

# NEXCO East Annual Report 2021



## NEXCO East Annual Report 2021

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# We are connected to communities by connecting communities.

NEXCO East Group is engaged in managing and constructing expressways, operation of rest areas, and other highway-related businesses in Eastern Japan. To achieve a sustainable society that extends beyond the boundary of regions, countries, and generations, NEXCO East Group will strive to create value in “connecting” and will continue to grow as a company that contributes to all stakeholders.

We would like to extend our deepest gratitude to medical professionals and all other essential workers for their work and effort during the coronavirus outbreak. We sincerely hope that it will be resolved soon.

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**[Policy for compiling this report]**  
NEXCO East Annual Report is published to inform all stakeholders of NEXCO East Group's expressway business and its efforts toward the development of sustainable society through its expressway business. The entire report, as well as the CSR book, can be downloaded from our corporate website.

**[Scope of reporting]**  
NEXCO East and its 28 group companies.

**[Reporting period]**  
From April 1, 2020, to March 31, 2021  
(Some activities outside of this period are also included.)

### ● Corporate History

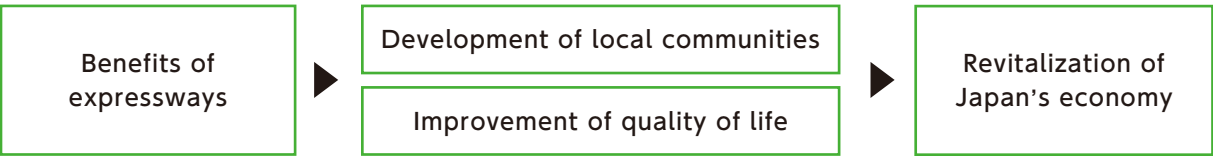
1956	Japan Highway Public Corporation is founded.	2008	A commercial facility called “Pasar Makuhari” is opened as its flagship brand.
1960	A section between Ichinoe and Funabashi on the Keiyo Expressway is opened. It becomes Japan's first motorway in the following year.	2011	Great East Japan Earthquake takes place. Expressways managed by our company are also severely damaged.
1971	The first expressways in Hokkaido are opened (between Kitahiroshima and Chitose Interchanges (ICs) on the Do-O Expressway and between Otaru and Sapporo-Nishi ICs on the Sasson Expressway.)	2015	The entire route of the Joban Expressway is opened. Expressway Renewal Project is launched.
1985	The entire route of the Kan-Etsu Expressway is opened.	2017	A section between Sakai-Koga and Tsukuba-Chuo ICs on the Ken-O Expressway is opened, connecting the Tomei and Higashi-Kanto Expressways.
1987	The entire route of the Tohoku Expressway is opened.	2018	A section between Misato-Minami IC and Koya Junction (JTC) on the Gaikan Expressway is opened, connecting the Kan-Etsu and Higashi-Kanto Expressways.
1988	The entire route of the Hokuriku Expressway is opened.	2019	A local subsidiary is established in India. Pasar Hasuda, one of the largest rest areas in Eastern Japan, is opened.
1997	The Tokyo-Wan-Aqua-Line Expressway is opened.	2020	Operation at the “NEXCO-East Technology Center for Development & Education” starts.
1999	The entire route of the Joshin-Etsu Expressway is opened.		
2001	The Electronic Toll Collection (ETC) system is implemented.		
2005	Japan Highway Public Corporation is privatized, and East Nippon Expressway Company Limited is established.		
2006	“NEXCO East” is selected as its brand name.		



# Mission Statement

## Group Management Principles

NEXCO East Group supports the development of local communities, improves their quality of life, and contributes to the revitalization of the entire Japanese economy by maximizing the benefits of expressways.



## Group Management Vision



NEXCO East Group will continue to grow as a company that creates value in "connecting" and contributes to all stakeholders in order to realize a thriving society beyond the boundary of regions, countries, and generations.

## Group Management Policies

- NEXCO East Group prioritizes its customers and improves their safety, security, comfort, and convenience while driving.
- NEXCO East Group conducts sound group management by optimizing the use of management resources based on fair and transparent business activities, as well as provides accurate corporate information.
- NEXCO East Group supports the development of society by endlessly pursuing efficiency and demonstrating our technology and expertise.
- NEXCO East Group creates a healthy and rewarding work environment for our employees and values every employee's efforts, achievements, and determination to succeed.
- NEXCO East Group promotes CSR management, increases the value provided to stakeholders and the corporate value of the entire group, and contributes to creating a sustainable society.

# Corporate Social Responsibility (CSR) of NEXCO East Group

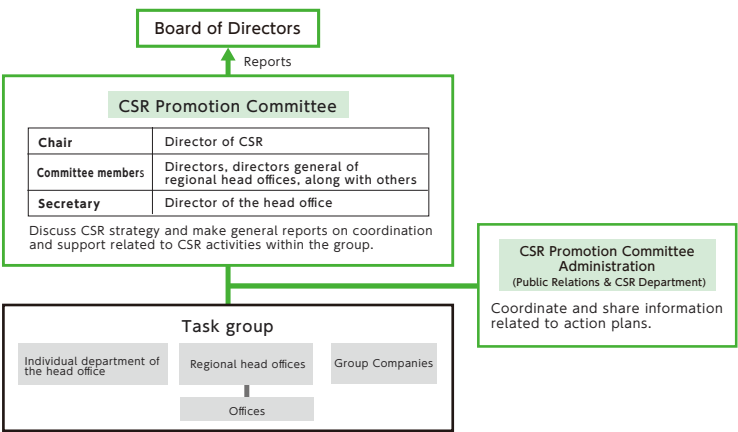
## Quintessential CSR for NEXCO East Group



NEXCO East Group revised the "Quintessential CSR for NEXCO East Group" as a guideline for CSR management in March 2021, as shown in the diagram on the right. We are taking CSR initiatives to build a sustainable society, with a motto "We are connected to communities by connecting communities." We believe that the business activities of NEXCO East Japan Group will fulfill our corporate social responsibility, and we continue to support the development of a sustainable society based on the idea of being a company in the community.

## CSR Promotion System

The CSR Promotion Committee, chaired by a CSR director, and the Board of Directors examine and discuss strategies and issues to build a system to promote CSR activities. NEXCO East supports the United Nations Global Compact and its ten principles in the areas of human rights, labour, environment, and anti-corruption.



## Contributions to achieving SDGs

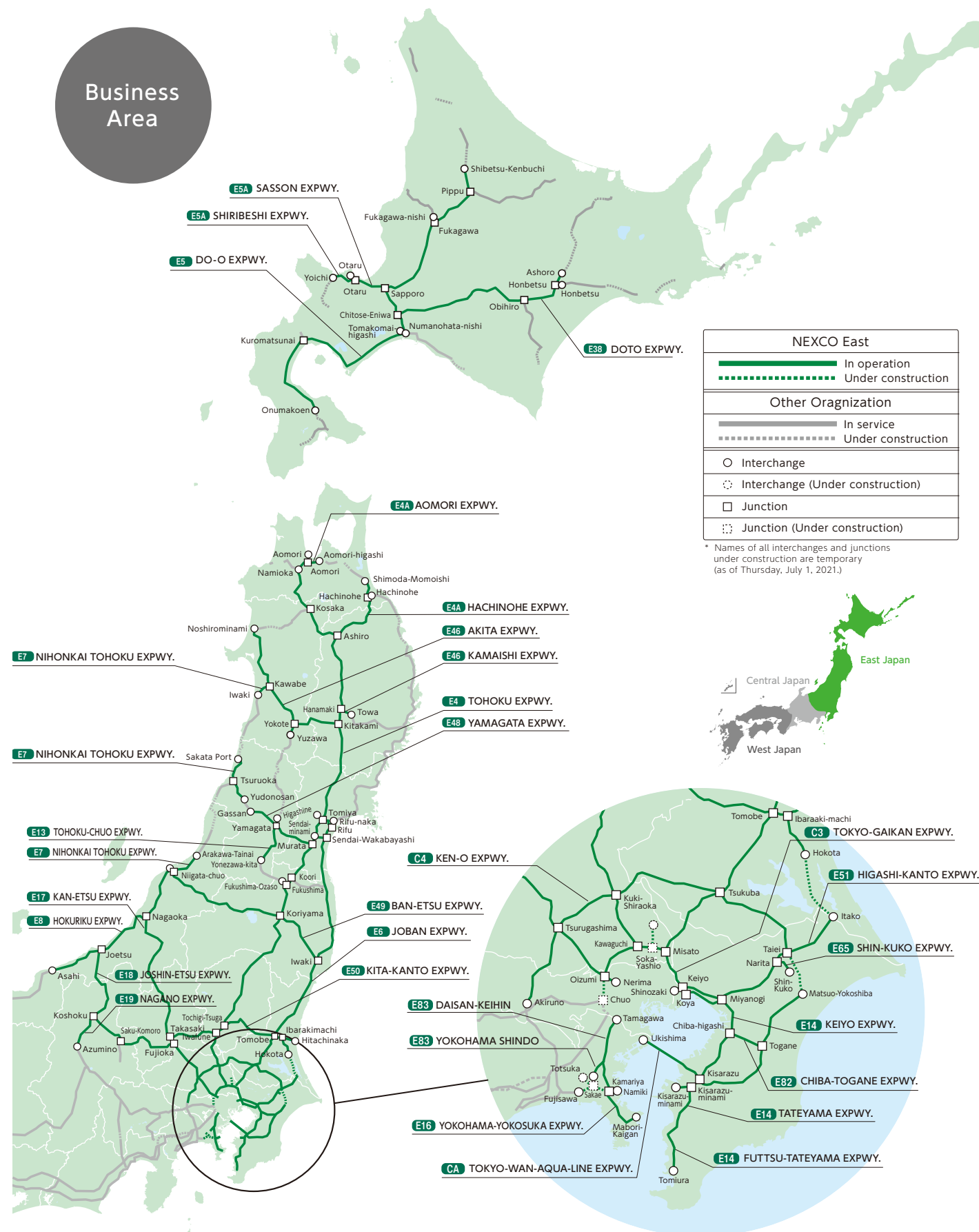
NEXCO East Group supports the Sustainable Development Goals (SDGs) and strives to achieve global sustainable development by promoting the resolution of social issues through our expressway business. Please refer to pages 15-16 for details.



NEXCO East Group contributes through our businesses to the following SDGs

## Business Details

NEXCO East Group is engaged in the management and construction of expressways, operation of rest areas, as well as other expressway-related businesses in Eastern Japan.



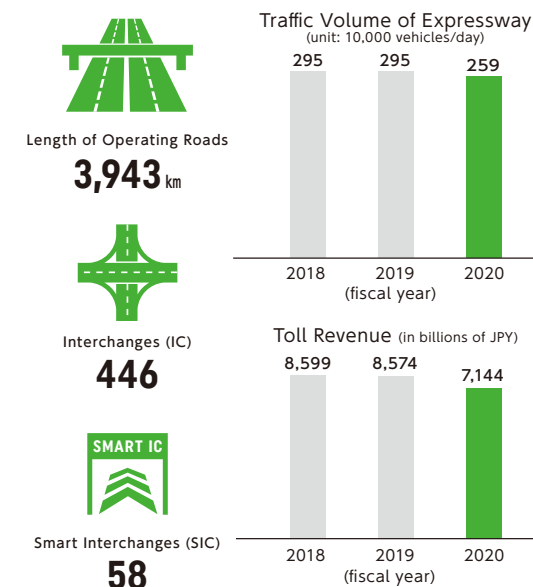
## Expressway Business



## Management



## Construction



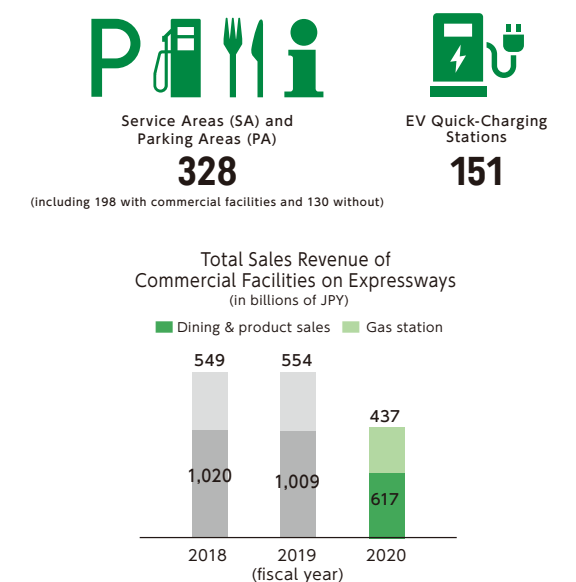
## Related Businesses



### Rest Area Business

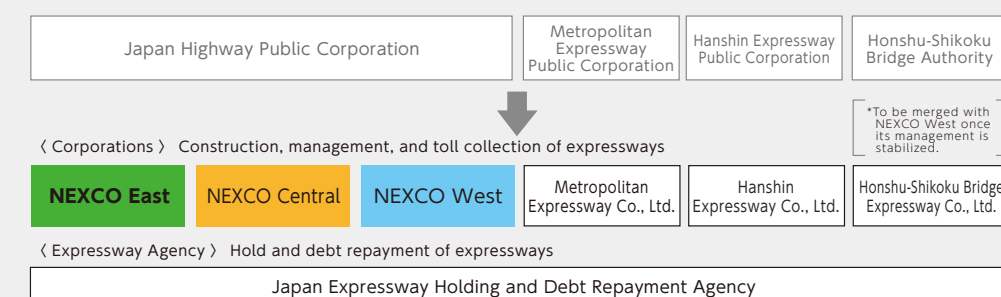


### Other Expressway-Related Businesses



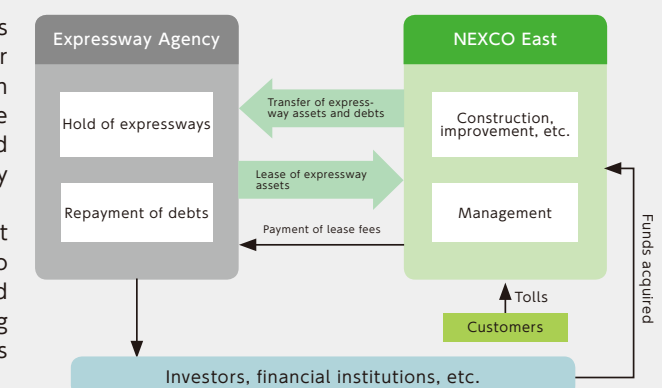
## Framework for Expressway Business Operations

Founded in 1956, the Japan Highway Public Corporation was privatized along with other highway-related public corporations. Six expressway companies and Japan Expressway Holding and Debt Repayment Agency (hereinafter referred to as “Expressway Agency”) were established on October 1, 2005.



NEXCO East constructs and improves expressways in the eastern Japan region before handing over the assets and debts acquired for the construction to the Expressway Agency. We also pay lease fees for expressway assets (hereinafter referred to as “lease fees” ) to the Expressway Agency by managing the leased assets.

The law stipulates that highway tolls shall not include any profits. Income from tolls is used to pay lease fees, expressway maintenance and management costs, and the costs of providing various services. The Expressway Agency uses these funds to repay debts.







# NEXCO East Group’s Future Goals for Achieving a Sustainable Society



NEXCO East has formulated and released a new mid-term management plan in April this year amid significant changes in both domestic and international social and economic conditions, including coronavirus outbreaks, frequent and intensifying natural disasters, shifts in an energy system for a decarbonized society, advances in digital technologies such as ICT, AI, and 5G. Megumu Murakami, Senior Manager of Center for the Strategy of Emergence at Japan Research Institute, and Toru Obata, President and CEO of NEXCO East, discussed goals, background, and desirable futures.

**Megumu Murakami**  
Senior Manager, Center for the Strategy of Emergence  
Japan Research Institute, Limited

**Toru Obata**  
President and Chief Executive Officer  
East Nippon Expressway Company Limited

Brief history of Ms. Murakami

After graduating from the Faculty of Law, Kyoto University, she was hired into the Industrial Bank of Japan (current Mizuho Bank) before joining the Japan Research Institute in 2003. She specializes in ESG (Environment, Society, and Governance) investment support, climate change risks, finances, etc. Her recent work, Zukai SDGs Nyumon (Illustrated Introduction to SDGs), has been published by Nikkei Business Publications, Inc.

## Newly Launched Mid-Term Management Plan

**Obata:** We formulated the medium-term management plan for 2021 - 2025 from three perspectives. The first perspective is to reexamine “the fundamental strengths of NEXCO East.” The second is the continuity point of view, in other words, the perspective of how we can continue and develop projects starting now since many of them will not be completed in a year or two. The third is the backcasting perspective, by working backward from ten years later to the present to identify what we should do to reach our desired outcome in the world of ten years from now. We can say that 2025 when our mid-term management plan ends, is a relay point before the SDGs achievement deadline. So, we formulated the plan, carefully considering “what we should become then, and what we should prepare now for that future.”

**Murakami:** I see. I had an impression that Japanese companies are more reluctant to change than overseas companies. However, just like what you are doing, if a company can look at both what they should be doing and future changes in the business environment in a well-balanced manner, they can embrace and utilize these changes for their business.

**Obata:** I must take the initiative to set an example for our group employees to become more sensitive to change and more flexible in response. As a company that supports social infrastructure, we have many employees who strongly desire to contribute to society. However, they may lose the purpose or significance of the work they are involved in while getting caught up with daily tasks. I hope they reexamine our position and direction and take pride in that our business itself contributes to society. This mid-term management plan was made with that mindset.

**Murakami:** Although social and economic activities were stagnant and many people were feeling anxious amid the coronavirus outbreak, it was a relief that online orders were delivered without fail. It was because our infrastructure, such as expressways, functioned well, and the logistics did not halt. I can imagine many people realized the social significance of a company like yours.

**Obata:** Thank you. Now, let me introduce the details of our mid-term management plan.

## Innovation in Aging Infrastructure and Disaster Countermeasures

**Obata:** First of all, we will mainly focus on measures

against aging infrastructure regarding the safety and security of expressway businesses. Some expressways are 40 to 50 years old, and the number of old expressways is growing. Also, we oversee the areas with relatively heavy snow, such as Hokkaido, Tohoku, and Niigata, so our roads tend to be easily damaged by road salt. Therefore, we are carrying out the “Expressway Renewal Project” that conducts large-scale renewal and repair work on structures such as bridges and tunnels. Concurrently, seismic reinforcement work is being done on bridges in preparation for a large earthquake.

Also, Smart Maintenance Highway (SMH) Project started in 2020. This project includes the use of high-resolution cameras during inspections and the use of robotics, such as AI, to formulate maintenance plans in order to improve the sophistication and efficiency of operations from inspection and assessment to repair of civil engineering structures.

We are also working on making rest areas function as disaster management base facilities in terms of safety and security. In preparation for a possible Tokyo inland earthquake, four rest areas in the Tokyo metropolitan area are equipped with various things such as a power generator and heliport. A disaster management control room is also available for police, fire departments, and the Self-Defense Forces to jointly use to carry out emergency response and disaster relief operations effectively.

**Murakami:** It is essential for people to know that these locations will be a disaster control base in an emergency.

**Obata:** In the case of the Great East Japan Earthquake, expressways supported disaster areas as emergency routes and played a role in protecting the lives of local residents as a breakwater and an emergency evacuation center when the massive tsunami hit. We are determined to keep contributing to the relief and reconstruction of disaster areas as “Roads of Life” in case of a disaster.

**Murakami:** I can see that you are making full use of the knowledge gained from experience during the Great East Japan Earthquake disaster.

## Contribution to Creating a Decarbonized Society

**Obata:** Autonomous driving technology for cars is currently being developed. In order to respond to the change, we created a concept named “Next Generation Expressway That Accelerates the Realization of Autonomous Driving Society” in April



## NEXCO East Group's Future Goals for Achieving a Sustainable Society



this year, based on input from affiliated companies and academic experts.

It will not be easy to respond to autonomous driving on expressways since multiple autonomous driving levels, such as hands-free and eyes-free, will coexist in a high-speed driving environment. However, it is inevitable that the efficiency of logistics should be improved by technologies such as autonomous driving in order to solve social issues, including the aging and shortage of truck drivers.

**Murakami:** How about your initiatives toward a decarbonized society?

**Obata:** We believe that we can also contribute in three broad aspects. These are: "direct contribution by us," "contribution by supporting customer initiatives," and "contribution through expressway development."

Firstly, "our direct contribution" will be, for example, forestation of expressway sideslopes and biomass gasification power generation by using materials

from thinning, pruning, and mowing of these green embankments. Also, we revised our internal "Environmental Action Guidelines" this January in an attempt to achieve zero emissions by 2050, and our head office acquired an international standard, "ISO 14001" certification, in March.

Secondly, "contribution by supporting customer initiatives" means, for example, to respond to the spread of next-generation vehicles. We are also considering installing more EV quick-chargers and implementing hydrogen fueling stations for fuel cell vehicles, and developing driving lanes that can charge electric cars while driving.

**Murakami:** There are various potentials and possibilities when it comes to expressways. I am looking forward to the future society.

**Obata:** Lastly, "contribution through expressway development" is about an enhancement of network functions. Expressways are originally said to have functions to reduce traffic congestion of local roads and reduce CO<sub>2</sub> in an entire society by improving fuel efficiency. It is quite difficult to quantify the impact in reducing. However, for example, it is estimated that the completion of the recently opened section of the Ken-O Expressway had an annual CO<sub>2</sub> reduction of about 390,000 tons. I would like more people to know that enhancing network functions and reducing traffic congestion by creating four lanes will indeed contribute to CO<sub>2</sub> reduction.

**Murakami:** I think it is not easy to calculate and quantify them accurately. However, showing numbers by section or traffic reduction effort will help people understand more about your company's business even if they are not perfectly calculated.

**Obata:** Also, networked expressways allow you to detour and reach your destination when an accident or disaster happens. Although the Ken-O Expressway has some unopened sections, it is almost making a loop. It has the effect of reducing traffic congestion in the metropolitan area and making logistics flow smoothly. Therefore, we would like to facilitate the network, which has various advantages, early.

**Murakami:** Companies are now calculating greenhouse gas emissions across their supply and value chains to achieve carbon neutrality by 2050. It is good, but I have found it difficult to understand the whole picture since those numbers are calculated individually. In that regard, it will be easier to get a big picture if a company with a high degree of publicness like yours takes the lead in communicating such information. So, I can see that people have high expectations for your initiatives.

### Connecting People, Things, and Regions in Japan and Overseas

**Murakami:** I have also heard that you are involved in international cooperation.

**Obata:** We export technologies such as grand designs, management, and maintenance of expressways and give guidance by sending our employees to India. We also accept trainees from India and Myanmar to train as engineers. We had about 100 trainees a year before the coronavirus outbreak.

**Murakami:** I have heard that many vegetables are thrown away in rural India because they cannot be distributed to the markets due to a lack of refrigeration technology. If they can establish a way to ship and transport food before it goes bad, food distribution will increase. I believe that expressways will play a role in achieving this, and the food can be distributed easily throughout India if they can be connected through a network. In addition, a human network can be created as trainees, who learned from your company, scatter around the country.

Speaking of human resources, what do you think is essential in training next-generation engineers to secure future successors and technology succession?

**Obata:** Nevertheless, I believe that the onsite experience of expressways is the most important. The experience and knowledge gained while responding to various situations at each site will be useful for other sites. However, the number of new expressway construction projects has decreased in recent years. So, we established the "NEXCO-East Technology Center for Development & Education" in March 2020 to set up a system to provide hands-on training. I hope that trainees will spend enough time gaining experience and acquiring skills to be active in Japan and overseas.

**Murakami:** You mentioned that you are working to improve the sophistication and efficiency of inspection work on road structures, so such new technologies can also be learned there.

**Obata:** That's right.

In terms of contributing to "people," I finally would like to talk about local contributions. As our group management vision states, "Creating value in 'connecting'," we value the connection with the local people. We are also focusing on initiatives that take advantage of our expressway business. Although we are currently not able to do much due to the coronavirus outbreak, we are still holding traffic safety classes at school and welfare facilities,



organizing local events at rest facilities, and promoting tourism by enhancing a discount program "Dorawari (drive discount)." We hope to continue expanding cooperation with local communities.

**Murakami:** As you mentioned at the beginning, I felt that your policy of reviewing the essential role and thinking through backcasting is in line with the entire plan. I have also learned that you play a unique role in promoting infrastructure preparation toward achieving an autonomous driving society. I also felt that roads are the basis of infrastructure, and how they are used has a great impact on the environment and society.

**Obata:** Today's discussion made me reaffirm the significance of achieving the SDGs through our core business. Although there is a limited time left before the deadline in 2030, we would like to continue pursuing what we can and should do to contribute by leveraging our strengths.



Time to Contribute to Achieve the SDGs and to Transform Toward a New Future Society



Expressway renewal project (Tohoku Expressway)



Efforts for safety measures



Renewal of commercial facilities  
(Kunimi SA, Outbound, Tohoku Expressway, renovated in September 2020)



**Yasushi Kobayashi**  
Managing Director and  
Senior Executive Officer,  
Director of Corporate Strategy Division

NEXCO East Group has set the five years from 2021 to 2025 as “Time to Contribute to Achieve the SDGs and to Transform Toward a New Future Society” and formulated the “Medium-Term Management Plan (FY2021 - 2025).” This plan specifies and steadily implements primary key projects based on the following six basic policies: “Realization of comfortable expressways that are safe and secure and respond to innovations such as autonomous driving,” “Dramatic improvement in reliability of expressway infrastructure against aging and disasters,” “Enhancement of network functions by improving and reinforcing expressways and promoting four lanes,” “Pursuit of usability based on various customer needs,” “Reinforcement of the managerial capability in the post-Covid-19,” and “Creating a work style that responds to a new lifestyle and in which everyone can enjoy working.” In order to achieve SDGs for a better, sustainable world by 2030, the entire NEXCO East Group will work together as one to grow into a corporate group that creates values in “connecting,” as stated in our group management vision and to contribute to all stakeholders.

Six Basic Policies

FY2021	FY2022	FY2023	FY2024	FY2025
<b>Basic Policy 1</b> Realization of comfortable expressways that are safe and secure and respond to innovations such as autonomous driving				
<b>Basic Policy 2</b> Dramatic improvement in reliability of expressway infrastructure against aging and disasters				
<b>Basic Policy 3</b> Enhancement of network functions by improving and reinforcing expressways and promoting four lanes				
<b>Basic Policy 4</b> Pursuit of usability based on various customer needs				
<b>Basic Policy 5</b> Reinforcement of the managerial capability in the post-Covid-19				
<b>Basic Policy 6</b> Creating a work style that responds to a new lifestyle and in which everyone can enjoy working				

**FY2030**

3 GOOD HEALTH AND WELL-BEING

8 DECENT WORK AND ECONOMIC GROWTH

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

11 SUSTAINABLE CITIES AND COMMUNITIES

13 CLIMATE ACTION

17 PARTNERSHIPS FOR THE GOALS

KPI (Key Performance Indicators)

No.	Key Performance Indicators (KPI)	FY2021	FY2025	Note:
1	Overall Customer Satisfaction	3.7pts	3.8pts	Total CS (out of 5 pts)
2	Lost Time of Traffic Congestion on Main Routes	841million vehicles/hr	770million vehicles/hr	Calendar year value
3	Comfortable Driving Road Surface Ratio	95%	95%	
4	Sales Revenue Operating Profit Margin	-4.6%	5.8%	SA and PA businesses (consolidated)
5	Total Annual Actual Working Hours	1,970hours	1,950hours	



## Six Basic Policies and Priority Actions

### Basic Policy 1

#### Realization of comfortable expressways that are safe and secure and respond to innovations such as autonomous driving

- We will promote the improvement of safety through accident countermeasures and assurance of punctuality by traffic congestion control.
- We will establish road space adapting to innovations such as autonomous driving and truck platooning.
- We will strive to create comfortable expressways by improving management sophistication and efficiency.



### Basic Policy 3

#### Enhancement of Network Functions by Improving and Reinforcing Expressways and Promoting Four Lanes

- We will implement the safe, secure, and steady maintenance and reinforcement of the expressway network for a sustainable society.
- We will promote businesses considering productivity and infrastructure life cycle cost (LCC) by actively utilizing new ICT technology.



### Basic Policy 5

#### Reinforcement of the managerial capability in the post-Covid-19

- We will improve the corporate value of the entire group.
- We will enhance our existing revenue-generating businesses and promote new revenue-generating businesses.
- We will engage in environmental conservation through corporate and business activities.



### Basic Policy 2

#### Dramatic improvement in reliability of expressway infrastructure against aging and disasters

- We will improve the sophistication and efficiency of maintenance work through the further evolution of SMH (Smart Maintenance Highway) and implement appropriate anti-aging measures.
- We will build strong expressways responding to intensifying and frequent disasters.
- We will promote new initiatives that help improve the reliability of expressway infrastructure.



### Basic Policy 4

#### Pursuit of usability based on various customer needs

- We will provide services that are user-friendly, comfortable, and convenient for various customers.
- We will promote the business activities that will lead to a revitalization of local communities and tourism promotion.



### Basic Policy 6

#### Creating a work style that responds to a new lifestyle and in which everyone can enjoy working

- We will establish a work foundation for a new lifestyle and improve work efficiency by promoting further digitalization.
- We will improve productivity by creating a safe and healthy work environment that group employees can appreciate.



## Financial Projection

### Expressway Business

#### [Profit & loss plan]

Based on the agreement with the Expressway Agency, we commit ourselves to pay lease fees to repay the debts that the Expressway Agency holds and diligently execute necessary management of expressways, using the income earned from our customers.

#### [Investment plan]

Pertaining to the Expressway Agency's assets<sup>\*1</sup>, based on the agreement, we plan to invest approximately 2.5 trillion yen in repair projects such as the Expressway Renewal Project as well as construction and renovation projects including the following: The section between Oizumi JCT and Chuo JCT on the Gaikan Expressway, the section between Kamariya JCT and Totsuka on the Yokohama Kanjo-Minami Expressway, and four-laning of the Joban Expressway.

As for company assets, approximately 250 billion yen is planned to be invested in toll collection machines, ETC systems, and the renewal of aging roads.

<sup>\*1</sup> Expressway Agency's assets are the expressway assets which will be handed over to the Expressway Agency after completion of the construction.

Cumulative total of the fiscal year 2021 to 2025



Toll income

Approx. **3.6** trillion yen

Lease fees

Approx. **2.6** trillion yen

Administrative expenses, etc.

Approx. **1** trillion yen

Cumulative total of the fiscal year 2021 to 2025



Agency assets<sup>\*1</sup>

Approx. **2.5** trillion yen

Company assets

Approx. **250** billion yen

### Expressway-Related Business

#### [Profit & loss plan]

We will improve customer service and corporate values by optimizing the use of management resources and increase our profitability by boosting efficiency. We have also set 2.1 billion yen of operating income as our goal for the final year (FY2025).

#### [Investment plan]

We plan to invest approximately 55 billion yen in the assets of related businesses, such as new construction, renovation, and renewal of commercial facilities. This investment also includes common assets, such as replacing IT systems.

2025 (first year)



Operating Income (consolidated)

Approx. **2.1** billion yen

Cumulative total of the fiscal year 2021 to 2025



Company assets

Approx. **55** billion yen

<sup>\*</sup> Please refer to page 6 for an overview of privatization and expressway business scheme.

Overview of the Medium-Term [https://www.e-nexco.co.jp/company/strategy/mid\\_term/](https://www.e-nexco.co.jp/company/strategy/mid_term/)













NEXCO East Group Primary Key Projects and Contributions for SDGs

This diagram maps the SDGs 169 targets to our primary key projects stated in the NEXCO East Group's medium-term management plan (FY2021-2025). A wide range of numbers is assigned to plans, including business activities that contribute to the achievement of each target.

※This diagram does not include other regular initiatives since it links the SDGs 169 targets to our primary key projects stated in the medium-term management plan (FY2021-2025).  
※This matrix was prepared based on the Sasaya Matrix, invented by Hidemitsu Sasaya, and his theory of organizing.

★:Main SDGs that NEXCO East Group contributes through our businesses.

				★ 					★ 	★ 		★ 		★ 				★ 			
Basic Policy 1	Realization of comfortable expressways that are safe and secure and respond to innovations such as autonomous driving																				
Safety and security	*Implement safety measures utilizing new technology for accident-prone areas and provisional two-lane sections.				3.6					9.1		11.2									
	*Implement structural and non-structural measures in areas with high traffic concentration in Tokyo metropolitan area as well as traffic congestion measures by controlling road pricing.				3.9					9.1		11.6	12.4								
	*Engage in research and technological development leading to minimize traffic regulations, disaster mitigation measures, and accident prevention.				3.6					9.1		11.2	11.b								
	*Adapt to the speed limit increase (120 km/h) for reducing driver's stress.									9.1											
Adapting to innovation	*Formulate a road improvement plan for autonomous driving and try out a project model.								8.2	9.1	9.5							17.17			
	*Establish a supporting environment for platooning and double-connected trucks. (including safety measures for merging points to the main routes)								8.2	9.1	9.5							17.17			
	*Establish an efficient supply system for refueling and power charging facilities.							7.3		9.1					13.2						
Improving sophistication and efficiency	*Improve road management utilizing new technologies, such as remote monitoring systems, AI, and sensors.								8.2	9.1	9.5				13.1						
	*Improve sophistication and efficiency of toll management, such as remote collection, and work on ETC-dedicated toll gates.				3.3				8.2	9.1											
Basic Policy 2	Dramatic improvement in reliability of expressway infrastructure against aging and disasters																				
Anti-aging measures	*Establish and expand SMH (Smart Maintenance Highway), along with increasing the applicable areas, as well as improving the sophistication of maintenance work and productivity.								8.2	9.1	9.5							17.17			
	*Implement anti-aging measures and full-scale preventive maintenance for healthy assets.								8.4	9.1		11.2	12.2								
	*Reduce the number of vehicles violating Vehicle Restriction Ordinance and improve the rate of bridge soundness by optimizing large vehicles on the road.									9.1							16.3				
	*Develop technical standards for promoting renewal projects.								8.2	9.1	9.5										
Disaster response	*Improve structures' seismic performance, establish disaster control bases, enhance road control center functions, and improve the organization's disaster response capability.									9.1		11.5	11.b		13.1	13.3					
	*Minimize road closures by enhancing functions and optimizing standards as measures against natural hazard risks of severe winds and floods.									9.1		11.5	11.b		13.1	13.3					
	*Minimize the risk of road closures and reduce the occurrence of immobilized vehicles due to road closures during winter by enhancing countermeasures against heavy snow and building an advanced and efficient snow and ice control system.								8.2	9.1	9.5	11.5	11.b		13.1	13.3		17.17			
	*Accelerate disaster response by creating a database of disaster recovery cases.									9.1		11.5	11.b		13.1	13.3					
Use and development of new technologies	*Utilize and expand new expressway-related technologies such as RZS (Road Zipper System).				3.6				8.2	8.8	9.1		11.2								
Basic Policy 3	Enhancement of Network Functions by Improving and Reinforcing Expressways and Promoting Four Lanes																				
Enhancement of network functions	*Consider enhancing expressway network centered around the Three Ring Expressways of the National Capital Region and promote road works while ensuring the safety of construction.				3.8				8.9	9.1		11.2	11.a								
	*Carry out planned four-laning and additional lane projects (including Doto Expressway, Akita Expressway, Ban-Etsu Expressway, Joban Expressway, and Ken-O Expressway).				3.8				8.9	9.1		11.2	11.a								
	*Build new SA/PA commercial facilities in collaboration with rest facility development (such as Bando PA and Sanbu PA).								8.9	9.1		11.2	11.a								
	*Enhance access to regions through Smart Interchanges (such as Osarushi, Sugo, Yamagata PA, Hasuda, Miyoshi, and Ozumi).				3.8				8.9	9.1		11.2	11.a								
Expressway maintenance with new technologies	*Promote i-Construction and collaboration with SMH and improve construction management efficiency and safety management by AI/IoT technologies.								8.2	8.4	9.1	9.5			12.2						
	*Engage in research and technological development of highly durable pavement repair technology.								8.2	9.1	9.5										
Basic Policy 4	Pursuit of usability based on various customer needs																				
Comfortable and convenient	*Enhance and expand service functions of SA/PA commercial facilities that can respond to changes in customer attributes and lifestyles.			2.1				6.2		8.9	9.1	10.2	11.2	11.7	11.a						
	*Implement measures to alleviate congestion at rest facilities and provide real-time parking availability information and comfortable rest space.									9.1		11.2	11.7								
	*Improve the sophistication of providing real-time information in the event of a disaster or traffic disruption.				3.6					8.2	9.1		11.2	11.6							
	*Respond to flexible pricing by developing a new toll system.									8.2	9.1		11.2								
	*Provide reliable response for smooth transportation for athletes during the Tokyo Olympics and Paralympics.										9.1							17.16 17.17			
Commit to local communities	*Utilize expressways to enhance local cooperation and to create new added value.					4.7				8.9								17.17			
	*Contribute to local revitalization through tourism promotion in areas visited by various tourists such as inbound tourists.									8.9								17.17			
Basic Policy 5	Reinforcement of the managerial capability in the post-Covid-19																				
Reinforce managerial capability	*Support SDGs for creating a sustainable society.																				
	*Operate strong group management that can respond to the pandemic.									9.1								16.7			
	*Engage in sustainable international cooperation using technological capability and expertise.					4.4					9.1	9.a							17.16 17.17		
	*Provide training for our Group employee's skill development as well as human resource development.					4.4	5.1			8.5			10.2								
	*Create a revenue base that can respond to changes in the social environment in SA/PA businesses.									8.2											
	*Establish a business that can become a new primary revenue source through external alliances.									8.2									17.17		
	*Continue to develop the business in India and promote consulting and advisory services.		1.5	2.1		4.4				8.1	9.1	9.a							17.16		
*Consider and try out new sustainable overseas businesses.					4.4				8.1	9.1	9.a							17.16			
Environmental conservation	*Actively utilize low fuel consumption and low emission equipment and minimize energy consumption.				3.9					9.4		11.6	12.2	12.5	13.2						
	*Support the environmental management system (ISO14001) based on environmental policies, such as Net-Zero Emissions by 2050, as well as continue to meet the certification requirements.				3.9			6.3	7.2	7.3		9.4		11.6	12.2	12.4	12.5	13.2	14.1	15.1	
Basic Policy 6	Creating a work style that responds to a new lifestyle and in which everyone can enjoy working																				
Work Efficiency	*Digitalize all work processes, convert to a work style using smart devices, and create an environment suitable for a new work style.									8.2	8.5										
	*Improve work efficiency about current methods of putting seals, giving approvals, and storing documents and support new work styles, such as telework.									8.2	8.5										
	*Promote "Work Style Reform" by implementing a new procurement management system, reviewing the current procurement flow, and implementing digital transformation.									8.2	8.5										
Work environment where employees can enjoy working	*Reduce annual total actual working hours by reducing long work hours and further promote taking annual leave.				3.4		5.5			8.5											
	*Promote occupational safety and health by further raising safety awareness and taking initiatives to reduce construction accidents.					4.4				8.8											



## Feature Story

# Ten years of reconstruction support after the Great East Japan Earthquake



A magnitude 9.0 earthquake occurred off the Sanriku coast at 14:46 on March 11, 2011. The expressways NEXCO East managed were also severely damaged by the earthquake. The maximum seismic intensity measured on the expressway was 6.3, and about 2,300 km of expressways managed by the Tohoku and Kanto Regional Head Offices, including the Tohoku Expressway (between Kawaguchi JCT and Aomori IC), were closed (see the figure on the left). Also, the damage to the expressways extended to approximately 870 km in length over 20 routes.

Ten years have passed since the Great East Japan Earthquake that caused unprecedented damage. Let us look back on the past efforts of NEXCO East Group to support the reconstruction of disaster areas.

## Recovery from the disaster

### ● Course of events leading up to lifting the road closures

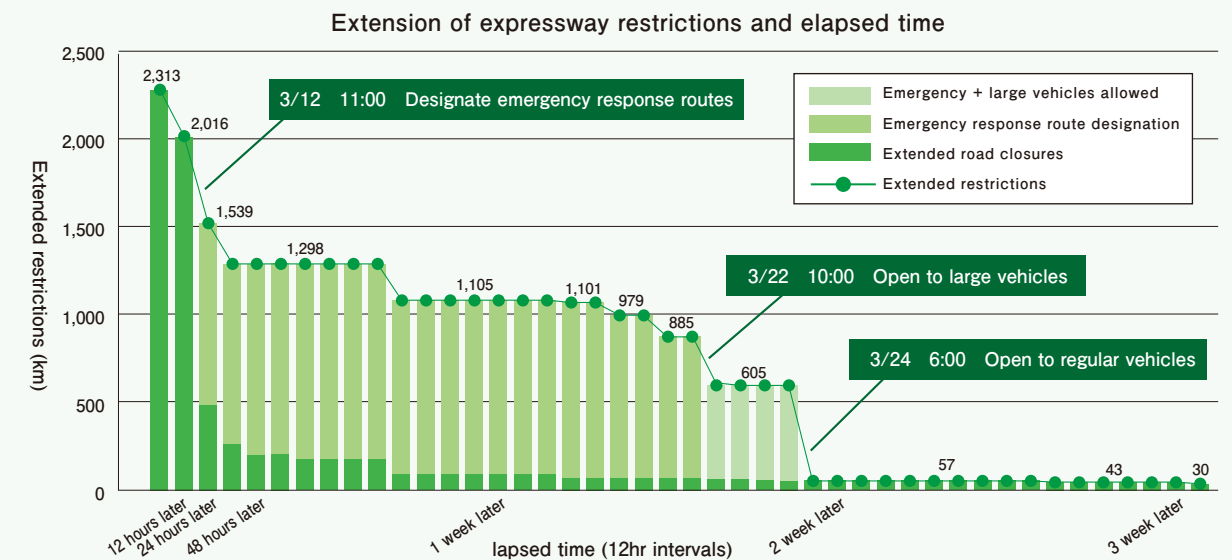
The entire NEXCO East Group worked together on repair work, and emergency response routes were secured. The transportation of supplies to the affected areas was made possible by 11:00 on March 12, approximately 20 hours after the earthquake.

In addition, we conducted urgent repair work to let regular vehicles pass by March 24, 13 days

later, which supported the affected areas as “roads of life.”

### ● Course of events leading up to permanent restoration

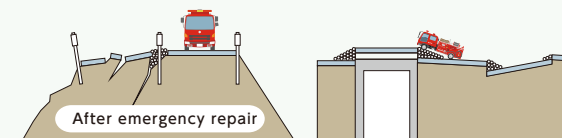
We started the permanent restoration work on the damaged areas in September 2011 and completed them all by December 2012. As a result, the original functions of expressways were restored to their pre-disaster state.



### Restoration in three steps

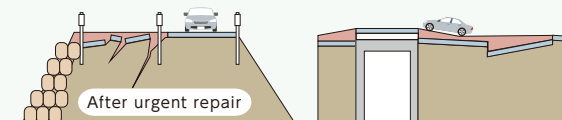
#### 【STEP 1】 Emergency repair (about 20 hours later)

Secure roads for emergency vehicles by placing sandbags, etc.



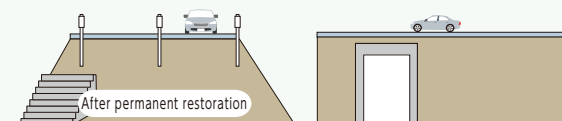
#### 【STEP 2】 Urgent repair (about 13 days later)

Secure the road surface condition that allows regular vehicles to pass safely under some restrictions.



#### 【STEP 3】 Permanent Restoration (after 652 days or almost 2 years later)

Secure the original service condition of the expressway surface.



(Numbers in red indicate the time from the earthquake to the recovery.)

### Restoration of the embankment

Joban Expressway (inbound)  
Near 92.5 kp



### Restoration of the road

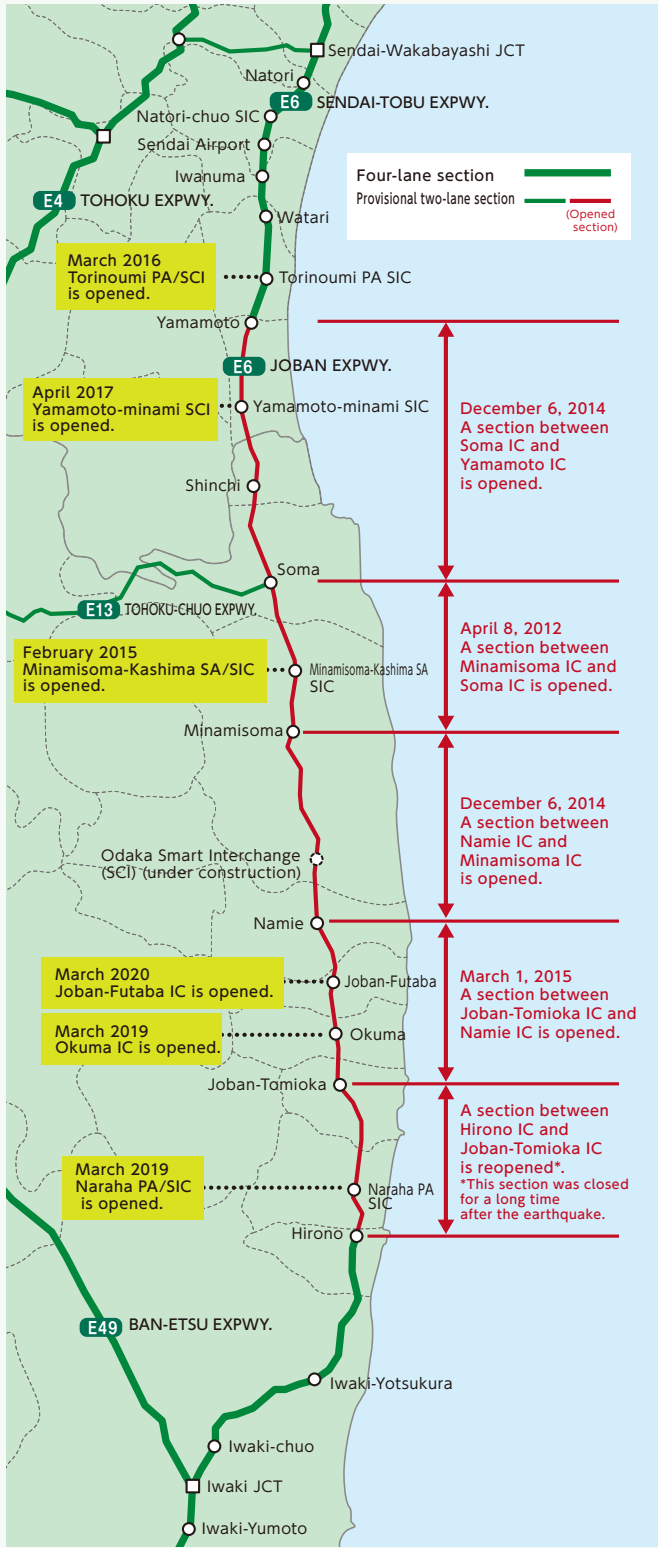
Tohoku Expressway (outbound)  
Near 274.6 kp



Permanent restoration locations	Sections across 109 ICs on 15 routes, including the Tohoku and Joban Expressways
Permanent restoration details	Pavement 633 km, bridge 234 bridges, slope 61 km, communication trunk line 422 km, guardrails 79 km, etc.



Enhanced expressway, recovery and beyond



● Opening the entire Joban Expressway, on the way to recovery

Construction of the section between Hirono IC and Minamisoma IC had been suspended due to the Fukushima Daiichi nuclear accident after the Great East Japan Earthquake. However, we started the restoration and maintenance work between Joban-Tomioka IC and Minamisoma IC at the end of June 2013 as the Ministry of the Environment completed decontamination work. The sections between Namie IC and Minamisoma IC, and Soma IC and Yamamoto IC were opened on December 6, 2014. Then, the section between Joban-Tomioka IC and Namie IC was opened on March 1, 2015. With these openings, the entire Joban Expressway (approx. 352 km) is now fully opened. It has been showing various effects, such as increasing the number of businesses along the route and the number of visitors to tourist destinations, in addition to being an alternative route for the Tohoku Expressway in the case of emergency.

● Further development of local revitalization IC and Smart IC

Following the opening of all the routes, we opened Okuma IC and Naraha SIC in March 2019 and Joban-Futaba IC in March 2020 in order to support reconstruction and accelerate decontamination and interim storage facility projects.



Opening ceremony for Joban-Futaba IC

Restoration and maintenance work within high radiation area

During the disaster, comprehensive safety management was enforced for restoration and maintenance works within the high radiation area due to the Fukushima Daiichi nuclear accident. In order to resume a full-scale restoration work after the decontamination of the area by the Ministry of the Environment, the workers received special training on radiation and thoroughly complied with guidelines and regulations such as "Ordinance on Prevention of Ionizing Radiation Hazards." Also, we took the following caution to secure safety before entering and working within the difficult-to-return zone: Set up a checkpoint at the boundary of the zone within the work site to strictly control the access, conduct screening test (radioactive contamination check) after work to control individual radiation dose, and conduct necessary health checks (Ionizing Radiation Medical Examination).



Screening on site

● Four-laning initiatives

Based on reduced speed due to traffic congestion and accidents in the two-lane section and accidents in the two-way section, the following constructions were approved in March 2016: Four-laning of approx. 27 km between Iwakichuo IC and Hirono IC, approx. 13.7 km between Yamamoto IC and Iwanuma IC and constructing an additional lane between Hirono IC and Yamamoto IC (approx. 13.7 km). All the projects mentioned above were completed by June 2021.

We are currently working on a four-lane project between Soma IC and Shinchi IC and an additional lane project between Namie IC and Minamisoma IC, and we will continue to strive for completion as soon as possible.

Four-lane construction on the Joban Expressway

Example of the Abukuma Bridge

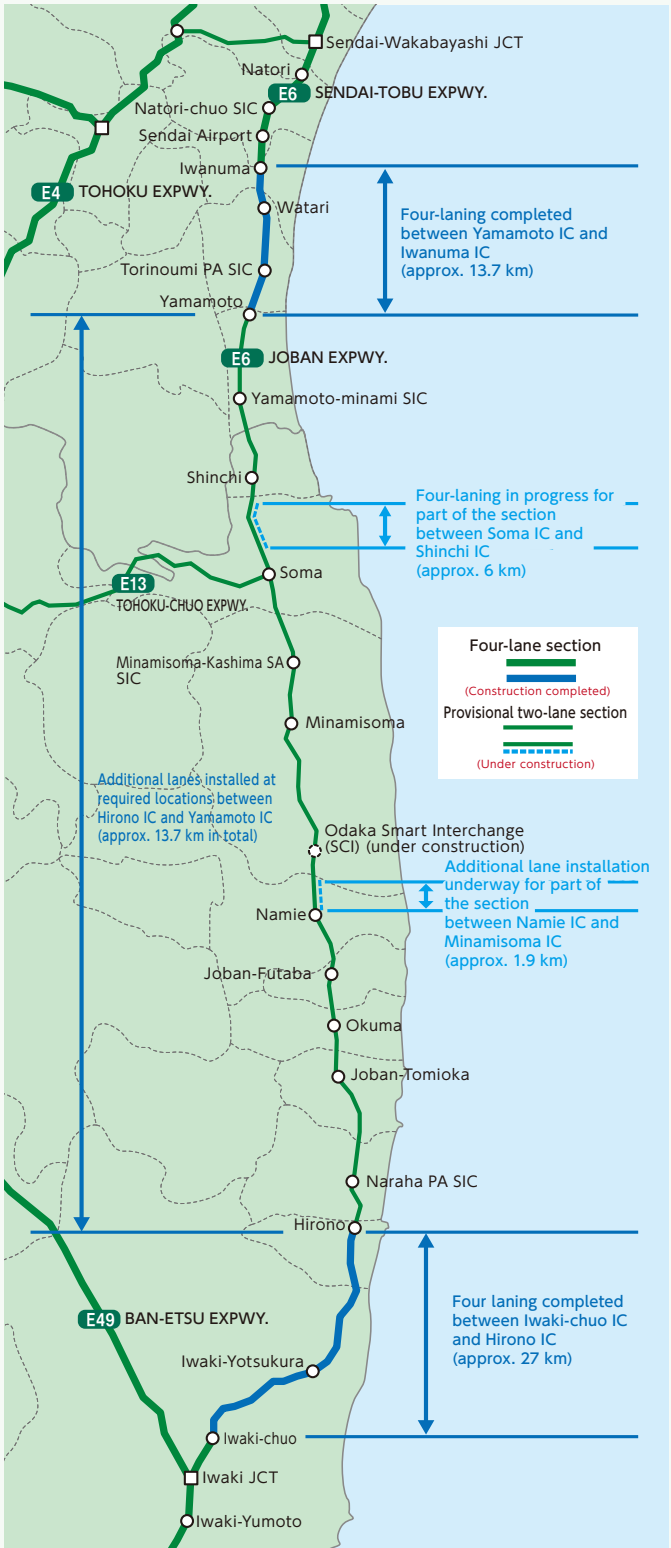


● Participating in leading projects for post-disaster reconstruction and revitalization (Public-Private Partnerships)

The Ministry of Land, Infrastructure, Transport and Tourism ordered the Sanriku Coast Expressway construction, and we were assigned to part of the Project Promotion PPP\* project (Kesennuma-Karakuwa construction area) starting June 2012. The given section was completed and opened by the end of 2020. We contributed to the post-disaster reconstruction of the Sanriku Coast area by providing guidance and coordination for work, such as survey, investigation, design, and construction, discussing with local and related government agencies, and conducting construction supervision.



Kesennuma-Wan Crossing Bridge



[The opening of the assigned PPP section]

March 21, 2019	A section between Karakuwa-Koharagi IC and Rikuzentakata-Osabe IC is opened. (We are in charge of the section from Karakuwa-Koharagi IC to the prefectural border.)
February 24, 2020	A section between Kesennumachuo IC and Kesennuma-Port IC is opened.
March 6, 2021	A section between Kesennuma-Port IC and Karakuwahanto IC is opened.



## Enhancing disaster response capacity

### ● Making a rest facility a disaster control base

The Self-Defense Forces and fire departments used rest facilities on the expressways as the main base or a relay station for rescue, emergency, and medical responses during the Great East Japan Earthquake. However, we ran into problems such as power outages, fuel shortages, and disruption of communication flow and found out that these facilities were not equipped to fully support the disaster response efforts.

Therefore, we set up a rest facility with enhanced disaster prevention functions as a project model at Moriya SA (inbound) on the Joban Expressway in 2014. It is equipped with backup for lifelines, such as a power generator and well, and functions that can be used as a disaster management control room.

We currently have the following rest facilities with

similar functions in different locations, prepared for a large-scale disaster: Hasuda SA (inbound) on the Tohoku Expressway, Takasaka SA (inbound) on the Kan-Etsu Expressway, and Shisui PA (inbound) on the Higashi-Kanto Expressway.

### ● Enhancing cooperation with related organizations

Disaster response requires not only structural but also non-structural preparations. NEXCO East Group is striving to collaborate with related organizations by conducting joint drills with the Self-Defense Forces, Fire and Disaster Management Agency, police, DMAT, and other infrastructure companies in order to secure emergency traffic routes and support emergency rescue operations and recovery and reconstruction efforts in the impacted areas in case of a large-scale disaster.

Example of SA equipped with disaster prevention base functions (Hasuda SA, inbound)

Installation of power generator for power outages



Emergency opening  
Ensuring access for emergency vehicle



Increased oil tank capacity for fuel



Installation of a well for water outages



Utilization of food court as disaster management base headquarters (during a joint drill)

Reinforcement of earthquake resistance of operating area

Emergency supply storage  
Storing traffic control and safety equipment, temporary lighting system, blankets, etc.



Heliport

Ensuring safe daytime and nighttime takeoffs and landings by installing lighting equipment and an office



### Installation of tsunami evacuation stairs

The embankment of the Sendai-Tobu Expressway, running parallel to the coast of Miyagi Prefecture, was used for locals as an area of refuge against tsunami during the Great East Japan Earthquake. From this experience, we have installed tsunami evacuation stairs on the slopes of expressway embankments and been supporting local disaster prevention drills, with the cooperation of local authorities in the coastal areas where there are no hills to evacuate in the event of a tsunami.



## Contributing to surrounding communities

### During the earthquake disaster

#### ● Support for disaster areas

NEXCO East Group also actively provided support to areas impacted by the Great East Japan Earthquake. After the earthquake hit, we worked with the tenants operating at rest areas to distribute food and drinks to customers on the expressways. We also engaged in support efforts by visiting evacuation shelters set up in the disaster areas to make devastated people feel better by distributing warm food and drinks.

We provided emergency supplies to local governments and cooperated in setting up a disaster response volunteer center. Also, we gathered our expertise and mobility in maintenance work, and an entire NEXCO East Group worked together



Providing food at the emergency shelter in Nihonmatsu city, Fukushima



Cleaning drainage ditch in the disaster area

to support the recovery of the disaster areas by cleaning roads and drainage ditches and removing debris.

### Reconstruction and revitalization period

#### ● Implementation of event discounts for promoting tourism

We were successful in selling Expressway Pass to support reconstruction tourism for Tohoku as part of Tohoku reconstruction support during the revitalization period, and many drivers used expressways.

Even now, we sell products that allow drivers to get on and off the expressways freely between six prefectures in Tohoku region to support promoting tourism in various regions in Tohoku.



Tohoku Tourism Highway Pass

#### ● Events that we sponsored and organized

Since before the Great East Japan Earthquake, NEXCO East has held events called "Highway Festa Tohoku," which introduce and promote tourism, culture, and food of six prefectures of Tohoku. These events increase the use of expressways by attracting customers to the Tohoku region and stimulate exchanges between six prefectures of Tohoku. We also have been striving to promote the attraction of local areas through these events, hoping to help reconstruct after the earthquake.

The event was canceled last year due to the coronavirus outbreak; however, we organized an online event called "Ouchi Festa Tohoku (Tohoku Festa at Home)" instead. We will try to link it with "Highway Festa Tohoku" and enhance its contents in the future.

#### ● Sponsorship for local events and campaigns

We have contributed to the reconstruction of the



Highway Festa Tohoku 2019. It was held online in 2020.



disaster areas and the revitalization of the local areas by sponsoring and participating in "Tohoku Kizuna Festival (formerly Tohoku Rokkon Festival)." This festival was started in 2011 with the hope of repose of the victims and recovery from the Great East Japan Earthquake.

We are also collaborating as a "Tohoku supporter" with the "Tohoku Destination Campaign," which began in April 2021 to mark the 10th anniversary of the disaster.



Tohoku Kizuna Festival 2019





Nagaigawa Bridge on the Kan-Etsu Expressway

# 01 Expressways Operation Business

Striving for Sustainable “Best Ways”

We continue to protect 3,943 km of Japan’s major expressways for customers’ safety and comfort, 24 hours a day, seven days a week.

We strive to enhance patrols and traffic control, provide accurate traffic information, and reinforce safety measures.

We are also working to improve functions, such as measures against traffic congestion in urban areas, for more comfortable use of expressways.

For structural aging issues, we are promoting the “Expressway Renewal Project” in addition to daily inspection and maintenance work to ensure the soundness of road structures in the future.

In the event of recently intensifying natural disasters, our expressways will serve as “Roads of Life” to support disaster relief and recovery efforts.

More robust, safe, and comfortable...

Our expressways enhance their functions every day and continually evolve using cutting-edge technologies to protect them, including ICT, robotics, AI, new construction materials, and methods.

Then, we will blueprint our future expressways and strive to achieve them in the coming of autonomous driving.



**Tomomichi Takahashi**

Managing Director and  
Senior Executive Officer/  
Director of Operation Division

## ■ SMH (Smart Maintenance Highway)・・・ The Launch of the First Phase of Operation



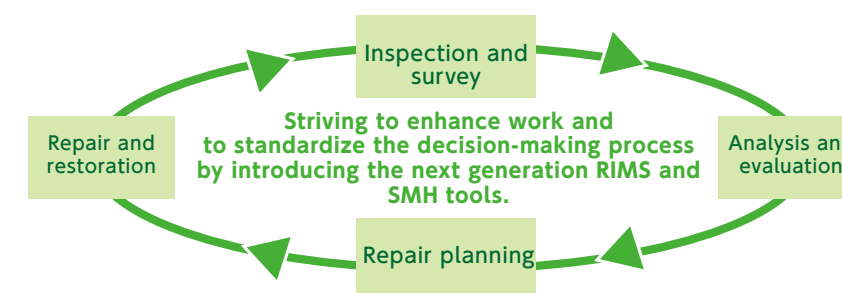
SMH is a project that dramatically improves the productivity of expressway asset management by using the latest technologies such as ICT and robotics to ensure the long-term “safety and security” of expressways.

By introducing SMH tools, we strive to improve functionality, efficiency, and quality of work, as well as to increase work productivity by standardizing the decision-making process in each work scene. Consequently, we hope to create an environment where engineers can focus on “tasks requiring technical thinking” to maximize their knowledge and experience.

The first phase of the operation was launched

in June 2020. In addition to renewing RIMS\*, the foundation of digitized road management information, we have implemented the following systems: “UI tools” that centrally search and display information from multiple databases, “BI tools” to visualize inspection data, “omnidirectional road video imaging system,” and “pavement work ordering support system.” We have been particularly successful in improving the productivity of decision-making for bridge and pavement repair works within a series of work processes, such as “inspection/survey,” “analysis/evaluation,” repair planning,” and “repair/restoration.”

\*RIMS: An acronym of Road Maintenance Information Management System that stores data on road maintenance



### What is the answer for “engineers x ICT” in terms of SMH?

- ▶ Reconstruction of the information infrastructure and visualization and analysis of data without restriction.
- ▶ Precise decision-making based on data (numerical basis).
- ▶ Prompt decision-making with support tools.
- ▶ Standardization of both work procedures and decision-making processes.

- Free engineers from simple tasks
- Allow engineers to focus on the roles of an engineer

### ◎ Effects of introducing SMH tools on pavement repair planning

We would like to introduce the effects of implementing SMH tools by using the process of repair work planning on pavements. We have built the “Pavement Work Ordering Support System (PSS)” to automate and improve the efficiency of preparing materials to select repair locations, which had been done manually by engineers.

PSS allows us to extract the basic data for a repair point selection by visualizing the soundness of the pavement from various data indicating damages to the pavement and by predicting its deterioration. Also, we have implemented a function to automatically calculate the number of constructions and a rough estimate and automatically prepare

necessary drawings for placing a construction order. As a result, we successfully eliminated material preparation tasks performed by engineers.

Moreover, it has become possible for us to examine the site condition and simulate road restrictions for the construction, on the desk by using “omnidirectional road images.”

These tools allowed us to reduce the amount of time required for the construction ordering process from approximately 70 hours per construction to seven hours, which is 1/10. Due to the improved work efficiency, engineers can now focus on their roles as engineers.



## Promoting the Expressway Renewal Project

The rate of over 50-year-old expressways managed by NEXCO East Group will reach 20% by 2030 and exceed 70% by 2050. Also, the leading causes of deterioration are the increase in heavy vehicle traffic, overweight vehicles, and the use of deicing salts. Road structures such as bridges and tunnels are in a state of deterioration, showing signs of notable deformation.

Based on those, we were granted approval from the Minister of Land, Infrastructure, Transport and Tourism on March 25, 2015, based on the Act on Special Measures Concerning Road Construction and Improvement. Thus, we started a large-scale renewal and repair project on road structures in FY2015 to fulfill our role as Japan's main artery in supporting social foundations, such as economy, society, medical care, and disaster prevention.

We have been emphasizing public relations by purposely using the name "Expressway Renewal Project" and its logo across all the expressway companies in order to help customers understand the need for this significant restoration and repair work.

The number of construction projects that require major traffic control, such as road closures and two-lane traffic, is expected to increase in various regions as this renewal project is in full force. We will continue to minimize the impact on our customers from this project by employing flexible traffic operation with new technologies and a movable barrier system (Road Zipper System).



Replacing bridge deck slabs

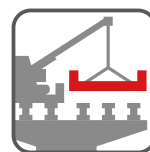


Installing inverted arches of a tunnel



Public relations efforts for the Expressway Renewal Project

We perform such construction works for the Expressway Renewal Project.



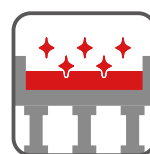
### Replacing bridge deck slabs<sup>\*1</sup>

Replace with concrete slabs with high durability.

\*Deck slab: A structural component that directly supports a vehicle passing through a bridge and transmits the load to the girders.



Example of bridge deck slab replacement work



### Application of waterproofing membranes to the deck slabs

Apply high-performance waterproofing membranes to prevent deterioration of the concrete slabs.



### Reinforcing girders

Adhere reinforcements to the girders to increase durability.



### Installing inverted arches<sup>\*2</sup>

Install inverted arches to improve the stability of the structure of the tunnels that are experiencing excessive force.

\*Inverted arch: A semi-circular-shaped concrete installed underneath the road surface to prevent deformation by making the shape of the tunnel circular.

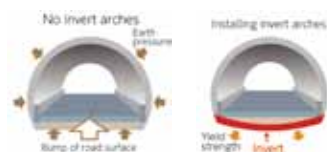
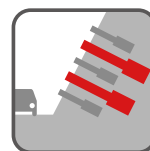


Image of countermeasure construction



### Installing ground anchors<sup>\*3</sup>

Install high anti-corrosive ground anchors to ensure the long-term stability of the cut slope area.

\*Ground anchor: Stabilizes the deforming force of a cut slope by driving high-strength steel rods into the slope.



Image of countermeasure construction

## Day-To-Day Management for Safe Driving

NEXCO East Group conducts daily inspections and cleaning to maintain safe road conditions, along with systematic repairs of the roads to provide safety and security at all times.



Conducting hammer tests on the bridge



Inspection of tunnel lighting



Repairing pavements



Inspection of power generator



Cleaning walls of the tunnel

## "Relaxation with Flowers and Greenery:" Expressway Garden<sup>(R)</sup> Project

This is a project to establish "Expressway Gardens<sup>(R)</sup>" that transform gardens in rest areas (SA and PA) into user-friendly, comfortable spaces, as well as to encourage the creation of local identities and cooperation with local communities.

NEXCO East Group will continue to work to provide customers with a more relaxing and healing space.



Expressway Garden designed and supervised by a nearby garden center (Yokokawa SA Outbound, Joshin-Etsu Expressway)

Overview of the the Expressway Renewal Project <https://www.e-nexco.co.jp/renewal/>







Pasar Hasuda (Hasuda SA Inbound, Tohoku Expressway)

## 02 Service Area Business

### Providing More Convenient and Comfortable Service

The Service Area Business Division operates commercial facilities, such as "Pasar" and "YASMOCCA" in rest areas (SA and PA) on expressways, as well as expressway-related businesses, including asset utilization business.

In response to the coronavirus outbreak, we are fully committed to taking thorough measures to prevent infection in the facilities at our rest areas. We are also enhancing and expanding service functions that correspond to new lifestyles through planned new construction of commercial facilities and expansion, renovation, and renewal of aging facilities.

We are also proactively engaging in various businesses, such as a hotel business that effectively utilizes management resources and a travel business that employs local tourism resources and infrastructure.

We will continue to pursue usability based on customer needs and strive to provide services that respond to new technologies and changes in the social environment for our customers' safety, security, comfort, and convenience.



Shigemi Oba

Managing Director and  
Senior Executive Officer/  
Director of Service Area Business Division

### Development of Various Areas "Unique, Enticing, and Pleasant"

#### ◎ Development of "Pasar"

"Pasar" is a flagship brand of NEXCO East's commercial facilities, also known as "Michi-Naka (within expressways)" commercial facility, and it strives to provide a wide variety of services, including the hottest shops in town and local foods that satisfy foodies. We have so far opened seven Pasars in Greater Tokyo, including the Pasar Makuhari (outbound) on the Keiyo Expressway.

#### Pasar List of locations

- [ Tohoku Expressway ]  
Hanyu PA Outbound/Hasuda SA Inbound
- [ Kan-Etsu Expressway ]  
Miyoshi PA Inbound
- [ Joban Expressway ]  
Moriya SA Inbound/Moriya SA Outbound
- [ Keiyo Expressway ]  
Makuhari PA Inbound/Makuhari PA Outbound

#### ◎ Pasar



This name was created by putting together the following letters: PA from a parking area, SA from a service area, and R from relaxation. The idea is to offer our customers "a place to relax and enjoy, in the middle of their journey."

#### ◎ Developing "Dramatic" Areas

Our rest areas function as a base of local communities, and we are producing "dramatic" areas to add spice to an individual journey scene by bringing together all kinds of "local tastes and fun of traveling." We offer local ambiance in various forms, including surrounding scenery, food, and souvenirs.



Kunimi SA Inbound, Tohoku Expressway



Kunimi SA Outbound, Tohoku Expressway



Pasar (Hasuda SA Inbound, Tohoku Expressway)





## ■ Developing “Basic Service” Areas

We provide basic services (food, souvenirs, etc.) in small-medium sized rest areas as “Basic Service” areas. We also have “YASMOCCA” for casual stops in between driving, as well as “Convenience Store” areas offering a wide variety of products for people on the go.

### ◎ YASMOCCA



This brand was developed in a basic area as a store to offer customers “a breather” in between driving to their destinations. “YASMOCCA,” meaning “Let’s take a break” in Japanese, strives to become a place for a quick chill-out for on-the-go drivers. Its logo mark is designed based on the image of a car with a “smile” of our customers and a sense of “safety.”



YASMOCCA (Tsuga-Nishikata PA Outbound, Tohoku Expressway)



YASMOCCA Regular Menu  
Fried Chicken set menu (4 pcs)



Convenience Store Area  
(Chikumagawa-Sakaki PA Outbound,  
Joshin-Etsu Expressway)



(As of July 1, 2021)

## ■ Promoting Convenience

### ◎ Accessibility and Barrier-Free

For comfortable use of rest areas, we incorporate universal design and make our facilities barrier-free by eliminating steps and installing disability parking spaces, wheelchairs, and writing boards for deaf and hard of hearing persons.

As for washrooms, we have been replacing traditional Japanese-style toilets with western-style toilets. Also, large universal restrooms with baby protection seats and small sinks, kid’s toilets, and a stoma-friendly environment (installing sinks and small basins for ostomates) are being installed.

### ◎ Space for Infants and Toddlers

Many rest areas are equipped with baby change stations, nursing rooms, and heated water dispensers for baby formula for comfortable use of expressways by families with small children.

Even smaller-size facilities have baby care rooms utilizing available small space.

### ◎ Electric Vehicle Quick-Charging Stations

We have been progressively installing quick-charging stations for customers with electric vehicles, and we currently have 151 locations\* installed. We will continue to consider investing more stations based on the usage data of existing ones.

\* As of July 1, 2021.

### ◎ Duty-Free Shops

We have set up duty-free counters within retail store sections and sell duty-free items to our foreign visitors, including various popular foods. It is currently available at 18 service and parking areas\*. We will continue to expand the number of duty-free shops.

\*As of July 1, 2021.

### ◎ Multi-Language Signage and Information

The layout of our facilities and washrooms at service and parking areas use international symbols and multiple languages (English, both simplified and traditional Chinese, Korean, etc.) along with JIS pictograms.

We also provide multilingual information using mobile devices, such as tablets and portable language translators, at all of our visitor information desks for more convenience for our foreign visitors.



Disability parking spaces



Large universal washroom



Kids play area  
(Hasuda SA Inbound, Tohoku Expwy.)



Baby change stations and  
a nursing room  
(Hasuda SA Inbound, Tohoku Expwy.)



Baby care room  
(Kinshuko SA Inbound and  
Outbound integrated,  
Akita Expressway)



EV quick-charging stations  
(Abukuma Kogen SA Inbound,  
Ban-Etsu Expressway)



Duty-free shop (Shisui PA Outbound, Higashi-Kanto Expressway)



Multi-language information  
using a tablet



Pictogram signage

## VOICE

“Do what only humans can do” in the time of AI. We, the concierge, value the customer service tailored to each customer with compassion and hospitality. We help our customers enjoy their trips and create memories by maximizing the use of local information, and we also contribute to local communities by promoting local tourists spots.

As we represent NEXCO East Group, all of us, concierges, will strive to offer the best customer service by providing safety, security, comfort, and convenience so that our customers can leave with a smile.



Miyako Takeda  
Chief Concierge,  
Information  
Echigo-Kawaguchi SA





Kamariya JCT on the Yokohama Kanjo-Minami Expressway under construction

## 03 Expressway Construction Business

### Enhancement of Network Functions by Improving and Reinforcing Expressways and Promoting Four Lanes

Our Construction Division is conducting our expressway construction business to improve the expressway network and to further enhance its functions, pursuing a sustainable and better society.

Although our expressway network is well established, some areas still have missing links, including the Tokyo metropolitan area. We are determined to complete the network using the latest technologies while keeping safety as our top priority.

Further improvements are also necessary for the existing network from the perspective of safety, time reliability, and ensuring redundancy. Thus, we will move forward with four-laning of provisional two-lane sections and installation of additional lanes based on the "Safety and Security Basic Plan for Expressways" formulated in September 2019.

Furthermore, we are also engaged in establishing rest areas and Smart ICs in order to improve the quality of life in local communities, stimulate local economies, and enhance access to local areas while collaborating with local governments.

We will continue to prioritize safety and strive to create reliable expressways, considering improved productivity and life cycle costs by pursuing quality and actively utilizing new ICT technologies.



**Masafumi Mori**

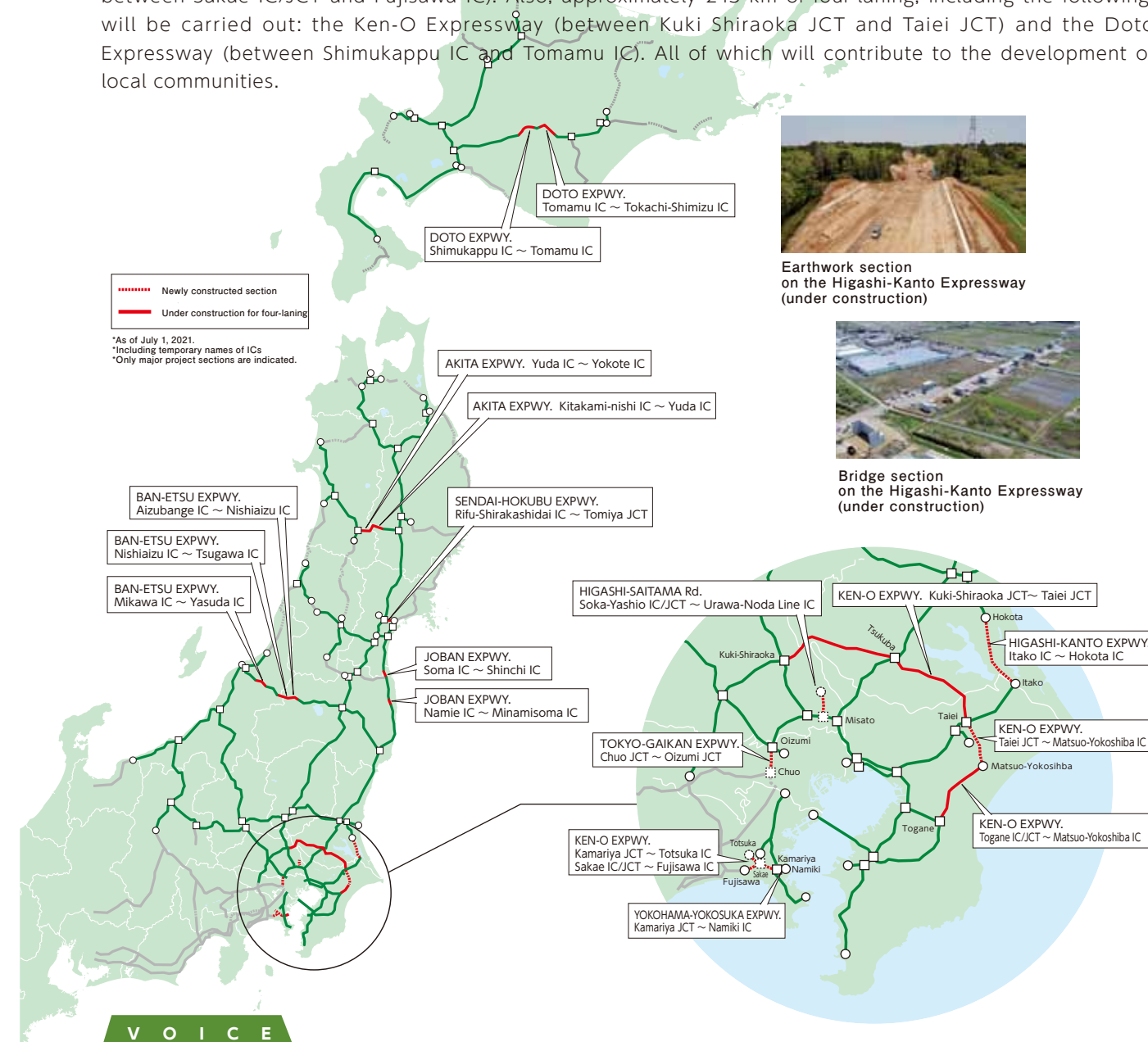
Representative Director and  
Managing Executive Officer/  
Director of Construction Division

## Promoting Expressway Network Centered Around the Ring Expressways of the National Capital Region

NEXCO East is working on building the expressway network in the metropolitan and other areas, as well as replacing provisional two lanes with four lanes. Since 2005, we have completed 605 km of a network and 142 km of four lanes and additional lanes.

A section between Yamamoto IC and Watari IC on the Joban Expressway became four lanes in March 2021. Another section between Iwakichuo IC and Hirono IC on the Joban Expressway became four lanes in June.

We are determined to build approximately 85 km of the network, including the Gaikan Expressway (between Chuo JCT to Oizumi JCT), the Ken-O Expressway (between Kamariya JCT and Totsuka IC/JCT, as well as between Sakae IC/JCT and Fujisawa IC). Also, approximately 243 km of four-laning, including the following, will be carried out: the Ken-O Expressway (between Kuki Shiraoka JCT and Taiiei JCT) and the Doto Expressway (between Shimukappu IC and Tomamu IC). All of which will contribute to the development of local communities.



Earthwork section on the Higashi-Kanto Expressway (under construction)



Bridge section on the Higashi-Kanto Expressway (under construction)

### VOICE

I am in charge of the construction site of approximately 31 km of the Mito route (between Itako IC and Hokota IC) on the Higashi-Kanto Expressway in Ibaraki Prefecture. The project for this section is jointly conducted with the Ministry of Land, Infrastructure, Transport and Tourism. I mainly oversee the earthwork and bridgework of about 3 km from Hokota IC, the improvement work of Itako IC, and the paving of the entire section between Itako IC and Hokota IC. Prioritizing safety, we are currently working on the site with related organizations and construction personnel toward the section's opening. We would like to complete the road that is disaster-resistant and can please the users and the local people.



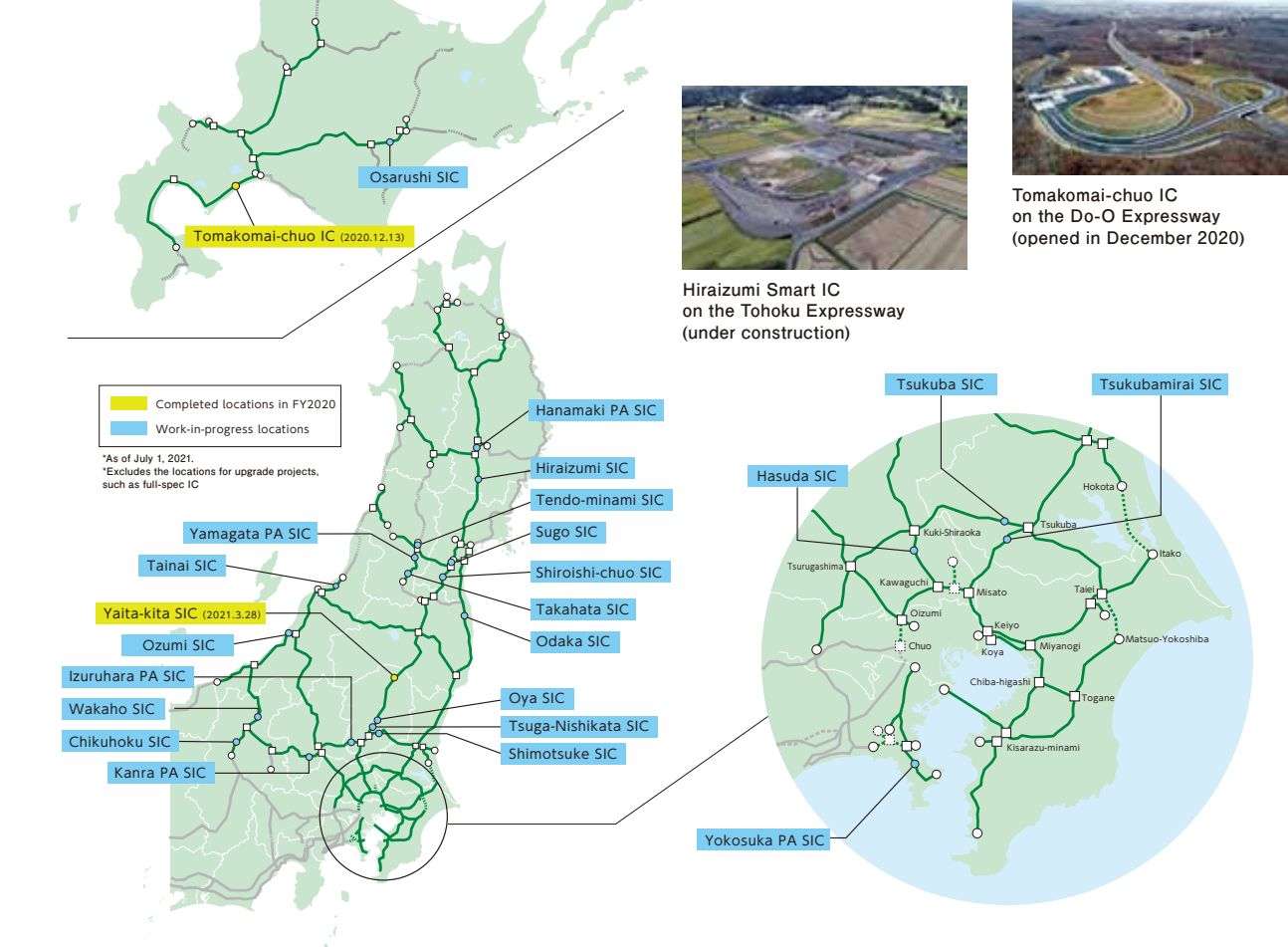
**Manami Hagi**

Manager of  
Hokota Construction Section  
Tsukuba Construction Office,  
Kanto Regional Head Office



## ■ Developing Local Revitalization IC and Smart IC (ETC-Only IC)

We are engaged in establishing Smart IC and local revitalizing IC in order to optimize the use of existing expressways, improve quality of life in local communities and stimulate local economies while collaborating with local governments.



## ■ Project Overview of Sections Under Construction

### Metropolitan Inter-City Expressway (new construction and four-laning projects)

Metropolitan Inter-City Expressway (Ken-O Expressway) is an about 300 km long highway connecting about 40 to 60 km from the city center in a loop. We are currently working on new construction between Taiiei JCT and Matsuo-Yokoshiba IC and a four-laning project between Kuki-Shiraoka JCT and Taiiei JCT.



A section between Taiiei JCT and Matsuo-Yokoshiba IC (under construction)

### Yokohama Kanjo-Minami Expressway (new construction)

The Yokohama Kanjo-Minami Expressway is part of the Ken-O Expressway and is also the south part of the Yokohama Ring Expressway. It is a motorway with a total length of approximately 8.9 km connecting Kamariya JCT on the Yokohama-Yokosuka Expressway and the National Route 1. We are currently carrying out this new construction jointly with the Ministry of Land, Infrastructure, Transport and Tourism.



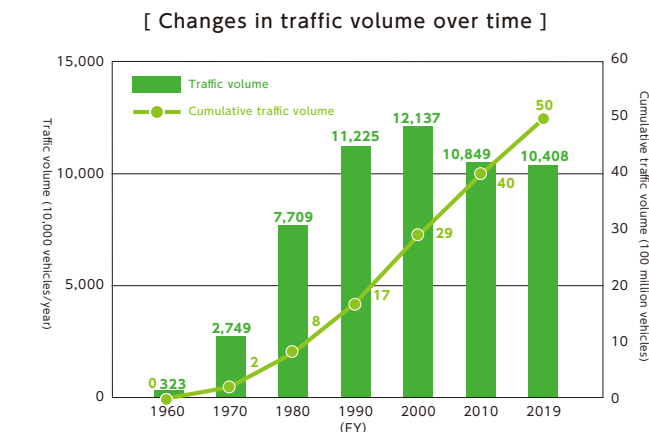
Yokohama Kanjo-Minami Expressway (under construction)

## ■ Benefits of Upgrading Expressways

### ~ Effects of the 40th anniversary of the opening of Keiyo Expressway ~

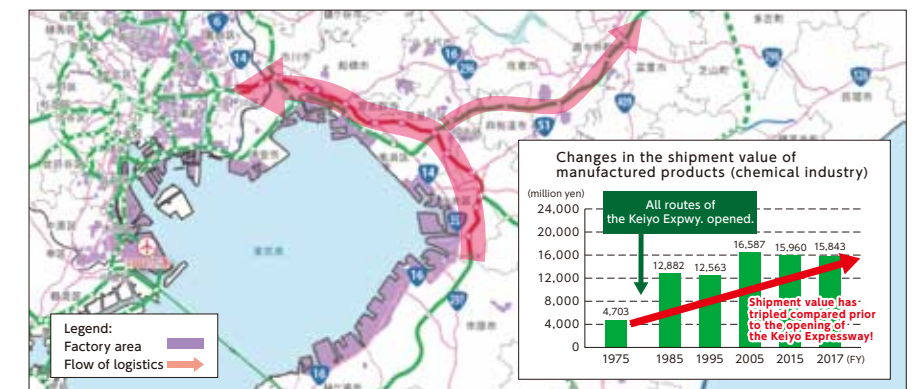
#### ◎ Changes in traffic volume

The Keiyo Expressway was partially opened in 1960 as a toll road connecting Edogawa-ku in Tokyo and Chiba City in Chiba. The entire route of 37 km between Ichinoe and Soga was opened by 1980. Since its opening, the number of vehicles taking expressways has dramatically increased through improved convenience due to the development of the network with surrounding expressways such as connection with Tateyama Expressway and Gaikan Expressway. The annual vehicle volume is approximately 100 million cars, which reaches about 10% of total traffic volumes on expressways that we manage. It boasts one of the highest traffic volumes within our expressways.



#### ◎ Support the life and logistics

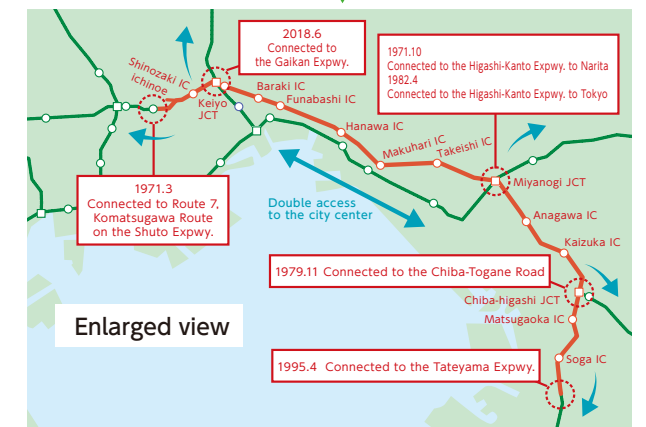
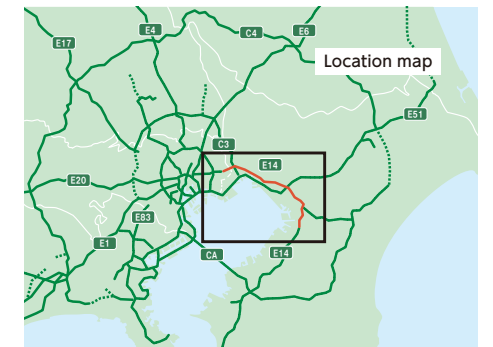
Urbanization and suburban development have progressed since its opening. Then, it has become the road closely related to people's lives since it is used for commuting and shopping while it is the essential road that supports logistics. It is also contributing to improving productivity; for example, shipment volume of chemical products produced in the bay areas has increased, and also, the amount of eggs brought to the Metropolitan Central Wholesale Market from poultry farms scattered around Chiba Prefecture has jumped dramatically,



Surrounding industrial areas and changes in the shipment value of manufactured products

#### ◎ Improve the expressway network function

The Keiyo Expressway and the Higashi-Kanto Expressway serve as the main artery of the bay areas connecting Tokyo and Chiba. Meanwhile, we have taken measures against traffic congestion, such as installing additional lanes in required locations, as traffic congestion worsened. As traffic volume is expected to keep increasing, we will validate the effectiveness of those measures and consider further improving the expressway network functions in the bay areas.



Near Ichinoe around the time of opening



Current traffic condition (near Anagawa)





Advanced/Autonomous Snow and ice control Operation System "ASNOS"



Activities of JICA experts

## 04 Technological Development and Overseas Business

### Pioneering the Future With "Evolved Technology"

We strive to achieve nine technological development goals and two technology utilization goals specified in our mid-term technological development and utilization plan (FY2021 - 2025) to precisely respond to more frequent and severe natural disasters and rapid aging of infrastructure. We will also actively introduce new technologies, such as the Road Zipper System, that dramatically improve the safety of expressway restrictions.

In addition, we will promote overseas business development, international cooperation, and international exchanges by utilizing the technological capability and expertise that we have earned.

In supporting such efforts, we will train engineers, provide expert support during a disaster, engage in research and technological development using the latest technology, and establish thorough safety education and awareness.

We will also adamantly engage in environmental management to realize the CSR management that helps achieve SDGs, in line with ISO14001 certified in March 2021.



**Kaoru Matsusaki**  
Managing Director and  
Senior Executive Officer/  
Director of Technology  
International Division

### Promoting Research and Technological Development

#### ◎ Automating operation of rotary snowplows

As for rotary snowplows, we have developed and introduced a snowplow operation support system (guidance monitor\*1) on a trial basis in 2017. This system uses the quasi-zenith satellite system "Michibiki" to support the operator's driving by providing audiovisual assistance.

Furthermore, we are working on autonomous driving\*2 and its operation automation by linking the snowplow's accurate position information through this support system with the work control device. So far, we have confirmed that autonomous driving is possible in the test field managed by Hokkaido Regional Head Office.



Overview of the system



Autonomous driving in the test field

\*1: We first register work details, such as spraying antifreeze or displaying appropriate digital signs, based on the road structure by linking GPS location information with the antifreeze spray device or digital signage display. The system can assist snow removal work with voice guidance and automatic control when approaching the applicable area using that information. (At the moment, the snowplow operation has voice guidance only.)

\*2: It is when a vehicle automatically drives and steers without a driver touching the steering wheel or brakes while riding in the car.

#### ◎ Automating operation of snow removal vehicles

Regarding snow removal vehicles, we developed a "centralized control system\*1" that uses GPS in 2018 to automate spraying of the anti-icing agents and operating the electric sign display at the back of the vehicle. We are also working on technological development for the automation of snowplows using the quasi-zenith satellite. A new function has been added to allow the plow blade to go up and down automatically, which is required for sections like bridge joints by incorporating the high-precision positioning signals from the satellite and the high-definition mapping information into the "centralized control system." We are currently testing it in the test field managed by the Niigata Regional Head Office.



Automatic control by connecting to the high-precision positioning information

Centralized control system



Automated operation of the plow blade in the test field

\*1: We first register work details, such as spraying antifreeze or displaying appropriate digital signs, based on the road structure by linking GPS location information with the antifreeze spray device or digital signage display. The system can assist snow removal work with voice guidance and automatic control when approaching the applicable area using that information. (At the moment, the snowplow operation has voice guidance only.)



### ◎ Researching snow and ice control technology

We are conducting research and technology development using an accelerated corrosion testing apparatus and a temperature and humidity test chamber as an attempt to enhance measures against snow and ice. The temperature and humidity test chamber is a device that reproduces the same conditions as winter roads by controlling the temperature and humidity. We conduct tests and study antifreeze agents that are less likely to corrode road structures and technologies to remove ice from the road surface. The accelerated corrosion testing apparatus is a device that reproduces the corrosive conditions quickly by repeating the process of spraying saltwater, drying, and adding moisture. We are using it to test and research repairing materials corroded by the spray of antifreeze agents.



Material durability test using the accelerated corrosion testing device

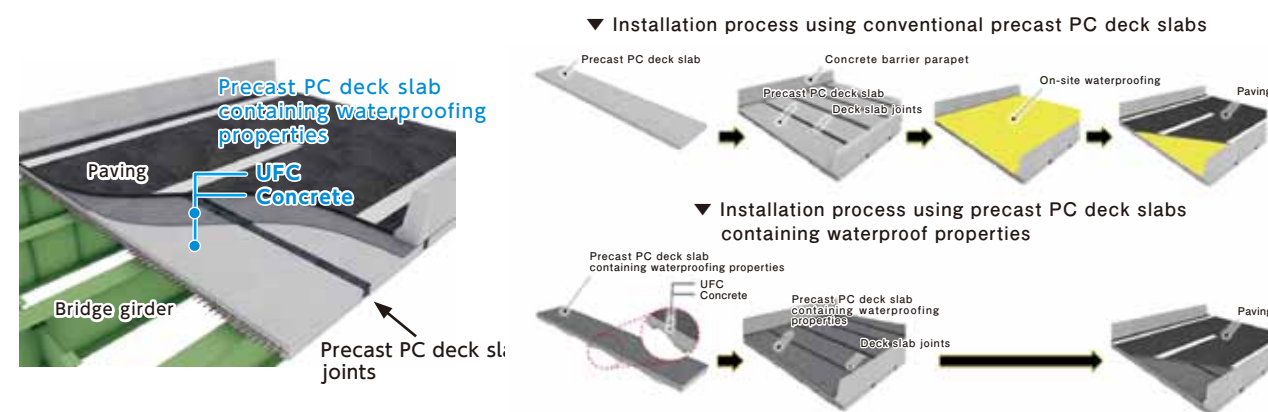


Road surface property test using the temperature and humidity test chamber

### ◎ Developing waterproof precast bridge decks

The Expressway Renewal Project includes on-site waterproofing of bridge deck slabs during the bridge deck replacement work in order to secure the durability of the deck. However, this treatment is easily affected by the weather. Thus, we have developed a precast PC deck slab with a top layer made of Ultra High Strength Fiber Reinforced Concrete (UFC) containing waterproofing properties. We can now complete jobs with more durable deck slabs within the given time frame by adopting these deck slabs.

Structure of the precast PC deck slab (left) and the installation process (right)



### ◎ Providing information on development technologies

NEXCO East Group develops various expressway-related technologies, including snow and ice control technology and SMH technology, and offers such information through technical events and mass media. Also, we made our first attempt to provide technical information using animation at a technical event held online in FY2020.



Animation for future snow and ice technologies, [Future Image 203X]



A local report on technological development, "Snow and ice control technology in highway"

"Future Image 203X" is available on our website.  
<https://www.e-nexco.co.jp/company/brand/mov/>



## ■ Environmental measures in expressways

### ◎ Improving energy conservation and adopting lighting fixtures for high visibility

We are successfully improving the visibility inside the tunnels as well as saving energy by switching the tunnel lighting fixtures from conventional "high-pressure sodium lamps" to energy-efficient lighting such as "LED lamps." We have installed LED lamps in 303 tunnels so far, and 17 more locations were added to the list in FY2020. It is estimated that the amount of electricity saved by switching to LED lamps is about 38 million kWh per year, reducing 21,000 tons of CO<sub>2</sub> per year.



High-pressure sodium lamp



LED lamp

### ◎ Reducing the impact

#### on the living environment along our roads

We have been taking action to reduce the impact on our living environment along the expressways by installing noise barriers to reduce noise and creating buffer zones. We have so far installed approximately 1,080 km of noise barriers in total.



Noise barriers installed on the Gaikan Expressway (between Misato-Minami IC and Koya JCT)

### ◎ Planting trees to help prevent global warming

We have planted trees in a total area of approximately 3,700 hectares within expressway premises by the end of FY2020. It is estimated that around 39,000 tons of CO<sub>2</sub> are absorbed or fixed yearly by these trees. We appropriately manage green infrastructure, including these trees.



When trees were first planted.



Several years after the first planting.

### ◎ Reducing impact on the natural environment

We are engaged in green activities and conservation of biotopes with the cooperation of local people by creating eco-friendly roads and providing hands-on ecology learning opportunities.



Conservation efforts of biotopes with local high school students (Aomori-chuo IC, Aomori Expressway)



## ■ Business development overseas using our “technical capabilities and expertise”

### ◎ Operation of E-NEXCO INDIA

We opened a representative office in India in October 2009, and we have been cultivating experiences since then. Then, we founded our first overseas subsidiary, “E-NEXCO INDIA PRIVATE LIMITED (ENI),” on November 1, 2019, as our new step to take advantage of the experience we earned in India. ENI introduces technologies of NEXCO East Group to India and conducts related research. We are currently promoting to implement the “E-NEXCO Eye,” a road surface condition survey vehicle that can accurately find cracks and rutting while driving. Since the demand for advanced road surface management is increasing in India, we will help them formulate optimal repair plans and create a safe road space.

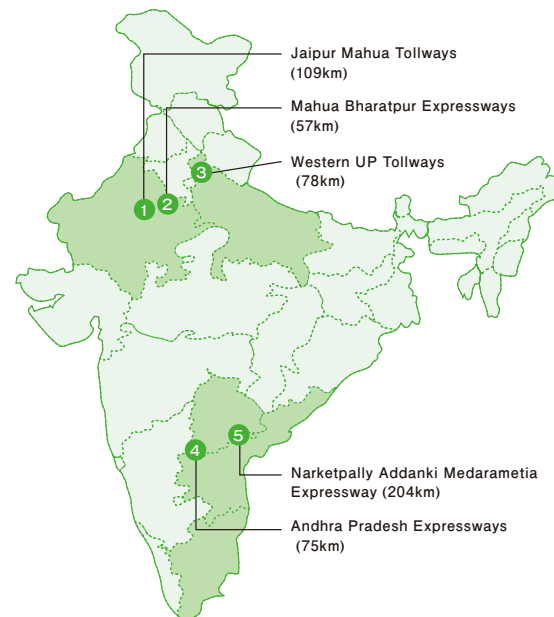


ENI currently operates with two Japanese expatriates and one local staff.



“E-NEXCO Eye” performance confirmation test

Toll road project as part of the participating toll road operation business (as of March 2021)



### ◎ Participating in overseas road operation business

Mitsubishi Corporation, Japan Overseas Infrastructure Investment Corporation for Transport & Urban Development (JOIN), Japan Expressway International Company Limited (JEXWAY), and NEXCO East joined to form Japan Highways International B.V. (JHI), a Japanese consortium of infrastructure. Now, we are taking part in the toll road operation business of Cube Highways (Cube). NEXCO East has a contract with this consortium to perform inspection work on our invested roads as a shareholder with expressway expertise. Also, we have signed a technical advisory agreement with Cube regarding rest facility business and comprehensive road maintenance management. We have contributed to smooth out and enhance India's toll road operation business by providing on-site instruction.



On-site inspection of Andhra Pradesh Expressways



On-site installation of real-time road image collection system



A local briefing for implementing technology

### ◎ Consulting projects for ODA

We provide consulting services for Official Development Assistance (ODA) using our expressway business technology and expertise.

We promoted road management capacity-building projects, such as one for sustainable mountain road development in India, collaborating with local ministries and agencies. As a result, we contributed to improving the technology and capacity of the local expressway business.



Technical guidance in developing countries



A meeting with the National Highways Authority of India

### ◎ International Cooperation

We contribute to improving the road management capacity in developing countries by dispatching long-term experts for expressway construction, maintenance, and policy support through the Japan International Cooperation Agency (JICA). We have been sending experts to India and Myanmar.

We also accept overseas trainees through JICA and the Ministry of Land, Infrastructure, Transport and Tourism.



JICA expert stationed in India (second from left)

### ◎ International exchange/conference

We engage in dialogues on road maintenance with the ASFiNAG, Austrian highway corporation, and the Ministry of Public Works and Transport of Spain as part of international exchange activities. Employees of NEXCO East and the Group companies also attend international conferences, including academic ones, such as the Japan-India Road Meeting (Japan) and the World Road Congress Abu Dhabi (UAE) held by the World Road Association (PIARC). They provide information about our Group's technologies and expertise and collect information on the world's highway technology.



At the poster presentation at the World Road Congress Abu Dhabi (UAE)



Field trip to a site for overseas engineers as part of the Civil Engineering Conference in the Asian Region (Japan)





Field trip to a construction site (Yokohama Kanjo-Minami Expressway)

## 05 For Our Society and Employees

### Fulfilling Our Social Responsibility

We support the development and life of local communities, deliver values to all stakeholders, and promote CSR management as well as health and productivity management that can improve the entire Group's corporate value through our expressway business.

We formulated the "New Medium-Term Management Plan" this March and identified the coming five years (FY2021-2025) as the "Time to Contribute to Achieve the SDGs and to Transform Toward a New Future Society" since the SDGs deadline is 2030. We will further promote CSR management that can promptly respond to social and economic conditions.

Also, we prioritize our Group employees' health to keep providing our customers with safe, secure, comfortable, and convenient expressway space 24 hours a day, seven days a week. We will also focus on health and productivity management and establish flexible working styles, including telework, staggered working hours, and online conferencing, considering the post-Covid-19.

We will strive to improve productivity by creating a comfortable work environment and contribute to achieving a sustainable society through our core business.



**Makoto Arakawa**

Managing Director and  
Managing Executive Officer/  
Director of General Affairs &  
Accounting Division

## ■ Creating Work Environment Where Each Employee Can Feel "Valued" and "Satisfied"

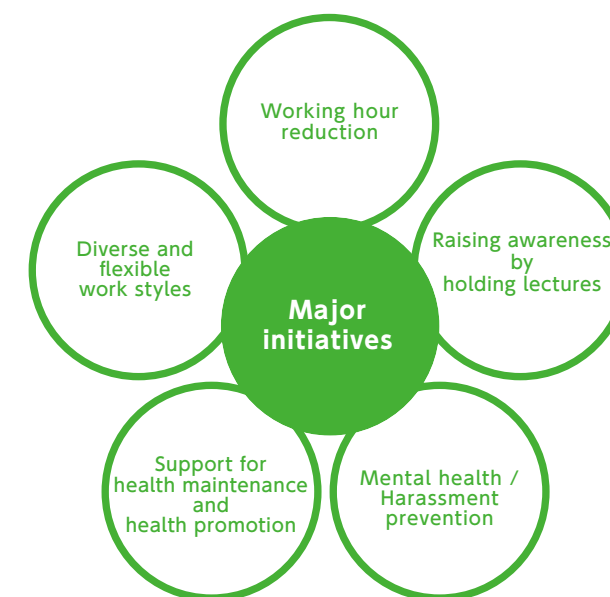
### ◎ Promoting Work-Life Balance

NEXCO East Group is striving to enhance the work-life balance of our employees by supporting their health promotion and maintenance. We hope to create a company where each member can comfortably work and feel secure and valued while living a healthy life. In addition to annual leave and special leave, we have set up the parental leave system to create a comfortable work environment for our employees to maintain a good balance between work and home.

Acquired annual paid leave  
for FY2020

Average **22.3** days/year

Total of annual paid leave, special summer leave,  
special leave for promoting reduced hours,  
and special leave for the corporate anniversary



## ■ Human Resource Development

We are engaged in various human resources training such as training without boundaries of the Group and cross-industry training in order to achieve our Group's management vision and enhance the expertise and management power of the entire Group.

Approximately 730 training programs are held yearly for the entire Group, from new employee training to position-/job-specific training. Furthermore, "NEXCO-East Technology Center for Development & Education" provides hands-on training for engineers.

These training programs are lecture-based and conducted mainly online, considering the diverse, flexible work styles and the prevention of coronavirus infections.



New employee training



Hands-on training at the Technology Center for Development & Education



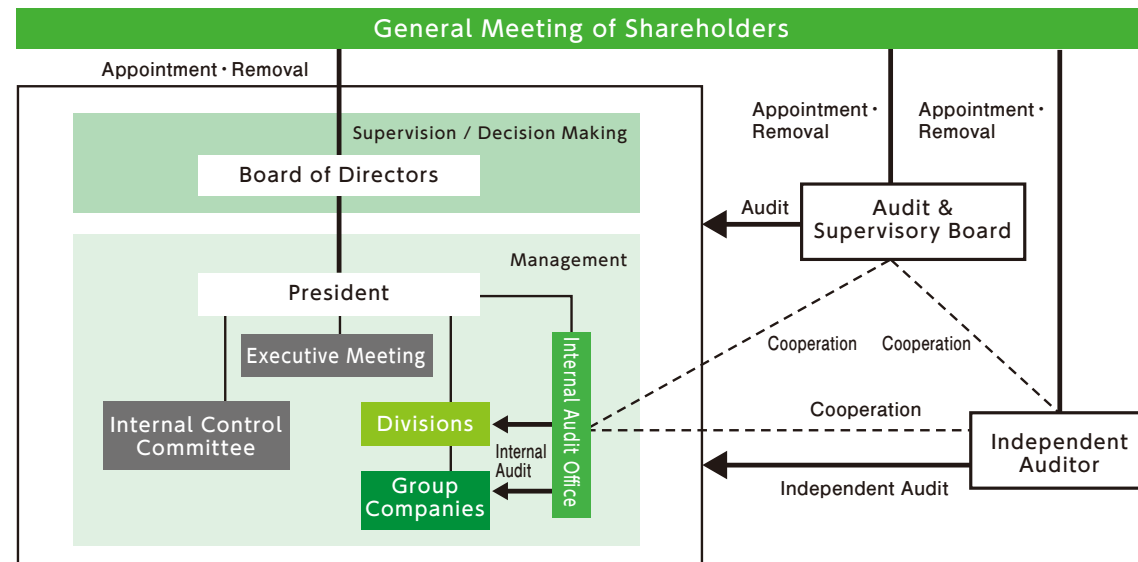
Online training session



## ■ Corporate Governance

We are establishing an internal control system consisting of an internal control committee, a compliance system (see page 69), and a risk management system (see below) for enhanced corporate governance and efficient and proper operation.

[ Corporate Governance System ]

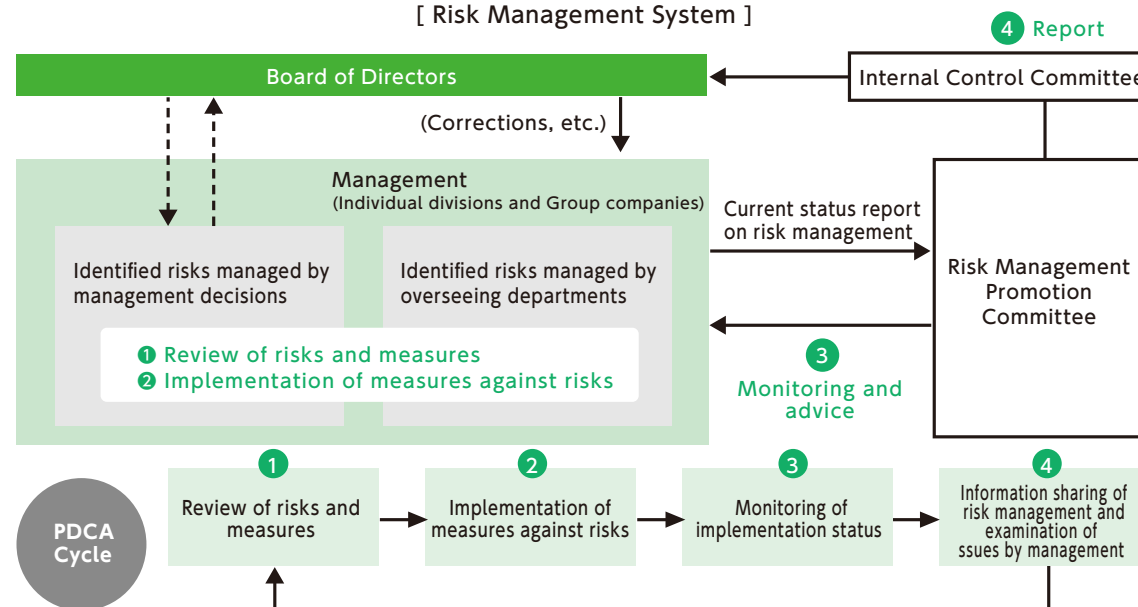


## ■ Risk Management

While each overseeing department takes measures against operational risks, we hold the board of directors meetings to deliberate over risks that could seriously impact our business. Meanwhile, the "Risk Management Promotion Committee" is formed to support the implementation of risk management based on the PDCA (Plan-Do-Check-Act) cycle.

This committee focuses on the cross-divisional matters where multiple divisions are involved, identifies the most critical risks that significantly impact management, and monitors these items as their main target.

[ Risk Management System ]



## ■ CSR Initiatives

NEXCO East Group is taking initiatives based on the idea that the Group's business activities themselves fulfill our corporate social responsibilities and contribute to the development of society. Concurrently, we are promoting "revitalization of local communities," "promotion of traffic safety," and "environmental conservation" as CSR activities that utilize expressway business.

We offer information about such efforts using various public relations tools in addition to our corporate website.

### «Expressway-Welfare Collaboration»

The "expressway-welfare collaboration (Kofuku-Renkei)" is an initiative inspired by the "agriculture-welfare collaboration." This initiative contributes to the revitalization of local communities through expressways by providing people with disabilities opportunities to play an active role in jobs, such as planting and beautifying rest areas (SA and PA). The expressway-welfare collaboration not only promotes diversity but also contributes to Goal 10 of SDGs, "Reduce inequality within and among countries."

We rolled out this project organization-wide in 2018. We are now supporting the project to become a unified CSR activity by actively promoting it with a logo and website.

### «Educational support for children»

We provide educational support for children, who will lead the next generation, about the role of expressways and traffic safety by offering field trips to expressway construction sites and road control centers and educational visits to elementary schools.

Also, we are teaching children the importance of environmental conservation through biotope conservation work and birdhouse making, hoping that we can provide an opportunity for them to acquire various knowledge and sensitivity.



Expressway-Welfare Collaboration activity (flowerbed maintenance)



### Examples of the expressway-welfare collaboration

- ◎ eautification that requires manual labor, such as mowing and weeding in rest areas
- ◎ Environment improvement such as the decoration of rest areas
- ◎ Sales of products made at welfare facilities in rest areas
- ◎ Cleaning of highway bus stops



Educational visit to an elementary school

### VOICE

We have less than ten years left before the deadline for SDGs achievement in 2030. As stated in the newly formulated mid-term management plan, we recognize it as the time to keep contributing to achieving SDGs. Our CSR Promotion Section is working to widespread internally how each Group employee's work can help achieve the SDGs so that each member can feel confident about their contribution. Simultaneously, we strive to promote CSR activities using our core business so that it will be apparent to our stakeholders to further understand and agree with our company. We will continue to appeal internally and externally about our efforts that take advantage of our Group's strengths toward a sustainable society.



**Mitsuhiro Ohara**  
General Manager of  
CSR Promotion Section,  
Public Relations & CSR Department,  
General Affairs &  
Accounting Division



Company Profile

Company Name	East Nippon Expressway Company Limited		
Location	Shin-Kasumigaseki Building, 3-3-2, Kasumigaseki, Chiyoda-ku, Tokyo 100-8979 TEL:03-3506-0111 (Service Area Business Division) MOMENTO SHIODOME 6th floor, 2-3-17, Higashishimbashi, Minato-ku, Tokyo 105-0021		
Representative	Toru Obata, President and CEO	Capital Stock	525 billion yen
Founded	October 1, 2005	Number of Employees	2,396 (as of March 31, 2021. Excluding outgoing external secondees and including incoming external secondees)
Business Objectives	To contribute to the sound development of the domestic economy and improvement of people's lives by facilitating smooth road traffic through effective construction, renovation, maintenance, repair, and other management of expressways.		
Business Description	Management and construction business of expressways, service area business, parking lot business, underpass utilization business, truck terminal business, credit card business, online business, hotel business, overseas business, etc.		

Hokkaido Regional Head Office	5-12-30, Oyachinishi, Atsubetsu-ku, Sapporo 004-8512	TEL:011-896-5211
Tohoku Regional Head Office:	JR Sendai East Gate Building, 1-1-1, Tsutsujigaoka, Miyagino-ku, Sendai 983-8477	TEL:022-395-4002
Kanto Regional Head Office	Omiya JP Building, 1-11-20, Sakuragi-cho, Omiya-ku, Saitama 330-0854	TEL:048-631-0001
Niigata Regional Head Office	Niigata PLAKA3, 1-1, Tenjin, Chuo-ku, Niigata 950-0917	TEL:025-241-5111

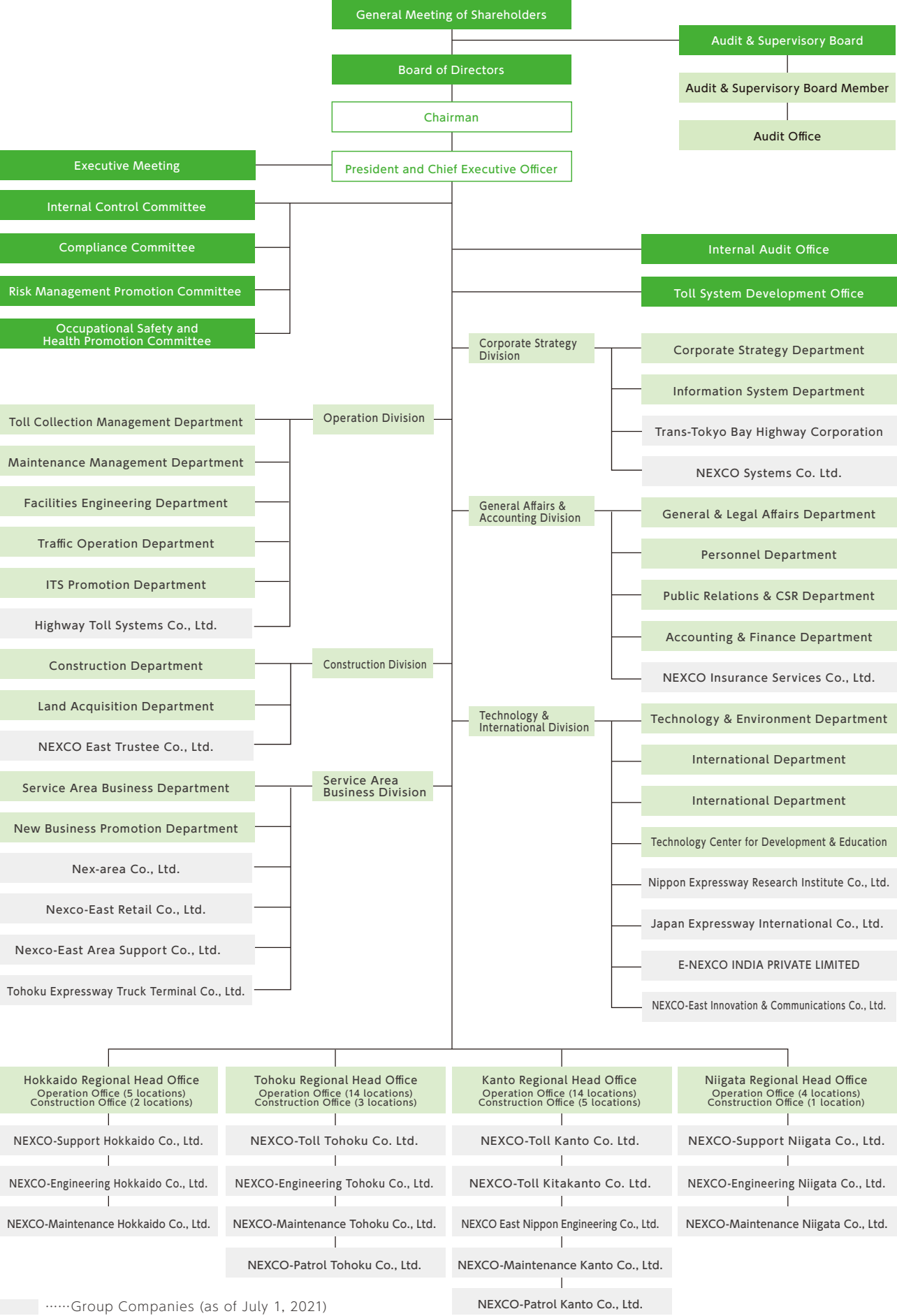
List of Executives



Executive Officers		
Senior Executive Officer	Shigeki Yagi	Director General of Tohoku Regional Head Office
Senior Executive Officer	Toru Yoshimine	Director General of Kanto Regional Head Office
Executive Officer	Yoichi Chida	Deputy Director of Operation Division/Director of Maintenance Management Department
Executive Officer	Hiroyuki Sakaue	Director of Toll System Development Office
Executive Officer	Hiroyuki Tanaka	Director of Corporate Strategy Department, Corporate Strategy Division
Executive Officer	Yutaka Shiina	Director of Personnel Department, General Affairs & Accounting Division
Executive Officer	Hideo Yoshimi	Director of Accounting & Finance Department, General Affairs & Accounting Division
Executive Officer	Kazuhiko Osanai	Director General of Hokkaido Regional Head Office
Executive Officer	Kazuyuki Mizuguchi	Director General of Niigata Regional Head Office

(As of July 1, 2021)

Organizational Chart



Expressway Operation Business  
Service Area Business  
Expressway Construction Business  
Technology Development and Overseas Business  
For Our Society and Employees  
Company Overview



List of Operating Expressways

■ Nationwide Route Network (Expressways) List of Operations

	Name of Operating Road	Total length (km)	Traffic volume (number of vehicles/day)	Toll revenue (1000 yen/day)
National Expressways	Do-O Expressway	443.5	92,854	91,860
	Shiribeshi Expressway	23.3	2,472	2,109
	Sasson Expressway	38.3	42,858	16,344
	Doto Expressway	206.1	7,921	23,737
	Tohoku Expressway	680.5	277,584	411,374
	Aomori Expressway	15.6	3,498	1,290
	Hachinohe Expressway	81.3	6,512	9,494
	Kamaishi Expressway	11.4	2,151	828
	Akita Expressway	143.6	15,869	16,713
	Yamagata Expressway	109.8	18,464	15,131
	Ban-Etsu Expressway	212.7	16,964	35,052
	Nihonkai Tohoku Expressway	91.6	20,461	10,785
	Tohoku-Chuo Expressway	51.5	8,787	5,810
	Kan-Etsu Expressway	246.3	185,591	209,589
	Joshin-Etsu Expressway	203.4	51,116	82,772
	Joban Expressway	300.4	186,027	190,882
	Tateyama Expressway	55.7	73,339	33,944
	Higashi-Kanto Expressway	92.1	166,738	100,955
	Shin-Kuko Expressway	3.9	2,470	550
	Tokyo-Gaikan Expressway	49.2	188,676	96,547
	Kita-Kanto Expressway	135.0	64,185	66,703
	Nagano Expressway	42.7	6,086	19,417
	Hokuriku Expressway	195.8	43,557	72,209
Subtotal		3,433.7	1,484,181	1,514,093
General Toll Roads	Fukagawa-Rumoi Expressway	4.4	1,643	228
	Hidaka Expressway	4.0	5,162	759
	Momoishi Expressway	6.1	5,168	688
	Yuzawa-Yokote Expressway	14.5	4,889	1,518
	Akita Sotokanjo Expressway	9.5	4,739	1,526
	Kotooka Noshiro Road	17.1	3,401	1,423
	Sendai-Hokubu Expressway	13.5	17,082	6,594
	Sanriku Expressway (Senen Road)	7.8	40,945	6,759
	Sendai-Tobu Expressway	24.8	57,486	21,249
	Sendai-Nanbu Expressway	12.9	23,168	6,959
	Tohoku-Chuo Expressway (Former Yonezawa Nan-Yo Expressway)	8.8	6,075	1,680
	Higashi-Mito Expressway	10.2	12,780	3,457
	Keiyo Expressway	36.7	269,285	64,895
	Chiba-Togane Expressway	16.1	49,263	13,842
	Tokyo-Wan-Aqua-Line Expressway	15.1	44,066	34,925
	Aqua Renraku Expressway	7.1	30,834	7,234
	Futtsu-Tateyama Expressway	19.2	13,033	5,532
	Ken-O Expressway (Metropolitan Inter-City Expressway)	216.7	187,943	157,201
	Daisan-Keihin	16.6	120,428	26,179
	Yokohama Shindo	11.3	109,646	32,343
	Yokohama-Yokosuka Expressway	36.9	97,494	48,190
Subtotal		509.3	1,104,529	443,179
Total		3,943.0	2,588,709	1,957,272

●Total length: As of April 1, 2021 ●Traffic volume and toll revenue: Data created in FY2020  
●Total traffic volume and toll revenue may not match due to rounding.

List of Expressway Construction Projects

■ New Construction

	Route	Section (including temporary names of IC and JCT)	Total length (km) <sup>*</sup>
National Expressways	Kan-Etsu Expressway Niigata Route (Tokyo-Gaikan Expressway)	Chuo JCT - Oizumi JCT	10
	Higashi-Kanto Expressway Mito Route (Higashi-Kanto Expressway)	Itako IC - Hokota IC	31
General Toll Roads	National Route 4 (Higashi-Saitama Road)	Soka-Yashio IC/JCT - Urawa-Noda Route IC	10
	National Route 468 (Ken-O Expressway)	Kamariya JCT - Totsuka IC	9
		Sakae IC/JCT - Fujisawa IC	7
		Taiei JCT - Matsuo-Yokoshiba IC	19
Total			85

■ Widening project

	Route	Section	Total length (km) *
National Expressways	Trans-Hokkaido Expressway Kuromatsunai-Kushiro Route (Doto Expressway)	Shimukappu IC - Tomamu IC	26
		Tomamu IC - Tokachi-Shimizu IC	10
	Trans-Tohoku Expressway Kamaishi-Akita Route (Akita Expressway)	Kitakami-nishi IC - Yuda IC	22
		Yuda IC - Yokote IC	15
	Trans-Tohoku Expressway Iwaki-Niigata Route (Ban-Etsu Expressway)	Aizubange IC - Nishiaizu IC	11
		Nishiaizu IC - Tsugawa IC	9
		Mikawa IC - Yasuda IC	15
	Joban Expressway	Namie IC - Minamisoma IC	2
		Soma IC - Shinchi IC	9
	National Route 6 (Sendai-Nanbu Road)	Imaizumi IC - Yamada IC	3
General Toll Roads	National Route 16 (Yokohama-Yokosuka Expressway)	Kamariya JCT - Namiki IC	4
	National Route 47 (Sendai-Hokubu Expressway)	Rihu-Shirakashidai JCT - Tomiya JCT	7
	National Route 126 (Chiba-Togane Expressway)	Togane IC/JCT - Matsuo-Yokoshiba IC	16
	National Route 127 (Futtsu-Tateyama Expressway)	Futtsu-Takeoka IC - Futtsu-Kanaya IC	3
	National Route 468 (Ken-O Expressway)	Kuki Shiraoka JCT - Taiei JCT	92
Total			243

※The total length is rounded. Therefore, the total figures may not match because of the rounding. (As of July 1, 2021)

Interchange/SA・PA

■ Interchange

Number of facilities	Interchanges	446 (As of July 1, 2021)
	Smart Interchanges	58 (As of July 1, 2021)

■ SA・PA

Number of facilities	328 SA・PA (including 198 with commercial facilities and 130 without) (As of July 1, 2021)
	151 EV Quick-Charging Stations 151 (As of July 1, 2021)
Total sales revenue of commercial	1,054 billion yen (FY2020)



# Financial Statements

## < Key Points of Consolidated Financial Reports >

### 《Consolidated Balance Sheet》

- The majority of assets are work-in-process assets of expressways prior to being transferred to the Expressway Agency. The liabilities are mostly corporate bonds and long-term debts acquired for the construction of expressway assets.

### 《Consolidated Statement of Income》

- The operating revenue consists of toll revenue from the expressway business, asset gain from newly opened expressways, and sales revenue from the rest area business. The toll revenue takes up much of income.
- The operating expenses include the lease fees for the expressway assets, management costs of expressways and other businesses, cost of sales, and selling, general and administrative expenses. The lease fees, management costs, and costs of sales account for the majority of the operating expenses.
- The operating loss for FY2020 is 5.9 billion yen, and the net loss attributable to owners of the parent company is 9.7 billion yen.

Consolidated Balance Sheet (March 2021) (Unit: 100 million yen)

Account Title	Amount	Account Title	Amount
(Assets)		(Liabilities)	
Current assets	10,073	Current liabilities	2,395
Cash and deposits	1,090	Non-current liabilities	8,811
Work-in-process expressway assets	6,212	Bonds and long-term notes payables for the construction of expressways	7,309
Other current assets	2,770	Other non-current liabilities	1,502
Non-current assets	3,461	Total liabilities	11,207
Property, plant, and equipment	2,798	(Net assets)	
Intangible assets	223	Shareholders' equity	2,444
Investments and other assets	438	Capital Stock	525
Deferred assets	14	Capital surplus	587
		Retained earnings	1,331
		Accumulated other comprehensive income	▲101
		Total net assets	2,343
Total assets	13,550	Total of liabilities and net assets	13,550

※Note: Calculations indicated on the table may not be accurate since figures are rounded down to the nearest 100 million yen.

Consolidated Statement of Income (from April 2020 to March 2021) (Unit: 100 million yen)

Account Title	Amount
Operating revenue	11,946
Operating expenses	12,005
Lease fees for expressway assets	4,809
Management costs of expressways and other businesses as well as the cost of sales	6,406
Selling, general and administrative expenses	789
Operating profit	▲59
Non-operating income	35
Non-operating expenses	2
Ordinary income	▲25
Extraordinary income	2
Extraordinary losses	11
Income before income tax and other adjustments	▲34
Income taxes	63
Net profit attributable to owners of the parent company	▲97

※Note: Calculations indicated on the table may not be accurate since figures are rounded down to the nearest 100 million yen.

## NEXCO East Websites

Corporate Website  
<https://www.e-nexco.co.jp/en/>



[Cover Photos]

The cover photo is an aerial picture of Torinoumi PA located between Yamamoto IC and Watari IC on the Joban Expressway managed by NEXCO East Group. The tsunami severely damaged this area during the Great East Japan Earthquake in March 2011; however, as you can see the strawberry greenhouses on the left, people's life is returning. This PA was established in December 2014, and then the Smart IC was added in March 2016. Also, we completed enhancing lanes to four lanes in this section in March 2021.

This photo was selected because it shows the reconstruction progress at the 10th anniversary of the earthquake as one of the places where the NEXCO East Group has been supporting the recovery.

The photo on the table of contents page shows tsunami evacuation stairs installed on the embankment between Sendai-Wakabayashi JCT and Sendai-higashi IC. Since the earthquake, we have installed tsunami evacuation stairs on the slopes of expressway embankments and have been supporting local disaster prevention drills, with the cooperation of local authorities in the coastal areas where there are no hills to evacuate in the event of a tsunami.

This photo was selected to show how we value the connection with local communities and apply what we have learned from the disaster.

We are here 24 hours a day, seven days a week to answer any questions or concerns you may have.  
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Please feel free to contact us about expressway tolls, ETC discounts, traffic information, etc.