

# Society

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## Priority commitment goals



## Related goals



## Contributing to Regional Revitalization

### Strengthening Collaboration with Communities

Through collaboration with external networks and local governments, we aim to transform stations into lifestyle platforms that connect people, things, and services, as well as to provide value for individual customers, and enhance and revitalize local communities in response to changes in lifestyles and workstyles by discovering attractive local resources and combining our unique tangible strengths with digital technology.

### Town development focused on stations in core regional cities

We are promoting town development in cooperation with local governments and communities with the aim of creating sustainable communities in a society with a declining population. At Akita Station, development around the station has been underway since 2015, and the *Hotel Metropolitan Akita North Wing* opened in 2021, with knock-on benefits for businesses in the area. Other examples of our contribution to urban development include the revitalization of central city areas through the development of Iwaki Station South Entrance in fiscal 2023, the development under the elevated railway tracks of Niigata Station in fiscal 2025, and the opening of the fully redeveloped Aomori Station East Entrance. In fiscal 2023, we aim to start operating the *Kasama Kuri Factory*, a processing facility for locally produced chestnuts, in cooperation with Kasama City and JA-Hitachi, with the goal of revitalizing the local economy in a sustainable manner.



Aomori Station East Entrance station building development



Kasama Kuri Factory



Iwaki Station South Entrance exterior



Development beneath elevated railway tracks at Niigata Station

### Hako-byun (luggage transportation service by Shinkansen and other trains)

The JR East Group offers *Hako-byun* as a service for transporting goods by Shinkansen and other trains. We carry specialty products from various regions by Shinkansen and other trains and sell the fresh produce at in-station (*ekinaka*) direct markets, thereby communicating the attractiveness of the region and promoting regional development in a way that only our Group is capable of.

In addition to transporting food products for *ekinaka* and *ekisoto* (out of station) stores, we are also engaged in transporting medical supplies and machine parts that need immediate delivery. By expanding our rail cargo transportation network, we also aim to contribute to solving social issues such as labor shortages and CO<sub>2</sub> emissions in the logistics industry.



### Ensen Marugoto Hotel

We established Ensen Marugoto Co. Ltd. on December 3, 2021.

Through this company, we aim to develop new businesses along the Ome Line, transforming existing local resources (resident guides, vacant houses, local foods, villages, and unstaffed stations, etc.) into high-value-added services with the support of local government subsidies.

This project contributes to solving regional issues (vacant houses due to depopulation and aging, declining tourism, and the need for business succession), so we are working both to gain the understanding and cooperation of the local community (local government, businesses, and residents) and to boost the image of the entire region, raising awareness through branding on our railway lines and policies to promote the use of land and assets along railways.



Ensen Marugoto Hotel business

Community activities

### Proposing well-being and new ways of working

To establish new ways of working that are not restricted by time and place, we are developing work environments such as *STATION WORK* and Shinkansen office projects that utilize our railway network and business locations. We are also promoting “workation”\*\* projects that contribute to corporate human resource management and the enhancement of corporate and individual well-being.

In addition to providing other companies with opportunities to experience such programs and support with introducing them, and promoting collaboration with various local content, we are also expanding efforts within the Company as part of our commitment to offering our employees flexible workstyles.

Through these efforts, we aim to increase the expansion of workations, thereby contributing to regional development by revitalizing mobility, increasing the number of participants, in workations and stimulating tourism demand.

\* Telecommuting from vacation-like settings



Completely private *STATION BOOTH* workspaces



Workation in a resort area

### Housing business

To promote the development of railway lines that offer attractive living environments, we are working on housing development, with a focus on rental housing. In fiscal 2022 we started operations with View Lieto Shinkoiwa proposal-type rental housing in city centers, equipped with lounges where people can telecommute and offering plazas allowing households with children to rear their children and support their interaction with others. We aim to provide living spaces as well as spaces that enable various lifestyles. In addition, we are constructing rental condominiums for single adults—mainly students and newly graduated

workers—at the west and east entrance of Morioka Station as regional development rental condominiums to promote immigration, settlement of the younger generation, and revitalization of the city centre.

We will continue to promote the project as an essential menu item for realizing the “proposal of new lifestyles (creation of diverse and attractive communities)” as stated in Speed Up “Move Up” 2027, and aim to develop 3,800 units by the end of fiscal 2026.



View Lieto Shinkoiwa



Morioka Station East Entrance Rural apartments for rent

### Beyond Stations concept

We are looking to transform railway stations from transportation hubs to lifestyle platforms. We are transforming the layout and functions of station spaces, starting from the richness of people's lives, and connecting with the lives of customers and people living along our railway lines by expanding the scope of *JRE POINT*.

As part of our efforts to create links with the community, we opened a hybrid clinic that combines in-person and online services, offering lifestyles that transcend the customer's physical location, as a measure to provide “smart health” services at our station. We also opened the *JRE Station College*, a learning center for developing leaders who can identify issues and create sustainable businesses, that uses stations, which are regional hubs, as a “campus”.

In the area of creating digital platforms that connect to the lives of our customers, we have established a world-class content center with the virtual recreation of the station and streets of Akihabara. The opening of *Virtual AKIBA World*, a space that creates connections with people in both the real and virtual worlds, as a “metaverse station” where people can experience the station and the streets of Akihabara from their smartphones, is also part of the Group's strategy of seeing things through our customers' eyes. The Group has also promoted the full-scale development of *JRE Passport*, a subscription service for all *Suica* customers to use mainly at *ekinaka* outlets and other stores.



Smart health station



JRE Station College



Virtual AKIBA World



JRE Passport



Society

Takanawa Gateway City

In the urban development of Takanawa Gateway City, under the development concept of Global Gateway we are taking steps to enrich the lifestyles of people from different generations, as an experimental playground where we create ways to lead a fulfilled life a century into the future.

In 2021, we promoted the *Hop Community Activity* by growing hops, which are also an ingredient of beer, and *Green Slow Mobility* aimed at solving local transportation issues and encouraging interaction and cooperation with the local community. Going forward, we will continue to build further relationships and foster a sense of unity with businesses, schools, and residents in the surrounding area.



Green Slow Mobility

Development of large-scale terminal stations and multi-function urban areas

In the development of large-scale terminal stations, we not only seek to improve the convenience and comfort of the stations, but also to redevelop the areas surrounding the stations in close cooperation with local governments and community residents. Aiming to enhance the value of the area, we promote development that integrates the station and the local area.

In Shinjuku Station Southwest Gate Area, we are working to create a multi-layered pedestrian network connecting the station and the city, foster the tourism industry, and develop facilities for information dissemination, in line with the reorganization and improvement of Shinjuku Station.

In *MEGURO MARC* between Gotanda and Meguro stations, *JR MEGURO MARC BUILDING* was completed to create a city environment where people of various generations can work and live safely in spaces in plazas surrounded by lush greenery.



Shinjuku Station Southwest Gate Area



MEGURO MARC (From left to right: JR MEGURO MARC BUILDING [office building], rental housing building, and condominium building)

Employee Voices



Business Promotion Division  
Lifestyle Creation & Community Vitalization  
Department  
Marketing Headquarters

JRE MALL: Fusion of real and digital (EC)

The *JRE MALL* celebrated its fourth anniversary in March 2022. Key elements of the Group's digital strategy center on *JRE POINT*, and we are continuously expanding the services on offer, such as *JRE MALL Furusato Nozei\** and *Ekitoma Ticket* in addition to regular e-commerce (EC).

*JRE MALL Cafe*, an interactive showroom store where customers can see and sample the food products on sale at *JRE MALL*, opened at Yokohama Station in November 2021.

We will further expand *JRE MALL* to create a "real x digital life-style", including a demonstration test of merchandise deliveries at station ticket gates and lockers.

\* Japan's Furusato Nozei hometown tax system allows people to make donations to a municipality or prefecture of their choice in exchange for local products, handicrafts, or tour packages.



JRE MALL Cafe event

Tohoku DC achievements and connections to the future

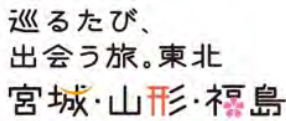
The *Tohoku Destination Campaign (Tohoku DC)*, which ran from April 2021 to September 2021, created a showcase highlighting Tohoku's attractions from each of the region's prefectures. Communicating these attractions widely both in Japan and abroad, the campaign promoted the Tohoku brand to tourists, and increased the flow of visitors to the area.

In order to promote excursions to Tohoku's attractions, we implemented digital stamp rallies, operated sightseeing trains, developed secondary transportation, and combined digital and real-life information dissemination.

Using the experience we gained during the *Tohoku DC*, we will continue to promote the area as a destination, and increase visitor numbers in fiscal 2023 through tourism campaigns in the South Tohoku and North Tohoku regions.



Tohoku DC (from April to September 2021)



South Tohoku campaign (from April to June 2022)

Employee Voices



Development & Strategy Division  
Community Development Coordination  
Department  
Marketing Headquarters

#Tohoku Six-Prefecture Eki-connect Project

We launched the *#Tohoku Six Prefecture Eki-connect Project* based on our sense of the need for collaboration among sites beyond the branch offices in preparation for the *Tohoku DC*.

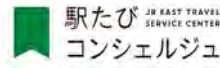
At first the initiative started as a joint project among the three branches of Sendai, Morioka, and Akita, taking advantage of existing connections between colleagues. Later, it grew into a large community of more than 300 people, using the in-house bulletin board to invite staff in other locations to participate.

By connecting people and organizations across branches, systems, and companies, many projects were born to enliven Tohoku. I feel that these connections will continue to be used in various situations in the future as part of *Tohoku DC*'s legacy.



Posters created for the #Tohoku Six Prefecture Eki connect Project

Ekitabi Concierge



JR East *Ekitabi Concierge*, which provides a wide range of tourist information at stations, was opened at various locations in the East Japan area

from March 2021, with a total of 25 outlets opened as of April 1, 2022 (Tokyo, Hamamatsucho\*, Haneda Airport, Shinagawa, Shibuya, Shinjuku [East Exit and New South Gate], Ikebukuro, Ueno, Kashiwa, Kawasaki, Yokohama, Tachikawa, Omiya, Funabashi, Narita Airport, Airport Terminal 2; Fukushima; Sendai; Yamagata; Morioka; Aomori; Akita; Niigata; and Nagano).

Through events and seminars, we provide customers with real-time information on seasonal sightseeing in the East Japan area. From June 2022, in addition to *EkiTabi Concierge*, we have been offering customers a richer everyday life connected to the region and local areas through such campaigns as *Seasonal Shop "Have you eaten this yet?"* and by opening *STATION BOOTH* facilities and *EkiTabi* markets.

\* As of April 1, 2022, the Hamamatsucho branch is temporarily closed.



Seminar in Omiya

Issuing Sustainability Bonds

The proceeds of sustainability bonds are used to finance projects that contribute to solving environmental and social problems.

We have been issuing sustainability bonds every year. We issued our third sustainability bond in January 2022. The funds raised through the issuance of the sustainability bonds will be used to refurbish wards and other facilities at JR Tokyo General Hospital and for our *KAWASAKI DELTA* development.

The 1st and 2nd Sustainability Bonds received the Bronze Award for two consecutive years at the ESG Finance Awards Japan (Fund Procurement Category) organized by the Ministry of the Environment, for their contribution to the expansion of ESG finance.





Society

Restoring Sections Where Disasters Caused Long-Term Suspension of Operations

Sections of the line that were suspended for long periods of time as a result of the Great East Japan Earthquake and torrential rains in July 2011 have now been restored, not only as a means of transportation but also as a means of regional revitalization. The Company has continued to foster closer relationships in the region after the restoration of operations.

Recovering from the Great East Japan Earthquake

With the understanding and cooperation of local communities we managed to restore approximately 400 kilometers of Pacific Coast railway lines that were severely damaged by the 2011 tsunami, starting with the sections where safety could be assured. By March 2020, all sections were back in operation

Since the resumption of full operations, we have been working to revitalize the affected areas and the entire Tohoku region as part of the second stage of reconstruction.

We are working to make Kesennuma Line BRT\* and Ofunato Line BRT more convenient, by linking them with highway buses to improve

access to Sendai, enabling boarding of BRT vehicles at roadside stations, building or relocating stations based on requests from people living or working along the lines, and by constructing dedicated roads. We are also working to revitalize the area through tourism in cooperation with the local community.

In the Joban Line area, which includes the difficult-to-restore areas within a 20 km radius of the Fukushima Daiichi Nuclear Power Plant, we are also striving to increase the interaction and the number of visitors by promoting tourism through, for example, the *Joban Line First Anniversary Campaign*, and the showcasing of local specialty products—transported using the Hitachi limited express train service—at our *Marché* retail markets.

\* Bus rapid transit

Status of the Tadami Line (between Aizu Kawaguchi and Tadami) which was damaged by the Niigata-Fukushima torrential rains in July 2011

In response to requests from Fukushima Prefecture and local governments along the railway line, we reached an agreement with Fukushima Prefecture in June 2017 to restore the railway by separating infrastructure and operation; normal operations are due to resume in October 2022.

Promoting Diversity

Promotion of Human Resources Diversity

We are working to improve the systems and environment within the company and to raise awareness of the importance of human resources diversity. In order for all employees to develop and demonstrate their individual strengths, we are making various efforts to create a diverse organization and a flexible corporate culture. For details, please refer to Nurturing Employee Diversity on page 101.

Empowering women and General Business Owner Action Plan

Since our inception we have been doing all we can to promote the activities of female employees by creating an environment in which women can work comfortably, recognizing that it is common for employees in the railway business to work irregular hours. We employ women in every area of the Company and their average length of employment is increasing. Under our First General Business Owner Action Plan, which covered the five years starting in 2014, we championed the employment of women, supported them with childcare and continued employment, and encouraged their promotion to more senior positions. In fiscal 2020, we implemented a revised Second General Business Owner Action Plan, which continues our initiatives to promote the employment of women, lengthen their average years of service, strengthen childcare-support measures, and encourage their promotion to more senior positions.

Setting goals to promote women in the workplace

- Aim for at least 30% of new graduate employees to be women
- Promote the establishment of women's facilities in workplaces and create an environment in which women can actively participate at all workplaces
- Improve the convenience of on-site daycare centers at workplaces and give ample support to employees who are working while engaged in childcare or nursing care
- Accommodate a range of workstyles and create an environment in which all employees can happily continue to work for the Company
- Have women fill at least 10% of management positions

Initiatives to promote understanding of LGBTQ+ employees

work with Pride



We recognize members of the LGBTQ+ community as an important part of diversity and consider it our duty to create a comfortable work environment for LGBTQ+ employees that is free from discrimination. Thus far, we have

expanded the scope of our human resources and benefits systems to include same-sex partners. We have also implemented training and seminars on LGBTQ+ inclusivity for executives and all Group employees. In addition, in 2017 we added a section on the importance of understanding LGBTQ+ employees to our Compliance Action Plan Handbook. We strive to educate all employees on these issues every year. Further, for five consecutive years the Company has received a Gold rating (the highest) on the PRIDE Index, which evaluates companies' LGBTQ+ initiatives.

Promoting diversity: Key indicators

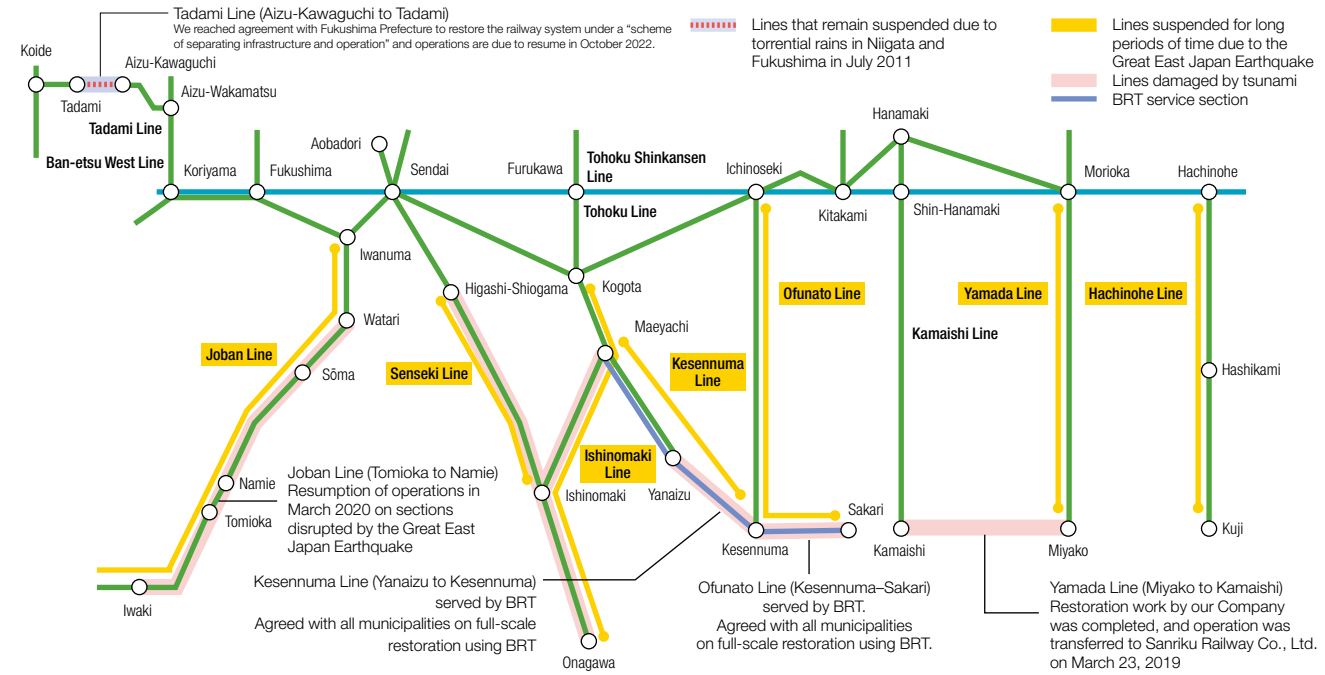
Indicators of Employee Activity

	Fiscal 2021 (as of April 1, 2020)	Fiscal 2022 (as of April 1, 2021)	Fiscal 2023 (as of April 1, 2022)
Number of employees	51,560	49,780	48,040
Male	43,226	41,175	39,400
Female	8,334	8,605	8,640
Ratio of women to total employees	16.20%	17.30%	18.00%
Ratio of women to managers	6.3%	7.2%	8.2%
Average age	38.9	38.5	39.3
Male	40.2	39.7	40.5
Female	32.2	32.7	34.4
Average years of employment	17.0	16.3	17.2
Male	18.4	17.6	18.4
Female	9.5	10.0	11.8
Turnover rate (excluding mandatory retirement)	1.10%	1.54%	—
Employment rate of persons with disabilities (non-consolidated, as of June 1)	2.58%	2.59%	2.63%

Indicators Related to Childcare Leave

	Fiscal 2020	Fiscal 2021	Fiscal 2022
Childcare leave (newly taken)	739	766	774
Male	221	316	418
Female	518	450	356
Percentage of male employees taking childcare leave	12.20%	18.70%	24.0%
Percentage of male employees taking spousal maternity leave	72.60%	68.80%	68.6%

Restoration Status as of April 2022



Boarding Kesennuma Line BRT at Oyakaigan Station



Hamakaido Gourmet Ride to commemorate the first anniversary of the resumption of operation of the Joban Line



Tadami Line restoration work (No. 7 Tadami River Bridge)



Society

Contributing to Education and Culture

Realizing an inclusive society

Since many of our customers use our services, we are working proactively with them to realize an inclusive society in which everyone can play an active role, regardless of disability.

Support for parasports

We are promoting efforts to deepen understanding of an inclusive society by playing and supporting boccia and other sports for people with disabilities. In August 2020, we established a Gold Partner agreement with the Japan Boccia Association to support athletes by providing training facilities and conducting other activities to promote the sport.



Cooperation with the Prosthetics and Orthotics Support Center of the Japan Railway Workers' Association

We are working with the Prosthetics and Orthotics Support Center to deepen employee understanding of disabilities through a range of events including opportunities to experience what it is like to have a prosthetic leg.



Human rights awareness

We have established a human rights awareness promotion committee at head office, which is working to improve employees' understanding of human rights. In addition, we are striving to establish an inclusive workplace environment for everyone.

Concrete measures

- Implementing human rights seminars and study conferences
- Implementing measures to increase consideration of human rights (company reports, creation of a human rights awareness slogan)
- Exchanging information with other corporate members of the Industrial Federation for Human Rights, Tokyo Corporate Correspondence Society to increase mutual awareness

Company Sports Initiatives

Company sports teams such as the JR East Baseball Team (Tokyo), the JR East Tohoku Baseball Team (Miyagi), the JR East Running Team (Tokyo), the JR East Women's Judo Team (Tokyo), and the JR East Akita Basketball Team (Akita) are active in their respective regions and contribute to their communities by organizing initiatives such as sports classes for local elementary schools.



JR East Women's Judo Team



JR East Baseball Team



JR East Running Team



JR East Akita Basketball Team



JR East Tohoku Baseball Team



Junior Kendo Tournament organized by JR East

Contributing to Community Medical Care

As a contribution to regional medical care, we are strengthening emergency medical services by encouraging the admission of patients to our Community Comprehensive Care Unit and the Recovery and Rehabilitation Unit, which provide convalescent care in cooperation with other hospitals.

We provide safe, high-quality medical care that meets the needs of patients in the community by offering unique features not found in other hospitals, such as orthopedic surgery, lymphatic surgery, and a wide range of physiotherapy.

In addition, JR Tokyo General Hospital is reconstructing its wards and other facilities, which are scheduled for partial completion in fiscal 2025. We are making ongoing efforts to earn the trust of residents and become their hospital of choice.

As a response to the spread of COVID-19, we are working with the government to provide medical treatment, hospitalization, and other care for those suspected of being infected with the virus, as well as vaccination services.

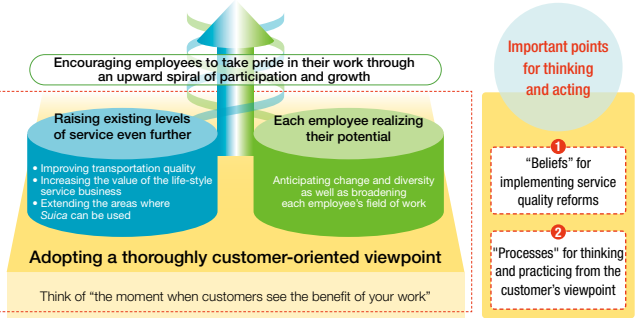


Service Quality and Transportation Services

Raising the Level of Safe and Reliable Transportation

Since its establishment, the JR East Group has been striving to rehabilitate and revitalize its railway services. Through the concerted efforts of all Group employees to reform transportation and service quality, the number of operating accidents on our railways has halved since the Group was established, and we have made progress in expanding our railway network, including Shinkansen lines. In order to continue to meet customer expectations and contribute to society as a trusted corporate group, we will achieve service quality reforms by encouraging every employee to "think and act" from a customer perspective, based on our Vision for Service Quality Reforms 2027.

Realizing "Move Up" 2027



Vision for Service Quality Reforms 2027

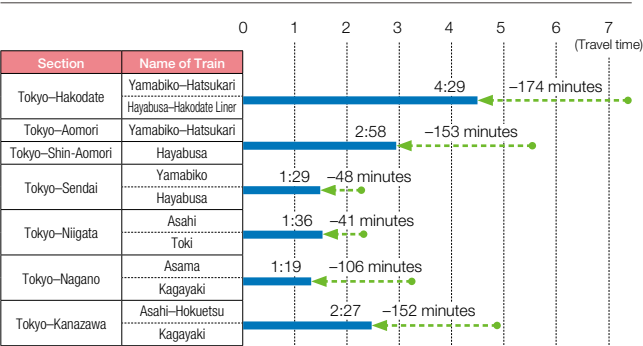
Expanding the rail network and aiming for sustainable railways

Compared to 1987, when the company was established, the Shinkansen network has expanded and train performance has improved, resulting in shorter journey times and greater convenience for our customers. As we advance, we will continue to shorten travel times and shorten the distance between Tokyo and the regions by improving facilities and introducing new trains, thereby making an even more significant impact on regional economies.

In addition, in March 2022, we reviewed our transportation system, including the number of trains operated during morning commuting times and the number of express trains, in response to changes in customer behavior triggered by the COVID-19 pandemic.

Specifically, we have established a transportation system that allows for flexible train scheduling, such as reducing the number of trains with low rates of usage while maintaining a certain level of frequency on Shinkansen and priority trains, and increasing the number of trains depending on the recovery of rates of usage and reservation levels. For regular trains on conventional lines, we are striving for sustainable railway business operations by establishing an efficient transportation system that reduces the number of trains in response to usage conditions, including during commuting hours, shortens train formation in some line sections, and converts to driver-only operation, while taking care not to cause excessive congestion.

Changes in Travel Times (Compared with 1987)



\* Tokyo to Hakodate segment's top line shows time required after schedules were revised in March 1988 (when the Seikan Tunnel was opened)  
\* The shortened time between Tokyo and Hakodate is as a result of the time saved by high speed travel through the Seikan Tunnel.

Tackling the COVID-19 pandemic

The JR East Group takes measures to ensure that customers can use railways with peace of mind, in accordance with the government's Guidelines for Railway Operators to Prevent the Spread of COVID-19.

In addition to regular disinfection and sterilization at stations and the wearing of masks by staff, train interiors are disinfected and sterilized, and train windows are opened for ventilation.

Moreover, our JR East App provides information on congestion, and we are working on providing reserved seats with more space between seats, seat selection using seat maps, and clarifying the language on signs displayed on the floors of train carriages.

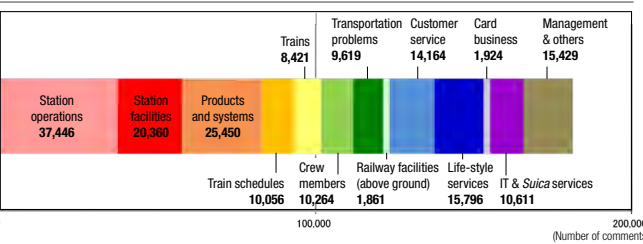
Constant Attention to Passenger Comments

Collecting and analyzing customer opinions

We collect and analyze customer opinions on a daily basis to understand the concerns and frustrations of our customers, and we respond to them promptly.

Customer opinions collected through various channels, including the internet and telephone, as well as those that employees receive directly from customers, are promptly shared and analyzed in the company-wide database system, New Green Information System, and used to improve our services and reevaluate our Company policies.

Itemized Breakdown of Passenger Comments in FY2022 (Total Number of Comments: 181,401)



\* The number of comments differs from the number of passengers, as some passengers make multiple comments.



Society

Using social media

One way in which we learn about passengers' needs is through the feedback they provide directly to us. We also recognize the need to actively gather and analyze passenger feedback from a range of other sources. To this end, we foster communications with customers through our official Facebook and Twitter pages. We proactively send out information about various measures and campaigns, while working to understand customer needs and opinions through "Like!" responses and other customer postings.



Managing Transportation Services

Five main tasks

In the field of railway transportation services, which forms the core of our business, we are working on five priority areas that include preventing transportation disruptions and creating a comfortable environment for customers. All employees of the Group are striving together to enhance the quality of our transportation services.



Preventing Transportation Disruptions

We are working to prevent transportation problems by focusing on and analyzing the causes of such problems, identifying priority issues that need to be addressed, and taking action to prevent disruptions.

Rolling stock

- Introduction of new rolling stock, such as the Series E235, with enhanced reliability though backup systems for major equipment
- Upgrading of rolling stock equipment
- Promotion of condition-based maintenance (CBM) using monitoring data
- Simplification and integration of electrical facilities (simple overhead wire configuration)

Other

- As part of our suicide prevention efforts, our employees call out to people at stations. We have also been using former employees to patrol stations, and using station displays and social media to publicize counseling services.
- To prevent collisions between animals and trains, we have been spraying animal repellents around railways and introducing repellent devices using laser light and sound.

Minimizing the Effects of Disruptions on Customers

We make our customers our top priority and seek to minimize the impact of any incident on them by considering the best way to resume operations as quickly as possible.

Prompt resumption of train operations after transportation disruptions and customer rescue initiatives

To minimize the impact on passengers, we try to turn trains back before they enter a disrupted section or operate other routes wherever possible. In addition, through training and other means, we continue to improve our ability to respond to customer needs after a transportation disruption occurs.

Furthermore, when trains are stopped between stations, we are working to rescue and transport customers using all options available, including not only buses and cabs but also commercial and maintenance vehicles.



Exit guide drill



Passenger rescue using maintenance vehicles

Providing Information during Emergencies

Seeing things from a customer point of view, we provide information to help people make quick, appropriate decisions about transportation

Information enhancement

We share details about train operation and other useful information with our customers through various media.

Guidance displays in emergency situations, LCD displays in trains

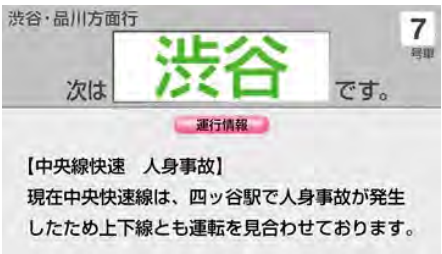
In addition to providing information on services in the event of transportation disruptions, such as suspended operations, we also provide passengers with details of other lines to which they can transfer (available in Japanese, English, Chinese, and Korean).



Large LCD guidance display on platform



Detail of LCD guidance display for emergency situation



LCD display in train

Our website

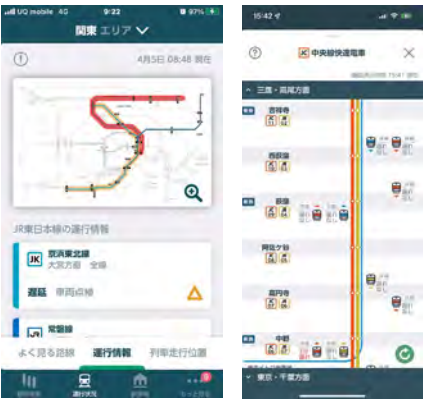
We provide information on operation and suspension of Shinkansen trains and limited express trains on conventional lines in the event of transportation disruptions, etc. on our website (available in Japanese, English, Chinese, and Korean).

DOKOTORE website

This website provides information on train delays and the location of trains (available in Japanese and English), especially in regional areas.

JR East App

You can use this app to check the operation status of each line in the event of a transportation disruption (available in Japanese only).



Screen image of JR East App operation status

Location of trains

Social media

Providing information via Twitter (Japanese, English) and Weibo

We provide real-time information on the status of damage caused by natural disasters, and we also provide information on operations and operation plans on these social media platforms.



JR East official Twitter account

Announcement of train service resumption times during disruptions

We aim to announce the anticipated time at which operations should resume within about 30 minutes of the occurrence of a transportation disruption, and within 15 minutes in the case of accidents resulting in casualties. The announcement rate meeting this criteria was 94% in fiscal 2022. We will continue to provide information promptly to help customers make decisions on their next moves.

Planned suspension of operations

Planned suspensions are implemented to minimize damage and transportation disruptions by adjusting the number of trains in operation in advance, when weather conditions and other factors are expected to have a significant impact on passengers due to prolonged suspensions or major delays.

In the case of typhoons, we make comprehensive assessments of a typhoon's path and magnitude, and provide information to customers and employees from an early stage using a variety of media (internet, social media, etc.) to help them decide what to do.

Once inspections and restoration work are completed, we review the specific operation resumption plan and announce the operation schedule to customers.



Society

Notice of special arrangements and initiatives concerning train operations

JR East has been making efforts to ensure that our customers can use our trains with peace of mind in terms of both hardware and other aspects of our services, including responses to natural disasters and emergencies such as strong winds, typhoons, and heavy snowfall that can significantly affect train operations, and through various campaigns calling for consideration of others when using our trains. We have created the JR East Naruhodo Q&A Guide and posted it on our website to inform as many customers as possible of these efforts.

For your safety and comfort

- Emergency (SOS button, door emergency opening devices, railway crossing, platform emergency button, etc.)
- Consideration for others (priority seating and free space, talking to and supporting others, walking while using a smartphone)



<https://www.jreast.co.jp/saferelief/operationguide/>

Efforts to address natural disasters

- Our approach to addressing wind, rain, typhoons, snow, earthquakes, and volcanic eruptions

Initiatives for safe and stable transportation

- Addressing transportation disruptions (turnaround operation, separate line operation, transfer operation, etc.)
- Providing information (various information provision tools such as JR East App)

Providing Customer Services that Cater Precisely to Customers' Needs

We are striving to further improve the mindsets and skills of the entire Group by accurately understanding the kinds of situations that develop, how our customers react, and how to respond appropriately.

Assistance and Support campaign

To help realize an inclusive society, we are working with transportation companies and organizations for people with disabilities throughout Japan. Initiatives include approaching all customers, including those with disabilities, who need assistance, and requesting the cooperation of all customers using our rail services.

In fiscal 2022, a drive to strengthen the Assistance and Support campaign was conducted in collaboration with 83 company bureaus and seven organizations. We intend to take the lead in creating an environment where all customers can live safely and with peace of mind by nurturing a culture that supports customers in need throughout society.



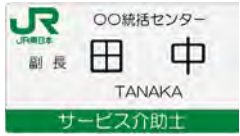
Assistance and Support campaign

Improving passenger service

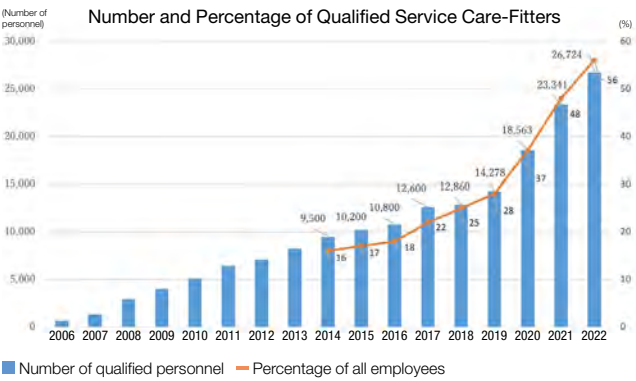
We use the Green Handbook, which sets out the concepts necessary for our Company's services and the basics of hospitality required of employees, at workplace study sessions aimed at enhancing passenger service among all employees.

Acquiring service care-fitter qualifications

We encourage our staff to acquire qualifications aligned with the "spirit of hospitality and assistance skills" to enhance customer care and ensure that people can use our services with peace of mind. As of the end of March 2022, more than 26,700 employees had acquired the certification.



The name badges of qualified employees include the title of service care-fitter.



Employee Voices



Hachinohe Office  
JR Morioka Railway Service Co., Ltd.

Our hospitality

We are actively working to create a comfortable environment for a wide variety of customers by improving flooring, providing braille blocks, installing information displays, etc., and sharing examples of good practices in the Voice and Support campaign, based on our customers' expectations and satisfaction.

We also worked together with members of the JR East Group and the people of Hachinohe City to ensure that customers could enjoy their Tohoku trip with a smile, by cleaning up the Kabushima coastline, decorating Hachinohe Station, and putting up a welcoming *TOHOKU EMOTION* sign with a big fishing flag.

We will continue to provide a clean and comfortable station and always welcome our customers with a smile.

Realizing Railway Services Passengers Can Use Comfortably

By accurately understanding changing social trends, laws, and customer needs, we are working to create an environment in which all customers can use our services comfortably and without stress.

On the initiative of our employees working in the field, we have created a model that provides services taking the perspective of each and every community member and customer.

We are also working together with local residents and customers to further improve the accessibility of our facilities and to expand the scope of inclusivity through "barrier-free mindset".

App to alert personnel to passengers boarding and disembarking from trains

We have developed an app to automatically notify stations and railcar attendants when passengers in wheelchairs request assistance with boarding and disembarking from trains. We introduced the system on the Nambu Line in March 2020, the Keiyo Line in November 2020, and on the Yamanote Line in March 2021. We plan to expand the app's coverage, mainly in the Tokyo metropolitan area, in order to reduce customer waiting times and to provide more reliable assistance.



App to alert personnel to passengers boarding and disembarking from trains

Barrier-free stations

**Eliminating steps by installing elevators and other equipment**  
JR East has been working with local governments and other entities to install equipment at stations in accordance with the New Barrier-Free Law (the Act on Promotion of Smooth Transportation, etc. of Elderly Persons, Disabled Persons, etc.). As of the end of March 2022, we had completed the installation of equipment in 485 stations.

Upgrading environments for people in wheelchairs



Comb-shaped sections

To narrow the gap between station platforms and railcar doors, we are installing platform doors equipped with slopes that lift up when trains arrive. To reduce the gap between the train and the platform, comb-shaped materials have been installed at each end of the platforms (two per platform) at some stations on the Yamanote Line, the Keihin-Tohoku/Negishi Line, the Chuo-Sobu Local Line, and the Joban Local Line. At some stations on the Yamanote, Keihin-Tohoku/Negishi, and the Joban Local lines, we are reducing wait times at train stations for customers who prefer to get off the train unaided by eliminating the need to contact stations where they will disembark.

Barrier-free railcars

In order to provide a safe and comfortable ride for wheelchair and baby carriage users, we have added priority seating in every carriage of the new Series E235 commuter trains, introduced on the Yamanote Line and the Sobu-Yokosuka Rapid Line, and in the new Series E131, introduced on the Sagami Line.

Since July 2021, we have also been steadily increasing the number of Series E7 trains with wheelchair-accessible free spaces on the Hokuriku Shinkansen. Multipurpose rooms and large toilets for handle-type electric wheelchairs have been installed in newly-built Narita Express Series E259 and later limited express trains and newly-built Shinkansen Series E5 and later trains.

We have also installed multi-purpose rooms and large toilets with improved handles for electric wheelchairs in the new Series E259 limited express trains and post-E5 series Shinkansen trains.



Series E7 Shinkansen free space for wheelchairs



Series E7 Shinkansen large toilet

Assisting Wheelchair Users with Boarding and Disembarking from Trains

At some stations in the Sendai, Miyagi, Fukushima, Yamagata, and Nagano areas, where there are no station attendants or where attendants are only available during certain hours, the driver or conductor will use a portable slope to help passengers get on and off the train. We will continue to deepen our relationship with customers and local communities, and contribute to the realization of safer and more comfortable railways and an inclusive society through continuous improvements.

Employee Voices



Kogota Transportation Depot  
Sendai Branch Office

Working closely with customers to overcome accessibility challenges

When we assist wheelchair users with boarding and disembarking from trains at unstaffed stations, it sometimes takes time to coordinate. We launched this project with the idea that we, the train crew, could help the passengers ourselves. Since then, all crew members have been training on a regular basis to improve our response skills.

We will continue to realize an inclusive society and improve the quality of our services by engaging in improvement activities, valuing daily insights and customer feedback.

Society

Opportunities to learn together with customers with disabilities and the community

Employees in front-line offices are working to enhance their customer service skills from a wide range of customer perspectives. Together with schools for special needs education and local communities, we conduct training on how to use the equipment on platforms and safely board and disembark from trains. Through these opportunities, we are working together with a “barrier-free mindset” to create an environment that reduces the anxiety of all customers and makes our railways more accessible to them.



Students from a school for the blind participate in railway disaster drills.



Sign language study sessions by employees who are deaf or hard of hearing

Employee Voices



Chiba Branch Office, Oami Station

Aiming to be a station loved by and connected to the community

Our goal is to be a station that is loved by and connected to the local community. We think about what we can do for the community and put our ideas into practice step by step. While exploring how we could help our community, we found out that Oamishirasato City is trying to assist people with dementia.

All station employees have taken a dementia supporter training course sponsored by the City, and they share their knowledge with peers at other workplaces and Group companies in the area to improve our ability to respond to customers with dementia who need assistance. We will continue to work toward the realization of an inclusive society in cooperation with the local community.

Implementing measures to reduce congestion in morning commuter rush hours

We have implemented a range of initiatives to spread out our customers’ boarding times and encourage off-peak commuting. Congestion is one of the main causes of delays during morning commuting, so station employees and train crews, who are in daily contact with customers,



Queuing lines on the platform



Information poster for the first train (Musashi-Urawa Station)

take the lead in keeping customers informed of congestion trends by updating train and car numbers on posters at stations in some line sections. At particularly congested stations, staff ensure smooth customer flow using designated queuing areas and no-stopping zones. We also use our off-peak commuting campaign posters to encourage people to travel at different times.

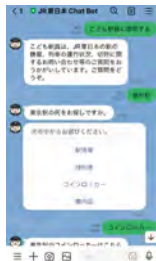
System for responding to inquiries

Our contact center fields several thousand inquiries each day. We strive to respond to queries promptly and accurately and use regular call monitoring and evaluation to help us to improve the quality of our responses.

As part of our efforts to enhance passenger convenience, the *JR East ChatBot* is accessible through our official LINE account to respond to inquiries on variety of matters.



Lost Property Chat Bot fields inquiries about lost property



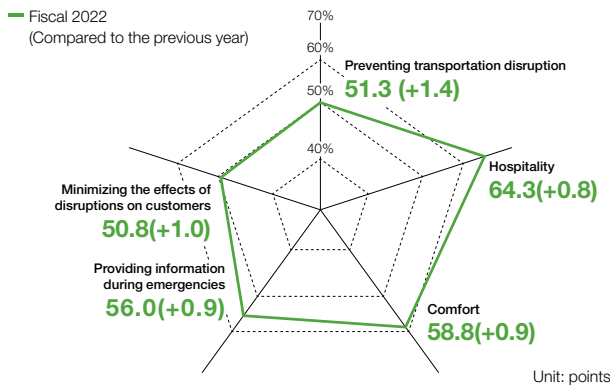
The Child Station Crew Q&A fields queries about congestion and various other services

Confirming Results and Making Improvements

Identifying issues and using service quality diagnosis to confirm the effectiveness of measures

In order to further improve our service quality, we conduct an annual service quality assessment to provide a quantitative evaluation of the current status of our transportation services and customer satisfaction.

We conducted an internet-based survey of approximately 10,000 customers on the five priority items of preventing transportation disruption, minimizing the effects of disruptions on customers, providing information during emergencies, comfort, and hospitality, and in fiscal 2022, our scores for all items improved from the previous year. By disclosing the details of the service quality assessment results to all employees, we are able to grasp our strengths and weaknesses in each area, as well as changes in customer needs. Many frontline employees are using the results to implement new initiatives and improvements in order to continue to meet customer expectations.



IT & Suica Services

IT & Suica Services

*Suica* celebrated its 20th anniversary on November 18, 2021. As of April 1, 2022, *Suica* can be used in 840 stations in our service area. It can also be used at approximately 5,000 stations nationwide, including those of other companies.

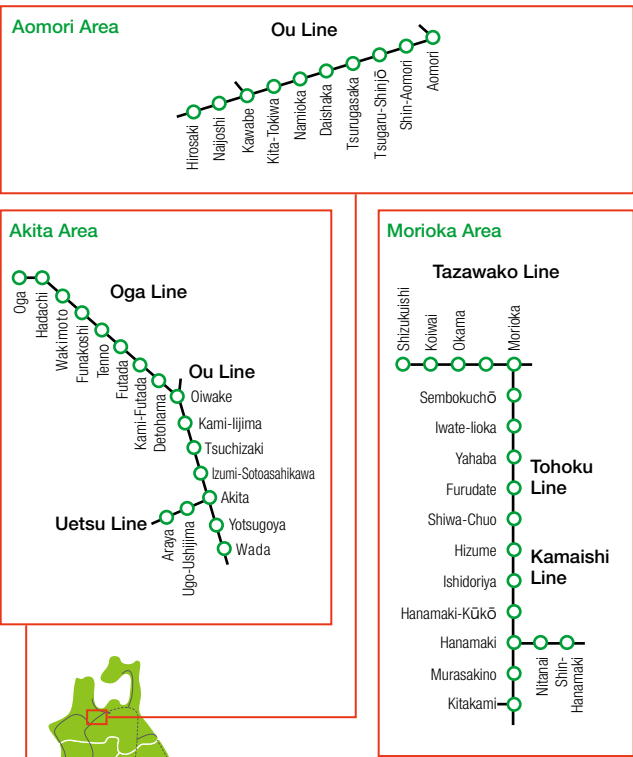


We collaborate with other transportation operators throughout Japan, including companies outside the Group, to enhance passenger convenience and promote the use of *Suica*. We also cultivate member stores where *Suica* can be used as e-money, helping to encourage the transformation to a cashless society.

Expansion of *Suica* service area into three northern Tohoku prefectures

In order to improve convenience for our customers, we will expand the areas where *Suica* can be used to lines in Aomori, Iwate and Akita prefectures from spring 2023. In this expansion, we plan to use a new ticketing system that integrates the functions of ticket gates into a central server.

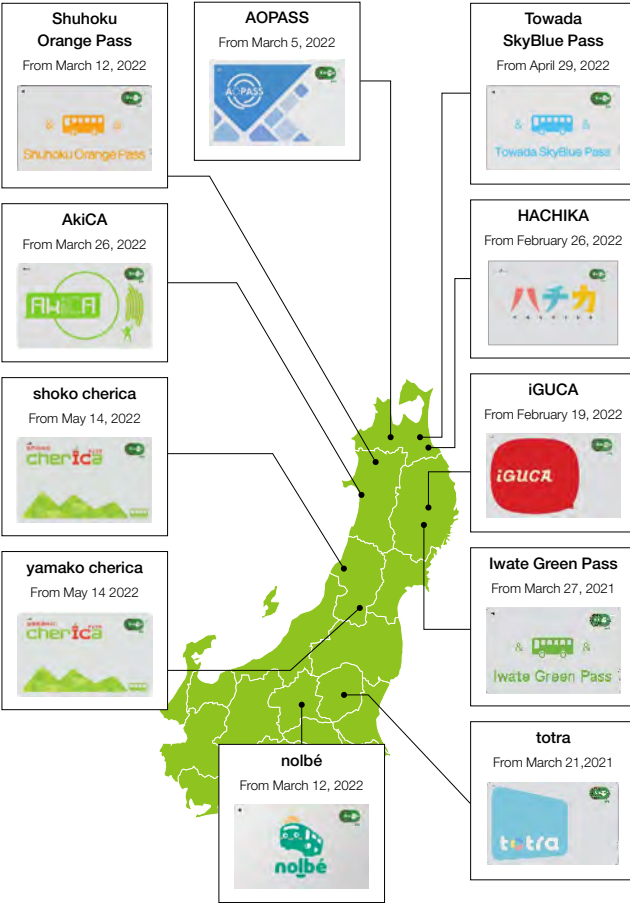
Suica Service Area



Multi-function card for regional transit

We developed regional collaboration IC cards for regional transit, that make region-specific and *Suica* services available in a single card.

The service was launched in the Utsunomiya and Morioka areas in March 2021. We plan to expand the service to other regional transportation operators in the East Japan area.



Mobile *Suica* for even greater convenience

More than 17 million *Suica* have been issued on *Mobile Suica*. We are working in partnership with other companies to improve user experiences, such as new top-up options for the *Mobile Suica* platform. These include links to other companies’ payment methods, such as the au PAY application provided by KDDI Corporation, to provide more convenient usage options. In addition, new functions have been added to the application to meet customer needs, such as the issuance of IC transit passes and online commuter pass applications, enhancing convenience and ease of use.





Society

JRE POINT

JRE POINT, the Group's shared loyalty points program, has more than 12.5 million members and represents an important customer base for the Group.

Through Groupwide campaigns, such as promoting the use of accumulated points within the Group, we are implementing various measures to achieve a virtuous cycle of point accumulation and use, thereby promoting customer usage of the products and services of the entire Group and enhancing its attractiveness.

Employee Voices



Data-Driven Marketing Division  
Strategies & Business Platform Department  
Marketing Headquarters

Promoting data marketing

In addition to the data related to *Suica*, *JRE POINT*, and *ViewCard*, various data within the Group is analyzed and used for marketing and promoting the Group. We take care to handle the data in accordance with applicable laws and regulations and rules.

In addition, we have begun providing analysis reports outside the Company, created by statistically processing *Suica* data for the purpose of community development and other regional revitalization initiatives. For example, from December 2020, we provided this service to Fujisawa City for the study of tourism promotion measures. And from May 2022, we began selling *Eki Karte* analysis reports, standardized reports that give due consideration to privacy so that they can be widely used.

We also provide a corporate service that streamlines the administrative processes of corporate travel expense reimbursement procedures by providing the *Suica* usage history of consenting employees.

Expanding the network of Suica member stores

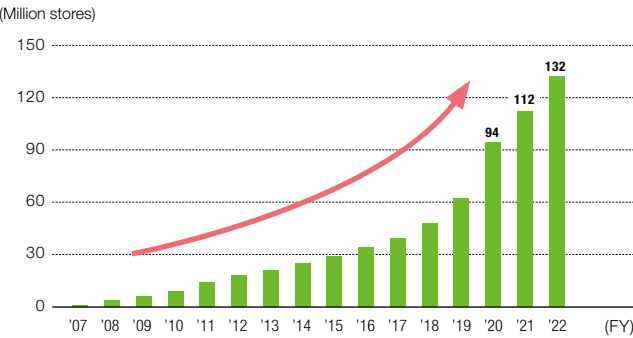
The number of stores where *Suica* can be used is increasing not only among *ekinaka* outlets (shops inside stations) but also at in-town stores.

Stores where the *Suica* cards can be used:  
Approximately 1.32 million stores  
(including approximately: 460 thousand *Suica* member stores)

In addition, we focused on developing member stores that accept *Suica* e-money not only in the Tokyo metropolitan area but also in regional areas, such as developing member stores in the Tohoku area in conjunction with *Tohoku DC* and the service launch of regionally linked IC card services.

We also promoted the development of e-money member stores through the direct sales activities of our frontline employees, who regularly engage in community-based activities.

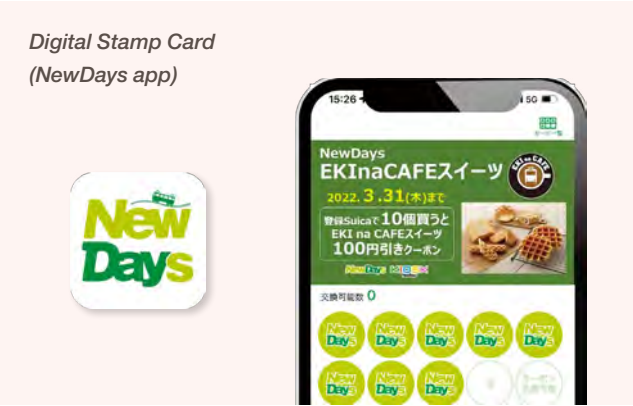
Number of Stores where Suica E-Money is Accepted



Further expansion of Suica usage with authentication function

The *Suica* authentication function verifies users using a unique number (*Suica* ID) assigned to each *Suica*. *Suica* is used for office access, shared cycle keys, digital stamps, and other applications by matching the pre-registered *Suica* ID with the *Suica* ID read at the time of service use.

Going forward, we intend to expand the service into various areas beyond the railway system by linking it with internal and external services and systems.



Evolving eki-net

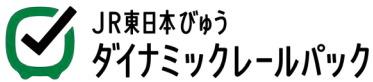
On June 27, 2021, *eki-net* underwent a major upgrade to improve convenience by overhauling the ticket booking application process, offering new services using *JRE POINT*, and expanding payment methods. In addition, from March 29, 2022, we launched a service that allows users to transition to *eki-net* while retaining their search information on Google Maps, in order to further improve convenience. In fiscal 2023 and beyond, we will continue to expand and improve our service functions to make it easier for customers to use our website.



Renewal of JR East View Dynamic Rail Pack

On March 1, 2022, we released the new *JR East View Dynamic Rail Pack (New DP)*. *New DP* offers customers a variety of travel options by providing easy-to-understand and simple reservation operations and screen transitions, as well as train and accommodation prices that fluctuate according to supply and demand.

From December 2022, we plan to sell day trip products and inn only plans.



Further promotion of ticketless boarding

In the Shinkansen business, we have been offering the Osakini-Tokudane discount on Green Cars on the Yamagata and Akita Shinkansen since March 2022. Furthermore as part of the Shinkansen Year 2022 campaign, the number of *JRE POINT Reward Ticket* redemption points has been reduced to less than half of the usual number during the campaign period to further expand the use of ticketless travel on the Shinkansen.

In the case of limited express services on conventional lines, we will further expand ticketless travel by, for example, offering highly discounted ticketless limited express tickets for the Boso Limited Express and Narita Express services.



Employee Voices



Marketing Department  
Chiba Branch Office

Aiming to increase uptake of stress-free ticketless rides



We have been promoting the use of ticketless express tickets as a stress-free way to board the train, allowing passengers to make reservations from their smartphones and other devices right up to the time of boarding. With the added benefit of reducing the chance of passenger contact amid the COVID-19 pandemic, we are further promoting the use of ticketless express tickets as a tool for safer and more secure rail travel.

In addition to improving transportation services by increasing the number of sections where the Boso Limited Express *eki-net* Tokudane (ticketless limited express ticket) is available for purchase and by increasing the number of Narita Express stops, we are working to quickly promote ticketless boarding by offering a limited-time *JRE POINT* reward campaign to create opportunities for customers to try ticketless boarding and encourage them to continue to use it.



Society

Promoting MaaS

With Mobility as a Service (MaaS), we are building *Mobility Linkage Platform (MLP)* to provide customers with all-in-one information, purchasing, and payment for mobility, aiming to offer seamless mobility, reduce total transport time, and support stress-free travel.

JR East App

With the *JR East App*, we have started to collaborate with other railway companies on a real-time route search function that also considers other options for optimal travel for customers, including buses, airplanes, and walking. In addition, we have expanded the provision of real-time train congestion information to major lines in the Tokyo metropolitan area.



Route search result

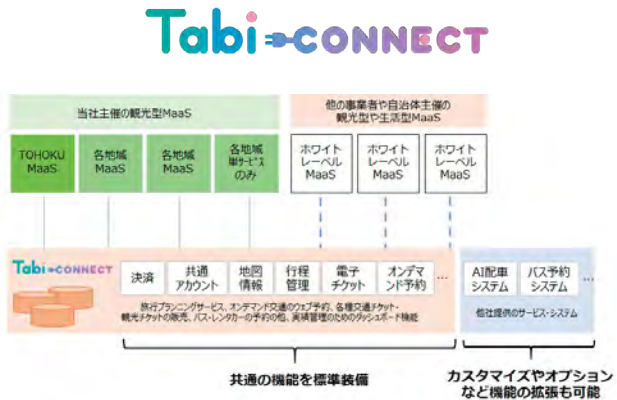
Ringo Pass

We have increased the number of cabs linked to *Ringo Pass*, an app which integrates the procedures for using various mobility services into a single system. Furthermore, through collaboration with HELLO CYCLING and DOCOMO BIKESHARE, *Ringo Pass* users now have access to approximately 40,000 shared bicycles.



Tabi-CONNECT

In November 2021, *Tabi-CONNECT*, which brings together common functions of regional and tourism-oriented MaaS from *MLP* in a single package and can be provided to external organizations, began operation. Using the experience gained from pilot projects conducted to date, *Tabi-CONNECT* allows the developers of new services to select necessary functions and customize content, shortening the preparation period until a service is launched and thereby reducing costs.



Tabi-CONNECT provides a package of common functions

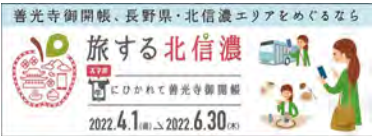
Regional and tourism-oriented MaaS initiatives

The regional and tourism-oriented MaaS *Kaiyu Karuizawa* was implemented from January to March 2022 as part of a comprehensive collaboration with SEIBU HOLDINGS INC. The *Yobunoru Karuizawa* on-demand transport system and electronic tickets (for transportation, food and beverages, merchandise sales, etc.) made the service convenient not only for tourists but also for local residents.



Vehicles operated by Yobunoru Karuizawa

The regional and tourism-oriented MaaS *Tabisuru Kitashinano* was implemented in conjunction with the Zenkoji Temple's *Gokaicho* (temple-opening ceremony) from April to June 2022. Based on the idea of a Nagano branch office employee, it was the first MaaS project to be realized as a joint effort by a field office, branch office, and headquarters.



Employee Voices



Marketing Department  
Akita Branch Office

On-demand transport Yobunoru Kakunodate in operation

The on-demand transport service, which we have been operating in different areas since the *Tohoku DC* in 2021 as part of *TOHOKU MaaS*, is a new mobility service that can be used not only as secondary transportation for customers visiting tourist destinations by Shinkansen, but also for local residents for shopping, hospital visits, and other purposes.

As a new initiative, in May 2022, we began the *Yobunoru Kakunodate* on-demand transport service, which is operated jointly with Senboku City in Akita Prefecture. Going forward, we will continue to work with local governments and other partners in the region on joint operations and expansion into more places.



Overseas Business

Developing our Business on the World Stage

We aim to establish a business model for international business that can deploy the JR East Group's high-quality, highly efficient railway infrastructure system with the combined strength of not only the Transportation services business but also the Life-style services business.

We also focus on human resource development through the challenge of overseas projects, and return the technical skills and insights we have gained through our international business both domestically and internationally. We will continue to conduct sustainable management and provide more affluent lifestyles on the world stage.

Supporting the Indian High Speed Rail Project

JR East provides support in inter-governmental negotiations, while Japan International Consultants for Transportation Co., Ltd. (JIC) prepares the detailed design documents, bidding documents, and training program and materials for National High Speed Rail Corporation Limited (NHSRCL) core staff.

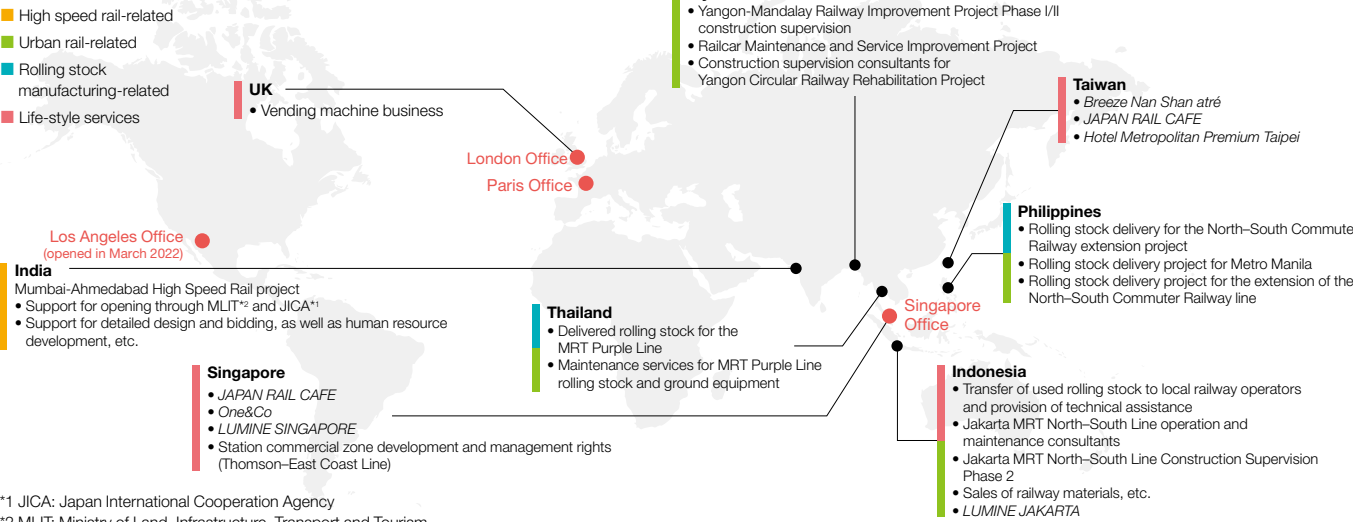


Image of Indian High Speed Rail Project (courtesy of JICA\*)



Viaduct construction site

JR East Overseas Offices and International Railway Projects



\*1 JICA: Japan International Cooperation Agency  
\*2 MLIT: Ministry of Land, Infrastructure, Transport and Tourism

Participation in the MRT Purple Line Project

The JR East Group provided rolling stock for the MRT Purple Line, an urban railway in Bangkok, Thailand, that opened in August 2016. Maintenance services for rolling stock and ground facilities are provided by Japan Transportation Technology (Thailand) Co., Ltd., a local affiliate established by JR East in conjunction with corporations Marubeni and Toshiba, contributing to reliable railway services for Bangkok on par with those in Japan.



Technical support for railway operators overseas

In response to a request from an Indonesian railway operator, we transferred a total of 812 cars of Series 205 rolling stock to the operator from 2013 to 2020, and have been providing a range of technical support in such areas as rolling stock maintenance, crew skills improvement, and service quality enhancement. Due to the influence of the Covid-19 pandemic, we provided three training sessions online—safety training, Series 205 light maintenance, and heavy maintenance.



Series 205 trains transferred from Japan in service in Jakarta



Online heavy maintenance training



Video training at the Omiya General Rolling Stock Center

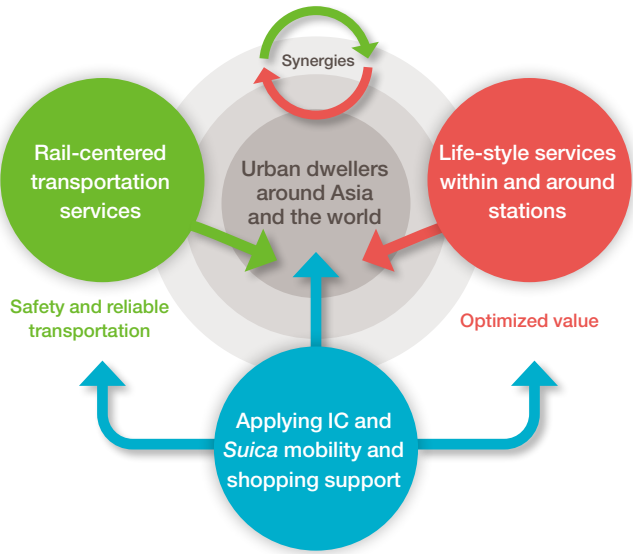


Society

New business undertakings

Through the challenge of overseas projects, the JR East Group is nurturing new talent and constantly honing its technology for the future. This new technology and expertise can in turn benefit domestic initiatives as well. With careful risk management, we are raising up a business model for our international operations that combines and integrates the Group's strengths and will remain sustainable over the long term. In so doing, our hope is to make a worthwhile contribution to the lifestyles of people around the world, particularly in Asia.

JR East Group Business Concept



Developing life-style services business overseas

The JR East Group is using the expertise and experience it has gained in Japan to promote business overseas.

In Taiwan, the *Hotel Metropolitan Premier Taipei* opened in August 2021, the first overseas opening of a hotel by our Group. In addition to welcoming visitors to Taiwan from Japan, the hotel provides Taiwanese guests with the opportunity to experience high-quality Japanese hospitality, thereby contributing to the expansion of our hotel business revenues.

In Singapore, the company is promoting the development of a commercial zone inside a station on the Thomson–East Coast Line. This is the first attempt by a Japanese railway company to develop *eki-naka* stores on an overseas railway line, and it will contribute to the development of railway lines by enhancing convenience for railway users.



Hotel Metropolitan Premier Taipei



Thomson–East Coast Line eki-naka development

Employee Voices



HRD and O&M Support Division  
Indian HSR Project Support Department  
International Affairs Headquarters

Human resource development and O&M initiatives

The division to which I belong is engaged in supporting the development of human resources responsible for the operation and maintenance (O&M) of Indian high-speed railways. This year, we are planning a training program in Japan for 13 people in charge of building the O&M system, and I am responsible for preparing programs and educational materials on the subject of track maintenance and coordinating with the places that have requested training. We haven't offered a long-term training program for supervisor-level foreign nationals before, so we need to create a suitable program that also takes into account differences in language and culture. We are responsible for implementing the training program and will help to promote it.



Global Business Risk Management Group  
International Affairs Headquarters

Improving international business skills

Our division is responsible for identifying risks in advance for each international business project and examining countermeasures.

In order for the JR East Group to raise the level and speed of its transformation and improve the profitability of its international business, each and every employee involved in each business must hone their sensitivity to risk and control it more systematically than ever before.

To this end, we are currently creating educational materials and planning training programs that will enable a wide range of employees to learn about the risks of international business, regardless of their workplaces or area of work, with the aim of developing risk-sensitive global human resources. We will continue to promote this initiative and contribute to improving the profitability of our international business.

Contributing to global society through international cooperation and institutions

In fiscal 2020, a total of 630 people from overseas railway companies from about 40 countries visited our company's facilities. By receiving these visitors and having discussions with them, we helped build mutual understanding. We also actively gather and disseminate information through international conferences and events coordinated by organizations that we are members of, such as the International Union of Railways (UIC) and the International Association of Public Transport (UITP).



Observing Shinkansen under maintenance



Online conference (UITP Asia-Pacific regional board meeting)

Human resource development

We provide overseas on-the-job training programs (OJT) in which employees from Japan receive guidance from local experts and take part in actual work for about three months to enhance their knowledge, experience, and technical skills.

In fiscal 2022, we established a new online course for helping build overseas business and language skills, providing a knowledge base for our employees located abroad and further developing our international human resources.

We will continue to develop human resources who can work on overseas projects on an ongoing basis, using online training as well as study abroad and overseas training.



OJT at the Singapore Office



Online meetings for OJT students

Activities for international standardization

In the overseas projects in which our Group has participated to date, we have faced various challenges due to differences in technical specifications between Japan and overseas, including the need to comply with international and European standards. To resolve these issues, and with the aim of facilitating our overseas business development, we are working with the national government and related organizations to incorporate Japanese technology into international and industry standards related to railways, or to make Japanese technology partially compatible with international standards. We will continue to promote the international diffusion of Japanese railway technologies and expand business opportunities for our Group's overseas business through our strategic efforts in international standardization.



Developing international railway personnel

As one aspect of ESG-oriented management, we are working to develop international railway personnel. We have launched the JR East Technical Intern Training program, based on a technical internship system. The first batch of 11 trainees came to Japan from Vietnam and spent about three years at the Omiya General Rolling Stock Center and JR East Rail Car Technology & Maintenance CO., Ltd learning how to maintain air-conditioning equipment and bogie wheelsets. After completing their training course in March 2022, they returned to their home country. Two new Vietnamese trainees arrived in Japan in May 2022 and are currently undergoing similar training at the Koriyama General Rolling Stock Center and JR East Rail Car Technology & Maintenance Co. Ltd. In the future, we intend to expand the fields of training and the countries from which we accept trainees to contribute to the sustainable economic development of the Asian region.



OJT trainee at the Omiya General Rolling Stock Center during practical training



Opening ceremony for second group of trainees at the Koriyama General Rolling Stock Center



Society

Promoting Innovation

Technical Innovation

The Group’s medium- and long-term vision for technical innovation, as formulated in November 2016, is to accelerate research and development activities for the creation of new value based on artificial intelligence (AI) from data gathered through business activities of the entire Group in four key areas—Safety and Security, Services and Marketing, Operations and Maintenance, and Energy and the Environment.

Development of next-generation Shinkansen trains

The ALFA-X train was launched as a testing platform in May 2019, running mainly on the Tohoku Shinkansen between Sendai and Shin-Aomori.

In fiscal 2022 , we undertook tests to assess the impact of the high-speed operation on ground facilities, and to confirm various aspects of development, including environmental impact and braking performance.

Introduction of robots

The Mobility Innovations Consortium was formed in 2017 as a forum for fostering mobility through open innovation. Membership includes more than 140 companies and organizations, including Japanese and overseas manufacturers and research institutes. The consortium is conducting various pilot projects, some involving the use of robots. As part of these activities, Takanawa Gateway Station, which opened in March 2020, features state-of-the-art station services. Robots provide guidance using AI, and autonomous mobile security and cleaning robots have been deployed on a trial basis. We have also introduced AI-based guide robots at four stations in the Tohoku region and at Kaihimmakuhari Station [in Chiba Prefecture].



AI-based guidance robot at Takanawa Gateway Station

Challenge of automated driving

JR East is conducting test runs on Series E235 rolling stock on the Yamanote Line to develop a high-performance ATO\* for driverless operation. We have also been conducting ATO tests using Series E7 Shinkansen cars. In fiscal 2022, we conducted demonstration tests of automatic operation of a train circulating between Niigata Station and Niigata Shinkansen Rolling Stock Center.

\* ATO: Automatic train operation



Demonstration test of automatic operation of a detour train

Practical application of BRT automated driving

In preparation for the realization of bus rapid transit (BRT) automated driving, we conducted driving tests from April to September 2021. In September, we held a test-ride event for automated driving, where local residents experienced automated driving at 60 km/h and an automated stopping test assuming the entry of people on a dedicated road, etc. The test was well received.



Bus rapid transit (BRT) bus



Automated stopping test assuming the entry of people into a dedicated BRT road

Realization of smart maintenance

JR East is drawing up plans to optimize spending on maintenance management by transitioning to condition-based maintenance (CBM), which is based on equipment degradation forecasts and breakdown predictions. We have, to date, focused on periodic inspections for managing maintenance of rolling stock and aboveground equipment that supports railway operations.



Confirmation of monitoring data

By proactively using technological innovation for situational awareness, our maintenance engineers focus on the evaluation duties to raise safety and quality to higher levels.

Examples of CBM

<b>Rolling stock</b>	The status of major equipment is monitored to identify signs of failure and for reviewing inspection methods.
<b>Track</b>	We collect data on track displacement (slight distortion and/or gap of track width) and track materials (rail fastening devices), etc., and use it for prediction of track displacement, confirmation of the material condition, planning support, etc.
<b>Electricity</b>	We collect data on abrasion of trolley wires (wearing of wires caused by friction) etc. and use the data for wear prediction and factor analysis.

In order to achieve smart maintenance, we are installing monitoring devices on commercial trains to observe the status of railway equipment, tracks, and electric power facilities.

For Series E235 rolling stock, which has railcar equipment with condition monitoring functions installed, JR East has taken a new approach to maintenance—the utilization of condition monitoring data.

Since June 2018, some scheduled inspections have been replaced with mid-operation data-driven functional verifications. In addition, some rolling stock allows for the accumulation of condition monitoring data, which is analyzed to gain insights about the degradation of equipment and to predict serviceable life, and we are looking into the use of such data for future maintenance.

We had installed monitoring equipment on approximately 6,500 km of railway tracks, or about 70% of the tracks in our service area, on a total of 50 lines. By acquiring monitoring data, we are able to carry out preventive maintenance, including implementing timely repairs.



Track equipment monitoring systems (conventional lines)



The SMART-i dedicated maintenance railcar with Shinkansen track equipment monitoring systems for Shinkansen Lines has been introduced on a trial basis.

Realization of smart project management

We will promote the improvement of workstyles at construction sites by conducting demonstration tests. Initiatives include using digital twin technology to reproduce a construction site in a virtual space through images and data acquired on-site, and utilizing 5G, which offers high-speed and large-capacity communications, to transmit the data so that quality confirmation and other operations can be performed in real time at offices and other off-site locations.

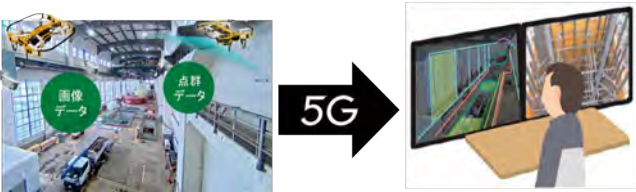


Image of remote construction supervision using 5G and digital twin technology

Use of Joi-Tab tablet computers

We began deploying Joi-Tabs (tablet computers) in fiscal 2015 to improve customer services, business operations, and education and training. We currently have approximately 68,500 terminals in use by all employees, including those who do not have PCs at work.



Using a Joi-Tab at a work site

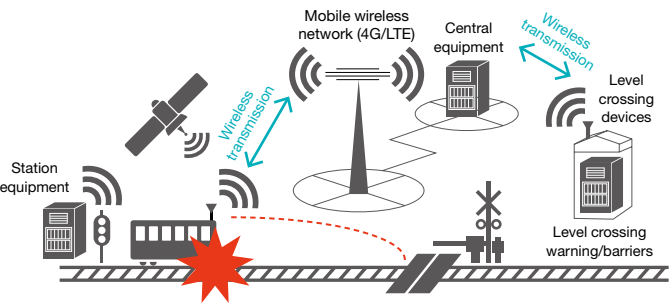
As Joi-Tabs have become more widespread, they are being applied as a human resource development tool that fosters autonomy, with employees themselves devising creative and ingenious ways of using them, and they have become indispensable as web conferencing tools for both internal and external use. In the future, we will position Joi-Connect365 as a core device for total communication, including for employees who are away from our business offices on childcare leave or for other reasons, to enhance job satisfaction for our employees.

GNSS wireless railway crossing control system

We are developing a new GNSS wireless level crossing control system for deployment on local lines. The system uses satellite positioning technology to determine the location of a train, and utilizes mobile communication networks to transmit data between the train and the wayside equipment to provide level crossing warnings and control train speed.

We have been developing and testing level crossing warning control functions, and will continue to develop and test wireless automatic train stop systems (ATS) to further simplify the wayside equipment.

This system is expected to improve safety and streamline level crossing equipment including cables for information transmission, thereby reducing equipment maintenance costs.



Employee Voices



Sendai Transportation Depot  
Sendai Branch Office

Accelerating digital transformation through collaboration between railway operations facilities and planning departments

The JR East Group is promoting initiatives to improve the level of safe and reliable transportation using the latest technology.

The Sendai Transport District, where I work, collaborated with the Innovation Strategy Headquarters to develop technology for an application to support crew members in their driving duties.

By including IT companies outside the company in the system and sharing roles through agile development, we were able to complete the application just three months after being set the task.

Since then, we have continued to enhance its functions from the user’s point of view, and we are now using this application in our work. We will continue to develop this approach not only in our own workplace but also across the Company, in order to improve the level of safe and reliable transportation in the Group and to further reform our operations utilizing data.