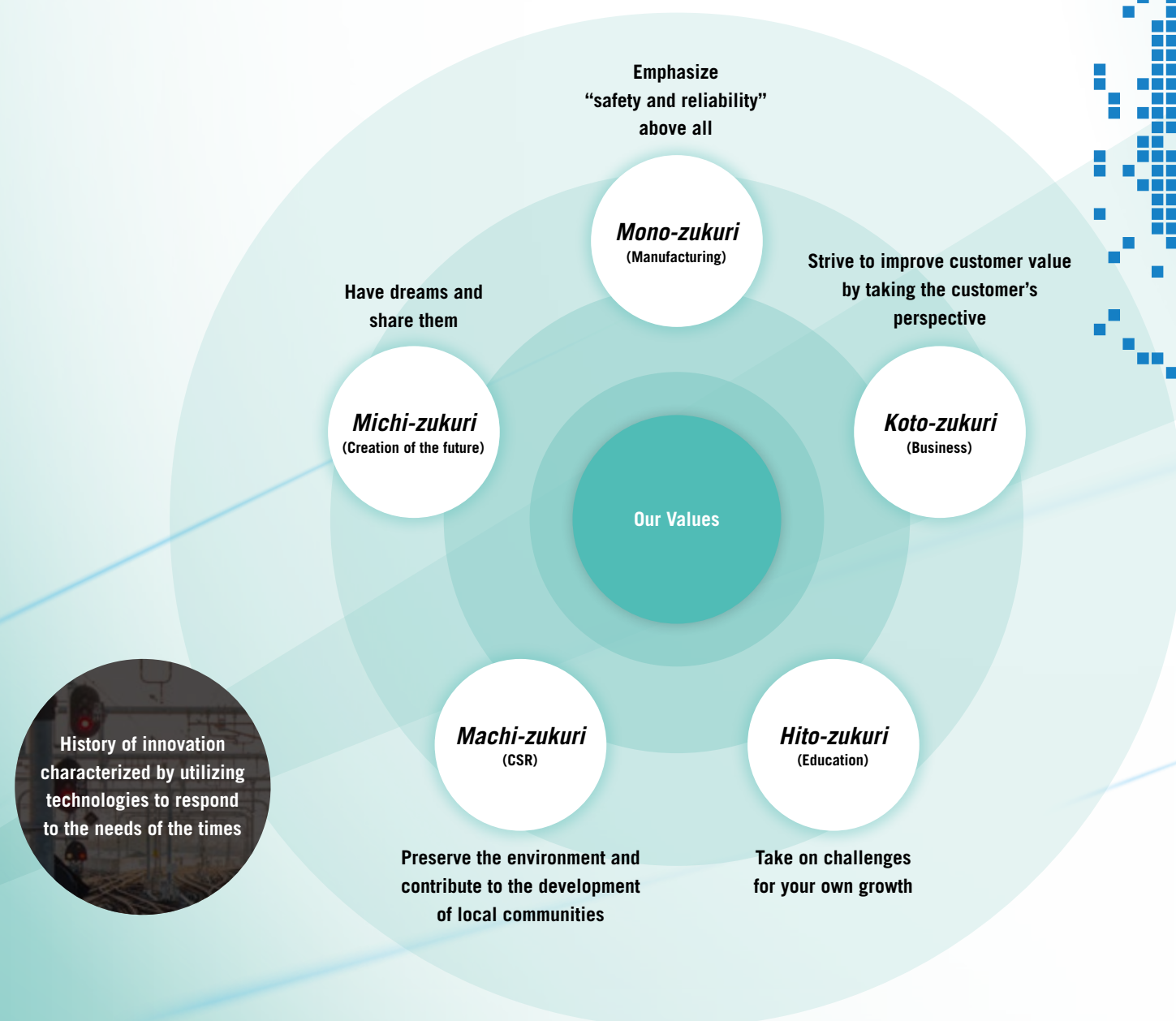
\* "ANSHIN" stands for 'Anzen and Shinrai', which means 'Safety and Reliability' in Japanese. We also state "ANSHIN" as 'Advanced Nippon Signal High-level Intelligence Network'.



# The Nippon Signal Group's Value Creation Story

The Nippon Signal Group's value creation story is the story of incorporating the Nippon Signal Group Philosophy into our business activities as we seek to create a society in which people around the world can live safely and comfortably.

Safety and reliability have continued to form the bedrock of the Group's operations since the time of its founding. This commitment has not changed as we have continued to challenge ourselves to accomplish the goals of the long-term management plan, our roadmap for achieving sustainable growth in response to the changing times, and to thereby create new value.



**Our Mission**

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

## EVOLUTION 100

— Long-Term Management Plan —

A provider that supports infrastructure evolution with safe and comfortable solutions

*Safety with a smile*

### Contributions to the SDGs through the Long-Term Management Plan

Social contributions and disaster relief through products and services	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Promotion of social welfare	3 GOOD HEALTH AND WELL-BEING
Support for high-quality education and cultural activities		4 QUALITY EDUCATION		Creation of rewarding workplaces that are accepting of diversity	8 DECENT WORK AND ECONOMIC GROWTH
Environmental preservation		15 LIFE ON LAND		Active global partnership	17 PARTNERSHIPS FOR THE GOALS
Consideration for environmental impacts		13 CLIMATE ACTION			



## Long-Term Management Plan

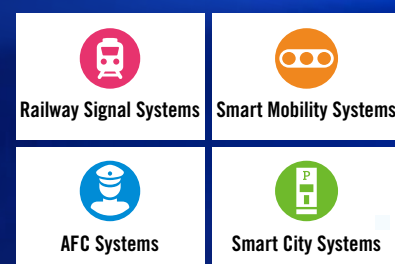
# EVOLUTION 100

The “Evolution 100” long-term management plan embodies our desire for the Nippon Signal Group to undergo a substantial transformation (evolution) by adapting to the rapidly changing operating environment. The operating environment is currently changing at a dizzying speed as indicated by intensification of inter-industry product development competition spurred by technological innovation and by rapid globalization. In this environment, it will be crucial for the Group to transform its business structure in order to respond to such unprecedented changes.

Nippon Signal will celebrate its centennial anniversary in 2028, 10 years from now. As we approach this milestone, we will seek to help resolve social issues in Japan and overseas by supporting infrastructure evolution with safe and comfortable solutions. We hope that, through these efforts, Nippon Signal will become an entity deemed necessary by people worldwide.

Acquisition of new technologies to develop and expand technological platforms

### Current Business Domain



Adaption of business in response to operating environment changes

### Megatrends Projected Leading Up to 2030

<b>Economic</b>	Asia achieving central position in the global economy, population growth in Asia and Africa, expansion of the railway market, aging of populations, emergence of sharing economies
<b>Domestic</b>	Population declines, labor shortages, national finance issues, aging social infrastructure, declines in outlying cities, promotion of Society 5.0 concept
<b>Governmental and Social</b>	Progress of globalization, trend toward protectionism, growing severity of global environmental issues, promotion of the Sustainable Development Goals
<b>Technological</b>	Progress in autonomous driving, robotics, digitization, artificial intelligence (AI), Internet of Things (IoT), cyber security technologies

## O&M\* Solutions

Nippon Signal will utilize IoT and AI technologies to create new businesses in the areas of preventative maintenance, labor saving, disaster prevention and impact reduction, off-site incident response, and new service development.

\*O&M: Operation & Maintenance

## Total Mobility

Based on the concept of optimal mobility control, Nippon Signal provides solutions for managing the operation of and seamlessly coordinating railways, automobiles, and various other forms of mobility.

## Smart Cities

We are broadening the scope of our operations from train stations, an area of strength, to include cities as we deliver a wide range of solutions for addressing diverse needs in the smart payment and other fields.

## Future Business Domains

## Security & Sensing

Nippon Signal offers sensing technologies and security and other solutions for infrastructure applications.

## Global

Nippon Signal provides solutions for realizing safe and smooth transportation to support the urbanization trends accompanying economic development in Asian and other emerging countries.



# To Our Stakeholders



**Yohei Furuhashi**  
Chairman & CEO

**Hidehiko Tsukamoto**  
President & COO

## Transformation into a One-Stop Solutions Provider Supporting Infrastructure Evolution

### History of Supporting Safe and Reliable Transportation Spanning 90 Years

Established in 1928, Nippon Signal was tasked with realizing domestic production of and evolving railway signal technologies. Over the 90 years that followed, we have proceeded to create numerous innovations that have defied prior conventions to contribute to the development of transportation infrastructure. For example, we delivered a signal system for the Tokaido Shinkansen that transformed the very concept of mobility for people as well as Japan's first comprehensive automatic fare collection (AFC) system for the Sapporo Municipal Subway. In addition, we developed PARK-LOC® systems that allow for unmanned parking lot operation and fee collection.

Society's evolution from an information society to a super-smart society is driving drastic change in industry and in people's lifestyles. Against this backdrop, Nippon Signal continues to transmit and evolve the safe and reliable technologies it has developed thus far in its pursuit of further growth.

### Successes and Challenges of Vision-2020 3E Long-Term Management Plan

Nippon Signal aspires to become a sustainably growing company suited to a global society. Slated to conclude with the fiscal year ending March 31, 2021, the Vision-2020 3E long-term management plan has been guiding us in this pursuit. In addition, we have formulated and implemented three medium-term management plans that put forth three strategic scenarios to facilitate the accomplishment of Vision-2020 3E.

The 2014 medium-term management plan, which covered the four-year period spanning the fiscal years ended March 31, 2016 to 2019, was centered around the two themes of "adapting to the changing trends of the times" and "acceleration of business growth." Under this plan, we sought to become a company relied on by customers all around the world through the provision of valuable products and services and to grow into a leading company that responds to the need for transportation infrastructure both in Japan and other countries as we create innovation in the mature domestic market.

Vision-2020 3E produced numerous successes in Japan and overseas. Sales promotions of signal and AFC systems moved forward in Asian and other emerging countries, and we were able to achieve increases in orders for the SPARCS simple-structure and high-performance ATC by radio communication system, which was the target of special sales activities as a strategic product. These sales activities drove the rapid growth of our international businesses, which saw net sales rise from ¥1.0 billion in the fiscal year ended March 31, 2009, to more than ¥10.0 billion in the fiscal year ended March 31, 2019. In Japan, meanwhile, efforts to create new, forward-looking business centered on cutting-edge technologies led to the commercialization of the 3D Laser Ranging Image Sensor.

As for performance, we were able to escape from the turmoil that ensued from the 2008 financial crisis, which struck shortly after the formulation of Vision-2020 3E, and from the Great East Japan Earthquake to achieve an upturn in performance.

Looking ahead, we have identified three tasks that will need to be addressed if Nippon Signal is to achieve further growth. Specifically, we will need to (1) step up business development efforts in response to rapid globalization and to the evolution of the Internet of Things (IoT), big data, artificial intelligence (AI), and other digital technologies; (2) transform ourselves into a one-stop solutions provider that creates new value through the provision of services and solutions; and (3) establish international business foundations that encompass Group companies.

## To Our Stakeholders

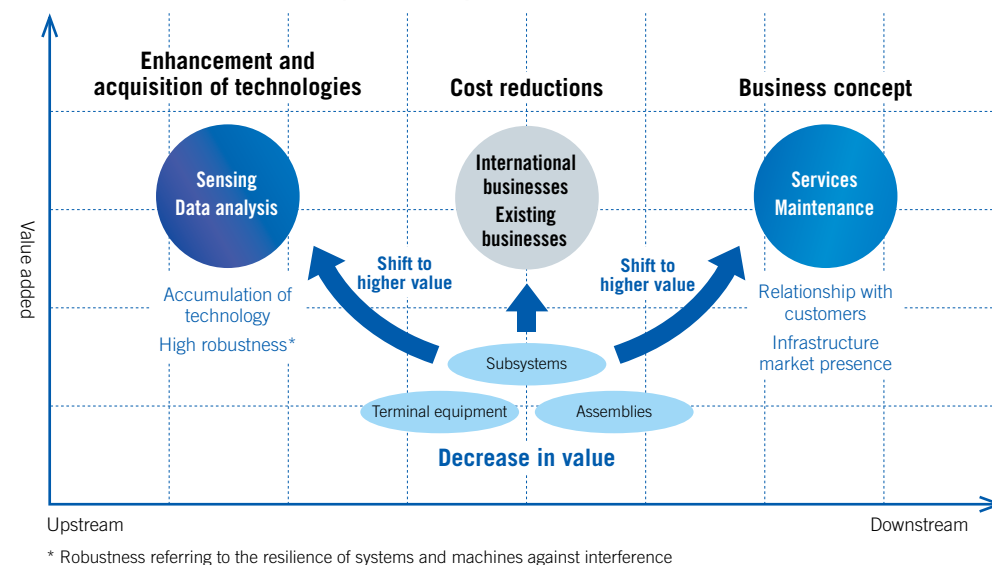
### “Evolution 100” Long-Term Management Plan Leading up to Centennial Anniversary

Nippon Signal launched its new “Evolution 100” long-term management plan in the fiscal year ending March 31, 2020. The title “Evolution 100” is symbolic of our desire for the Nippon Signal Group to undergo a massive transformation (evolution) by adapting to the rapidly changing operating environment to carry it to its centennial anniversary in 2028 and throughout the century to follow.

Reflecting the global economic, domestic, governmental and social, and technological megatrends projected going forward, “Evolution 100” defined our vision for Nippon Signal 10 years from now as “a provider that supports infrastructure evolution with safe and comfortable solutions.” To guide us in realizing this vision, we have formulated strategies pertaining to business transformations, business domains, human resources and organizations, and technology development. We are currently faced with a period of great change in which the disruptive innovations born out of technological progress are creating a situation in which conventional industries that cannot adapt will be doomed to extinction. The zeros contained in the title “Evolution 100” represent our intent to rebuild the Company from zero in order to ensure ongoing growth in the highly volatile operating environment. We are thus inspired to pursue unprecedented new businesses that break away from prior conventions.

Nippon Signal is undertaking a massive transformation in its business with the aim of achieving its vision for 10 years from now. We will transition away from a business style of merely selling standalone equipment and supporting individual projects to transform our business into one that provides IoT solutions capitalizing on our strength in data analysis as well as high-value-added general-purpose solutions that respond to the unmet needs of our diverse customers. In this undertaking, we will leverage the competitiveness arising from our strengths in highly robust sensor technologies and our presence in the transportation infrastructure industry. IoT solutions are a central aspect of our business transformation strategies. In this area, we will use IoT technologies to harvest data from customers’ field products and systems. This data will be utilized to create new businesses in the areas of preventative maintenance, labor saving, disaster prevention and impact reduction, and off-site incident response that capitalize on the analytical capabilities backed by our years of experience and expertise. As for high-value-added general-purpose solutions, we look to further refine our business model of developing high-valued-added general-purpose products and modules that respond to the unmet needs of a wide range of customers. This model is propelled forward by the competitiveness arising from our ability to use customer sites of operation in the product development process.

Focus Areas of “Evolution 100” (Smile Curve)



### Initiatives of the 2021 Medium-Term Management Plan

The first phase of the “Evolution 100” long-term management plan, which kicked off in the fiscal year ending March 31, 2020, will be shaped by the 2021 medium-term management plan, the first plan of the period of “Evolution 100.” Under the 2021 medium-term management plan, we have positioned the three-year period encompassing the fiscal years ending March 31, 2020 to 2022, as a period for structural reforms to Nippon Signal. During this period, we will implement the following four priority measures to guide efforts to make our business more global and solutions oriented.

#### Priority Measure 1 Create Businesses and Enhance Technological Prowess Preemptively in Response to Change

Nippon Signal intends to step up its global expansion efforts while accelerating new product development and business growth by reorganizing its business and launching an operation and maintenance (O&M) solutions business.

As one facet of our business reorganization, we established the Smart City Systems Division on April 1, 2019. This division will continue to develop existing businesses while also broadening the scope of our operations from train stations to include cities. Also, this division will promote the reinforcement of security businesses based on robotics, microelectromechanical systems (sensors), environmental measurement and solutions (ground penetrating radar), and other new technologies.

In addition, the ANSHIN Center, or “ANSHINKAN,” established in 2017, furnishes an IoT platform for realizing condition-based maintenance (CBM),\* a highly anticipated next-generation maintenance approach. This facility will thus pave the way for the launch of our O&M solutions business.

In our international businesses, we will improve profitability by strengthening our business structure and support and management systems.

Our efforts to accelerate new product development and business growth will include developing and expanding our unique technological platform by acquiring new core technologies, such as IoT, robotics, and autonomous driving technologies, to complement existing core technologies, such as sensing, wireless network, and image analysis technologies. Based on this advanced technology platform, we aim to create business models that meet next-generation needs.

\* Condition-based maintenance: An approach toward maintenance based on preventative maintenance principles that entails constant monitoring of the conditions of equipment in operation so that maintenance can be performed only when deemed necessary

#### Priority Measure 2 Realize Competitiveness in Terms of Quality, Cost, and Delivery

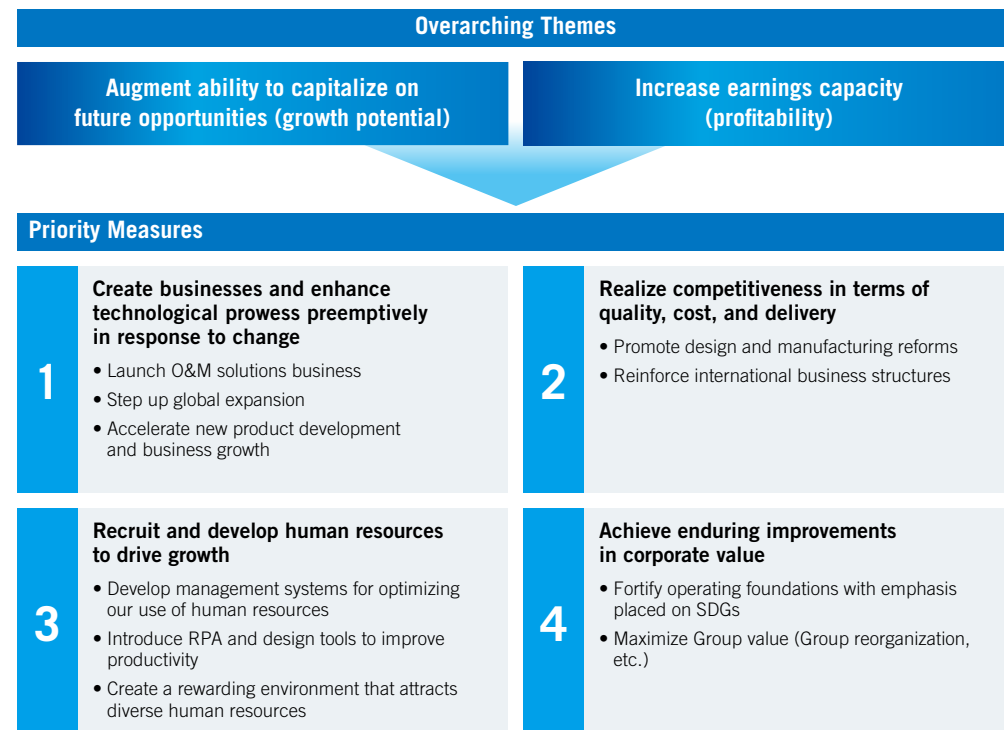
Design and manufacturing reforms and the reinforcement of international business structures are themes of importance for Nippon Signal. On this front, we will look to improve quality through product design standardization and front-loading while heightening efficiency through design automation and the utilization of various tools. One of our goals is to realize global competitiveness in terms of quality, cost, and delivery, and we are fortifying overseas manufacturing and management systems to this end.

#### Priority Measure 3 Recruit and Develop Human Resources to Drive Growth

Nippon Signal intends to utilize human resource recruitment and development programs as well as external human resources to secure the human resources required to achieve the goals of the medium-term management plan and the long-term management plan. To this end, we will develop management systems for optimizing our use of human resources, introduce robotic process automation (RPA) and design tools to improve productivity, and create a rewarding environment that attracts diverse human resources.

## To Our Stakeholders

### Objectives (Framework) of 2021 Medium-Term Management Plan



#### Priority Measure 4 Achieve Enduring Improvements in Corporate Value

Recognizing our responsibility as a social infrastructure company, we practice management while remaining keenly aware of environmental, social, and governance (ESG) concerns as well as of the Sustainable Development Goals (SDGs) adopted at the United Nations General Assembly in 2015. At the same time, we continue to implement Group reorganization to maximize the value of the Nippon Signal Group.

Under the 2021 medium-term management plan, we will have earmarked a total of ¥50.0 billion for M&A activities and other investments to acquire the management resources necessary for growth in Japan and overseas. We thereby aim to ensure that the first step of the “Evolution 100” long-term management plan is a strong one. In addition, business expansion will be pursued by increasing the number of personnel assigned to strategic divisions, by heightening work efficiency, and by conducting capital investment for improving labor productivity. Through these efforts, we will endeavor to augment our ability to capitalize on future opportunities (growth potential) and to increase earnings capacity (profitability). We thereby aim to achieve the targets of consolidated net sales of ¥120 billion, a ratio of overseas sales to total net sales of 14%, an operating margin of 10%, and return on equity of 9% or more in the fiscal year ending March 31, 2022.

#### Consolidated Performance Targets

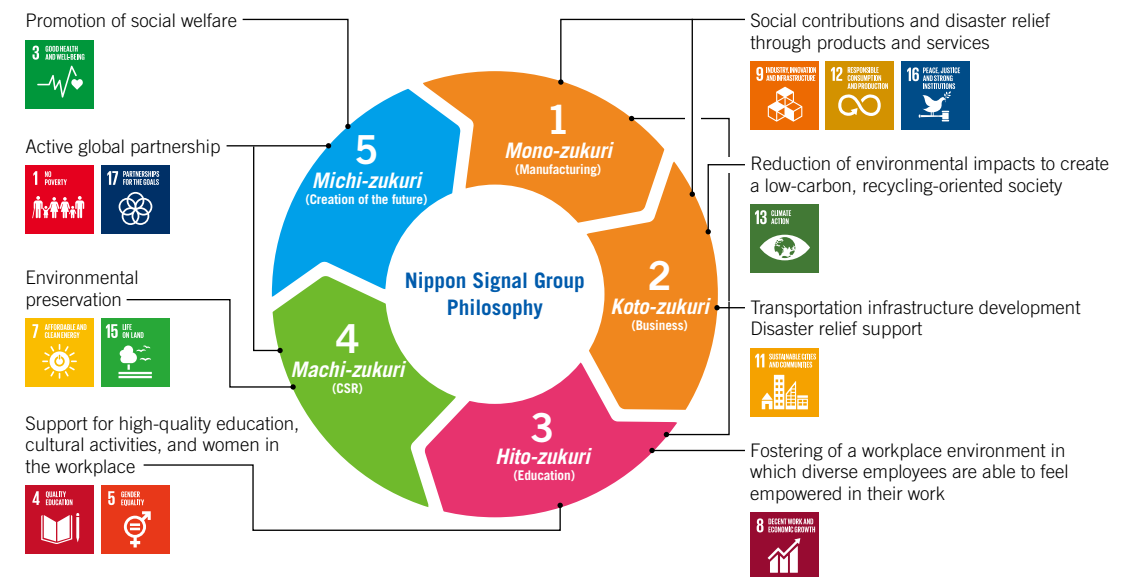
		2021 Medium-Term Management Plan		
	2019/3	2020/3	2021/3	2022/3
Net Sales (¥ billion)	99.8	105.0	110.0	120.0
Overseas Sales Ratio	10.4%	12.0%	13.0%	14.0%
Operating Margin	7.0%	7.0%	8.5%	10.0%
ROE	6.6%	7.0% or more	8.0% or more	9.0% or more
Equity Ratio	59.7%	50%–60%		

## Centennial Anniversary and Beyond

As a provider of transportation infrastructure, a highly public enterprise, Nippon Signal is committed to making ongoing contributions to the realization of a society in which everyone can lead a safe and healthy life. To aid us in these efforts, we have aligned our business activities with the United Nations SDGs and identified those goals among the SDGs that are important to our business activities. Concrete actions are being implemented accordingly. The reduction of environmental impacts, creation of infrastructure that is resilient to natural disasters, and development of safe cities are all themes encapsulated within the United Nations’ 17 goals to transform our world that are the SDGs. We are moving ahead with R&D and product development activities while considering the contributions that Nippon Signal can make with regard to these themes. Furthermore, we actively engage in social contribution activities based on themes such as education, culture, social welfare, and the preservation of the global environment in order to cultivate the partnerships with local communities that are important for sustainable corporate management. Nippon Signal is also focused on fostering a workplace environment in which diverse employees are able to feel empowered in their work based on the recognition that such a workplace helps empower companies and facilitate their growth.

Our mission is stated in the Nippon Signal Group Philosophy as “We help realize a more secure and comfortable society through superior technologies that provide safety and reliability.” By shaping our business activities based on our mission, we will evolve as we move forward toward our centennial anniversary and beyond in order to contribute to the accomplishment of the United Nations SDGs as we seek to realize improvements in both social value and corporate value.

#### The Nippon Signal Group's Connection with the SDGs





## New Domains of EVOLUTION 100

Under its “Evolution 100” long-term management plan, the Nippon Signal Group will promote new businesses to support the safety and comfortability of infrastructure and thereby become a conglomerate that is deemed necessary by people around the world. We are approaching this task by developing businesses in five new domains with the goal of transforming the Group.

**O&M Solutions**

● Condition-based maintenance

● ANSHINKAN

● Slope failure prediction technologies

● Ground penetrating radar

**Smart Cities**

● Automatic floor cleaning robots

● Multi-language guidance

● Services for non-Japanese visitors to Japan

**Security & Sensing**

● Escalator congestion detection

● Baggage checks

● Belongings checks

● Station platform sensing

● Detection of obstructions to construction machinery

**Global**

**Total Mobility**

● Driverless autonomous driving

● Communications-based train control

● Autonomous driving for bus rapid transit systems

● Automated valet parking

# Corporate Executives (as of June 21, 2019)

## Directors



Yohei Furuhashi  
Chairman & CEO

Apr. 1974 Joined the Company  
Apr. 1997 General Manager of Automatic Fare Collection Sales Dept. of Sales and Marketing Head Office  
Jun. 2000 Executive Officer  
Jun. 2004 Director  
Managing Executive Officer  
Jun. 2006 Deputy Chief Executive Officer  
Jun. 2008 Representative Director President & Chief Operating Officer (COO)  
Jun. 2012 Chief Executive Officer (CEO) (to present)  
Jun. 2016 Chairman (to present)  
May 2017 Outside Auditor of Matsuya Co., Ltd. (to present)



Makoto Tanno  
Director

Apr. 1980 Joined the Company  
May 2012 General Manager of System Design Dept., Transportation Infrastructure Technology Division  
Jun. 2014 Executive Officer  
Apr. 2017 Managing Executive Officer (to present)  
Chief General Manager of Technical Development Head Office  
Responsible for Visionary Business Center  
Jun. 2018 Director (to present)  
Apr. 2019 Responsible for Kuki Plant, Technology and Development, Visionary Business Center and Total Quality Management Promoting Department (to present)



Hidehiko Tsukamoto  
President & COO

Apr. 1982 Joined the Company  
May 2005 General Manager of Automatic Fare Collection Sales Dept. of Automatic Fare Collection 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 & Chief Operating Officer (COO) (to present)  
Jun. 2016 President (to present)



Yoshiteru Yoneyama  
Outside Director

Jul. 2002 Director of Fukoku Mutual Life Insurance Company  
Jul. 2005 Managing Director of Fukoku Mutual Life Insurance Company  
Apr. 2009 Director and Managing Executive Officer of Fukoku Mutual Life Insurance Company  
Jul. 2010 President and Chief Executive Officer of Fukoku Mutual Life Insurance Company (to present)  
Jun. 2014 Outside Director of the Company (to present)



Yoshitaka Tokubuchi  
Director and Executive Vice President

Apr. 1982 Joined the Company  
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 Chief Executive Officer  
Apr. 2018 Chief General Manager of Business Administration Division  
Apr. 2019 Director and Executive Vice President (to present) Executive Vice President and Executive Officer (to present)  
In Control of Plants and Group Companies, Responsible for IT Strategy Department (assigned to Kuki Plant) (to present)



Yasuko Matsumoto  
Outside Director

Apr. 1978 Registered as Attorney  
Joined Yamashita Oshima Law Office  
Apr. 2000 Part-time Lecturer of Seikei University  
Feb. 2001 Member of Independent Administrative Institution Evaluation Committee, the Ministry of Economy, Trade and Industry  
Apr. 2007 Part-time Lecturer of Tokyo University of the Arts (to present)  
Jun. 2015 Outside Director of the Company (to present)



Takeshi Fujiwara  
Director

Apr. 1983 Joined the Company  
Jul. 2009 General Manager of Private Railways Sales Dept. of Railway Signal Systems Division  
Jun. 2010 Executive Officer  
Apr. 2013 Managing Executive Officer (to present)  
Jun. 2013 Director (to present)  
Apr. 2016 Chief General Manager of Sales and Marketing Head Office  
Apr. 2019 Responsible for Domestic Business and Branch Offices (to present)



Yuriko Inoue  
Outside Director

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



Hideo Oshima  
Director

Apr. 1979 Joined the Company  
Sep. 2004 General Manager of MEMS Business Development Dept. of Visionary Business Center  
Jul. 2008 Chief General Manager of Visionary Business Center  
Apr. 2009 Chief General Manager of Overseas Division  
May 2011 Executive Officer  
Apr. 2016 Managing Executive Officer (to present)  
Jun. 2016 Director (to present)  
Apr. 2019 Responsible for Corporate Strategy Department and Overseas Business (to present)

## Audit & Supervisory Board Members



Shoji Kawada  
Full-time Audit & Supervisory Board Member

Apr. 1975 Joined the Company  
Jul. 2001 General Manager of Production Control Department of Utsunomiya Plant  
Jun. 2003 Executive Officer  
Jun. 2008 Managing Executive Officer  
May 2012 Managing Executive Officer, General Manager of Monodukuri Division  
Responsible for the Monodukuri Division and IT Strategy Department  
Jun. 2012 Director  
Jun. 2013 Full-time Audit & Supervisory Board Member (to present)



Mikio Shiokawa  
Full-time and Outside Audit & Supervisory Board Member

Apr. 1982 Joined National Police Agency  
Aug. 2002 Head of Security Department, Kanagawa Prefectural Police Headquarters  
Apr. 2004 Head of Counter International Terrorism Division, Foreign Affairs and Intelligence Department, Security Bureau, National Police Agency  
Jan. 2013 Chief of Hyogo Prefectural Police  
Jan. 2014 Councilor of Deputy Director General, Commissioner General's Secretariat, National Police Agency  
Aug. 2015 Deputy Head of Cabinet Satellite Intelligence Center, Cabinet Secretariat  
Sep. 2017 Ambassador Extraordinary and Plenipotentiary of Embassy of Japan in Tunisia  
Jun. 2019 Full-time and Outside Audit & Supervisory Board Member (to present)



Masayuki Tamagawa  
Outside Audit & Supervisory Board Member

Apr. 1981 Joined the Ministry of Finance  
Jun. 2000 Deputy Director General of Monetary Financial System Bureau, International Monetary Fund (IMF)  
Jul. 2007 Regional Commissioner of Sapporo Regional Taxation Bureau  
Jul. 2011 Deputy Financial Officer of Japan Tobacco Inc.  
Jul. 2012 Head of Asia External Representation Office, African Development Bank (AfDB)  
Oct. 2016 Specially-appointed Professor of Education Development Center, Education Support Functions, Kogakuin University (to present)  
May 2017 Managing Director of Kogakuin University (to present)  
Jun. 2019 Outside Audit & Supervisory Board Member (to present)



Naoko Shimura  
Outside Audit & Supervisory Board Member

Apr. 1999 Registered as Attorney  
Joined Nishimura & Partners (currently Nishimura & Asahi)  
Apr. 2005 Registered as Attorney of New York State  
Jan. 2008 Partner of Nishimura & Asahi (to present)  
May 2016 External Auditor of TABIKOBO Co. Ltd. (to present)  
Jun. 2018 Outside Director of mixi, Inc. (to present)  
Sep. 2018 Part-time Lecturer of Business Law Department, Graduate School of Law, Hitotsubashi University (to present)  
Jun. 2019 Outside Audit & Supervisory Board Member (to present)

## Executive Officers

### Chief Operating Officer

Hidehiko Tsukamoto

### Senior Executive Officers

Masaki Samukawa

Kazuhiro Hirano

### Executive Vice President and Executive Officer

Masahiro Kubo

Yoshitaka Tokubuchi

### Managing Executive Officers

Takeshi Fujiwara

### Executive Officers

Masayoshi Sakai

Hideo Oshima

Toru Muto

Makoto Tanno

Tomohiko Okui

Yoshinori Azuma

Yoshimitsu Hiramata

Kazumi Shimizu

## Technical Adviser Executive Officers

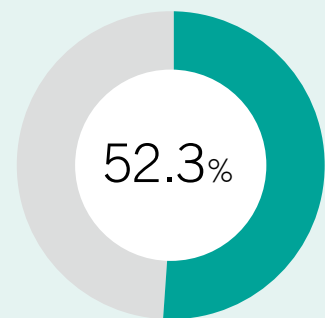
Hachiro Arai

Kazutoshi Sato

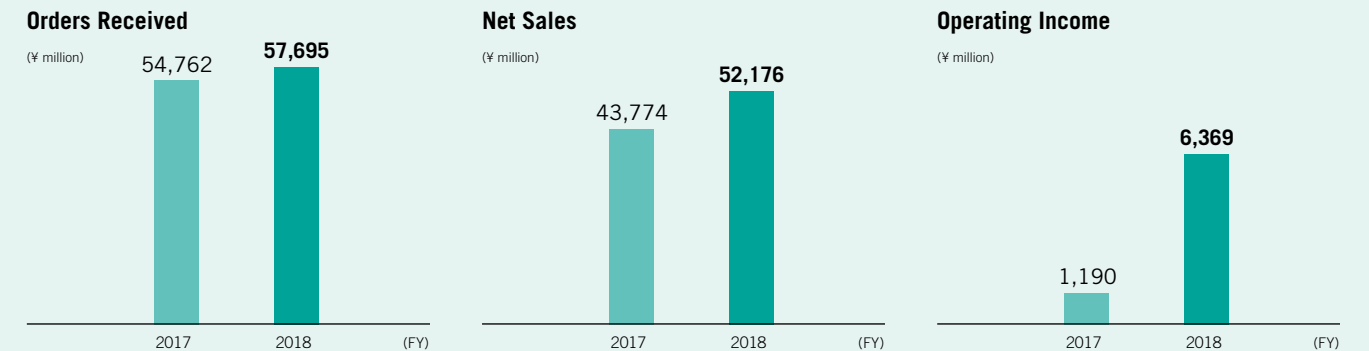


# Financial Review

## Transportation Infrastructure



Orders Received	¥57,695 million (+5.4% YoY)
Net Sales	¥52,176 million (+19.2% YoY)
Operating Income	¥6,369 million (+435.0% YoY)



### Railway Signal Systems

Nippon Signal supports Japanese railway systems by offering technology including operation control systems, automatic train control (ATC) devices, railway signal security systems such as the automatic train stop (ATS), interlock devices that control turning mechanisms, signal lights, crossing devices, and passenger guidance displays. Thanks to these products, Japanese railway systems boast safe and reliable operations. We are also actively expanding overseas, centered on SPARCS, our simple-structure and high-performance ATC by radio communication system.



### Smart Mobility Systems

We are helping reduce traffic accidents and congestion by focusing on products such as traffic control systems that manage signals and traffic information systems that display pertinent information. In addition, we participate in numerous automated driving demonstration tests and develop solutions that leverage our strengths as an infrastructure manufacturer.



Traffic control system

#### Initiatives for the Fiscal Year Ended March 2019

In the domestic market, we received orders and recorded sales of various signal security devices, such as ATC and centralized traffic control (CTC), geared toward Japan Railway companies and private railway companies.

Furthermore, in anticipation of a future decline in the working population, we strove to expand sales of automatic train operation (ATO) equipment that enables one-man operation by managing the overall transportation process: the running and stopping of trains, and door control cooperation between stations and trains.

In overseas markets, we focused on sales activities in emerging Asian countries, featuring the wireless signal security system SPARCS as a strategic product. Such undertakings include the Dhaka Metro Rail (MRT) Line-6 in Bangladesh, a country that has seen rapid economic growth and Gwangju Metro Line 2 in South Korea. We also provided signal repair for the Yangon-Mandalay Railway Improvement Project in Myanmar, where improvements to transportation services are urgently needed due to an aging population.

#### Future Initiatives

We will continue to expand sales of various devices including signal security devices. At the same time, with the aim of providing a higher level of safety and security to combat future issues, such as the projected decline of the working population and increasingly powerful natural disasters, we will promote the development of smart operation and maintenance (O&M) solutions that make full use of advanced technologies such as IoT, AI, and robotics.



Railroad crossing barriers

#### Initiatives for the Fiscal Year Ended March 2019

We upgraded the Japanese police's traffic control system and expanded sales of a state-of-the-art road parking meter that collects fees. We also received orders and recorded sales of automatic backup generators for traffic signals and lights in case of power outages during emergencies. Furthermore, in expectation of the coming of self-driving vehicles and the future connected society, Nippon Signal participated in various demonstration experiments, such as providing information to self-driving vehicles.



Traffic lights

#### Future Initiatives

In addition to expanding existing fields centered on small-sized signal lights, we will expand sales channels of automatic backup generators. We also intend to develop and commercialize an accident prevention system that utilizes image processing, thus contributing to safe and secure living. We will develop the road-to-vehicle interface using an infrastructure-to-vehicle (I2V) system that is essential to self-driving vehicles. By doing so, we will provide one-stop services and solutions that leverage our strengths as an infrastructure manufacturer.

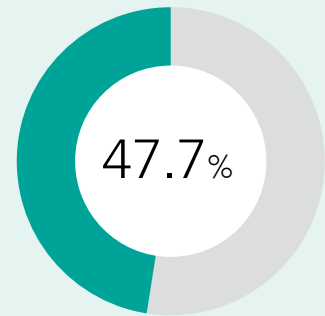


Self-driving bus for JR East Bus Rapid Transit (BRT) Test Project

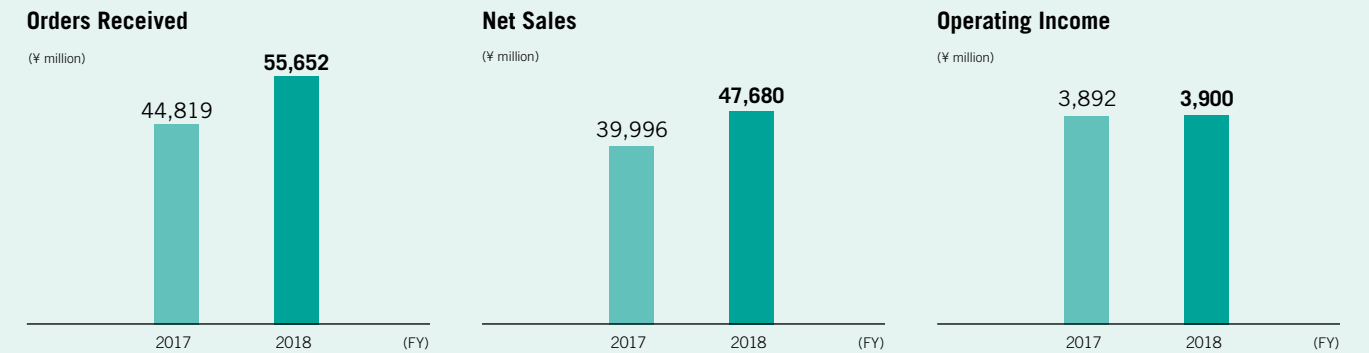


## Financial Review

### ICT Solutions



Orders Received	¥55,652 million (+24.2% YoY)
Net Sales	¥47,680 million (+19.2% YoY)
Operating Income	¥3,900 million (+0.2% YoY)



#### Automatic Fare Collection (AFC) Systems

We realize automated and efficient train station operations through automated systems within stations, such as ticket gates, ticket vending machines, and fare adjustment machines. At the same time, we contribute to smooth transportation via providing the interface between station systems and IC cards such as Suica and PASMO. Furthermore, we are working to improve the safety of station platforms with a variety of lightweight platform doors and lifts.



Tall-panel platform door

#### Smart City Systems

We contribute to the alleviation of on-street parking and the annoyances it causes via distribution of parking systems such as a park-lock system and gated parking system capable of managing overall access. We also sell products that support office security, such as security gates, and the high security systems required at event venues and airports.



Parking lot management system with plate number recognition

#### Initiatives for the Fiscal Year Ended March 2019

Our diverse lineup of platform doors, which are being implemented mainly in crowded metropolitan areas, proved to be an asset as we fulfilled many orders and sales. Additionally, as the threat of terrorism has increased worldwide, we developed and conducted a demonstration test of an automatic X-ray baggage inspection system that is expected to be used in places such as event venues where large crowds gather and it is logistically unfeasible to perform standard security checks.

In overseas markets, we received orders for complete AFC systems and platform screen door (PSD) systems, and supplied the signaling system for the Dhaka MRT Line-6.



Automated ticket gate

#### Future Initiatives

We will continue to focus on the platform door market, where introduction is accelerating ahead of 2020. We also plan to develop robots with an emphasis on convenience, including automatic floor cleaning robots that eliminate labor shortages and station guidance robots that employ spoken dialogue systems.



Lightweight platform door

#### Initiatives for the Fiscal Year Ended March 2019

We received orders and recorded sales of a parking lot management system with enhanced anti-theft functions. Also, we increased sales of gateless systems that eliminate tire locks and enable smooth parking access by expanding our lineup of low-cost products.



Parking lot management system

#### Future Initiatives

We intend to expand sales of gateless systems that allow smoother access into and out of parking spaces. We will work to develop systems that support diversified payment methods such as QR codes and MaaS (Mobility as a Service) smartphone applications.



Security gates



Financial and Non-Financial Highlights

(Years ended March)	2010	2011	2012	2013	2014	2015	2016	2017	2018*1	2019
<b>Financial Data</b> (¥ million) *2										
Orders received*3	88,040	78,462	77,608	93,475	105,783	99,713	83,258	88,659	99,581	113,347
Net sales*4	83,851	83,465	84,503	85,339	93,217	100,416	90,593	82,134	83,770	99,857
Operating income	5,734	4,809	3,296	5,082	5,943	8,377	7,162	4,269	2,061	7,000
Income before income taxes and minority interests	6,306	5,300	3,576	5,985	7,039	9,111	8,038	5,315	3,192	7,916
Net income attributable to owners of parent	3,304	2,642	1,628	3,135	3,667	5,413	4,994	3,500	2,051	5,306
R&D expenses	3,062	2,297	2,221	2,363	3,167	3,291	3,419	3,078	2,587	2,401
Capital investment	2,098	2,159	1,550	833	1,700	1,953	3,502	3,035	3,564	1,903
Depreciation and amortization	1,747	1,819	1,916	1,635	1,555	1,701	1,685	1,787	1,968	2,128
Total assets	98,902	108,578	105,591	111,058	113,140	120,573	121,434	124,298	127,322	137,643
Net assets	53,371	54,903	57,125	62,954	66,886	74,764	79,801	79,252	79,401	82,135
Cash flows from operating activities	4,756	(1,394)	(7,043)	5,847	10,656	14,917	4,152	369	(305)	3,291
Cash flows from investing activities	(1,991)	(2,126)	(1,469)	(740)	(1,745)	(2,774)	(5,963)	(1,013)	(4,153)	(2,437)
Free cash flow	2,764	(3,521)	(8,512)	5,106	8,911	12,142	(1,811)	(644)	(4,458)	854
Cash flows from financing activities	(669)	2,639	4,236	(2,435)	(7,237)	(6,502)	(1,412)	(492)	3,111	426
(Yen)										
Earnings per share (EPS)	52.96	42.35	26.09	50.25	58.32	79.37	73.24	51.59	31.42	81.29
Book value per share (BPS)	773.99	794.12	828.24	917.15	975.92	1,091.55	1,167.75	1,195.14	1,216.17	1,258.04
Dividend per share	13	13	10	13	16*5	20	22	23	24	25*6
(%)										
Return on equity (ROE)	7.1	5.4	3.2	5.8	5.9	7.7	6.5	4.4	2.6	6.6
Return on assets (ROA)	6.6	5.2	3.6	5.6	6.0	7.8	6.6	4.3	2.3	6.0
Equity ratio	48.8	45.6	48.9	51.5	58.8	61.8	65.6	63.8	62.4	59.7
Payout ratio	24.5	30.7	38.3	25.9	27.4	25.2	30.0	44.6	76.4	30.8
<b>Non-Financial Data</b> *2										
<b>Personnel Data</b>										
Number of employees*7			1,243	1,215	1,207	1,207	1,232	1,254	1,278	1,255
Average age of employees			42yrs&1mo	41yrs&9mos	41yrs&8mos	41yrs&6mos	41yrs&10mos	41yrs&6mos	41yrs&10mos	42yrs&6mos
Average length of service of employees			18yrs&5mos	17yrs&11mos	17yrs&11mos	17yrs&9mos	17yrs&11mos	17yrs&2mos	17yrs&1mo	17yrs&4mos
<b>Environmental Data</b>										
Inputs										
Electricity (1,000 kWh)			7,573	8,066	8,413	8,282	7,867	7,613	7,850	8,456
Gas (km³)			287	300	319	311	285	310	332	347
Fuel (petroleum) (kl)			27.1	28.8	28.7	28.6	29.5	30.9	31.9	31.6
Water (km³)			60	59	57	73	54	51	54	51
Outputs										
CO <sub>2</sub> (tons)			3,618	3,173	4,015	3,947	3,739	3,700	3,851	4,051
Wastewater (km³)			60	59	57	73	54	51	54	51
Non-industrial waste (tons)			224	236	227	269	223	206	218	262
Industrial waste (tons)			370	404	437	447	412	292	394	324
Recycling rate (%)			92.8	98.3	98.9	98.8	99.0	99.4	99.5	99.6

\*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 Financial data is presented on a consolidated basis, while non-financial data is presented on a non-consolidated basis.

\*3 Orders received are exclusive of consumption tax and other taxes.

\*4 Net sales are exclusive of consumption tax and other taxes.

\*5 The dividend per share for the fiscal year ended March 31, 2014, which amounted to 16 yen, included a commemorative dividend of 2 yen for the 85th anniversary of the foundation of Nippon Signal Co., Ltd.

\*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.

# Corporate Data

## Corporate Overview (as of June 21, 2019)

Name of Company: Nippon Signal Co., Ltd.  
Date Established: December 27, 1928  
Paid-in Capital: ¥10 billion  
President and COO: Hidehiko Tsukamoto  
Number of Employees: 2,922 (consolidated)  
Accounting Auditor: KPMG AZSA LLC

### 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 321-8651 Japan  
Phone: +81-28-660-3000 Fax: +81-28-660-3033

For further details, please refer to our website.  
➡ <http://www.signal.co.jp/english/aboutus/branch.html>

### Consolidated Subsidiaries

Nisshin Electronics Service Co., Ltd.  
Nisshin IT Field Service Co., Ltd.  
Sendai Nisshin Electronics Co., Ltd.  
Mie 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 Electronics Co., Ltd.

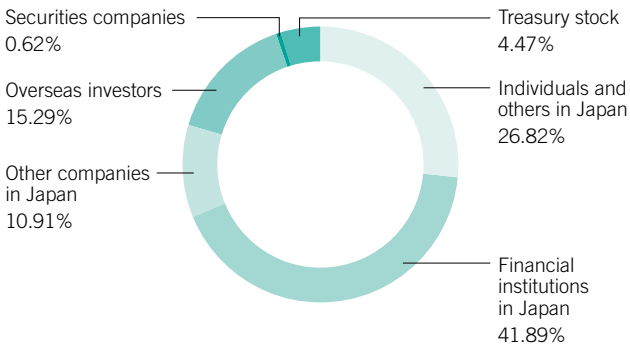
### Non-Consolidated Subsidiaries

Circuit Technology Inc.  
Hokumei Electric Industry Co., Ltd.  
Nisshin Enterprise Co., Ltd.  
Nisshin TECHNO Engineering Co., Ltd.  
Nisshin Hutech Co., Ltd.  
Beijing Nippon Signal Co., Ltd.  
Nippon Signal India Pvt. Ltd.

## Stock Information (as of March 31, 2019)

Number of Shares of Common Stock Issued: 68,339,704  
Stock Exchange Listing: Tokyo Stock Exchange, First Section  
Number of Shareholders: 10,510  
Shareholder Registration Agent: Mizuho Trust & Banking Co., Ltd.

### Distribution of Shares by Shareholder Category

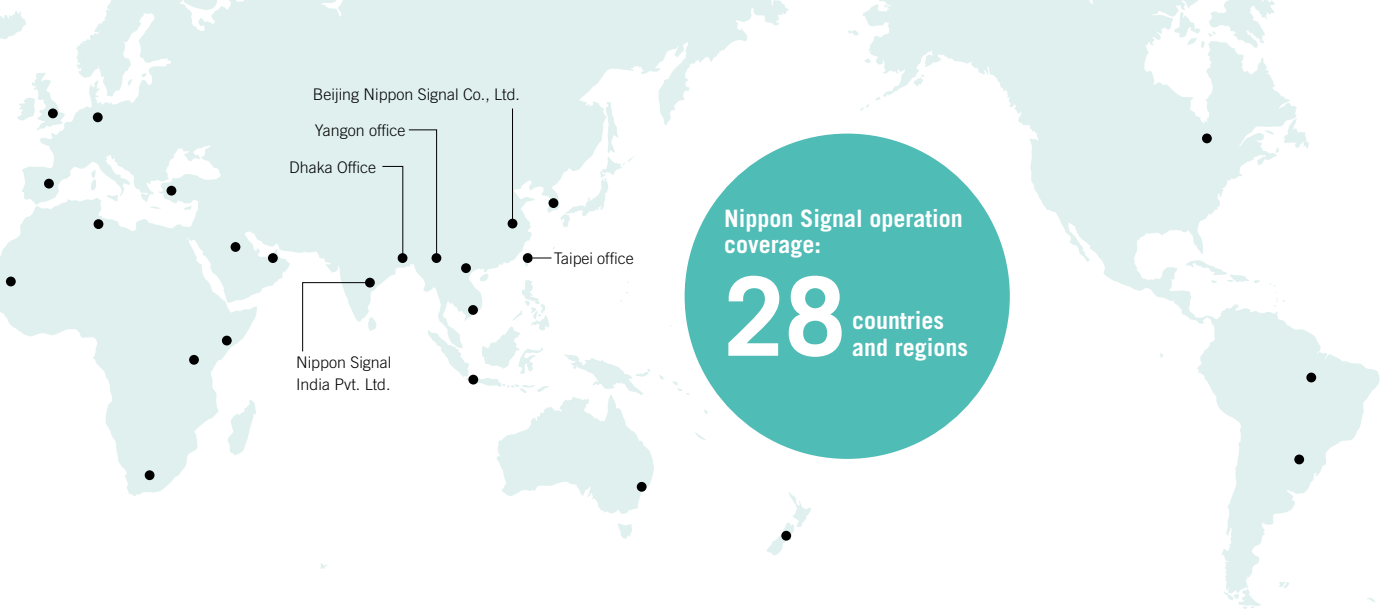


### Major Shareholders

Shareholder	Number of Shares Held (thousand)	Investment Ratio (%)
Fukoku Mutual Life Insurance Company	4,793	7.34
The Master Trust Bank of Japan, Ltd. (trust account)	4,071	6.24
The Nippon Signal Group Employees Shareholding Association	3,645	5.58
Japan Trustee Services Bank, Ltd. (trust account)	3,212	4.92
The Nippon Signal Trading-Partner	3,035	4.65
Mizuho Bank, Ltd.	2,200	3.37
West Japan Railway Company	2,050	3.14
GOVERNMENT OF NORWAY	1,527	2.34
MUFG Bank, Ltd.	1,372	2.10
Aioi Nissay Dowa Insurance Co., Ltd.	1,334	2.04

\*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: 3,051,451 treasury shares have been deducted for the purpose of calculating the investment ratio.

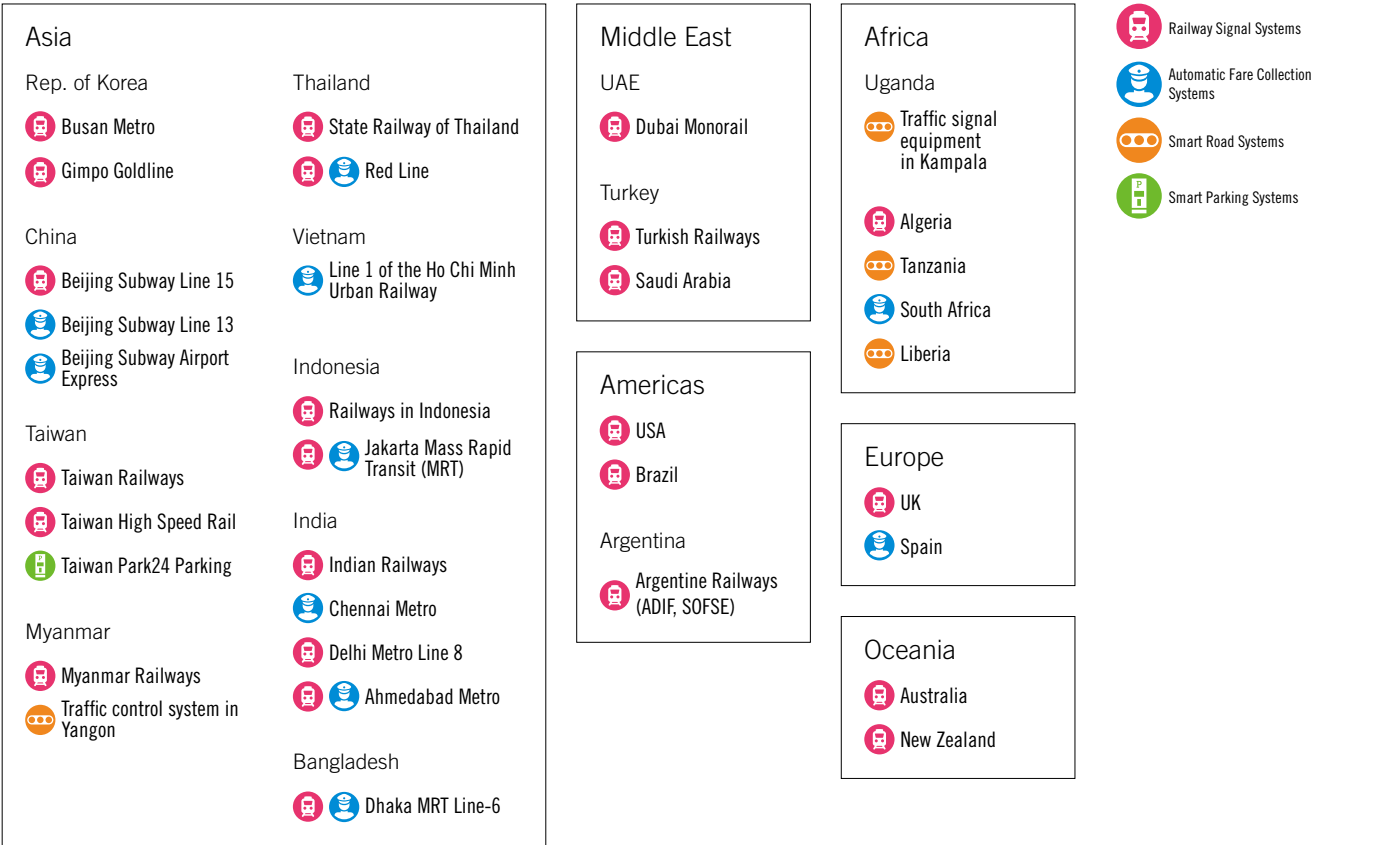
## Global Network (as of June 21, 2019)



As a leader of Japan's railway signal systems industry, which is held in high regard worldwide, Nippon Signal began developing operations overseas with the supply of level crossing systems to the State Railway of Thailand in 1949. Today, we have two overseas subsidiaries and three overseas offices, and we are engaged in a large number of projects in 28 countries and regions worldwide.

We supply the world with technologies that enhance the safety and reliability of railway infrastructure such as SPARCS (simple-structure and high-performance ATC by radio communication system), which can be introduced and maintained at a low cost, and automatic fare collection systems. Such offerings were supplied in Bangladesh in 2018.

Going forward, we will continue to proactively develop operations overseas backed by the experience and technologies we have cultivated in Japan's railway signal systems industry.







1-5-1, Marunouchi, Chiyoda-ku, Tokyo 100-6513, Japan

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<http://www.signal.co.jp/english/>