Cooperation with customers and communities to ensure safety

To ensure the safe use of stations and trains, we are implementing various measures so that our customers and people in communities can press emergency stop buttons when they sense danger.

Platform zero accident campaign

27 railway companies are jointly conducting platform zero accident campaigns to alert customers to avoid coming into contact with trains or falling on to tracks at platforms. Additionally, the campaigns aim to ask customers to push emergency stop buttons when they sense danger.



Platform zero accident campaign



2 7 r a i l w a y companies are jointly implementing a campaign to prevent dashing on to a departing train to raise awareness among passengers that it is dangerous, and asking them to push an emergency train stop button when they notice danger.



Campaign to prevent dashing onto a departing train

Level crossing zero accident campaigns

We ask our customers and neighboring communities for cooperation in the safe use of level crossings, through awareness increase activities with local police stations and by posting campaign posters at stations and showing TV and radio commercials.



Putting up posters and distributing campaign items with information at stations

Utilization of simulators for platforms and level crossings

We are offering opportunities for our customers to try pushing emergency stop buttons that can be found on platforms and at level crossings. Platform simulators are located at stations and local events, while level crossing simulators are located at driving license centers, etc. so that people can try pushing the button and see how it works.



台

TICKET

TOMORROW

Simulator for the general public

Our efforts for safety at level crossings in coalition with local communities

At Sendai District Center, on May 10, starting with the opening ceremony at Sendai station, in cooperation with local law enforcement, local municipalities and JR East Group companies, we implemented the spring level-crossings accident prevention campaign. We conducted promotion activities by distributing leaflets and campaign goods, simulations on how to escape from a level-crossing by using a mock level-crossing, and lessons on how to properly cross a level-crossing for kindergarteners. In the Sendai District, we had zero level-crossing accidents in the previous fiscal year. By calling out "stop at a level-crossing", "do not cross once a warning device starts beeping", "press an emergency button when you notice an abnormality on a level-crossing" to as many people as possible, we will continue our efforts to maintain a zero level-crossing accident record in Sendai District.



Society

 [Main commitment goals]

 11 SUSTANABLECTIES

 Image: Strandburger Strandburger

Relationship with Passengers

Medium-term Vision for Service Quality Reforms 2020

Since designating 2011 as the baseline year for service quality reforms, we have been working to improve our service quality by implementing a variety of measures. "Medium-term Vision for Service Quality Reforms 2020," which was formulated in FY2019, outlines our vision for accelerating and further developing the initiatives we have implemented to date, with the aim of being number one for passenger satisfaction in the Japanese railway industry. "Medium-term Vision for Service Quality Reforms 2020." This document outlines our vision for accelerating and further developing the initiatives we have implemented to date, with the aim of being number one for passenger satisfaction in the Japanese railway industry.

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Preventing transport disruption

We will resolutely strive to prevent transport disruptions from every aspect.

Minimizing effects of disruptions on passengers

We will respond flexibly through actions such as turning trains back and promptly resuming train operations.

Provision of information during emergencies

In order to help passengers decide on their next step, we will communicate information without delay during emergencies.

Realizing railway services passengers can use comfortably

We will provide stations, railcars, and services that live up to passenger expectations of JR East.

Providing impressive passenger service

We will offer services that inspire passengers to use our group again.

Confirm understanding of issues and effects of measures implemented through service quality diagnosis

We conducted service quality diagnosis to enable us to gain a quantitative understanding of how passengers evaluate our services. We received responses from approximately 10,000 passengers about their satisfaction with our services through an online survey and conducted the same survey for approximately 1,200 employees in charge of service promotion to visualize the gaps between how passengers and employees evaluated passenger service, etc., which had not been grasped by past "customer satisfaction surveys." We will improve our services for passengers based on these results.

Provide reliable transportation services

We are implementing various measures to improve transport quality by striving to prevent transport disruptions and by stepping up early resumption of operations after transport disruptions, as well as preventing disruptions impacting on connecting lines, in order to minimize the impact on passengers.

Preventing transport disruptions

We are trying to prevent similar transport disruptions focusing on the causes of transport disruptions that occurred in the past.

For railcars, we have duplicated the main equipment and are proceeding with introduction of new railcars such as the E235 and E353 series with improved reliability as well as renewing the equipment of conventional railcars.

As for facilities, we are continuing, for example, the countermeasures against strong wind and snowfall by integrating overhead wiring and arranging windbreak fences, snow-melting apparatuses, etc., simplification and integration of electric facilities. etc.

In addition, we are conducting station call activities by employees and station patrol by exemployees of JR East as activities to prevent suicide as well as repellent spraying and introduction of repelling apparatuses using laser light and sound as countermeasures against animal collisions.

Prompt resumption of train operations after transport disruptions and minimization of the effects of disruptions to other sections

In addition, for early resume of operations, we try to turn trains back before they enter the disrupted section or operate other routes wherever possible in an effort to minimize the impact on passengers.

Furthermore, we maintain efforts to enhance our postdisruption response abilities by such measures as drills to deal with accidents resulting in casualties and exit guide. Notably, concerning accidents resulting in casualties, cooperation with police and fire services is important and we thus



Exit guide drill

implement drills, etc. for employees jointly with them on a regular basis.

When a disruption has occurred, each worksite involved reflects on how it was dealt with, learns the lessons from this, and uses the knowledge to study and implement measures to prevent recurrences, which are then widely disseminated in-house to raise the level of each and every employee.

Enhance information provision during transportation service disruptions

Information Enhancement

As tools for providing transport information, we have installed "service disruption information displays" at 318 stations as of the end of March 2019. We also provide information through various media, such as onboard liquid-crystal displays and the content for cellular devices. (All of them support Japanese, English, Chinese, and Korean)

In addition, on our website, we provide information on train operations and service suspensions of conventional line limited express trains. etc. and distribute delav certificates on



Information display during transport disruptions

major lines in the Tokyo metropolitan area. Such information is provided in Japanese, English,

Chinese, and Korean while expanding provision of information to foreign customers by posting and distributing information at stations using QR codes. We also utilize SNS to provide information on train operations through Twitter.

In an emergency, we create voice data for guide announcements in Japanese, English, Chinese, and

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Korean and deliver it to station staff and train crew. In addition to announcements using fixed phrases, we broadcast announcements in accordance with various situations in stations and trains.



Announcement of train service resumption times during disruptions

When a disruption has occurred, we aim to announce the anticipated time at which operations should resume within about 30 minutes from occurrence of transport disruptions (within 15 minutes in the case of accidents resulting in casualties) and the announcement rate was 95% in FY2019. We will endeavor to enhance early provision of more accurate information going forward.

Timely Information Provision through Smartphones

In April 2019, we updated the design of "JR EAST APP" and "JR-EAST Train Info," which provides information on our train operations, for further convenience of use by passengers.

The new "JR EAST APP" features "route search" as the basic function to enable smoother confirmation of information on train operations and train position information. "JR-EAST Train Info" is now available not only in English but also Korean and Chinese (simplified/traditional) and provides simple "route search" and "route map" functions used frequently by foreign passengers.

In addition, the train operations information service "Doko-Train" enables passengers to confirm the operating status of individual trains on their own in a timely manner through the provision of information on delayed trains, train position, etc. mainly for regional train lines.



JR-EAST Train Info

Passenger services tailored to passengers' situation

Efforts to improve passenger service

We prepared a "Green Handbook," establishing the basics of passenger service, and distributed it to all employees. We have been utilizing the handbook while updating it accordingly to suit the changes of the times for improving our passenger service. We distribute a web version periodically to use it in study meetings at workplaces for further improvements in services.



Cover and contents example of Green Handbook

expressing hospitality to derive the needs of each

Assistance Campaign and Support

We have a campaign in which we personally greet all passengers in need, including those passengers with disabilities and elderly passengers, to make sure that they can use our stations and other facilities safely and with a sense of security.

In order to foster the momentum for supporting one another and to create a society where all people can live safely and comfortably with peace of mind, we are promoting the campaign by asking not only our own employees but also employees of other group

companies and, even passengers using our services to greet others.

We are currently aiming to expand the campaign by working with transportation operators and organizations

around Japan and developing activities in collaboration with the Tokyo Chamber of Commerce and Industry.

"Assistance Campaign and Support" poster

41.0/ B

「声かけ・サポート」運動、拡大中。

いろんな「声かけ」、

いろんな「優しさ」。

passenger











Acquisition of Service Assistance certification

We encourage our employees to qualify themselves for Care-Fitter certification with an aim to acquire hospitality mindset and assistance skills, and approximately 14,000 employees (as of the end of FY2019) in total from all job category groups were certified. Since FY2020, all new employees have taken qualification acquisition courses. The qualified employees wear a "Care-Fitter" name tag so that passengers will be able to recognize them easily.



"Assistance and Support" for security of all passengers

In the Yamagata section, we held a study meeting inviting people from Japan Guide Dog Association and users of guide dogs to simulate experience of visually-impaired people and how to provide services to passengers who use a walking stick or are accompanied by guide dogs in order to deploy the "Assistance and Support" campaign getting close to physicallyimpaired people and elderly people. We received an opinion from guide dog users that they do not always need support but feel a sense of security when spoken to by us; we felt that speaking to them is the starting point of support and got deeper awareness of Assistance and Support of the whole workplace.

We will improve our service quality such as provision of services close to passengers aiming to create an environment where all passengers can use trains with a sense of security.



Conductor, Yamagata Section, Sendai Branch

Realizing railway services that passengers can use confidently and comfortably

Barrier-free Stations

JR East has been working with local governments and other entities to install elevators at stations in accordance with the "new barrier-free law (Act on Promotion of Smooth Transportation, etc. of Elderly Persons, Disabled Persons, etc.)". As of the end of March 2019 we had completed the installation of elevators in 551 stations.

Barrier-free Railcars

We have introduced the universal design E233 series railcars, in which the height of luggage racks and hand straps at the ends of railcars was changed, location of



Free space on E235 series

priority seats was clarified and information indicators for displaying operation information in texts were installed, sequentially to the Chuo Rapid, Saikyo, Yokohama, Nambu and other Lines. Furthermore, E235 series trains, which started operation on the Yamanote Line in 2015 and are planned to be introduced on the Yokosuka/ Sobu Rapid Line, now have priority seats in each railcar as well as feature free space in all railcars that can be used more safely by wheelchair users and baby stroller users (whereas there used to be a space for wheelchair users only in the front railcar).

Spacious toilet rooms capable of accommodating advanced electric wheelchairs with improved handles have been introduced on new Narita Express railcars (E259 series and after) and new Shinkansen train railcars (E5 series and after).

Escalator Safety Measures

To prevent injuries to passengers on escalators, we are carrying out safety enhancements, including measures that will prevent sandals from getting caught, prevent falls during emergency

stops, and prevent steps from descending when escalators stop. In addition, we are also working together with other railway companies, retailers and other facilities to carry out campaigns in an effort to draw the attention of passengers through such means as posters that call for the safe and proper use of escalators.



"Escalator Safety" campaign poster

Activities to enable passengers with baby strollers to use our services safely

To increase safety for passengers with baby strollers who use our stations and trains, we have been working to improve the response of railcar strollers and other passengers to give way to each other when boarding trains. In FY2015, we posted baby stroller signs, which were selected by the council, in the spaces for wheelchair users on local trains, to create an environment where baby stroller users can safely use our services. In addition, we have baby rooms are also installed at 49 stations as of the end of March 2019.



doors in the event that baby stroller frames and

other devices are caught by the doors as well

as posted baby stroller signs in the spaces for

In addition, we carried out a campaign organized

by the "Council for Use of Baby Strollers on

Public Transportation, etc.," which was formed

by the Ministry of Land, Infrastructure, Transport

and Tourism, transport operators including our

company, baby stroller manufacturers and others,

to urge passengers with baby strollers to be

careful, as well as asking passengers with baby

wheelchair users on local trains.

Baby stroller sign

Activities to enable passengers using a help mark to use our services safely

A help mark (JIS standard) is used by those who use artificial legs or prosthetic joints, have an internal impediment or intractable disease, or are in early pregnancy to easily get assistance by making the need for considerations to surrounding people. This mark was developed by the Tokyo

metropolitan government and municipalities which adopt it have been increasing.

We are proceeding with posting of help mark stickers around priority seats of conventional railway lines after June 2019 to enable passengers using a help mark to use priority seats smoothly.



Help mark sticker

Anti-crime measures/Anti-terrorism measures

In preparation for the Tokyo 2020 Olympic and Paralympic Games, improvement of railway security is a major issue of our Company to ensure that passengers feel safe and confident when using our services. As one of the measures, we are installing security cameras in key facilities, including stations (wicket areas, escalators, stairs, platforms, etc.) and onboard trains (in cars and deck areas). As for the trains, we expect that installation of security cameras will have been completed for all Shinkansen trains and conventional lines in the Tokyo metropolitan area, with the exception of certain railcars scheduled for retirement. Furthermore, we will endeavor to ensure a rapid response to any event through centralized management of information necessary for security including footage of security cameras installed in railway facilities and in close collaboration with police and other related parties.

In addition, SOS buttons that passengers can use to alert train crews when they sense danger are installed in cars as a measure against thugs on trains. We will also install protective items including shields on Shinkansen trains while enhancing installment of first aid kits. We are also implementing scenario-based training with the help of the police and other parties to deal with suspicious individuals in order to improve response capabilities of train crews.

In addition, we are also implementing drills as measures against terrorists, explosive ordnance disposals, helping injured persons (triage, etc.) on an ongoing basis in cooperation with police, fire services, etc.

Measures against Female Molestation

In addition to adding women-only cars during certain hours in various railway sections in Tokyo metropolitan area, and with the aim of enabling female passengers to travel stress-free, we have been continuously installing SOS buttons on all railcars that women can use to alert train crews if they are improperly touched or otherwise molested. Furthermore, in cooperation with police and other railway operators we are actively conducting a campaign to eliminate on-train molestation and have significantly increased security surveillance on trains and in stations.

Addressing measures to reduce congestions at the morning commuter rush hours

With regard to reducing congestion during the morning commuter rush hour, we have thus far taken measures such as increasing train services and adopting railcars with widened passenger space. In conjunction with this, we are also working on measures aimed at dispersing passengers to different trains and promoting the shift of commuting outside of peak hours. As congestion is a major cause of delayed trains during the morning commuter rush hour, we will continue seeking to reduce congestion by informing passengers about which trains become crowded in certain sections of the line and which railcars tend to become especially congested via posters at stations and the JR East app.

Real-time visualization of the status of conventional railway lines

We have developed a system that visualizes overall train conditions, including congestion, by indicating data for each train pertaining to its location, delays and number of passengers and overlapping the data on the map of regional railway lines. It was introduced in April 2017. This would lead to achieving higher quality in transportation services as more accurate planning will be enabled from the perspective of passengers as they will be able to consider the impact from congestion in trains and delays.

As an additional function for this system, we are currently researching the visualization of congestion conditions within stations.



Visualization system for congestion on conventional railroad lines (an image)

Improvements in Station Toilets

In order to dispel the image of station toilets as dark, dirty, and malodorous and to enable passengers to be able to use them comfortably, since its establishment JR East has been steadily upgrading its toilet facilities.

Measures taken include changes to western-style toilets, improved ventilation and the use of larger floor tiles. The upgrading also includes watersaving type toilets and automatic faucets in the washbasins to reduce water consumption.

During the fiscal year ended March 2019, we renovated the toilets in 19 more stations, as a way to increase passenger comfort and satisfaction.



Toilet in Tachikawa Station

System to respond to inquires

JR East Center for Inquiries receives questions from passengers through telephone.

In order to quickly and correctly respond to the passengers' inquiries, the Center is addressing measures to introduce the work supporting system utilizing AI and to improve the function of the system for controlling lost and found objects as well as to enhance the quality of responses by regularly implementing the monitoring evaluation of calls and responses.

We also have a service to answer inquiries about use and services of JR East through chat to improve convenience.

System for handling lost property

JR East collects about 2.3 million lost items annually, and the number is growing every year. With the aim of promptly returning lost property to the

original owner, we are striving to facilitate searching for and providing information about missing items by managing this information using a centralized, searchable database and setting up a dedicated lost and found support center.

We also started the full-scale operation of "Lost Property Automatic Notification Service," which is provided by MAMORIO, (service to automatically notify the location information of belongings with a loss prevention tag detected by the dedicated antenna to the smartphone in which the dedicated app is downloaded) at 51 stations where lost properties are consolidated, in February 2019. This service enables passengers to go to the station where lost properties are delivered, etc. without inquiring us.

Elimination of cell phone service gaps

We are striving to eliminate sections in tunnels where cellular device services are unreachable in order to enable customers to use railroads confidently and comfortably at ease. For the Tohoku, Joetsu, and Hokuriku Shinkansen, we are proceeding with countermeasures to be completed in 2020, while taking countermeasures for the Yamagata and Akita Shinkansen, the Chuo Line, etc.

Development of rolling stock manufacturing business

The JR East Group will manufacture high-quality railcars not only for our group companies but also domestic and overseas customers through the opening of the Niitsu Rolling Stock Plant in October 1994, and the launch of Japan Transport Engineering Company in April 2012, etc.

Japan Transport Engineering Company is focusing on the "sustina" brand for commuting railcars which realizes high quality and low costs, using the advanced stainless steel railcar technology as the pioneer of stainless steel railcars. "Sustina" boasts characteristics such as high recyclability and beautiful railcars unique to stainless steel and railcar design incorporating barrier-free and universal designs, etc., and realizes comfort and safety of customers by adopting handrail structures resistant against collisions.

In addition, it makes use of a wide range of

technologies for manufacturing of Hokuriku Shinkansen E7-series trains, Chuo Line E353-series limited express trains. TRAIN SUITE SHIKI-SHIMA, and purple



sustina stainless-steel railcars

line railcars for Bangkok in Thailand, etc.

Topics

Expansion of the railway network

Conventional railway line network

We have been engaged in improvement of value along our rail lines by enhancing the railway network so that passengers can use railroads more smoothly and comfortably, for example, by starting operation of the Shonan Shinjuku Line and Ueno Tokyo Line, etc. Currently, together with Sagami Railway Co., Ltd., we are proceeding with preparations to start operation of direct trains from the Sotetsu Line to Shinjuku with plans to run a connecting line through from Nishiya Station on the Sagami Railway to Hazawa yokohama-kokudai Station and Yokohama-Hazawa Station on the Tokaido Freight Line as a business with Japan Railway Construction, Transport and Technology Agency (JRTT) to improve customer convenience. The Sotetsu/JR direct line is planned to be opened on

November 30, 2019. Through projects such as the Haneda Airport Access Line, we will continue to contribute to improvements in the convenience of customers, further development of local communities, economic effects, etc.



Shinkansen network

Compared with 1987 when the company was founded, the required time for Tokyo to Hakodate has been shortened from 9 hours 34 minutes to 4 hours 26 minutes thanks to the opening of the Tohoku/ Hokkaido Shinkansen, etc., and the required time for Tokyo to Sendai has been shortened from 2 hours 17 minutes to 1 hour 31 minutes thanks to improvements in railcar performance, etc. which has created valuable time for customers and greatly improved our service. We will shorten the distance between Tokyo and local regions by shortening the required time through facility improvements and introduction of new railcars to more greatly impact the regional economy.

[Required time from Tokyo to each city]

Section	0 1	2	3	4	!
			4 hours 2	26 minutes	2019
			4 hours	29 minutes	2016
				5 hours	22 min
Tokyo to Hakodate				5 110	hours 4
					5 hours
Tokyo to Shin-Aomori (Aomori)	2	hours 59 min	utes	5 hou	urs 31 m
Tokyo to Akita		3 hour	s 37 minutes	5 hours 6	minutes
Tokyo to Morioka	2 hours 11	minutes 3 h	ours 9 minute	s -58 minut	es
Tokyo to Sendai	1 hours 31 minutes	2 hours 17	minutes -46 n	ninutes	
Tokyo to Shinjo		3 hours 11	minutes 4 h	ours 18 min	utes -6
Tokyo to Yamagata	2 hours	26 minutes	3 hours 22 m	inutes -56 r	minutes
Tokyo to Niigata	1 hour 37 minutes	2 hours 17	minutes -40	minutes	
Tokyo to Kanazawa	2 hours	28 minutes		4 hours 59 n	ninutes
Tokyo to Nagano	1 hour 20 minutes	3 hours 5 r	ninutes -105 i	minutes	
	0 1	2	3	4	!

*Comparison based on the fastest outbound train in the schedule, revised August 2019

5 6 7 8 9 10 (hour) Improvement in the maximum speed in the Seikan Tunnet -3 minutes 5 Opened the Shin-Hakodate-Hokuto Station of the Hokkaido Shinkansen Line -53 minutes mutes 2013 Started the operation of "Hayabusa" at 320km/h -10 minutes	5
Improvement in the maximum speed in the Seikan Tunnel - 3 minutes 5 Opened the Shin-Hakodate-Hokuto Station of the Hokkaido Shinkansen Line -53 minutes nutes 2013 Started the operation of "Hayabusa" at 320km/h -10 minutes	5
minutes 2011 Started the operation of "Hayabusa" at 300km/h -13 minutes 45 minutes 2010 Opened the Shin-Aomori Station of the Tohoku Shinkansen Line -13 minutes rs 58 minutes 2002 Opened the Hachinohe Station of the Tohoku Shinkansen Line -85 minute 7 hours 23 minutes 1988 Opened the Seikan Tunnel -131 minutes	
9 hours 34 minutes	
ninutes -152 minutes	
-89 minutes	
67 minutes	
-151 minutes	
5 6 7 8 9 10 (hour)	

Increase mutual communication with passenger feedback as the starting point

Constant attention to passenger comments

The starting point of enhancing the service quality at JR East is the passenger comments. To constantly improve our services, it is most important for us to listen carefully to passenger comments, including their interests and complaints, and then promptly respond to their requests through service improvements.

We are endeavoring to collect passenger comments on a daily basis including those which are received by each of our employees directly from passengers but also those posted on the internet, those given over the telephone, and those which can be collected by utilizing other various types of tools. Such passenger comments amount to approximately 350.000 cases annually and all of these comments are quickly shared and analyzed via a companywide database New Green Information System, and form the core of our improvements. We believe that each and every individual passenger comment contributes to the core of improved passenger satisfaction.

Passenger comments are considered at various levels within the company. While actions of

improvement are taken as much as possible for the passenger comments received, if action is difficult to take at that level, then the comments are passed on to the Passenger Comments Committee comprised of concerned executive officers, which considers the possible implementation of improvement measures based on collected passenger comments. Through this system, we are constantly striving for the attainment of improved passenger services.

Case of improvement based on passenger comments



Itemized breakdown of the Passenger comments in FY2019



*The chart shows the number of comments on each subject. Some passengers commented on more than one subject.





Utilization of SNS

In order to ascertain our passengers' needs, we consider it necessary not simply to receive feedback directly from passengers but also to actively and widely collect and analyze passenger comments. Therefore, we are also striving to comprehend their potential opinions that are transmitted through social media.

Through the JR East Official Facebook page launched in May 2012 and JR East Official Twitter account launched in April 2015, we proactively provide information to the public, including details about various measures we have implemented and publicity campaign-related notifications, with the aim of engaging in two-way communication with passengers.



JR EAST Official Facebook

JR East Official Twitter account

Projects for Improving Service Quality

We provide customers with information and employee insights on our policies and actions to improve the quality of our services. In addition to group-wide communication of service improvements via posters, videos, and other media, our local sites use posters, etc. to highlight improvements they have made in response to customer feedback.

Responses to inquiries from passengers in the event of transport disruptions

In the event of transport disruptions at Morioka Station, we receive many inquiries about information on train operations, etc. from passengers. In such cases, we will collaborate with the Morioka Branch of IR Fast and Morioka Station to make an announcement in the station building "Fesan," which we manage, and immediately provide information to the tablet terminals allocated in each shop for announcement to passengers. In addition, we are reinforcing the expansion of services to inbound passengers, the provision of information during emergencies, and collaboration with regional communities by exchanging information such as holding meetings and exchanging opinions with the Morioka Branch of JR East and the other groups in the branch. We will continue to improve services so that passengers can use the building safely with satisfaction.

The Sales Division, Stations Building "Fesan," Morioka Terminal Building Co., Ltd.

Safety





Projects for Improving Poster of example Service Quality (Power lases of improvement Plant Version) at each workplace

Improvement of service quality pursued by the entire group working as a single team (SQ Network)

To rapidly promote improvements in the quality of our services by reflecting passenger comments deemed as the starting point as the JR East Group, our Company and group companies closely involved in railway transport service such as passenger services and cleaning in stations and trains, business in stations, and maintenance and management of service equipment established the SQ (Service Quality) Network. As of July 2019, there are 34 members of the SQ Network to share passengers' comments and devise solutions and improvements through teamwork, which goes beyond individual departments or group companies. In this way, the JR East Group as a whole can dedicate itself to enhancing passengers' satisfaction.



Service improvement for inbound tourists

We have been actively working on measures such as proposing attractive products and carrying out promotional activities in collaboration with local communities with the aim of expanding demand from overseas visitors to Japan, whose numbers are rapidly growing in recent years, and vitalizing communities by transporting passengers to regional areas. Furthermore, we are working to reinforce our capability to accept overseas visitors so that they can use the railway network safely and comfortably.

Products that Appeal to Overseas Visitors

In order to encourage inbound tourists to take enjoyable trips using railways, we offer convenient, reasonable products that they can choose from according to their travel plans.

[Key Products]

JR EAST PASS	Pass providing unlimited travel within the applicable area (two products available: Tohoku area, Nagano/ Niigata area)
JR TOKYO Wide Pass	Pass providing unlimited travel within the Kanto area
N'EX TOKYO Round Trip Ticket	Ticket providing access to the Tokyo area from Narita Airport
JR East-South Hokkaido Rail Pass	Available for the Kanto, Tohoku, and South Hokkaido areas
JR Tohoku-South Hokkaido Rail Pass	Available for the Tohoku and South Hokkaido areas
Tokyo-Osaka Hokuriku Arch Pass	Pass providing traveling on the Hokuriku Shinkansen

Seat reservation system allowing reservations from overseas

We have introduced "JR-EAST Train Reservation," a seat reservation website allowing reservations from overseas for Shinkansen and major limited express trains of JR East. Starting from February 2016, realtime reservations became possible online, and reservation service in Chinese (traditional Chinese and simplified Chinese) and Korean in addition to English was made available, further enhancing convenience for overseas passengers.

Furthermore, we have expanded in February 2017 the areas for which reservations can be made in cooperation with JR Hokkaido and JR-West, and as a result, "all areas" of JR Hokkaido and "Hokuriku Shinkansen (up to Kanazawa Station)" are now covered by the system.

Moreover, many kinds of "Trains for enjoying riding," which is also popular overseas, were added to the lineup in September 2018 and have been used by many passengers.



Free Public Wireless LAN Service for Overseas Visitors

To meet more closely the needs of inbound tourists, we offer a free public wireless LAN service "JR-EAST FREE Wi-Fi" at 100 stations, mainly all the stations of the Yamanote Line and stations frequented by inbound overseas tourists, as well as at JR EAST Travel Service Centers, as of the end of April 2019. We also offer a free public wireless LAN service at the stations where Shinkansen stops via "JR-EAST FREE Wi-Fi" or services provided by municipalities or telecom companies.

We are expanding the services in railcars of Narita Express, Shinkansen, and the limited express trains on the Chuo Line (E353-series).



IR-FAST FRFF Wi-Fi

Strengthening service of multilingual business interpreters

In order to smoothly provide information service in stations and railcars, we have changed the service hours for multilingual business interpretation through telephone from the former 10:00 - 18:00 hrs. to 24 hours a day, starting from April 2017. For passengers to whom it is difficult to provide information in Japanese, our employees at stations and crew members call up the Interpreter Center, and information is provided over the phone through operators.

We also transmit information in multiple languages during both normal operations and emergencies using a tool which can broadcast announcements in Japanese, English, Chinese, and Korean by combining fixed phrases.

IT and Suica Business

Suica as an IC ticket

The Suica service was launched at 424 stations in the Tokyo metropolitan area in November 2001. In March 2013, ten public transportation IC cards, including Suica, were made interchangeable. Usage of Suica was expanded further in March 2016, when it was made interchangeable in the Sendai region with the "icsca" IC card issued by the Sendai City Transportation Bureau. A new service, Touch and Go Shinkansen, was launched in April 2018 that makes it possible to use Suica and other public transport IC cards for certain standard non-reserved Shinkansen seats within the JR East network. This provides passengers with

Interchangeable Use of IC Cards Area



Introduction of a new Shinkansen IC boarding service

We will introduce a new Shinkansen IC boarding service that will enable passengers to reserve a reserved or non-reserved seat for the Tohoku/ Hokkaido, Joetsu, Hokuriku, Yamagata, or Akita Shinkansen Line via the reservation site "Eki-net" (JR East/JR Hokkaido) or "e5489" (JR West) and pass through an automatic ticket checker for Shinkansen using a transportation IC card (Suica, etc.) by the end of FY2020.

After the service is started, passengers can use the services speedily without buying a ticket or visiting the service counter or ticket-vending machine of a station

rapid, ticketless access to Shinkansen trains. The number of stations where Suica can be used, including stations of railway companies accepting interchangeable use, is approximately 5,000 across the nation as of April 1, 2019.

[Number of Mobile Suica users] Approx. 7.15 million [Suica & other transit e-money use] Number of shops accepting Suica Approx. 616,410 Number of locations accepting Suica (number of terminals) Approx. 1,110,820 Number of uses in March 2019 Approx. 202.53 million Number of uses per day (record-high) Approx. 9.089 million (recorded on August 3, 2019) (As of the end of March 2019 unless otherwise specified)

[Number of Suica cards issued] Approx. 75.87 million



As of April 1, 2019

Environment

Safety

Suica as Electronic Money

The electronic money service enabling Suica to be used for shopping was launched in March 2004. Thanks to the speed of the payment process and the convenience of not requiring small change, it has been adopted by many passengers, and the number of places where Suica can be used as electronic money has been increased to include shops not just inside but also outside stations. In 2018, Suica electronic money was introduced at large-scale chains such as Yoshinoya, taxies, and Nikko Toshogu.

Mobile Device Usage/Information Usage

The Mobile Suica service was launched in January 2006, followed by launch of services such as Suica for Apple Pay*1 in October 2016, Suica for Google Pay*2 in May 2018. We are also proceeding with coordination with other companies by launching "Mizuho Suica" in August 2018.



Example of Suica for Apple Pay^{*1} Example of Suica for Google Pay^{*2} advertisement



Example of Mizuho Suica advertisement

*1 Apple Pay[®] is a trademark of Apple Inc., registered in the U.S. and other countries.
*2 Google Pay is a trademark of Google LLC.

Regional Collaboration IC Card

In the spring of 2021, we plan to start provision of a Regional Collaboration IC Card," which can consolidate the functions of Suica with other functions, such as a commuter bus pass, to realize services unique to each regional area.

"Regional Collaboration IC Card" enables passengers to use services unique to each regional area, such as commuter bus passes of regional transportation operators and discounts, as well as the services of Suica such as tickets and electronic money usable in Suica areas, etc.



Regional Collaboration IC Card Image

Utilization of information of Suica, VIEW CARD, etc.

The JR East Group established the information business center in FY2014 and is proceeding with activities to use statistical information about Suica.

Statistical information provision business

We are aiming at improvements in the service quality and activation of regional areas, stations, and areas along the lines by using the analysis results of statistical information for arrangements of services and facilities, business development, etc.

$\left[\text{ Usage condition at the time when an event is held at NISSAN STADIUM } \right]$



Travel expense reimbursement business

We started a corporate service to provide companies with data on the usage history of Suica held by employees for business transportation. The service works in coordination with the expense reimbursement system of companies and contributes to work style reforms in society such as streamlining of work for the expense reimbursement office.

[Cooperation with Nissin Foods Holdings Co., Ltd.]



JRE POINT

In order to build a service system that is attractive to both passengers and member stores by bringing together the multiple number of point systems existing within the Group, in February 2016 we launched the "JRE POINT" program centering on station building points.

Suica points were integrated in December 2017, followed by View-thanks points in June 2018 to expand the services, and collection of JRE POINTs through use of railroads through registered a Suica is began from October 2019.

Society

JRE CARD

In July 2018, we issued the new JRE CARD credit card, making it easier than ever to earn JRE POINTs when shopping at JRE MALL and premium member stores.



JRE MALL

In March 2018, we opened JRE MALL, a new shopping website, with the purpose of creating closer connections with customers revolving around our JR East Group-wide point program, JRE POINT. Users can enjoy shopping with JRE POINTs while earning points on purchases they make.

We also intend to further promote an omnichannel approach across the Group by deploying online instation services which enable to make advance purchases at eCute stores and the like online, then pick them up in person.

https://www.jreastmall.com

Product Category	Key Products
Railway-related products	Railway goods, items used in railways, etc.
Regional specialty products/souvenirs	Famous sweets and local specialties from various regions, Tokyo souvenirs, etc.
Other	Suica penguin goods

Governance

Environment

Realization of Seamless Mobility (MaaS)

Work for MaaS

The JR East Group is working on realizing seamless mobility (MaaS: Mobility as a Service). We specifically develop a "mobility linkage platform" that provide an all-in-one service offering the necessary transportation information as well as purchasing and payment options to customers, enabling stress-free travel and a reduction in total travel time.



Tourism MaaS

We plan to contribute to the promotion of tourism and increase in interactions among tourists and residents by offering a system which enables seamless search for necessary information, reservation, and payment, as well as improving the attractiveness of tourist spots and services. As the first trial of tourism MaaS, we have implemented a demonstration test of a tourism MaaS app, called "Izuko", as a member of "Tourism MaaS Demonstration Test Committee of Izu", since April 2019. We will plan a tourism MaaS in the Sendai area, collaborating with Miyagi Prefecture and Sendai City, as well as a demonstration test of tourism MaaS in Niigata.



of Niigata (top ticket purchase screen

TICKET

TICKET

TOMORROW

Introduction of a Tourism MaaS App

Izuko enables users for search, reservation, and payment with a single device and realize seamless mobility. "Digital free pass," which is available in Izuko, is JR East's first case of a reasonable ticket shown on the screen of a smartphone. Toward the launch of this service, we have tried to keep close communication with in-house and outside relevant sections. We are proud to be engaged in the operations for MaaS, which is expected to solve regional issues by providing access/egress transportation services and facilitating the cashless payment. In order to improve the convenience for tourists and vitalize the region, we will keep making efforts so that many users make use of Phase 2 that will begin from December 1, 2019.



Marketing Department, Yokohama Branch Office, East Japan Railway Company

Japan's first tourism MaaS" Izuko"

Collaborating with TOKYU CORPORATION, we have started the Shizuoka Destination Campaign with a demonstration test of Japan's first "tourism MaaS". We are in charge of the secretariat of the committee implementing this test and have developed an app for the demonstration test and named it "Izuko." In the Izu area which has had problems of the introducing cashless payment systems and new transportation services, Izuko users can ride on railways and buses "only by showing the screen of their smartphone" and experience seamless travel to destinations and sightseeing tours with admissions to tourism facilities and on-demand AI rideshare vehicles.

Phase 1 was completed at the end of June 2019, and the second demonstration test will be started from December 1. We will continue contributing to attract passengers to the Izu area.

East Japan Marketing & Communications, Inc.



To realize a society with seamless mobility, JR East and Odakyu Electric Railway Co., Ltd. have considered jointly providing services; for example, we are planning to provide real-time and convenient services such as the proposal of alternative routes based on information on



congestion and delays. Moreover, with All Nippon Airways Co., Ltd., we look to joint services of "ground and air transportation" by utilizing digital technologies including mobile terminals. The examples are "Seamless reception of information on railways and airlines" and "easier purchase of railway and airline tickets." We are going to expand cooperation with various mobility providers in addition to public transit operators in the future

In addition, from September 2019 to March 2020, "JR EAST Train Info (foreign language version)" app will be preinstalled in all "handy" smartphones available in some hotels in Japan as a trial of the service for foreign tourists. The app provides route navigation and real-time information on JR East's train operations. We will keep planning services necessary for foreign passengers.

JR EAST APP

In April 2019, we updated the services of "JR EAST APP (in Japanese)" and "JR-East Train Info (in foreign languages)" app to make it easier for passengers to search routes and obtain information on train operations and delays. We are planning to expand services in the apps to cover not only mobility but also useful information for travel and daily lives. These apps will play an important role in our MaaS.

Ringo Pass

Ringo Pass is a demonstration test app, which facilitates a one-stop service of multiple transportation modes while requires registering Suica ID number and credit card information. As of now, about 200 test users use bicycle sharing of DOCOMO BIKE SHARE, INC. and taxies of Kokusai Motorcars Co., Ltd. To realize the "seamless mobility", we plan to expand transportation modes, services for usual customers, information provision methods such as JR EAST APP, and electronic money payment systems such as mobile Suica.



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JR EAST APP

JR-EAST Train Info



Safety

Technical Innovation

As stated in our Medium- to Long-term Vision for Technical Innovation established in November 2016, we will leverage IoT, big data, AI, and other technologies to thoroughly review the services provided by the JR East Group from the viewpoint of passengers, with the aim of going beyond conventional thinking to achieve a "mobility revolution."

To be concrete, we aim to create by means of AI and other technologies new values out of the data obtained through our Group's all business activities, in the four fields, namely, "Safety and Security," "Service and Marketing," "Operation and Maintenance," and "Energy and Environment." To that end, we will strive to promote further open innovations to incorporate the world's most advanced technologies, and thereby build the "Innovation Ecosystem*" which continues to provide innovative services in the area of mobility.

* Industrial cooperation among corporations to promote innovations



"Mobility Revolution" by the four fields

Establishing task forces to promote the Mediumto Long-term Vision for Technical Innovation

We have established task forces to strongly promote the Medium- to Long-term Vision for Technical Innovation in order to carry out missions by formulating road maps and developing internal and external promotion systems while clarifying achievement targets for in-house cross-organizational measures. We will achieve innovation in the railway operation business by actively incorporating new technologies into our society, such as AI, IoT, and big data, while aiming to provide new value for passengers and enhance the safety and stability of transportation services.



Establishment of task forces to promote the Medium- to Long-term Vision

Details of task forces

"Smart maintenance (collect and analyze huge amounts of data concerning the status of facilities and consider optimum timing and methods of maintenance)," "driverless operation (expansion of one-man train operation and consider matters related to the introduction of automation technology for driving and controlling trains)," "next-generation Shinkansen (production of test trains for realizing next-generation Shinkansen and implementation of test drives)," etc. We will set up new task forces as needed.



Task force (driverless operation) Build an advanced monitoring system against intruders from areas around tracks and obstacles on tracks by using high-speed and highly accurate image-recognition technology, camera sensing technology that go beyond far places and other technologies, and consider ways to achieve driverless operation.

Launch of the Mobility Innovation Consortium to solve social issues

In September 2017, we launched the Mobility Innovation Consortium as a venue for creating and strengthening "links" between our Group companies, external companies, universities, research institutions, etc. and driving innovation in the field of public transportation (154 members as of July 2019). Now, four working groups are in operation.

The purpose of this Consortium is to work on resolving social issues that are challenging for a single company to tackle alone by collaborating and combining the respective strengths of various transportation operators (including JR East), domestic and international manufacturers, universities, research institutions, and other stakeholders with the aim of developing an innovation ecosystem.

[Image of the Mobility Innovation Consortium's Structure]

General Meeting

Steering Committee/Secretariat Door to Door Promotion Working Group Enabling seamless transport from starting point to destination Smart City Working Group Considering the ideal form of next-generatin cities and the role of public transportation in supporting them Robot Application Working Group

Application of robot technology in public transportation Congestion reduction WG

Consider safe and comfortable transportation of people from the viewpoint of congestion reduction

Ideathon*1 / Hackathon*2 / study sessions

*1 Neologism formed from "idea" and "marathon." An ideathon is an event where ideas for resolving a specific issue are intensively brainstormed and collected during a set period of time.

*2 Neologism formed from "hack" and "marathon." A hackathon is an event where programs and apps for resolving a specific issue are intensively developed during a set period of time.

Safety

Research and development of service robots

For the purpose of supporting passengers who are not accustomed to railways and passengers with physical disabilities as well as performing tasks for which labor shortages are becoming an issue (cleaning, security, baggage transportation, etc.), we are considering expanding the usage of service robots in station premises to expand. Accordingly, we are pursuing research and development of a cloud system that will monitor station conditions (congestion, etc.) in real time and autonomous mobile robots that can operate in pedestrian areas via a link to this system.

In FY2019, needs and issues were identified, technical and development partners recruited, consideration for the introduction of robots to handle tasks such as providing information (including information for overseas visitors) commenced and passenger transfer assisted.



Information robot (an image)



Transfer-assisting robot (under joint development)

Development of next-generation Shinkansen

We are promoting the development based on the four concepts: "pursuit of further safety and stability," "improvements in comfort," "improvements in the environmental performance," and "innovation of maintenance."

A test railcar (E956 type, public nickname "ALFA-X") was completed as a test platform to proceed with the development of next-generation Shinkansen in May 2019.

Now we are conducting test drives between Sendai and Shin-Aomori of the Tohoku Shinkansen Line for verification of the current development.



Realization of smart maintenance

By loading devices for monitoring not only equipment on railcars but also tracks and power facilities while train is running, it becomes possible to grasp the condition of railcars and facilities with high frequency.

In obtaining data with high frequency, we aim to realize maintenance at optimum timing by means of CBM*.

At present, we have established a method for data analysis and evaluation for the track facility monitoring device, and introduced it mainly in railway sections in the Tokyo metropolitan area including the Keihin Tohoku Line, Chuo Line and Yamanote Line. We will continue to introduce it in other sections in a sequential manner.

As for railcars, we established a monitoring maintenance system, which is a new maintenance method using condition monitoring data, in E235series, which had implemented the condition monitoring function for railcar equipment, and have replaced a part of the periodic inspection with

"function confirmation by data during operation" since June 2018. In addition, we will consider analysis of data of railcar equipment for future maintenance such as grasping of degradation and life prediction of equipment in railcars (E7-series, E353-series, GV-E400-series, etc.) which can accumulate condition monitoring data.

* CBM: Condition Based Maintenance

[Examples of CBM]

- Railcar ----- Currently, the condition of major equipment is being monitored from both devices on board and those on the ground, and we plan to utilize the system for grasping signs of failure and reviewing inspection methods
- Track ------ We will collect data on track displacement (slight distortion and/or gap of track width), track materials (rail fastening devices), etc. and use it for prediction of track displacement, confirmation of the material condition, planning support, etc.
- Electricity -- 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.



Collaboration with venture companies to solve social issues

In order to swiftly create new businesses and services as passengers' needs and the management environment change rapidly, we require expertise in unknown technologies and business fields where we lack experience. Therefore, the JR East Group will actively utilize the technologies and know-how of venture companies, etc. through collaboration. As part of these efforts, in February 2018, we established JR East Startup Co., Ltd. for the purpose of speeding up the promotion of open innovation. By creating new businesses and services through the provision of funding for venture companies and promotion of collaboration, we will contribute to further vitalizing regional communities and improving the standard of living.

JR East Startup Program

In FY2018, we launched the JR East Startup Program to solicit, refine, and implement proposals for businesses and services making use of stations. railways, and the JR East Group's management and information resources from venture companies, etc. We received 237 proposals in FY2018 of which 19 were accepted, and in FY2019 we received 182 proposals of which 23 were accepted. We've conducted demonstration experiments for many adopted proposals.

In addition, we have been promoting commercialization of various proposals; for example, we founded a company for commercialization of unmanned AI settlement stores and opened a fresh fish retailer (sakana bacca) using a seafood distribution platform based on IT in eCute Shinagawa. "JR East Startup Program" received praise for its contribution to activation of regional areas and new industries and was awarded

the METI Minister Award in "First Japan Open Innovation Prize" of the Cabinet Office.

The third JR East Startup Program in FY2020 was held in collaboration with JR West, JR Kyushu, and the City of Niigata, and together with the demonstration experiment at the Takanawa

Gateway Station. We received 262 proposals. We will continue collaboration with venture companies and commercialization while taking in internal and external evaluations as feedback.





Japan Open Innovation Prize

For realization of ON1000

I was interested in the purpose of ON1000 to embody ideas and goals of each individual and the examination of business opportunities as extensions of trouble in daily life, so I submitted an idea together with my colleagues and it was adopted; now we are conducting a demonstration experiment for commercialization. The process to commercialize an idea is different from the usual driver operations, but I can learn a wide range of viewpoints and knowledge and am stimulated by communicating with in-house and outside people. Although we have a long way to go toward commercialization, we will keep moving toward realization.

Office sharing business "STATION WORK"

As an approach to work-style reform, which is a social issue, and to provide a new service at stations, we started "STATION WORK," an in-station office sharing service, on August 1, 2019.

We will provide space where people can work safely in a highly secure environment in a station, which has the least movement loss. We have deployed four booth-type sites of "STATION BOOTH" mainly in major stations of the Yamanote Line such as the Tokyo Station, Shinjuku Station, and Ikebukuro Station (as of September 2019). Going forward, we will increase the number of sites.

In-house new business creation program "ON1000"

We started the "ON1000" program in October 2018 for the purpose of creation of "non-continuous" business which is not an extension of the existing business. We solicited ideas from employees of the JR East Group based on the values of individuals and consumers away from the existing business and received 1,051 ideas.

We conducted mentoring for eight ideas together with external partners through reviews. We reviewed commercialization with the President as the review chairperson in March 2019 and are now proceeding with consideration of commercialization of four ideas.



[Sales copy]

湧き上がれ、熱意。 つくり出せ、未来。



Driver, Soga section, Chiba Branch



STATION WORK



Society

Safety