

Pursuing “Extreme Safety Levels”

Our Basic Approach to Safety

Safety has been the JR East Group’s top management priority since its establishment, and the Company has worked constantly to heighten safety levels. Learning from unfortunate accidents in the past, we are continuing accident prevention efforts, which focus on physical infrastructure as well as less tangible systemic and personnel initiatives.

Safety measures never end. We will continue to work tirelessly to improve safety by pursuing a goal of zero accidents involving passenger injuries or fatalities and zero accidents involving employee fatalities, including employees of Group companies and partner companies.

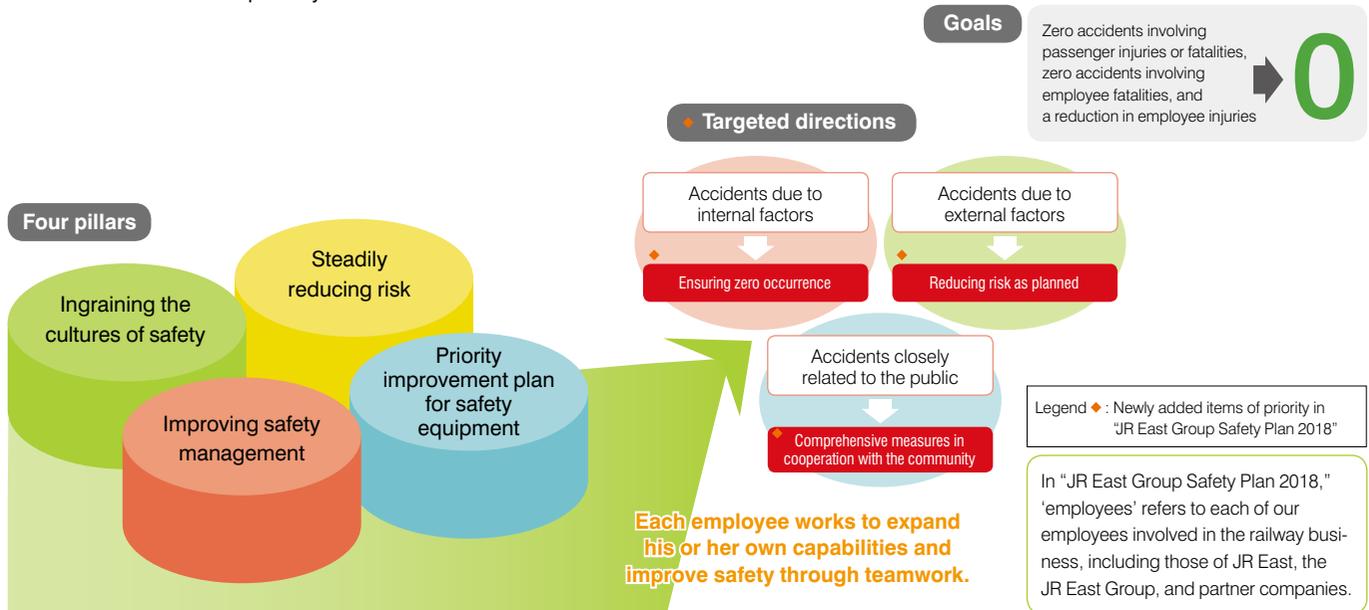
“JR East Group Safety Plan 2018”

Reflecting the high priority of safety, we have completed a series of five-year safety plans since our establishment.

In fiscal 2015, we began a sixth five-year safety plan, “JR East Group Safety Plan 2018.” Through the safety improvement efforts of each employee in the railway business, the whole JR East Group will take on the challenge of realizing “extreme safety levels.”

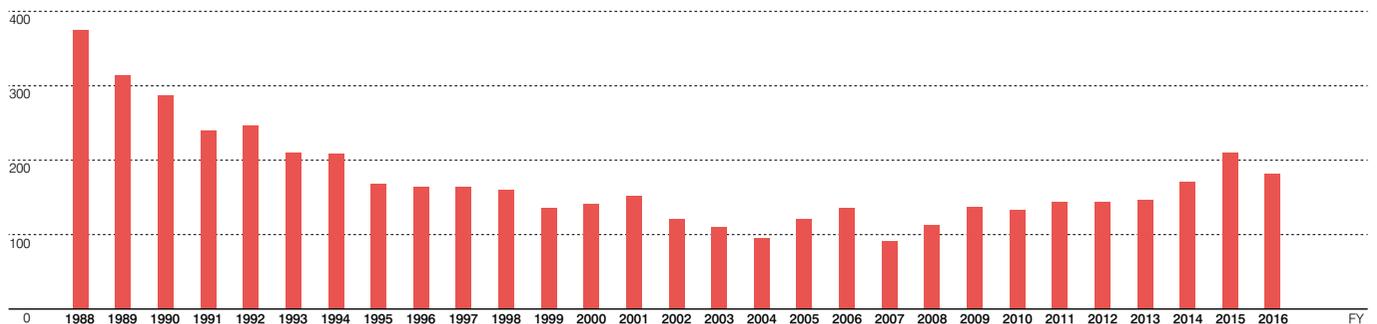
“JR East Group Safety Plan 2018” clarifies policies in relation to preventing accidents, such as accidents due to internal factors, and sets out specific measures. Under the plan, we will improve safety management capabilities by ensuring skills and expertise are passed on and promoting an appreciation of the gravity of accidents to foster safety-conscious personnel.

Overview of “JR East Group Safety Plan 2018”



Trends in Railway Accidents

Railway Accidents



Sangen Principle: Three Actualities Principle

Accidents and incidents always occur at the *Genba**. This means that the sources of accident prevention can also be found at the *Genba*.

Reflecting the *Three Actualities Principle*, which emphasizes actual locations, actual objects, and actual people, the JR East Group will continue seeking solutions that cannot be found through abstract theorizing.

* *Genba*: *Genba* means the actual locations, objects, and people that directly affect the safety of our operations. These locations, objects, and people are our points of contact with our customers and the basis of our transportation and services.



The Three Actualities Principle in effect

The Three Actualities Principle

- Genchi (Actual location):** Go to the actual location to comprehend the circumstances
- Genbutsu (Actual object):** Examine the actual object (rolling stock, equipment, machine, or tool) to comprehend its condition
- Genjin (Actual people):** Meet face-to-face with the people actually involved to comprehend the situation

Reducing Risk Steadily

We have categorized accidents into accidents due to internal factors, accidents due to external factors, and accidents closely related to the public and established policies for each type of accident. Based on these policies, we will take measures aimed at steadily reducing risk.

Eradicating Accidents Due to Internal Factors Completely

Our goal is to eradicate preventable accidents due to internal factors by further upgrading railway operation and maintenance systems. In addition to our risk reduction measures for personnel and management, such as education and training, we will further strengthen risk reduction measures that we have been implementing. Also, we intend to use all possible means to reduce risk, including reforming systems through the utilization of technological developments in ICT, big data, and GPS.

Reducing the Risk of Accidents Due to External Factors

We will steadily reduce the risk of damage due to abnormal weather, such as the increasing occurrence of torrential localized rain and gusts of wind; floods; and volcanic eruptions. To minimize damage caused by natural disasters due to external factors, the JR East Group will take planned risk reduction measures immediately after natural disasters.

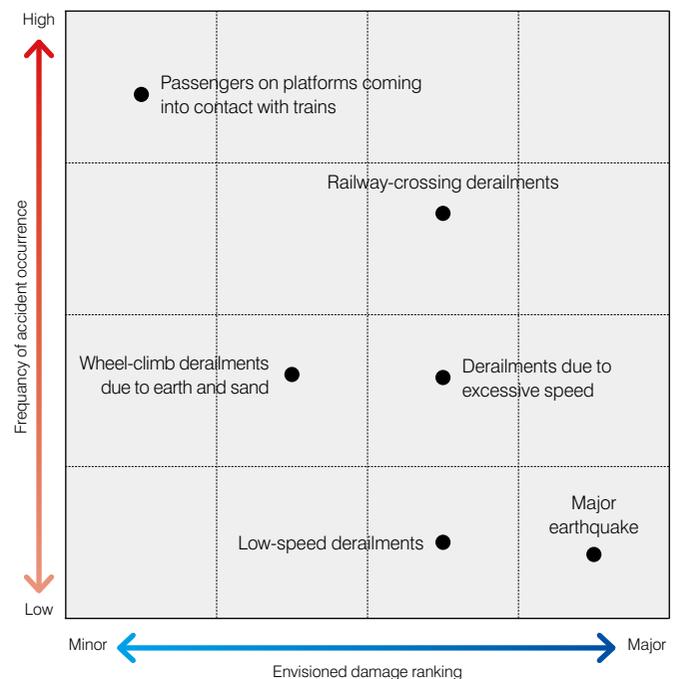
Reducing the Risk of Accidents Closely Related to the Public

We will steadily take measures to prevent accidents at railway crossings and to prevent customers from falling from platforms. At the same time, we will continue furthering understanding of the risks associated with railways among customers and local residents and seeking their cooperation to prevent the occurrence of such accidents. The JR East Group intends to take comprehensive measures, including the conducting of accident prevention campaigns for platforms, escalators, and railway crossings and the elimination of railway crossings in cooperation with local municipalities.

Unearthing Hidden Risks and Advancing Preemptive Measures

Phenomena not currently viewed as risks can emerge as risks due to changes in conditions surrounding railways. We will continue to monitor risk regularly, identify emerging risks, and take preemptive measures. Furthermore, we will use risk evaluation methods to regularly monitor changes in the risk of accidents occurring and analyze the prioritization of countermeasures.

An example of our risk evaluation methods

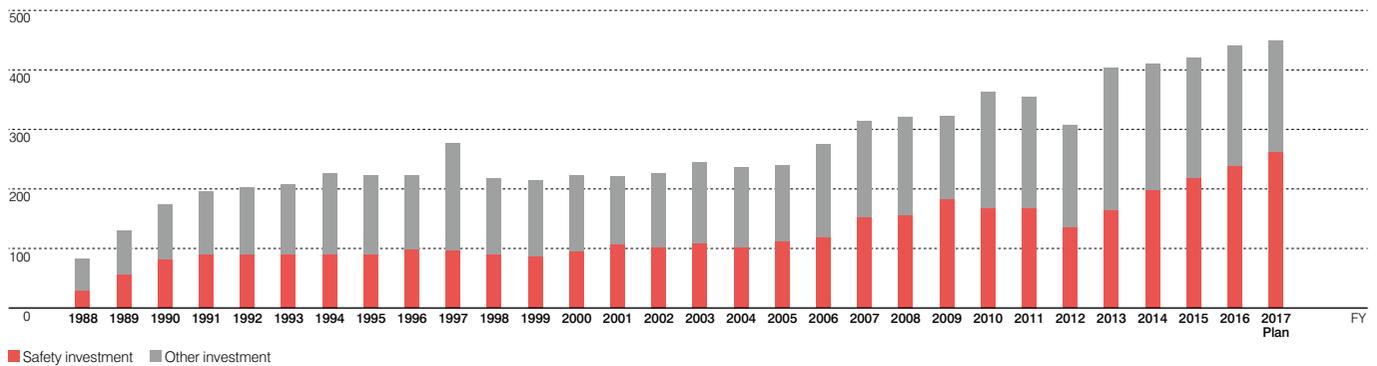


Priority Improvement Plan for Safety Equipment

- JR East has invested more than ¥3 trillion in priority improvements to safety equipment since the Company’s establishment in 1987.
- We will continue priority improvements to safety equipment in fiscal 2017.
- During the five-year period from 2014, we expect to invest approximately ¥1 trillion in safety.

Trends in Safety Investment

Billions of Yen



Building a Railway Capable of Withstanding Natural Disasters

Learning from past earthquakes, such as the Great Hanshin-Awaji Earthquake, the Sanriku Minami Earthquake, and the Niigata Chuetsu Earthquake, JR East has been focusing on the following three earthquake countermeasures.

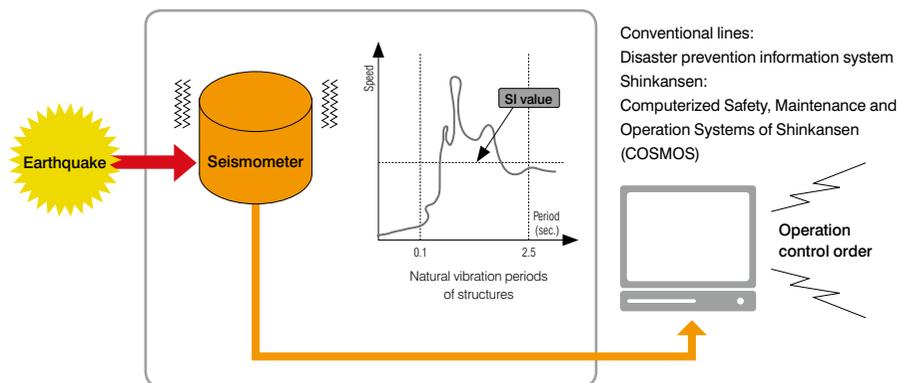
- (1) Stopping trains immediately (emergency train-stop measures)
- (2) Preventing structural damage (seismic reinforcement measures)
- (3) Minimizing secondary accidents following derailments (measures to prevent derailed trains leaving track area)

Although the Great East Japan Earthquake damaged some seismically reinforced viaduct columns, in seismically reinforced locations it did not

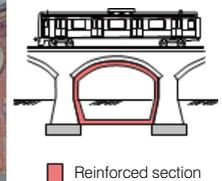
cause shear failure or the falling or collapsing of railway viaducts. On conventional lines, however, the earthquake damaged some bridges that were not seismically reinforced. Further, the earthquake caused electric poles to collapse and materials to fall from the ceilings of station buildings.

In light of the lessons of the Great East Japan Earthquake, JR East aims to build a railway capable of withstanding natural disasters. To this end, we have designated the five-year period from fiscal 2013 as a priority improvement period in which we plan to invest approximately ¥300 billion. During the remainder of this period, we will continue implementing seismic reinforcement in preparation for a possible earthquake directly beneath the Tokyo metropolitan area, increasing seismic reinforcement in Sendai and other areas, and strengthening seismic observation systems and telecommunications capabilities during disasters.

Operational Restrictions when Earthquakes Occur



Seismic reinforcement measures
Arch viaducts built from bricks



Reinforced section



Rail rollover prevention devices

Our Basic Approach to Service Quality

“JR East Group Management Vision V—Ever Onward” cites “Service Quality Reforms” as part of the Group’s “Eternal Mission.” To become a corporate group that is the preferred choice of customers and local communities, JR East will reform service quality through cross-divisional and cross-sectional teamwork with the aim of becoming Japan’s No.1 railway in terms of customer satisfaction.

We prepared the “Medium-term Vision for Service Quality Reforms 2017,” a three-year plan that began in 2015. This vision is founded on increasing mutual communication with customer feedback as the starting point and developing personnel and organizations that proactively think and act from the customer’s perspective. On these foundations, the vision positions five pillars for further improvement: reliability, information provision during service disruptions, confidence, comfort, and service.

Provide Reliable Transportation Services

We are implementing various measures to improve transportation quality by preventing transportation service disruptions, realizing prompt resumption of train operations after transportation service disruptions, and minimizing the effects of disruptions on other line segments.

Our ongoing disruption countermeasures include the introduction of railcars with dual systems*, the increased installation of next-generation track switches that are less likely to fail, and the prevention of lightning strike damage to electric facilities.

To realize prompt resumption of operations, we are continuing to enhance our post-disruption response capabilities through such measures as drills for dealing with accidents that have resulted in casualties and rescuing passengers.

In addition, to minimize the impact on customers, on line segments in which operations have not been disrupted, wherever possible we use contingency shuttle operations—which turn trains back before they enter a disrupted line segment—as well as alternative line operations.

* Railcars with dual systems: Railcars that have increased reliability thanks to their duplication of major equipment based on the concept of build-in redundancy.

“Medium-term Vision for Service Quality Reforms 2017”



Enhance Information Provision during Transportation Service Disruptions

To enhance information provision during transportation service disruptions, JR East is taking steps to provide customers with more accurate information by announcing the expected time of transportation service resumption within 10 minutes of suspending operations due to an accident that has caused casualties and providing subsequent updates.

In addition, we have installed displays for providing information on transportation service disruptions (at 249 stations as of March 31, 2016).

For smartphones, we offer the “JR East Train Operation Information Push Notification” service, which provides timely information on train services on conventional and Shinkansen lines in our service area. Also, JR East provides *JR-EAST Train Info* app, *Doko-Train*, and *NETRAINS+*, which distribute real-time information on train services and enable customers to use smartphones or tablet computers to check the operational status of individual trains without going to a railway station.



JR-EAST Train Info app



Doko-Train

Our Basic Approach to Environment

The JR East Group formalized its basic philosophy and policies in 1992 and established activity guidelines in 1996. Our specific environmental protection measures are based on these.

Basic philosophy

- The entire JR East Group, as a member of society, will diligently strive to balance global environmental protection with its business activities.

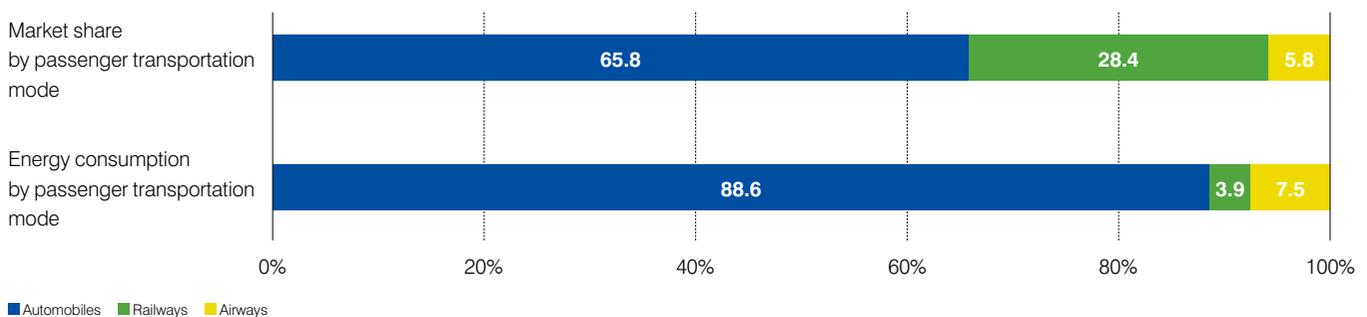
Basic policies

- To contribute to creating a global environment for the future through our business activities for our customers and local communities
- To develop and provide the technology needed to protect the global environment
- To maintain our concern for the global environment and raise the global environmental awareness of our employees

Environmental Superiority of Railways

Regarding passenger transportation in Japan, railways provide approximately 28% of passenger transportation but only account for roughly 3.9% of total energy consumption. This clearly demonstrates that trains have better energy efficiency per unit of transportation volume than automobiles and other means of transportation.

Energy Consumption Volume and Transportation Market Share (Fiscal 2014 result)



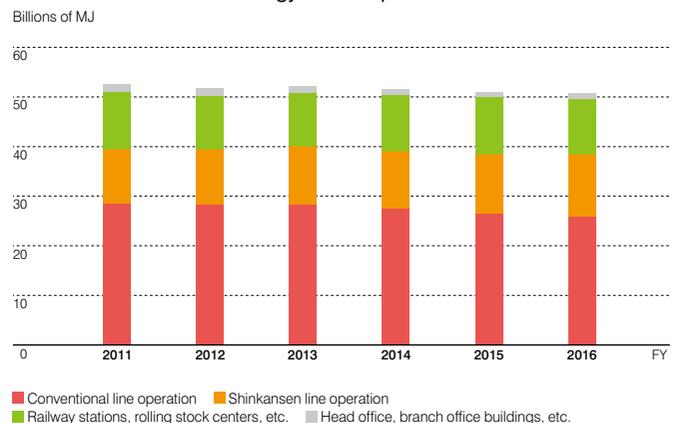
Source: Compiled based on data from the Energy Conservation Center, Japan (ECCJ)'s Handbook of Energy & Economic Statistics in Japan 2016

Energy Conservation and CO₂ Reduction

—Measures to prevent global warming—

The electricity consumed by JR East for train operations as well as for lighting and air-conditioning at railway stations and in offices is supplied by its own power plants and electric power companies. Besides electricity, we use diesel fuel and kerosene for diesel train operations and for air-conditioning at stations and in offices. We will continue saving energy in train operations, which account for about 80% of our total energy consumption, and taking a range of measures at operating bases to reduce CO₂ emissions.

Breakdown of JR East's Energy Consumption



Calculation Method

Figures have been calculated pursuant to the calculation methods stipulated in the Act on the Rational Use of Energy and the Act on Promotion of Global Warming Countermeasures. However, figures for electricity generated by JR East have been multiplied by 9.76 MJ/kWh.

Our Basic Approach to Research and Development

In accordance with “JR East Group Management Vision V—Ever Onward,” we are stepping up the pursuit of “extreme safety levels” through efforts aimed at “building a railway capable of withstanding natural disasters” and the “development of railways that passengers can utilize reliably.” Also, in a range of fields we are energetically advancing technological innovation with particular emphasis on the three pillars of technological innovation: “establishing energy and environmental strategies,” “utilizing ICT,” and “operating Shinkansen at faster speeds.”

Pursuing “Extreme Safety Levels”

Our R&D activities include research on human factors, which seeks to understand accidents and their causes accurately and prevent accidents through cause analysis; research on the safety of railcars to prevent wheel-climb derailments at low speeds; development of safety systems for maintenance work; research on safety evaluation in relation to natural disasters such as wind gusts, earthquakes, torrential rain, and snow; and research to ensure the safety of customers at railway stations.

Establishing Energy and Environmental Strategies

To advance initiatives for the prevention of global warming steadily, the JR East Group has set out environmental goals and proceeded with a range of environmental preservation measures. However, reaching our environmental goals will require stepped-up innovation in the environmental technology field. Aiming to establish energy and environmental strategies, we are pursuing R&D activities focused on three areas: utilizing renewable energy sources, energy conservation, and smart grid technology for railways.

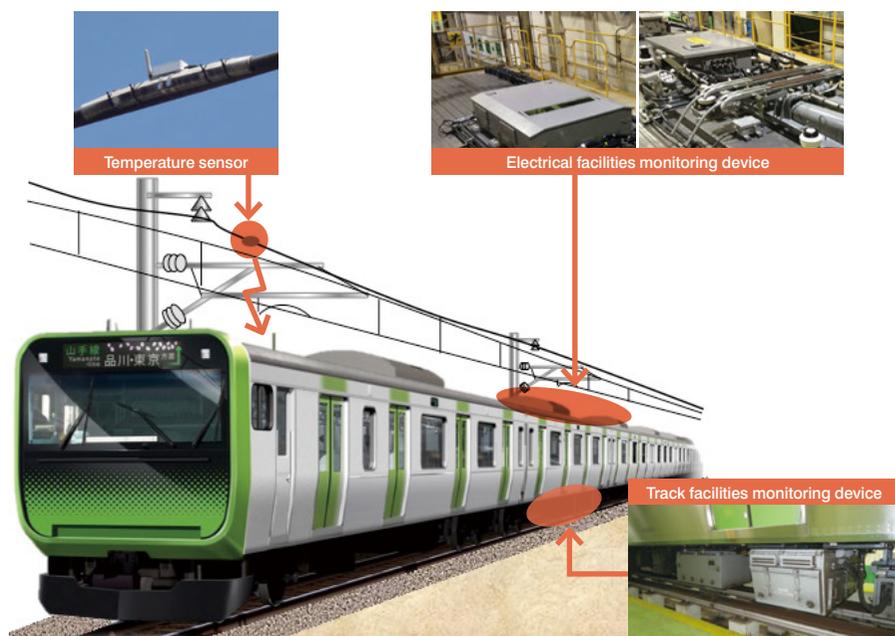
Utilizing ICT

We are actively utilizing ICT (information and communications technology), which has advanced rapidly in recent years, and are furthering R&D with a view to realizing the provision of information that caters to the needs of each customer. Also, we are advancing R&D aimed at using ICT to innovate transportation systems, maintenance work, and other frontline operations. In the transportation system field, with a view to transforming the Tokyo metropolitan area transportation system, we have tackled such initiatives as R&D for a next-generation train control system. In the maintenance field, viewing target facilities and equipment as assets, we have introduced a “smart maintenance strategy” that maximizes asset performance. We are conducting R&D to realize this strategy.

Operating Shinkansen at Faster Speeds

Aiming to operate Shinkansen at speeds of up to 360 km/h, we are proceeding with R&D focused on such areas as improving stability during high-speed operation. Also, by reflecting the achievements of this research in the operation of Shinkansen at 320 km/h, we will enhance safety and reliability even further.

Development of a system for monitoring device from trains in operation * Rendered image



JR East is currently developing a system that will allow constant monitoring of onboard devices and wayside equipment by trains in operation. We are testing the durability of the system by conducting trial monitoring. At the same time, we are proceeding with R&D on data transfer technologies.

If, through monitoring, we can assess each piece of equipment’s state of deterioration, we will be able to predict failures and conduct repairs in a more systematic manner, thereby further enhancing our ability to provide safe and reliable transportation. In conjunction with this initiative, we are studying ways of utilizing the frequency data that we acquire through monitoring.

Strengthening Collaboration with Local Communities

Our Basic Approach to Collaboration with Local Communities

The JR East Group's existence depends on the vitality of eastern Japan and of Japan as a whole. Therefore, as a company responsible for railways—which form part of society's infrastructure—and as a member of local communities, we will work with each community to establish and move toward its target profile. In addition, the Group will take advantage of its unique capabilities to invigorate local communities and promote tourism while advancing the development of appealing railway station-centered towns.

NOMONO 1-2-3 Project

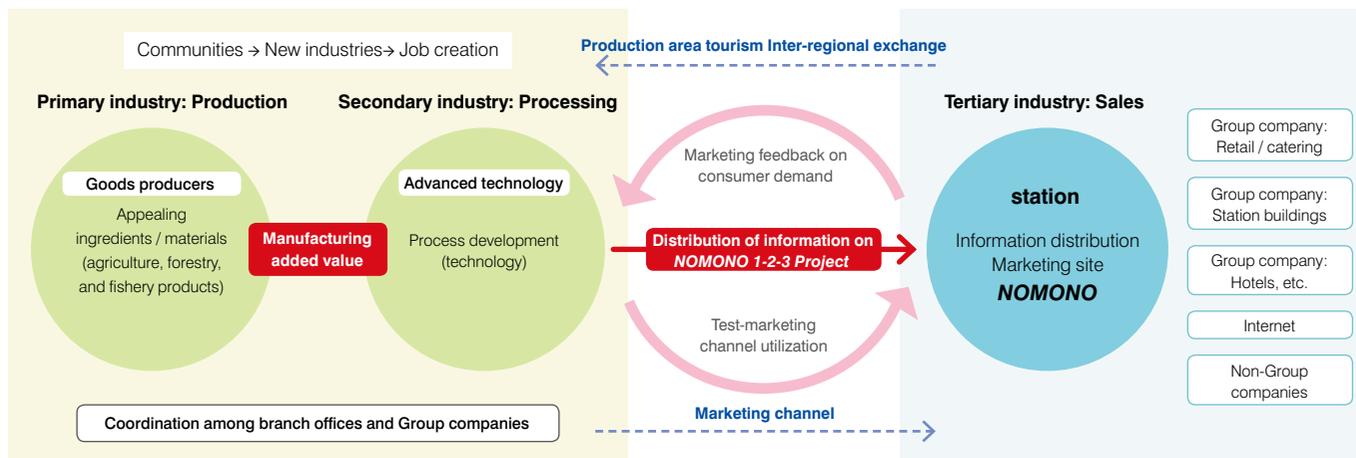
To strengthen collaboration with local communities further, our *Rediscovering the Regions Project* has been creating attractive products by applying advanced processing technology to local produce and other high-quality regional ingredients. Through this initiative, the JR East Group is encouraging manufacturing that integrates regions' primary, secondary, and tertiary industries to achieve *sextic industrialization**.

The *NOMONO 1-2-3 Project* is a manufacturing initiative aimed at supporting eastern Japan through product development and sales in collaboration with regional farming, forestry, and fishery industries. The name "NOMONO 1-2-3" derives from the idea of discovering seasonal goods, *shun no mono*; local goods, *chi no mono*; and traditional goods, *yukari no mono*; and JR East's promotion of manufacturing that integrates primary, secondary, and tertiary industries to achieve *sextic industrialization*.



* The expansion of agriculture, forestry, and fisheries to include food processing, logistics, and marketing

NOMONO 1-2-3 Project Conceptual Diagram



JR Tomato Land Iwaki Farm Co., Ltd.—Thriving in Partnership with Communities

We are expanding sales channels for local products and introducing *sextic industrialization* to regions. For example, we collaborated with progressive farmers in Iwaki, Fukushima Prefecture, to establish a new company engaged in tomato production on September 4, 2014.

The new company constructed a sunlight-based plant factory, which would safely and reliably produce high-quality tomatoes. At the same time, JR East will collaborate with the local community and Group companies to integrate production, distribution, and sales, thereby increasing railway travel and invigorating the region.

Business Scheme

JR East formed an alliance with leading tomato producer Tomatolandiwaki Co., Ltd., a pioneer in the construction of sunlight-based plant factories. With this partner, JR East established JR Tomato Land Iwaki Farm Co., Ltd., which is growing tomatoes for Group Companies in the Tokyo metropolitan area to use in their operations. Moreover, *Wonder Farm* processes, sells, and features tomato dishes in its restaurant.



Tackling New Business Areas

Our Basic Approach to Tackling New Business Areas

Based on “JR East Group Management Vision V—Ever Onward,” the JR East Group continues to venture into new business areas. The overseas railway market is expected to see average annual growth of 2.5% and account for revenues of ¥22 trillion by 2020.

Given this expected market expansion, the JR East Group is actively planning and participating in international railway business projects in partnership with companies in Japan and overseas with the aim of growing the Group. To gather information for such projects, we have established five overseas offices in New York, Paris, Brussels, Singapore, and London.

Developing International Railway Projects

As well as supplying rolling stock overseas, we are moving forward with various international railway projects, including projects in the fields of operation and maintenance. In December 2013, in partnership with Marubeni Corporation and Toshiba Corporation, we established an operating company, Japan Transport Technology (Thailand) Co., Ltd. (JTT), tasked with performing comprehensive maintenance for the rolling stock and ground installations of the Purple Line*, a mass rapid transit railway currently under construction in Bangkok, Thailand. We are continuing to move forward with this project, for which the JR East Group’s Japan Transport Engineering Company provided 63 railcars, comprising 21 sets of three-car stainless steel trains.

This project will mark the first use of Japanese-made rolling stock on the rapid transit rail network in Bangkok. Furthermore, it will be the first participation in an overseas railway maintenance business of an alliance of companies that includes a Japanese railway operator. Operations are scheduled to begin in August 2016.

* The Purple Line is a railway line in Thailand’s capital, Bangkok, which will link the Bang Sue district, in the northern part of the city, to the Bang Yai district in the northwestern suburbs. A Thai railway operator, Bangkok Expressway and Metro Public Company Limited, will manage the railway line, which will have 16 stations and a length of approximately 23 km. (as of June 2016)

Supporting Overseas Railway Operators

We provide support to overseas railway operators to help them and expand the scope of our business. Between 2013 and 2015, we transferred 476 205-Series, formerly used on the Saikyo Line, Yokohama Line, and other lines, to the PT KAI Commuter Jabodetabek urban rail system in Indonesia*. In addition, we have provided technical support for the maintenance of the transferred rolling stock by dispatching in-house technicians. Further, we provided technical support for the inspection and servicing of rolling stock by train crew members. Also, in 2015 JR East transferred diesel trains to Myanmar. We transferred to Myanmar Railways 19 diesel railcars (Kiha 40 Series, Kiha 48 Series) that were used in the Tohoku and Niigata regions and dispatched employees to provide technical support for rolling stock maintenance. We will continue developing such collaborations further by offering more comprehensive technical support.

* PT KAI Commuter Jabodetabek is a railway company that operates commuter railways in the Jakarta metropolitan area of Indonesia.



The delivery of railcars for the Purple Line



Providing technical support in Myanmar

Developing Employees and Creating a Corporate Culture that Maximizes Human Potential

Our Basic Approach to Personnel Development

The capabilities of each employee underpin the JR East Group. Our basic philosophy is to employ personnel based on their personalities and capabilities and foster personnel patiently until they fully realize their potential.

Realizing the Capabilities of Personnel

To ensure safe and reliable railway transportation services and provide services that satisfy customers, creating an environment in which the JR East Group's personnel can fully realize their potential is paramount. It is not an exaggeration to say that our success in fostering personnel who can decide the role they should play and then act accordingly will determine the future of our entire organization.

Given that society and working people's attitudes and environments are changing constantly, the JR East Group must sustain the motivation and ambition of employees as they endeavor to meet their responsibilities. We believe that, ultimately, such efforts will improve safety and increase customer satisfaction.

We aim to provide a workplace environment in which all employees can enjoy their work and set ambitious goals. To this end, we focus on sustaining the motivation and ambition of each employee, ensuring work-life balance, and benefiting from the talents of an even more diverse spectrum of personnel. Bearing these points in mind, we are taking a variety of measures to create a company that develops personnel through work.

"JR East Group Management Vision V—Ever Onward" calls on us to motivate employees by establishing additional open training programs and projects and stepping up personnel exchanges with other companies. Further, the vision emphasizes building a corporate culture that is open to the outside world and fostering broadminded personnel by passing on technical knowledge and skills to the next generation and participating in technological innovation and overseas railway projects.

Promoting Diversity

We believe that employees who find their work worthwhile and satisfying are able to take full advantage of their capabilities and fulfill their roles, thereby enhancing our competitiveness.

To cultivate a corporate culture in which diverse personnel can play important roles, we implement the Work-Life Program and promote diversity and work-life balance. Specifically, we are reforming employees' mindsets and creating a new culture by conducting seminars, operating a diversity-themed intranet site, and taking measures in each organization through the Work-Life Program Network, which underpins the advancement of the Work-Life Program in workplaces. We also encourage awareness of work-life balance among employees by inviting their families to visit workplaces during our Family Day event.



Employees' families visiting a workplace on Family Day

Main Concepts and Pillars of the Work-Life Program

Main concepts



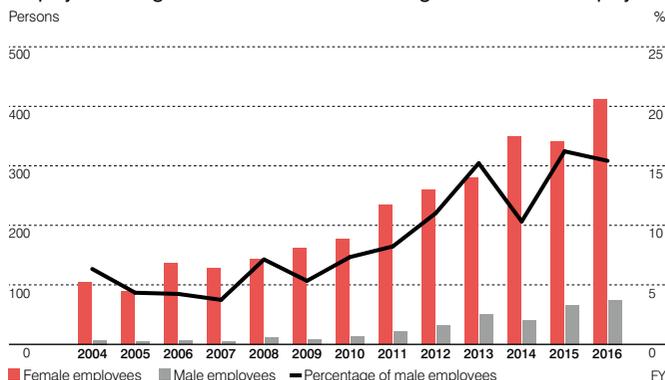
Main pillars



Supporting Balance between Work and Childcare / Nursing Care

- Extended availability of childcare leave by one year, until child reaches three years of age (April 2010)
- Introduced system of reduced daily working hours and increased holiday entitlement (April 2010)
- Established workplace nursery schools (two in Tokyo and one in Sendai) and hospital nursery school (JR Tokyo General Hospital)
- Began conducting seminars to help employees balance work and childcare / nursing care

Employees Taking Childcare Leave and Percentage of whom Male Employees





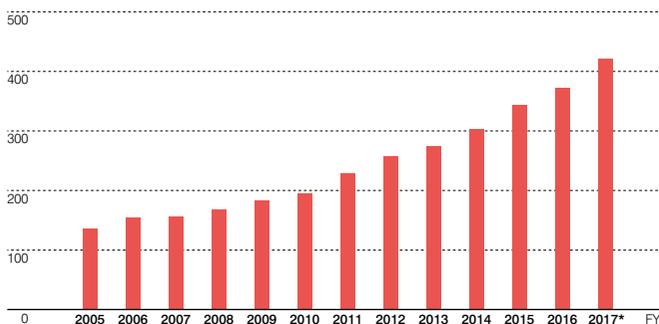
Seminar to help employees balance work and childcare

Increasing Employment Opportunities for Women

To increase women's employment opportunities, we ensure that women account for more than 20% of our new recruits. At the same time, we are making more positions available to women in such areas as frontline operations and planning departments. For example, around 40% of the crews working on the Yamanote Line are female employees. Also, the number of female managers is increasing year by year. More women are working in such important positions as deputy general managers at the head office and branch offices; supervisors of facilities in the field, such as station managers; and executives of Group companies. The promotion of a female employee to the position of corporate officer for the first time testifies to the growing employment opportunities for women. Moreover, by establishing child-rearing support programs and developing our in-house culture, we have increased the retention rate among female employees. Only accounting for 0.8% of employees when the JR East Group was established, female employees account for 11.3% as of April 1, 2016.

Number of Female Managers

Persons



* As of April 1, 2016

Employing People with Disabilities

In the JR East Group, a wide variety of personnel play significant roles irrespective of gender, age, nationality, or whether or not they have disabilities. Employees with disabilities accounted for 2.46% of our workforce as of June 2016. Also, aiming to meet our social responsibility to an

even greater degree by promoting the employment of people with disabilities and establishing working conditions amenable to them, we established JR East Green Partners Co., Ltd., in April 2008. The company acquired certification as a special subsidiary in May 2009.



Planting business of JR East Green Partners

Promoting Skills Development

Developing personnel and ensuring the passing on of technical knowledge and skills are vital to the JR East Group's sustained growth. Committed to developing personnel through work, the JR East Group is enhancing its capabilities as an organization and developing the next generation of personnel.

Developing the Next Generation of Railway Engineers at Skills Training Centers

As part of our efforts to ensure that experienced employees pass on their technical knowledge and skills to the next generation of railway engineers, we have established 104 skills training centers at new and existing training facilities. These centers support the passing on of railway-specific technical knowledge and skills at each workplace by simulating conditions in the field. For example, in our rolling stock maintenance section, the skills training center has railcar mockups that include power collection equipment, door opening-closing devices, and braking equipment. Meanwhile, the facilities maintenance section's skills training center has installed such railway facilities, as tracks, turnouts, platforms, overhead line equipment, and signals.



Training at skills training centers