# Sustainability Initiatives

## Sub-Materiality and Goals That Comprise the JR East Group's Materiality

We are working toward goals based on our materiality and sub-materiality. The following table shows our specific numerical targets as well as our fiscal 2024 results.

#### Revision of Certain KPIs

With the formulation of the Group Safety Plan 2028 and the JR East Group Health Vision 2029, target fiscal years have been moved back and the scope of coverage has been changed to include the entire Group. In addition, we have revised certain KPIs to make expressions and indicators easier to understand.

Materiality	Sub-Materiality	Goals	KPIs	FY2028 Targets	FY2024 Results	
Providing	-	Provision of safe, reliable transportation, products, and	Railway accidents	20% reduction (compared with fiscal 2024)*1	(1% increase) (compared with fiscal2019) *2	So
ociety with		services	Passenger injuries on platforms	50% reduction (compared with fiscal 2024)*1	(17% reduction) (compared with fiscal2019) *2	The faci
afe, Reliable			Railway accidents attributable to the JR East Group	0	4	and enh
nfrastructure			Serious incidents	0	0	Eco
in dott dotal o			Transportation disruptions due to internal causes			The pro
			Conventional lines within 100 km of Tokyo	55% reduction (compared with fiscal 2019)	8% reduction	
			JR East Shinkansen	75% reduction (compared with fiscal 2019)	31% reduction	
			Total delay time due to internal causes, conventional lines within 100 km of Tokyo	70% reduction (compared with fiscal 2019)	16% increase	
			Countermeasures for major earthquakes (seismic reinorcement): Rigid-frame viaduct	Shinkansen100%*3	Shinkansen38%	
			abutments (subject to ministerial ordinances, etc.)	Conventional lines100%	Conventional lines21%	
			Railway stations and tracks with automatic platform gates	330 railway stations, 758 tracks*4	117 railway stations, 233 tracks	
Creating a	Regional	Growth in the number of people engaging with eastern Japan	Collaborative initiatives with local communities to increase tourism and revitalize regions	150 in total*⁵	31 in total	S
Vibrant Society	Revitalization	Promotion of regional economic revitalization				The en
-	Comfortable Cities	One-stop provision of various high-value-added services	No. of JRE POINT reward program members	30 million	15.01 million	enhand
		Realization of seamless, stress-free travel	No. of transactions on the MaaS platform, Mobility Linkage Platform, provided by JR East	100 million per month	49.89 million per month	Eco
		Creation of diversely appealing towns with consideration for	In Tokyo metropolitan urban development projects led by JR East:			The inv
		the environment, disaster prevention, and communities	<ul> <li>Introduction of energy sources with advanced environmental performance</li> </ul>	100%*	Construction underway as part of the opening	and use
			Establishment of facilities to accommodate people unable to return home at times	100%*	of TAKANAWA GATEWAY CITY and	
			of disruption/disaster	100%	Development of the Hiromachi Area around Oimachi Station	
			Establishment of town management promotion systems	100%*		
			Establishment of systems to utilize road spaces	50%*		
	Inclusive Society	Development of hospitality-minded employees	Rate of obtaining "Care-Fitter" Certifications	50%	44.3%	-
	Inclusive Society	Improvement in service quality through dialogues with people	No. of exchanges involving people with disabilities	100 or more per year	77 per year	
		with disabilities	• No. of excitatiges involving people with disabilities	Too of more per year	// per year	
		Promotion of understanding of an inclusive society through	No. of parasports events	At least once a year at each regional organiza-	1 per organization*	
		parasports experience and support activities		tion (two headquarters and 10 branch offices) and head office*		
Enriching	Carbon Neutrality	Zero Carbon Challenge 2050	CO <sub>2</sub> emissions (for all JR East Group companies)	50% reduction*6 (compared with fiscal 2014)	14.7% reduction	S
the Global		Utilization of diverse energy	Acquisition of renewable energy-based power sources	700,000 kW*6	153,000 kW	The rea
Environment	Circular Economy	Promotion of the 3Rs	Recycling rate for waste (PET bottles) generated at stations and on trains	100%*6	98%	- climate
			Recycling rate for waste (general/industrial) (for all Group companies)	73%*6 (compared with fiscal 2014)	74%	Eco
	Nature Positivity	Preservation of biodiversity	Analysis and disclosure of nature-related risks and opportunities based on the Taskforce for Nature-related Disclosures (TNFD) recommendations	-	-	The rec general
Providing Society with Innovative	Technology Innovation	Provision of operational management solutions and realization of social innovation through continuous technology innovation based on utilizing external technologies and digital transformation	No. of patents, etc. applications related to digital transformation and services	175 in total*7	(34)	So The cre
Technologies		Development and empowerment of employees with digital technology skills	No. of newly trained employees with digital technology skills	30,000 in total*5	6,180 in total	Technol
and Services	New Fields	Provision of new services and proposal of new lifestyles	Solving social issues and increasing profits through open innovation	20 in total*7	(2)	- reductio
Increasing the	Promotion of	Empowerment of diverse personnel	Percentage of female managers	10%*	7.8%*	S
Engagement	Diversity, Equity,		Percentage of female directors	30%*	20%*	The se
of All Group	and Inclusion		Percentage of managers hired as experienced personnel	20%*	19.9%*	ment a
Employees	(DE&I)		Percentage of malaged mode as experienced parcelland     Percentage of employees with disabilities	2.70%*	2.69%*	sustain
Linpioyees						Eco
			<ul> <li>Establishment of facilities suitable for diverse personnel (LGBTQ, etc.) (at the time of new construction or major renovations)</li> </ul>	100%*	100%*	The ev
		Realization of flexible workstyles	Acquisition rate of paternity leave		61.9%*	
	Human Resource	Cultivation of innovation-oriented thinking and diverse career	No. of participants in self-development courses on new value creation	25,000 in total*s*	5,169 in total*	-
	Development	development				
		Expansion of fields of activity	Assignment of personnel to key growth fields	2,000 or more in total*5	408 in total	4
	Health and	Promotion of employee health	Percentage of employees receiving regular health checkups	100%*8	99.9%*	
	Productivity Management		Percentage of employees receiving stress checks	95% or more*8	91.2%*	
	Occupational Safety	Accident-free, safe workplaces	<ul> <li>Fatal employee accidents (including Group companies, partner companies, and affiliated companies)</li> </ul>	0*1	2	
Improving	Internal Control	Risk management that supports ambitious new initiatives				S
Confidence in	That Promotes the	Ensuring stable, appropriate operational management				The est
Management	Undertaking	Business management in compliance with laws and regula-	Implementation percentage for compliance and information security training sessions	100%	100%	··· manag
nanugomont	of Bold Challenges	tions and corporate ethics, and ensuring information security				manage
	Respect for Human	Instilling of respect for human rights	Implementation percentage for seminars on human rights	100%	100%	Eco
	Rights	Sustainable procurement	Penetration of initiatives related to human rights, the environment, and other issues into	100%*	66.7%*	The est
			major suppliers (supply chain penetration percentage)			

\*1 Targets for fiscal 2029 \*2 Preliminary figures \*3 Targets for fiscal 2026 \*4 Target for approximately fiscal 2032 \*5 Cumulative targets from fiscal 2024 onward \*6 Targets for fiscal 2031 \*7 Cumulative targets from fiscal 2025 onward \*8 Targets for fiscal 2030

★ indicates stand-alone figures for JR East. Figures in parentheses in the fiscal 2024 results are the reference figures of new targets.

#### Relationship with Corporate Value

#### Social value

facilitation of safe, secure daily life will heighten trust in the Group, which is the foundation of its growth, enhance its brand power, thereby strengthening the revenue base.

#### conomic value

provision of safe and reliable transportation, products, and services will enhance revenues and profits.

#### Social value

enrichment of regions will strengthen the relationship of trust between the Group and regions and ance its brand power, thereby strengthening the revenue base.

#### conomic value

invigoration of the economies of line-side areas and an increase in the number of customers who trust use the Group's services will heighten revenues.

#### Social value

realization of a decarbonized, recycling-based society will lead to benefits such as the mitigation of ate change risk, enabling the creation of a better society.

#### conomic value

reduction of climate change risk will reduce operational costs and make us a corporate group that erates profits sustainably.

#### Social value

creation of new lifestyles will enrich the day-to-day lives of our customers.

#### conomic value

nnological innovation-based increases in added value, the creation of new business fields, and the uction of operational costs through better work efficiency will enhance revenues and profits.

#### Social value

sense of accomplishment and fulfillment that employees gain from work will increase employee engage nt and employee retention, which together with realizing the overall potential of our human capital will tain the enhancement of corporate value.

#### conomic value

evolution of work, workstyles, and workplaces will heighten productivity.

#### Social value

establishment of an internal control system and Groupwide respect for human rights will avoid business nagement-related risks no matter how the business environment changes and build a robust business nagement structure that sustains growth, thereby enhancing trust in our business management.

#### conomic value

establishment of an internal control system and Groupwide respect for human rights will reduce the risk amage to our corporate value. Introduction

# Providing Society with Safe, **Reliable Infrastructure**

We will provide society with safe, reliable infrastructure by placing safety at the top of management.



#### Fundamental Concept

Since the establishment of JR East, safety has been the top priority of business management, and we have worked relentlessly to heighten our levels of safety. Earnest efforts to learn from unfortunate accidents in the past have enabled JR East to further the prevention of future accidents through its continued development of both tangible and intangible measures. JR East is committed to steadily improving tangible countermeasures as well as to ensuring that each one of its employees takes all possible intangible measures. Furthermore, by pursuing ultimate safety levels, we will steadily reduce the risk of accidents and thereby build trust, which is the foundation of all business, and provide society with safe, reliable infrastructure

# **Our Fundamental Concept of Safety**

#### Goa

• Provision of safe, reliable transportation, products, and services

#### Policy

Based on the JRE Group Safety Plan 2028, we will further strengthen the safety foundation we have built so far, implement anticipatory safety initiatives, and pursue ultimate safety.

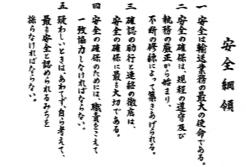
#### KPIs

KPIs (Numerical Ta	FY2024 Results		
Railway accidents attribut-	0	4	
able to the JR East Group	0		
Serious incidents	0	0	
Dailway agaidanta	20% reduction (compared	1% increase (compared	
Railway accidents	with fiscal 2024)	with fiscal2019)*	
Passenger injuries on	50% reduction (compared	17% reduction (compared	
platforms	with fiscal 2024)	with fiscal2019)*	

\* Preliminary figures

# The Guiding Principles of Safety

JR East has prescribed The Guiding Principles of Safety in the Code of Conduct for its safety-related employees.



The Guiding Principles of Safety

- I. Maintaining safety in transport is our top priority. II. Safety is ensured and achieved through the dutiful and proper observance of established
- rules and procedures
- III. Safety is ensured by understanding the importance of thorough confirmation and communication. IV. Safety is ensured through mutual cooperation and going beyond one's official responsibil-
- ity when necessary
- V. When in doubt, the safest course of action should be taken after thorough and calm consideration of the available options, basing our decisions on the situation at hand.

#### Group Safety Plan

JR East has historically implemented a series of five-year safety plans. In November 2023, we formulated our new Group Safety Plan 2028, which is our eighth safety plan.

#### Group Safety Plan 2023

Under the themes of "Evolution" and "Move Up," we developed a variety of initiatives centered on each individual's "safe behavior." Countermeasures from both tangible and intangible perspectives and the unrelenting efforts of the entire Group led to steady improvements in safety.



Formulation of Group Safety Plan 2028 to further solidify the safety foundation we have built and "reach for safety

#### Group Safety Plan 2028

In order to respond appropriately to changes in the environment surrounding the JR East Group, we have adopted the theme of "Taking the nature of railway work to heart, imagine the unexpected, reach for safety!" We will further strengthen our cooperation with everyone involved in the JR East Group, remembering that safety is created by all of these people.



#### Group Safety Plan

#### Overview of Group Safety Plan 2028

The environment surrounding the JR East Group is in a state of great upheaval, with technological innovation, population decline, changes in lifestyles following the COVID-19 pandemic, and increasingly intense and frequent natural events. In order to eliminate the potential for previously unimagined accidents and incidents, it is necessary for us to respond appropriately to these changes. Group Safety Plan 2028 identifies four key areas to focus on over the next five years, and we will proceed with specific initiatives accordingly.

#### **Our Changing Circumstances**

Potential risks brought about by changes in workstyle and organization, systems, group administration, and fewe Potential risks related to greater intensity and frequency of natural events, population decline, advance of digital

ormation (DX), new lifestyles resulting from COVID-19 pandemic, and diversification of workstyles

#### Potential for unprecedented accidents or events.

Changing circumstances we must keep in mind have been divided into four categories:

- 1) Human/machine (or digital) interfaces
- 2) New workstyles and organization
- 3) Diversified methods of communication
- 4) Increased intensity and frequency of natural events

#### The need arises to identify specific initiatives from within these four categories and take appropriate action.

Detailed information is available on our website. Group Safety Plan 2028 A https://www.jreast.co.jp/e/data/pdf/group\_safety\_plan.pdf

#### Foreseeing the Unexpected

Significant changes in the operating environment, both internal and external, have increased the likelihood of "heretofore unforeseeable accidents or events." We will increase awareness using undertakings focused on the actual nature of the work at hand, remembering what has been useful in similar circumstances; we will address hazards that were previously unthought of; and we will identify and address issues even when working with new systems due to changes in the environment.

Starting with simple awareness and progressing onto imagining what could happen, we will prepare for hazards accordingly and prevent regrettable outcomes that we could have avoided.



People tend to limit their thinking when planning or strategizing and focus on "the expected," while outside those limits lies "the unexpected." But when people widen the boundaries of "the expected." that which may have been assumed as unlikely can now be considered as a possible future scenario.

The first step begins with increasing one's awareness. It is important to consciously increase awareness and widen the boundaries of one's assumptions.



We will look at things from a different point of view to increase awareness.

How to Increase Awareness

- Be extra conscious of unfamiliarity in a situation, especially when it is (1) Something new to you, (2) Something that has changed from before, or (3) Something you have been away from recently\* (\*called the 3Hs in Japanese: Hajimete, Henkõ, Hisashiburi).
- Learn from the perspectives of others-everyone has different assumptions.
- Observe! See how it is done at other workplaces, departments. branches, companies, and industries, etc.

#### Group Safety Plan

#### Four Key Areas

We have highlighted four key areas going through particularly important changes that will require attention over the five years through 2028. By understanding and reconsidering daily tasks while paying attention to these areas, we will address hazards that were previously unthought of.

#### 1) Human/Machine (or Digital) Interfaces

- We must properly understand the mechanics and structures of machines and how they operate in order to make informed judgments on malfunctions or irregular situations that
- can only be resolved by man power. We must try to foresee unanticipated situations based on our understanding of the above. and carefully consider what is involved when incorporating new systems.

#### 3) Diversified Methods of Communication

• We must ensure that crucial details are not overlooked or misunderstood. We must be selective in how we use which communication tools and for what situations, mindful how information is conveyed and/or received

#### The Legacy of Our Safety Culture

At the foundation of our safety initiatives is a culture of safety that the JR East Group has built up over the years. We will continue to cherish and nurture this culture of safety into the future.

#### The Origin of Our Safety Culture with the Challenge Safety Movement

We have been undertaking the Challenge Safety (CS) Movement since September 1988, emphasizing that each employee must take responsibility for safety and the initiative to act.





# Five Important Habits Resulting from CS Activities

Actions rooted in enforcement of the CS philosophy have resulted in the establishment of important habits that have reduced the number of accidents and recurrence of common mistakes. In the Group Safety Plan 2028, we work on our ability to foresee "the unexpected" based on these five habits.

#### **Five Habits**

The habit of "reporting properly"	This is where safety initiatives begin to take hold.
The habit of "noticing"	Recognizing and noticing warning signs and passing them on.
The habit of "confrontation	Confronting doubts, identify underlying issues to devise
and debate"	realistic countermeasures.
The habit of "learning"	Learning from incidents to apply lessons and prevent similar situations.
The habit of "action"	Thinking objectively when taking action is the key to safer resolutions.



#### 2) New Workstyles and Organization

- We must keep the nature of our job/work in mind when rules and structures are being overhauled and not take it for granted that things will be as they were before. Keep one step ahead and foresee potential hazards.
- To increase awareness among all employees on the frontlines, we must plan and implement training sessions where each one learns to think critically and independently

#### 4) Increased Intensity and Frequency of Natural Events

• We will increase use of meteorological data from outside sources, digitalization, establish new systems, and promote investment in disaster prevention training.

#### A Tried-and-True Code of Conduct for All Group Companies

Trying too hard to keep to schedules sometimes results in not following safety confirmation procedures properly, which jeopardizes safety. The entire JR East Group will commit to implementing our firm Code of Conduct to stop the train when it is unsafe to proceed.





Training on stopping train

#### The Three Actualities Principle for Action

Accidents and incidents always occur at the genba. Since they occur at the genba, the sources of accident prevention can also be found at the genba. We not only go to the genba but also link our impressions of it and what we learned there to safety action.

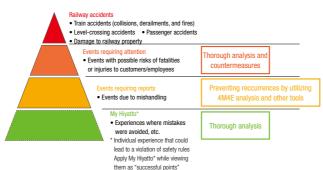
Actual locations: Visiting actual locations to understand actual conditions Actual objects: Viewing actual objects (rolling stock, equipment, machinery, etc.) in order to understand actual conditions Actual people: Meeting face-to-face with the people involved to understand actual situations



Visit to the Mikawashima Accident Memorial

#### Learning and Applying the Warning Signs

In order to prevent accidents and other events from occurring as well as prevent their recurrence, we have established rules regarding the reporting and classification of accidents and other events.

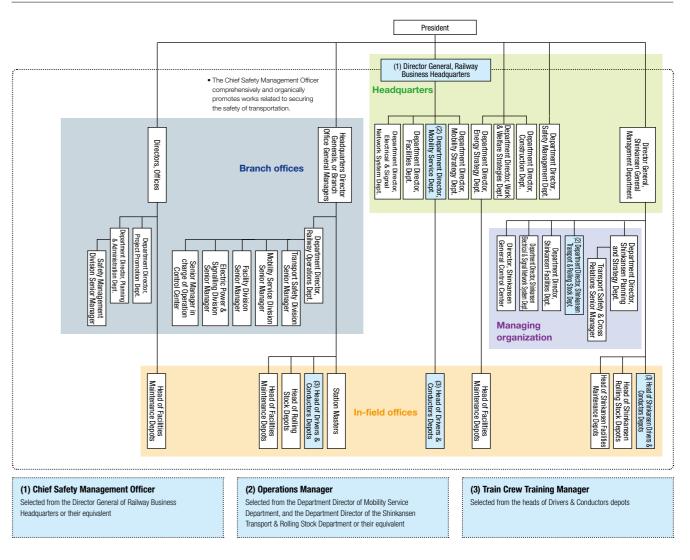


# How We Organize Safety Management

### Safety Management Regulations

In response to a revision of the Railway Business Act, JR East formulated its safety management regulations in October 2006. These stipulate various safety management-related matters such as the responsibilities of top management executives in ensuring the safety of operations and in organizational matters and the selection of chief safety management officer, operation managers, and train crew training managers. To ensure transportation safety, we have built a system to promote operations centered on safety management officers and involving executives responsible for safety through to frontline staff.

#### Management Structure for Transportation Safety



# Structures to Promote Safety Measures

In 1987, we established the Railway Safety Promotion Committee, chaired by the director general of the Railway Operations Headquarters, at head office. This committee aims to enhance railway safety and prevent accidents by elucidating the causes of major accidents, formulating measures to prevent recurrence, and determining and promoting measures for safety-related equipment and rolling stock.

We also have Regional Safety Promotion Committees, which are chaired by the heads of branch offices and managing organizations. These committees enhance railway safety at branch offices and seek to prevent accidents. They also liaise with the Railway Safety Promotion Committee to implement specific measures.

JR East Group | INTEGRATED REPORT 2024 60

# Efforts to Further Improve Safety Levels

# **Fostering Safety-Oriented Personnel**

### Safety Education and Training

JR East elevates the safety awareness and skills of its employees through education and training at the JR East General Education Center in Shirakawa City, Fukushima Prefecture, at general training centers and skill training centers at its branch offices, and through on-the-job training in each workplace.





Practical drills on training tracks

#### Accident History Exhibition Hall

We have established the Accident History Exhibition Hall within the JR East General Education Center to provide a place for all employees to learn about and reflect on the tragedies of past accidents and the major social responsibility borne by railways.

Evolution of the Accident History Exhibition Hall 2002: Main Hall established

2014: Train Carriage Preservation Hall established 2018: Expansion of Main Hall and establishment of Analysis Hall





Train Carriage Preservation Hall

#### Use of Education and Training Facilities

As one aspect of its efforts to train personnel to respond to environmental change, JR East has established education and training facilities to cultivate an understanding of the essence of work. In addition, at its headquarters and branch offices, it has educational facilities where employees can learn about the background to and countermeasures for serious accidents and events that have occurred previously in individual jurisdictions.



A simulator brings the crew-membe training experience to life using actual video footage

Tokyo Metropolitan Area Construction Project Management Office: An Exhibition Room for Learning from Accidents

#### **Development of Personnel Responsible for Safety**

In an environment where the structure of work is undergoing major changes such as the introduction of new systems, cooperation among employees is crucial as it lies at the core of our safety initiatives. We will work towards further collaboration and continue to develop human resources who will shoulder the responsibility for safety and expand each individual's safety efforts from the workplace, which will lead to further improvement of safety throughout the Company.

#### Lead Safety Initiatives at Work Sites and Other Locations, and Develop Human Resources Who Can Take Responsibility for Safety







Junior Safety Expert Training

# Safety Expert Training

#### Safety Storytellers (Narrators of Oral History)

To educate employees who can share and pass on safety-related knowledge, leadership, and technological capabilities within the Company, we have appointed highly experienced and technologically capable employees in various specialized fields as safety storytellers, or narrators of oral history.

In addition, our headquarters, branch offices, and front offices also foster a culture that encourages employees to discuss their experiences voluntarily. Efforts are expanding to learn lessons from accidents and other events, to gain experience and knowledge, and to pass on such understanding to future generations.





Local storytellers at branch offices, and other locations

# The Railway Safety Symposium

To further enhance railway safety, each year we hold the Railway Safety Symposium. We strive to gain knowledge through lectures and discussions by local experts and share examples of good practice at workplaces.

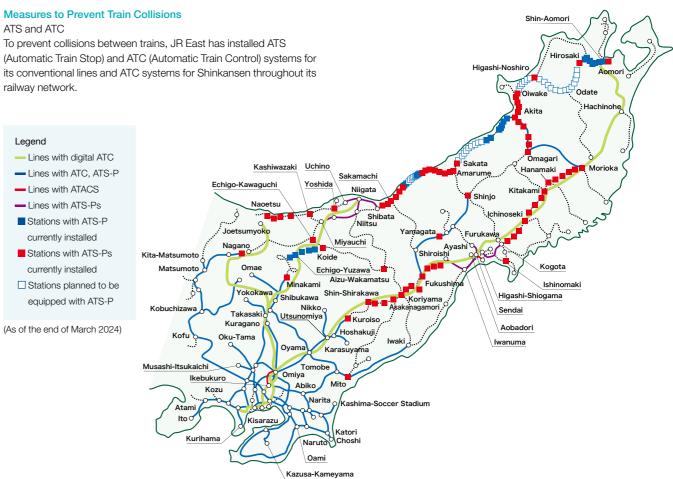


# Safety Measures for Train Operation and Maintenance Work

#### Measures to Prevent Train Collisions

#### ATS and ATC

To prevent collisions between trains, JR East has installed ATS (Automatic Train Stop) and ATC (Automatic Train Control) systems for its conventional lines and ATC systems for Shinkansen throughout its railway network.



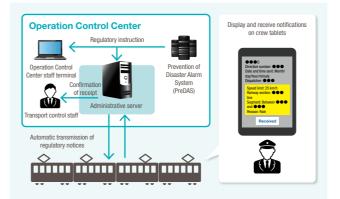
#### Maintenance Status

Installation Status as of the End of Fiscal 2024			
ATC	Now equipped on all Shinkansen, the Yamanote Line, the Keihin-Tohoku/Negishi Line,	ATS-P	Completed installation in 28 major stations and railway sections for
AIC	and the Joban Local Line	system	2,484.7 km
ATACS	Now equipped on the Senseki Line (Aobadori–Higashi Shiogama) and the Saikyo Line	ATS-Ps	Completed installation in 71 major stations and railway sections
AIAUS	(Ikebukuro–Omiya)	system	for 210.8 km

#### **Driving Restriction Notification System**

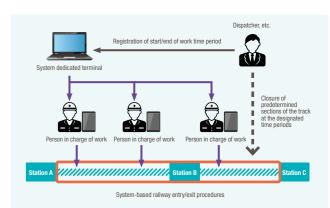
If observed values exceed specified limits at times of heavy rain or strong winds, train speeds are restricted to ensure safety. In the past, the dispatcher transmitted the restrictions to the driver by wireless, but in September 2019, we introduced an automated notification system to help prevent human error.

#### How the Driving Notification System Works



## Improving the Safety of Maintenance Work

During track maintenance work, we ensure the safety of workers by using a track closure procedure, which prevents trains from entering the area while the work is taking place. In December 2020, we introduced a system that closes the tracks in advance at predetermined sections and time periods, allowing staff performing work to use the system to perform track entry and exit procedures.



Providing Society with Safe, Reliable Infrastructure

# Safety Activities at JR East and Group Companies

The division of work continues between JR East and JR East Group companies. In order to improve safety, however, we must work together with the same sense of values. We built JR East Safety Network (JES-Net), and 41 companies have now joined it. JES-Net carries out checks to ensure that safety works have been carried out correctly, facilitates discussions, and works to solve problems and improve safety levels across JES-Net.



Confirmation of work by JES-Net

## KYT Trainers Driving Safety Within the Company



Katsuyuki lijima Safety Planning Department JR Chiba Railway Service Co., Ltd.

JR Chiba Railway Service Co., Ltd. had been facing a perennial issue of repeated accidents and incidents. To address this issue, as well as to encourage employees to consider potential dangers in their everyday work, the Company introduced KYT (danger prediction training), which has been in use in the construction industry since 2011, and it currently has 88 in-house trained KYT trainers who are actively working in their respective workplaces. KYT trainers conduct training by focusing on recurring events and considering various scenarios to prevent hidden dangers during work, such as by implementing role-playing using actual vehicles.

By conducting a range of KYT-based training in this way, safety awareness has increased throughout the company, and we were able to achieve zero "vehicle operation-related accidents and incidents" in fiscal 2024. We will continue to work to enhance our safety levels.





KYT trainer training

Emergency response training planned and operated by KYT trainers

# Safety Initiatives for BRT Services

In the Kesennuma Line/Ofunato Line BRT service, we are working to ensure safety in cooperation with our two subcontractors, Miyako Bus Co., Ltd., and Iwate Kotsu Co., Ltd. In addition to various training using actual vehicles and joint information



exchange meetings between the three companies, we also share and solve issues as well as work to strengthen collaboration through BRT Safety Meetings, where safety officers exchange opinions on site.

# Preparedness Against Natural Disasters

Natural disasters have been intensifying throughout Japan. For example, in March 2022, the Tohoku Shinkansen derailed due to the 7.4-magnitude earthquake off the coast of Fukushima Prefecture, and Hokuriku Shinkansen carriages were submerged at the Nagano Shinkansen Rolling Stock Center when the Chikuma River flooded during Typhoon No. 19 in 2019. We are therefore implementing a range of measures and initiatives to prepare for such intensifying natural disasters.

#### Our Measures Against Earthquakes -

#### Seismic Reinforcement Measures

Learning from earthquake damage in the past, we are systematically conducting seismic reinforcement of our structures to prepare for large-scale earthquakes such as an earthquake striking the Tokyo metropolitan area directly, which is expected to happen in the near future.

# Evolution in Seismic Reinforcement Measures

- May 2003: Sanriku-Minami Earthquake
- Expansion beyond the area of the emergency seismic reinforcement
- measures

# October 2004: Niigata Chuetsu Earthquake March 2011: Great East Japan Earthquake

- Commencement of seismic reinforcement measures in preparation for an earthquake striking directly below Tokyo Expansion of countermeasure areas and addition of further measures
- based on the latest knowledge

#### March 2022: Earthquake off the coast of Fukushima

Review of reinforcement plans for "ramen" rigid frame viaduct abutments, utility poles, etc.





Seismic reinforcement of elevated reailway

#### KPIs

tracks

KPIs (Numerical Targets for FY2028)		FY2024 Results	
Countermeasures for major	Shinkansen	Shinkansen 38%	
earthquakes (seismic	100%*	Shirikari 3611 3070	
reinforcement): Rigid-frame	Conventional lines	Conventional lines	
viaduct abutments (subject to	100%	21%	
ministerial ordinances, etc.)	10070	2170	

\* Target for FY2026

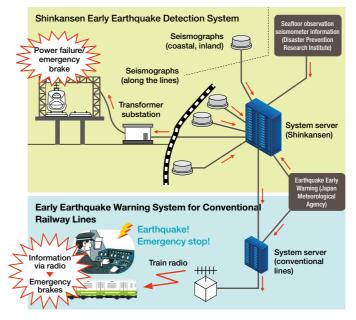
#### Measures for Emergency Stopping of Trains

We are constructing systems to ensure that high-speed trains can stop as quickly as possible in the event of an earthquake. Since the opening of the Shinkansen line, these systems have undergone various improvements, including the addition of more seismometers, improved methods for estimating earthquake information, and the use of external earthquake information such as the Japan Meteorological Agency's Earthquake Early Warning System and the ocean-floor seismometers of the National Research Institute for Earth Science and Disaster Resilience. In 2023, we improved the process for estimating earthquake magnitude after earthquake detection. Verification of 13 earthquakes over the past three years has shown that the revised estimation method reduces the time required to stop power transmission after detection of the first weak tremors from an average of 3.9 seconds to an average of 1.3 seconds, a reduction of 2.6 seconds. All Shinkansen seismometers have been improved, and we have been using them since March 2024.

Using the seismic information provided by this Shinkansen system, we have also installed an early earthquake warning system on

conventional lines to provide emergency stop notification if large-scale earthquakes are observed.

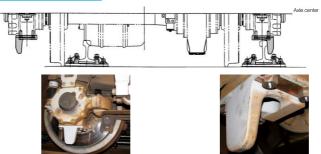
#### Shinkansen Early Earthquake Detection System



#### Measures to Prevent Derailment on Shinkansen

We have measures in place to prevent Shinkansen trains from deviating too far from the track even in the event of derailment due to an earthquake. In addition, in response to the derailment of a Shinkansen train caused by the March 2022 earthquake off the coast of Fukushima, we are considering new derailment prevention measures, such as further improving derailment prevention effectiveness and creating a vehicle structure that exerts strong damping force against strong lateral shaking and decreases the likelihood of derailment.

#### L-Shaped Car Guide





L-shaped car guide

## Preventing Breaks at Glued Insulated Joints



#### **General Emergency Drills**

### Rail Rollover Prevention Devices



Every year, we conduct comprehensive disaster-preparedness drills, assuming an earthquake has struck, most notably during disaster prevention week, which includes September 1st. In the fiscal 2024 training, fire drills were also conducted, taking into account the fact that this was the 100th anniversary of the Great Kanto Earthquake. In addition, at stations and other locations at risk of flooding, we are working with relevant parties to conduct drills simulating flooding at stations that are prone to such risk.



On-site disaster countermeasure headquarters operational drill



Firefighter drill for rescuing passengers

# Implementation of Rescue and First Aid Drills and Preparation of Kits

In the wake of the Great East Japan Earthquake, JR East conducts its own rescue and first aid training courses with the aim of ensuring passenger safety and teaching our employees first aid to administer as first responders in the event of a major earthquake. We also prepare kits to meet various rescue needs.



JR East rescue/lifesaving course



#### Measures Against Tsunamis

Before the Great East Japan Earthquake, we had set operational restriction methods and tsunami danger zones for each location, prepared manuals, and were holding study sessions and conducting drills on guiding passengers to alight from trains for evacuation. We believe that these efforts led to the prompt evacuation of passengers away from tsunami danger zones at the time of the earthquake.



Tsunami evacuation manual



Drill to guide passengers in alighting from a train in an evacuation

Introduction

#### Preparedness Against Natural Disasters

#### Formulating Action Guidelines for Evacuation to Avoid Tsunamis

In January 2012, JR East formulated action guidelines for each of its employees to follow to ensure effective evacuation even when there is limited time to act before the arrival of a tsunami.

#### Action Guidelines for Evacuation to Avoid Tsunamis

- (1) At the time of a large earthquake, be prepared for tsunamis. Gather information by yourselves and if communication lines are disconnected, make your own decisions for evacuation. (Do not hesitate because you are worried about evacuating and then later realizing that a tsunami has not in fact occurred.)
- (2) Having decided to evacuate, judge the conditions of passengers, and promptly guide passengers to evacuate
- (3) In alighting from trains, evacuating, and gathering information, ask passengers and local people to cooperate.
- (4) Even after evacuation, keep moving toward higher places without assuming that you are high enough to be safe.
- (5) Stav evacuated with customers and do not return to field offices or trains while tsunami warnings are still being issued

#### **Tsunami Evacuation Navigation System**

Learning from the tsunami evacuation at the time of the Great East Japan Earthquake, we have developed and introduced tools to help crew on trains in operation to guide passenger evacuations in unfamiliar locations.



#### Measures for Rainfall

To prevent landslides due to rainfall, we are systematically implementing disaster prevention measures along slopes and other areas throughout the railway network.



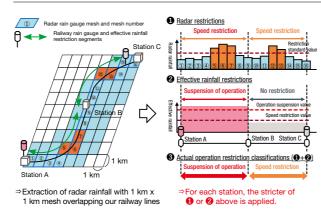


Embankment slope protection (sprav framework

Cutting slope protection (sprav framework)

In recent years, rainfall disasters have become more severe as well as more frequent, and localized heavy rains are on the rise. In response, in June 2023, we introduced new operational regulations using precipitation radar on conventional lines. On Shinkansen as well, to prepare for the increased risk of disasters due to recordbreaking rainfall and other future anticipated events, since fiscal 2022 we have been proceeding with rainfall disaster prevention work. In addition, in 2020, we introduced new regulations requiring detailed assessment of rainfall volumes using weather radar and the temporary suspension of Shinkansen operations in the event of heavy rain to confirm safety.

Conceptualization of Train Operation Restrictions Using Precipitation Radar on Conventional Lines

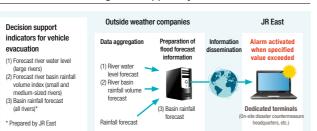


#### Initiatives to Address Flooding

We have been working to enhance flood-response measures, having suffered significant damage from Typhoon No. 19 in October 2019, when overflowing rivers caused damage to railcars on the Hokuriku Shinkansen.

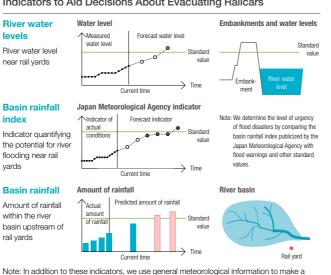
For railway facilities, we have been setting priorities for each facility and implementing hardware measures. In addition, utilizing hazard maps, we have introduced a Vehicle Evacuation Judgment Support System at rail yards where there is a risk of flooding, to promptly evacuate vehicles in the event of a disaster. With this system, we have developed indicators to support decisions on vehicle evacuation, and when each indicator reaches the set value, an alarm sounds to notify the people concerned.

#### Vehicle Evacuation Judgment Support System



Note: The evacuation of railcars is judged based on comprehensive consideration of the system and general meteorological information.

#### Indicators to Aid Decisions About Evacuating Railcars



comprehensive decision on railcar evacuation

#### Protecting Against Strong Winds and Gusts

Since a train accident on the Uetsu Main Line in December 2005, we have introduced the major wind-related initiatives described below.

#### Increased Number of Anemometers (Wind Meters

We typically install multiple anemometers on sections where wind-based operating restrictions are in effect. We have also increased the number of anemometers in locations where windbreak fences have been



Uetsu Main Line, between Sagoshi and Kita-Amarume

are also moving toward the installation of dual anemometers.

#### Installation of Windbreak Fences

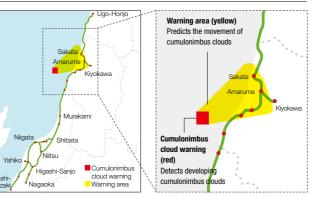
installed. To ensure accuracy, we

We install windbreak fences to protect railcars from the wind.

#### Utilizing Meteorological Information for Operation Control

We have developed a method to restrict operations using meteorological information, such as rain intensity measured by the Japan Meteorological Agency's weather radar and the agency's "nowcasts" on the likelihood of tornadoes, to predict gusts of wind that could be generated by cumulonimbus clouds. We are currently using this system along sections on the Sea of Japan in winter.

### Display Image of Operation Control Area Using Meteorological Information

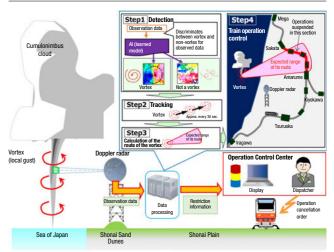


#### **Operation Control Method Against Wind Gusts Using Doppler Radar**

The system uses a Doppler radar to detect vortices that cause wind gusts by observing the movement of raindrops and other objects in the sky, and it issues an alarm when a train track is located within the predicted path of the vortex. This system was jointly developed with the Japan Meteorological Agency's Meteorological Research Institute and has been in operation on the Uetsu Main Line and in some sections of the Rikuu West Line since winter 2017. Since then, we have continued to expand the scope of train operation regulations and to improve the accuracy of vortex detection using Al.



Doppler radar installed at Kuromori, Sakata



### Operation Control Method against Wind Gusts Using Doppler Radar

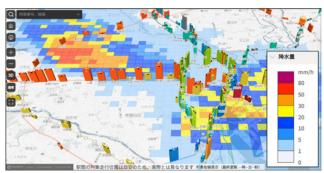
## Initiatives for Volcanic Eruptions

The main characteristics of volcanic disasters are the impacts of volcanic mudflows and ash fall, and in particular even a small amount of volcanic ash fall can potentially impact train operations. JR East uses volcanic hazard maps issued by local governments to identify those railway lines and sections that will likely be affected, and, if there is a risk of a volcanic eruption, we set up a countermeasures headquarters to determine whether train operations can continue and whether evacuation is necessary.

## Initiatives Related to the Use of Weather and Disaster Prevention Information

We have assembled JEMAPS, a digital twin platform that automatically collects a vast amount of internal and external data related to railway operations and weather and natural disasters, which have become increasingly severe in recent years, from systems, data infrastructure, and other sources, and displays it on a single map. We began putting JEMAPS into use in June 2022.

Features	<ul> <li>Visualizes information in an easy-to-understand way</li> <li>Reflected on the platform in real time</li> <li>Collected data is stored in database with searchable history</li> </ul>
Method of use	<ul> <li>Confirmation of railway operation status, warnings, advisories, landslides, inundation damage, flood risk distribution, etc., in the event of heavy rain or an earthquake</li> <li>Used as reference information for customers and employees to make evacuation decisions, in combination with information obtained on-site</li> </ul>



JEMAPS aerial view of the Tokyo metropolitan area: "Railway operations + local heavy rain"

Providing Society with Safe, Reliable Infrastructure

## Safety Measures at Level Crossings

We are working to improve the safety of level crossings, from both tangible and intangible perspectives, so that our customers and local communities can rest assured when using them.

#### Efforts to Eliminate Level Crossings

Our principal measure for preventing accidents at level crossings is to eliminate such crossings. We are working with people in local communities to elevate, consolidate, and eliminate level crossings. Where it is difficult to eliminate Class 3 and Class 4 crossings, we are converting them to Class 1 crossings.

### Number of Level Crossings Eliminated over Past Five Years (Including Those Transferred to Third-Sector Operators)

Fiscal Year	2020	2021	2022	2023	2024
Reduction	101	18	8	38	11

#### **Tangible Perspective Measures**

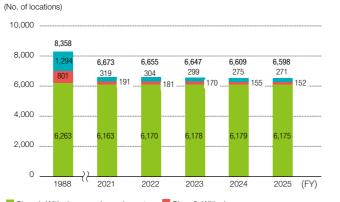
**Obstacle Detectors** 

To prevent train derailments due to collisions with vehicles, etc., of all sizes, we are installing equipment to detect vehicles stuck at level crossings where trains will be passing through.

Our obstacle detectors use 3D laser radar that covers the overall level crossing area and achieves higher detection performance than conventional equipment. We are steadily installing these detectors with newly improved features that set higher standards for detection performance and reduce false positives caused by falling particles such as rain and snow.



Changes to the Number of Level Crossings (As of April 1)

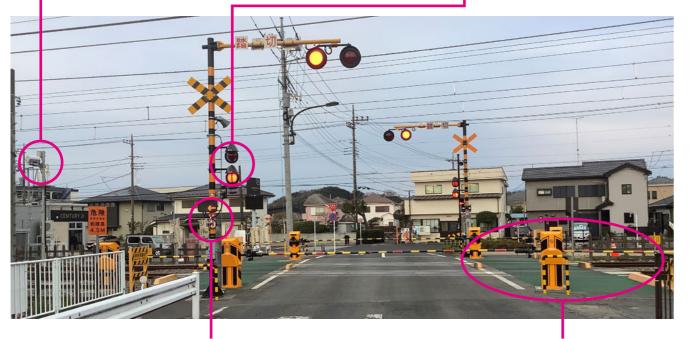


Class 1: With alarms and crossing gates Class 3: With alarms Class 4: Without alarms and crossing gates

> **Omnidirectional Warning Lights** Regarding level crossing warning lights to notify the approaching of a train, we are replacing conventional warning lights with omnidirectional warning lights so that they can be easily seen



by elderly people with lower sight lines and automobile drivers who enter level crossings from roads.





Level Crossing Obstacle Alarm Devices (Emergency Buttons) We are installing emergency buttons to notify train operators of danger if vehicles, etc., get stuck at a level crossing. So far, we have completed the installation of these devices at all level crossings within a 100 km radius of Tokyo where vehicles pass, as well as at level crossings susceptible to tsunami damage. In fiscal 2018, we also improved the visibility of all emergency buttons and standardized guide signs.

Level Crossings for Easier Passage In addition to elevating and widening roads at level crossings, where necessary, we are using colored pavements or adopting other approaches for roads that cross railways, such as building pedestrian overpasses, and making improvements as dictated by local conditions.

#### Safety Measures at Level Crossings

# Campaigns and Other Activities Aimed at People Using

**Railway Level Crossings** We collaborate with police and other relevant organizations to encourage accident prevention at level crossings and schools. In addition, every year we carry out campaigns such as broad-



casting accident-prevention videos and broadcasting radio commercials in cooperation with other railway operators.

#### Platform Safety Measures

We are working to improve the safety of our platforms from both tangible and intangible perspectives so that passengers can rest assured when using our stations.

#### **Tangible Perspective Measures**

CP (Color Psychology) Lines



Braille Blocks That Indicate Which Direction Is Away from the Edge of the Platform

These lines use colors that people associate with danger to encourage a visual and psychological connection between danger and the platform edge

inside of the platform from the platform edge.



#### Initiatives Involving Class 4 Level Crossings

Class 4 level crossings are not equipped with alarms or crossing gates. We are working with local communities to eliminate such crossings or upgrade them to Class 1 level crossings. In addition, as another measure to



prevent accidents at level crossings, we are erecting caution signs and erecting whistle boards to warn people at crossings of approaching trains.



on the insides of platforms and put in place blocks that make it easy to distinguish the

We have designed

linear protrusions

#### Installation of High-Resolution ITVs



We have installed high-resolution ITVs for station staff and conductors to monitor the platforms and tracks.



**Emergency Stop Buttons on Platforms** 

We have installed emergency stop buttons on platform pillars so that people can notify drivers, conductors, and station staff of danger.

#### Platform Doors

We are installing platform doors to prevent people from coming into contact with trains or falling onto tracks



Smart Platform Door

68

#### Sustainability

Providing Society with Safe, Reliable Infrastructure

#### Platform Safety Measures

#### **Platform Door Installation**

To prevent accidents involving customers falling from platforms or coming into contact with trains, we are installing platform doors. By the end of fiscal 2024, we had completed the installation of platform doors at 104 stations (a total of 117 stations<sup>\*1</sup> by line) on 233 tracks, mainly on the Yamanote, Keihin–Tohoku, and Negishi lines.

Thus far, we have given priority to platform door construction work

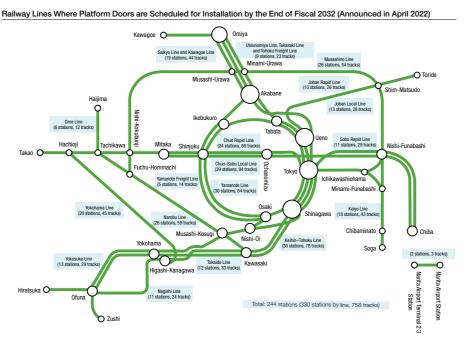
on about 660 major tracks, with the goal of installing platform doors at 243 stations (330 stations by line) on major conventional lines in the Tokyo metropolitan area by the end of fiscal 2033. To achieve even faster construction, we will expand the scope of construction to 244 stations (330 stations by line) on 758 tracks of conventional lines in the Tokyo metropolitan area, including passing sidings. We aim to complete construction by the end of fiscal 2032, one year earlier than previously planned, by introducing lightweight Smart Platform Doors® and reducing the construction period through a review of design loads.

\*1 The number of stations is counted by line, e.g., Yurakucho Station is counted as two stations, one on the Yamanote Line and one on the Keihin– Tohoku Line.

#### KPI

KPI (FY2032 Numerical Targets)		FY 2024 Results
Railway stations and	330 railway	117 railway stations, 233
tracks with automatic	stations, 758	tracks (approximately
platform gates	tracks	31%*2 progress)

\*2 Based on the number of tracks



#### Campaigns and Other Activities for Customers Using Our Railways

In addition to customer care and assistance carried out by station staff and guidance provided through station broadcasts, we conduct the year-round Assistance and Support campaign, which solicits the cooperation of not only JR East Group employees but also general customers using our rail services to assist customers in need, including those with visual impairments.

In addition, together with various companies and agencies, we are jointly implementing campaigns such as Zero Platform Accidents, and Stop Using Smartphones While Walking.



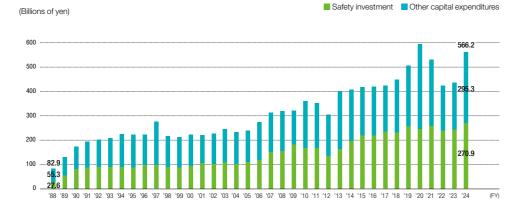
ブラットホーム事故日運動 あますの

Accident prevention poster

Investment in Safety Facilities

Since its establishment, JR East has prioritized investment in safety. In its Group Safety Plan 2028, JR East expects to invest approximately ¥1.3 trillion in safety. Through ongoing comprehensive risk assessments that take into account environmental changes, we will continue to make effective safety investments, enhance safety equipment, and develop technologies that contribute to increased safety.

#### Trends in Safety Investment and Other Capital Expenditures (JR East's Non-Consolidated Figures)



# Improvement of Transportation Services Quality

# Safe and Reliable Transportation That Meets Customer Expectations

Based on the Vision for Service Quality Reforms 2027, all employees of the JR East Group are united in their efforts to improve service quality from the customer's perspective.

As an important part of social infrastructure that supports the daily lives of customers and Japan's economy, railways must provide safe, reliable transportation. However, we have also experienced transportation disruptions caused by the JR East Group due to increasingly severe natural disasters and breakdowns in vehicles and equipment, and we are therefore working to prevent the spread of such disruptions and their impact on our customers.

To further improve our transportation services, we are promoting initiatives from the following perspectives.

**Preventing Transportation Disruptions** 

We will promote cooperation within each department and within the Group, analyze the causes of transportation disruptions, and identify and implement priority countermeasures.

Minimizing the Impact on Customers

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

Providing Information in the Event of Transportation Disruptions We will see things from the customer's perspective and provide prompt and specific information that will help them decide on their next action.

#### KPIs

KPIs (Numerical Targets for FY2028	FY2024 Results	
Transportation disruptions due to internal causes		
(1) Conventional lines within 100 km of Tokyo	55% reduction	8% reduction
(2) JR East Shinkansen	75% reduction	31% reduction
Total delay time due to internal causes, conven- tional lines within 100 km of Tokyo	70% reduction	16% increase

Targets and results are compared to FY2019

### Preventing Transportation Disruptions ———

# Initiatives to Address Transportation Disruptions Caused by the JR East Group (Internal Causes)

We will improve the reliability of equipment by strengthening systems, ground equipment and others, and identifying signs of failure using condition-based maintenance (CBM) monitoring technology. We will also work to prevent transportation disruptions by repairing weak points in equipment where transportation disruptions have occurred in the past.

Dealing with Natura Disasters As part of our

measures to deal

hardware mainte

nance such as

with natural disasters.

we are implementing



Track facility monitoring

strengthening civil engineering structures, reinforcing earthquake resistance, installing snow melting machines, and taking anti-flooding measures. In addition, we prioritize systematic tree felling prior to typhoon and snowfall seasons to prevent disruptions due to fallen trees.

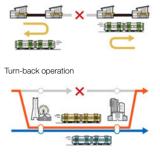
# Minimizing the Impact on Customers

#### Initiatives to Minimize the Impact on Customers after Transportation Disruptions Occur

We strive to minimize the impact on customers by implementing turn-back operations at stations along operable line segments, and by switching to separate lines in sections where train lines run parallel to each other.

#### Initiatives for Prompt Resumption of Operations and Customer Aid

Through drills that simulate various transportation disruptions, the Group is working together to improve its response capabilities, such as early resumption of operations and rescue of customers from trains that are stopped between stations. It also conducts drills for helping passengers off trains, assuming the presence of customers who require special care, such as customers with physical disabilities or the elderly.





Separate line operation

Exit guidance drills

#### Providing Information in the Event of Transportation Disruptions

#### Announcement of Train Service Resumption Times

We work to announce the expected resumption of operations within approximately 30 minutes of the occurrence of a transportation disruption.

#### Information Enhancement

We promptly communicate information on train delays and cancellations to our customers through announcements at stations and on trains. We also provide information on service information and train operation plans among others through various channels such as our website, the JR East app, social media (Official Operation Information, X, Weibo), and others.

# Notice of Special Arrangements and Initiatives Concerning Train Operations

We have created the JR East *Naruhodo* Q&A Guide and related videos about things we want our customers to know, such as what to do in the event of a natural disaster or emergency and questions about train operation, and published them on our website.





JR East official website

JR East Naruhodo Q&A Guide: Emergencies Introduction

Data

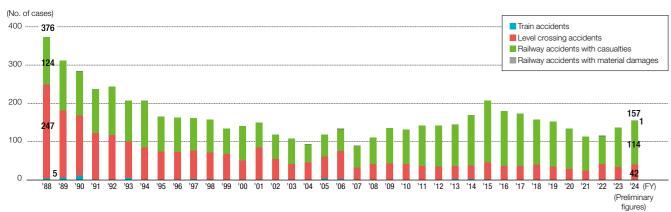
# Current Safety Record of JR East

### **Railway Accidents**

In fiscal 2024, JR East recorded 157 railway accidents, down significantly from the level at time of the Company's foundation. Railway accidents with casualties accounted for approximately 70% of the total number of railway accidents. There were zero train accidents in the fiscal year under review.

Train accidents	Train collisions, derailments, and train fires
Level crossing accidents	People or vehicles being hit by trains
Railway accidents with casualties	People killed or injured by train operation excluding suicide
Railway accidents with material	Railway accidents resulting in material damage of
damages	¥5 million or more by train operation

Occurrences of Railway Accidents \* From the third quarter of FY2014, incidents which cannot be determined as suicides are classified as level crossing accidents or railway accidents with casualties,



### Administrative Guidance

In fiscal 2024, we received two instances of administrative guidance.

#### Collision of Tokaido Line train with electric pole resulting in personal injury and co

Overview: On August 5, 2023, a Tokaido Line train collided with a utility pole inside Ofuna Station while in operation, injuring passengers and crew. In addition, train service was suspended for a long period of time, and many passengers had to be helped off the train.

Countermeasures: When cracks occur like those in the affected pole, we will systematically carry out reinforcement or reconstruction of poles where there is the risk that such cracks will fail to close. We have also added a new procedure for promptly instructing passengers to disembark from multiple trains

# • Damage to railway property caused by overhead line failure on the Overview: On January 23, 2024, a train entered a section of the Tohoku Shinkansen between Ueno Shinkansen No. 1 Depot and Omiva Station where overhead wires were hanging down, thereby damaging the train and overhead wire equipment. In addition, an employee of an affiliated company was electro-

cuted while preparing for restoration work. Consequently, trains on the Tohoku, Joetsu, and Hokuriku Shinkansen lines were suspended for the entire day. Countermeasures: We will reinforce or replace the equipment that maintains the tension of overhead wires to prevent the wires from sagging. In addition, we have established new rules for handling cases where sagging wires are identified.

#### Incidents

In fiscal 2024, there was one incident recorded.

• Tohoku Main Line Between Shin-Shiraoka and Kuki Stations: Event in which a barrier failed to descend when the train passed (the cause was a malfunction in the equipment controlling the crossing).

Incidents:	Situations where it is recognized that there is a risk of a railway operation accident, as stipulated by the Railway Accident Reporting Regulations (Ordinance of the Ministry of Land, Infrastructure, Transport and Tourism)
------------	---

# **Transportation Disruptions**

JR East recorded 1,639 cases of transportation disruption in fiscal 2024. Compared with fiscal 2023, there was a noticeable increase in natural disasters and collisions with animals.

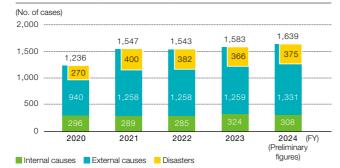
		Excepting railway accidents, transportation disruptions encom-
	Transportation	pass train service cancellations due to failures of trains or facilities,
	disruptions	mishandling by employees, or disasters, and delays to passenger
		trains by over 30 minutes or other trains by over an hour.
1	Disasters	Natural phenomena such as powerful storms, heavy rainfall, heavy

snowfall, flooding, high tides, earthquakes, tsunamis, etc. External

External causes such as trespassing or suicide causes

Internal Internal causes such as those related to staff, trains, or facilities causes

#### Number of Transportation Disruptions



# **Creating a Vibrant Society**

We will provide quality services that are inclusive and convenient. We will work in partnership with local communities to develop vibrant towns.



#### Regional Revitalization

Comfortable Cities

Inclusive Society

## **Regional Revitalization**

### Goals

• Growth in the number of people engaging with eastern Japan

Promotion of regional economic revitalization

#### Policy

In collaboration with local communities, JR East will undertake to meet local needs with companionable community development. co-creation with local startups, using DX to solve local issues, and building a sustainable transportation system for local lines.

#### KPI

KPI (Numerical Target for FY202	FY2024 Results	
Collaborative initiatives with local		
communities to increase tourism and	150 in total	31 in total
revitalize regions		

#### Companionable Community Development

The Company is implementing companionable community development, which utilizes the assets of the JR East Group to create new value in response to local issues, with the aim of promoting sustainable community development through win-

win relationships between the

Group and local communities as



First Annual JR East Regional Co-creatio Awards

well as increasing human interaction, visitor numbers, and the size of resident populations.

#### Sustainable Community Development

One of our KPIs is to implement 30 initiatives a year for tourism promotion and regional revitalization in collaboration with local communities through action such as companionable community development, and we are accelerating our efforts to create sustainable communities by providing support tools aimed primarily at employees at our stations or general management centers who serve at the front lines of communities, developing human resources through workshops, and sharing best practices through the JR East Regional Co-creation Awards.

### Basic Concept

Since the JR East Group provides regional mobility and operates businesses with close ties to local communities, creating a vibrant society, even in the face of a declining population, is the foundation of its business operations.

In rural areas, the JR East Group will increase the number of visitors and revitalize regional economies in eastern Japan through companionable community development using the JR East Group network. In urban areas, the JR East Group will link its various services and promote the development of comfortable and attractive cities by providing new value. In addition, the JR East Group will pursue the achievement of both tangible and intangible barrier-free living to achieve an inclusive society where all people live together in harmony.

Through these efforts, we hope to bring prosperity to local communities and further strengthen the trust of our customers and local residents.

#### Efforts for Sustainable Community Development



#### Yu Kato

Yokote & Omagari General Management Center Akita Branch Office (Current position: Railway Operations Department, Akita Branch Office)

Utilizing unused space at Yokote Station, we supported the open ing of Stella, a gelato shop run by local high school students. With the support of Sail on Japan, a general incorporated



association that provides career education to students, these high school students are taking on practical business challenges, from running a store to planning, producing, and selling gelato using local ingredients and vegetables and fruits they have produced themselves. It is highly rewarding to see these high school students grow and achieve their goals. Youth out-migration is an issue for Akita prefecture but we hope to help young people rediscover the charm of their hometowns and support their dreams of wanting to work hard and contribute to their hometowns. We will continue to work with the local community to create exciting and thrilling stations and bring vitality to the area.

# Attractive Urban Development in the Aomori Station Vicinity through Regional Collaboration

The Aomori Station East Entrance building, which utilizes the former station site, fully opened in July 2024. The area serves as a base for local lifestyle development, and includes &LOVINA, operated by JR East Aomori Business Development



Company, as well as the Civic Art Exhibition Hall. Additionally, in collaboration with local stakeholders, we will establish hubs for creating destinations such as an information center for World Cultural Heritage sites in Aomori Prefecture and a hotel run by a local medical group, and thereby increase the number of visitors to the area.

The Aomori Station East Entrance building will serve as a base for urban development, and in collaboration with various facilities and initiatives around Aomori Station, we will create even more excitement together with the local community.

# **Creating a Vibrant Society**

#### **Regional Revitalization**

#### Co-creation with Local Startups

JR East Start UP Co., Ltd., which promotes investment and collaboration with startup businesses, established JR East Local Startup LLC in April 2023 to carry out regionally specialized investment and collaboration to accelerate co-creation



MARKET inside Odaka Statio

activities with local startup companies that conduct locally rooted business. Utilizing the knowledge and know-how that it has gained through open innovation activities such as the JR East Startup Program, JR East Local Startup will specialize in individual regions, solve local issues, and support the sustained growth of local startup companies. From JR East Local Startup's establishment through March 2024, it has invested in two locally rooted companies, Haccoba Co., Ltd. and Ensen Marugoto Co., Ltd., and it contributes to the further revitalization of local communities and the achievement of enriched lives.

#### Using DX to Solve Local Issues-

We will contribute to solving local issues by creating livable towns and profitable industries using digital technology.

#### **Our MaaS Solution, Tabi-CONNECT**

Aiming to achieve seamless and stress-free travel, we have been building a Mobility Linkage Platform (MLP), which provides customers with all-in-one route search, arrangement, and payment services for mobility.

Tabi-CONNECT is a Mobility as a Service (MaaS) platform that packages the common functions of regional and tourism-oriented MaaS from MLP and can be provided to external organizations. In particular, the enhanced content management system offers customization capabilities and can be deployed in many regions with minimal effort, while taking into account the specific needs of each region.



#### Assembling Living and Transportation Networks Tailored to **Regional Characteristics**

In addition to the Suica's basic service, such as train fare and e-money, we will work with local transportation operators to expand the adoption of regional collaboration IC cards that deliver regionallyspecific services such as bus commuter passes and various discounts. As of the end of March 2024, the regional collaboration IC cards had been adopted in 14 areas.

#### Solving Local Issues with MLP

JR East provides the MLP system to GunMaaS, which is operated by Gunma Prefecture. By linking transportation IC cards with Individual Number Cards, we are creating a variety of services that support the lives of local residents. In these and other ways, we are working to solve local issues.



Suica/Individual Number Card linkage

# Building a Sustainable Transportation System for Local Lines

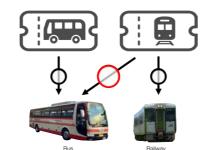
Local lines have seen a significant decline in usage since the Company was established, and it is expected that the situation regarding passenger volumes will become even more severe as populations continue to decline. Going forward, we will continue to streamline operations by slimming down our facilities and simplifying train operations, while also to contribute contributing to the revitalization of areas along our railway lines by leveraging the JR East Group's strengths not only in transportation services but also in tourism, Lifestyle services, and Suica and MaaS.

On the other hand, for lines with low passenger usage, where the average number of passengers is less than 2,000 people per day, we have been reporting the revenues and expenditures by line since July 2022, allowing local residents to understand the actual state of the business. We recognize that maintaining local public transportation in a sustainable manner is an extremely important issue to consider. Having no fixed policy whether to maintaining railways or converting to bus lines, we will continue to engage in discussions with local residents to gain their understanding and cooperation, and to work together to build a sustainable transportation system. Since maintaining a sustainable transportation system is our important management mission, we will continue to seek the understanding and cooperation of people living along our lines, and partner with local governments to work out the most suitable transportation system for the region and build a sustainable transportation system.

### Conducting Demonstration Experiments Aimed at Improving Convenience on the Yamada Line

One of our goals is to promote the use of public transportation services, such as by enticing passengers away from using their own cars or rental cars and improving convenience in the central and coastal areas of lwate Prefecture. To that end, we are conducting a demonstration trial in collaboration with a local bus company that allows passengers to board and transfer to parallel bus routes using a JR Fast ticket.

This is our first modal mix initiative involving a parallel transportation mode in addition to railways.



### **Comfortable Cities**

#### Goals

- One-stop provision of various high-value-added services
- · Realization of seamless, stress-free travel

#### Policv

Pursue alliances with local governments and various other stakeholders, and promote integrated DX encompassing local services and JR East Group operations.

#### KPIs

NF 15		
KPIs (Numerical Target for FY)	FY2024 Results	
No. of JRE POINT reward program members	30 million	15.01 million
No. of transactions on the MaaS platform, Mobility Linkage Platform, provided by JR East	100 million per month	49.89 million per month

#### Pursuing Digital Transformation of Customer Contact Points

#### **Deliver Seamless, Stress-Free Mobility**

With a goal of 100 million monthly Mobility Linkage Platform (MLP) transactions (FY2028), we are promoting the development of apps that utilize MLP as well as alliances to realize seamless, stress-free transportation. Our goal is to achieve 60 million transactions by FY2025.

#### JR East App

The JR East App is an app that we have been developing in-house to provide even more convenient service by offering not only train location and operation information and real-time route search functions, but also station information, train congestion information, and integration with other services. As of June 2024, we began providing congestion information for conventional line Green Cars. As of June 2024, the app has been downloaded 10.31 million times.

In February 2023, we built a real-time data integration platform. We will continue to expand the number of participating transportation operators and deepen collaboration with transportation information service providers who supply the platform with data. We will also leverage this to boost revenue by adding a link to *eki-net* on the route search results screen.



JR East App screen image

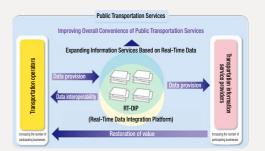
# **Real-Time Data Integration Platform**



#### Yosuke Murakami Strategies & Business Platform Department Marketing Headquarters

The real-time data integration platform (RT-DIP) aggregates and utilizes real-time operational data such as train locations and delay times across multiple transportation operators and also provides this data to transportation information service providers.

It is very rewarding to see that with the expansion of participating companies we are now able to provide information in collaboration with multiple transportation operators, not just our own company, and we have also seen the creation of new services that utilize real-time data and a wide range of content that can be used by many customers.



We aim to improve the overall convenience of public transportation by deepening collaboration with railways and buses and other transportation operators in the Tokyo metropolitan and eastern Japan area, and by promoting the expansion of RT-DIP through the participation of more transportation information service providers.

#### JRE POINT

JRE POINT, the Group's shared reward program, connects customers with various services





of the JR East Group. It has over 15 million members and represents an important customer base for the Group.

We will continue to work on achieving a virtuous cycle of point accumulation and use, such as by running Groupwide campaigns and offering experiences that are unique to the JR East Group by using accumulated points, in order to promote usage and increase the appeal of the points across the entire Group.

In October 2023, we launched the "JRE POINT STAGE." It provides special benefits unique to the JR East Group in order to attract customers who frequently use the Group's services over the long term.

We are working to further expand membership and make it more attractive so that more customers can take advantage of this service. For example, we are promoting our reward service and expanding opportunities to earn and use points, such as by creating links with new services. We are also working to answer customers' questions at various consultation sessions held by our staff at train stations and in other places.

#### Sustainability

**Creating a Vibrant Society** 

### **Comfortable Cities**

Goa • Creation of diversely appealing towns with consideration for the environment, disaster prevention, and communities

#### Policy

Leverage urban development led by JR East to address social issues and create comfortable cities

#### **KPIs**

In Tokyo metropolitan town development projects led by JR East, the Company is carrying out the following:

KPIs (Numerical Targets for FY2028)		FY2024 Results
Introduction of energy sources with advanced environmental performance	100%	Construction underway
Establishment of facilities to accom- modate people unable to return home at times of disruption/disaster	100%	as part of the opening of TAKANAWA GATEWAY CITY and
Establishment of town management promotion systems	100%	Development of the Hiromachi Area around
Establishment of systems to utilize road spaces	50%	Oimachi Station

JR East's non-consolidated figures

#### Urban Development That Considers the **Environment, Disaster Prevention, and Communities**

We will address various issues facing cities by introducing environment-friendly energy sources, developing facilities to accommodate stranded people, and creating a lively atmosphere. We will remake Tokyo into a world-class, cutting-edge, and attractive city and establish a profit base for the JR East Group. In our approach to urban redevelopment, we are using electricity from renewable energy sources and introducing energy sources with high environmental performance, to realize a sustainable city that has zero environmental burden and maximizes urban activity. Additionally, we will pursue sustainable urban development by constructing facilities for people who are unable to return home due to a disaster, and by promoting town management aimed at creating new vitality.

Notably, at TAKANAWA GATEWAY CITY, we have established Station City Energy Create Co., Ltd. as an energy supplier, and we are working in sync with supply and demand to create a zero-carbon, sustainable, environment-friendly town through initiatives such as local production for local consumption of energy and area-wide energy use. The JR East Group also plans to utilize the knowledge gained from TAKANAWA GATEWAY CITY in future developments.

## **Environment-Friendly Urban Development at** TAKANAWA GATEWAY CITY



Moeta Hamai Community Development Coordination Department Marketing Headguarters



The JR East Group has formulated a long-term environmental goal, Zero Carbon Challenge 2050, through which it aims to achieve net zero CO2 emissions. At TAKANAWA GATEWAY CITY as well, we will achieve net zero CO<sub>2</sub> emissions through renewable energy and energy creation, conservation, and management, and we will work to create an environmentfriendly city.

For renewable energy, we will be developing solar and wind power generation, while for energy creation, we will be developing the East Japan area's first built-in biogas facility.

In terms of energy conservation, we will install a district heating and cooling facility (DHC) and a cogeneration system (CGS) in the basement of THE LINKPILLAR 2. Through the introduction of one of Japan's largest heat storage tanks, the DHC will achieve a highly efficient energy supply. In the event of a disaster, the water from the heat storage tank can be used for emergency water, such as toilet water for temporary shelters and for firefighting. In addition, by introducing a highly efficient CGS, waste heat generated during power generation will be converted into thermal energy and used by the DHC, thereby achieving effective energy utilization.

Furthermore, we anticipate that the creation of a wide-area startup ecosystem will lead to the creation of new business models to address social and environmental issues once the facility opens.

#### Inclusive Society

#### Goals

- Development of hospitality-minded employees
- Improvement in service quality through dialogues with people with disabilities
- Promotion of understanding of an inclusive society through parasports experience and support activities

#### Policies

- We will work to develop employees with the knowledge, skills, and mindsets to realize an inclusive society.
- · We will actively promote initiatives to foster mutual understanding with customers with disabilities and local residents and use this understanding to improve our services.
- By supporting parasports, we will collaborate with customers and local residents to foster barrier-free attitudes.

#### KPIs

KPIs (Numerical Targets for	KPIs (Numerical Targets for FY2028)		
Rate of obtaining "Care-Fitter" Certifications	50%	44.3%	
No. of exchanges involving people with disabilities	100 or more per year	77 per year	
No. of parasports events	At least once a year at each regional organization and head office*	1 per organization*	

★ indicates figures for JB Fast only

#### Promoting Obtaining Care-Fitter Certifications

Initiatives to Develop Hospitality-Minded Employees Related to **Care-Fitter Certifications** 

As part of our efforts to develop hospitality-minded employees, we are encouraging employees to obtain Care-Fitter certifications.



By the end of fiscal 2024, 44.3% of employees in the JR East Group had obtained this certification, and they have been

Study sessions aimed at maintaining assistance techniques

able to use the skills and hospitality spirit they have acquired to assist customers. In addition, each workplace holds study sessions to maintain assistance techniques and improve employees' ability to deal with a diverse range of customers. Each workplace also holds disability simulation sessions.

We will continue to work together as a Group to achieve a symbiotic society so that all our customers can continue to use our services with peace of mind.

### Promote Mutual Understanding with People with **Disabilities and Implement Service Improvements Based on Their Needs**

Social Events Involving People with Disabilitie

We work with customers with disabilities, local residents. organizations and schools to hold trial sessions for using railway facilities, conduct training for responding to transportation disruptions, and exchange ideas. These efforts form the foundation for mutual understand- Training to help guide dog users off the tra ing between the JR East Group and



our customers. They also enable us to understand the advice we receive from our customers and the problems and concerns that customers and local residents have when using railways, and we use this advice to improve our services and the customer service skills of our employees

Furthermore, by helping customers understand railway facilities and our efforts through these initiatives, we hope to deepen mutual understanding that will help resolve any problems and address any concerns customers may have.

The JR East Group will work together with customers and local communities to create a society in which everyone can live comfortably.

### Promoting Understanding of DE&I through Support for Parasports

#### Support for Parasports

The JR East Group promotes and supports parasports such as boccia to realize an inclusive society in which everyone can play an active role regardless of whether they have disabilities. By continuing to hold the JR East Group Boccia Championship, we are working to deepen understanding of an inclusive society throughout the Group.

We also sponsor the Japan Boccia Association and the Elementary School Boccia Tournament organized by NHK Enterprises, and are committed to supporting athletes by providing a practice environment for the Japanese Boccia national team training camp in the run up to the Paralympics, as well as promoting parasports. Furthermore, we are working toward regional revitalization by collaborating with local governments and other organizations to provide experiences such as parasports at a local level.



Elementary School Boccia Tournament Awards



Providing a training environment for the Japanese Boccia national team

We will realize carbon neutrality and secure stable energy supplies, taking into account the effect of climate change on our businesses. We will also lead efforts to realize a recyclingbased society and biodiversity.



- Carbon Neutrality
- Circular Economy
- Nature Positivity

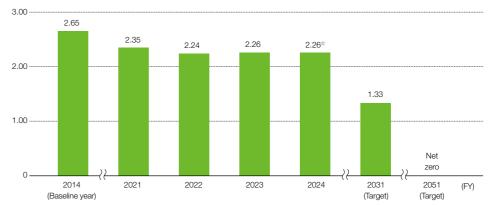
#### **Basic Concept**

Increasingly severe natural disasters pose various risks to the JR East Group's business. Preserving the global environment is essential to maintaining the Group's business foundations. Furthermore, a rich natural environment not only mitigates business risks, but also generates tourism resources and many types of businesses.

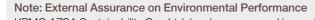
In recent years, environmental initiatives have become an increasingly critical corporate social responsibility, and maintaining the environmental advantages of our business will lead to stronger credibility and a competitive advantage for the JR East Group.

For this reason, we will tackle environmental issues from various angles, gain greater trust from our customers and local communities, and leverage these assets to ensure sustainable growth for the Group.





Fiscal 2024 Results



KPMG AZSA Sustainability Co., Ltd. has been engaged in providing external assurance on a set of selected environmental performance indicators (see pages 77–84) so that the reliability of the data is ensured. The particular indicators that have been assured are marked with a star  $(\stackrel{\wedge}{\bowtie})$  for clarity.

# **Carbon Neutrality**

#### Goals

- Zero Carbon Challenge 2050
- Utilization of diverse energy

#### Policy

Within the transportation sector, railways are an environmentfriendly transportation mode with relatively low-level CO2 emissions per transportation volume, but they also consume a large amount of energy. We are working to improve the environmental advantages of railways so that they will continue to be chosen in the future.

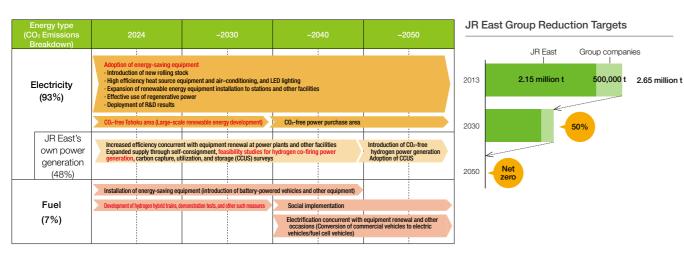
KPIs		
KPIs (FY2031 Numeri	FY2024 Result	
CO <sub>2</sub> emissions (for all JR East Group companies)	50% reduction (compared with FY2014)	14.7% reduction
Acquisition of renewable energy-based power sources	700,000 kW	153,000 kW

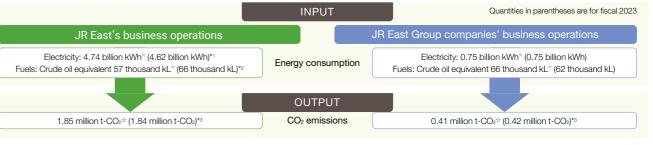
#### Formulation of Science Based Targets and a Roadmap

In 2020, we formulated our long-term environmental goal, Zero Carbon Challenge 2050. Below is the JR East Group's roadmap for achieving carbon neutrality in 2050.

CO2 emissions for fiscal 2024 were 2.26 million tons, about the same level as the previous year, as a result of the implementation of measures such as making the Senseki Line CO2-free, installing LED lights and increasing the efficiency of air-conditioning equipment on the one hand, but also the increased use of electricity to operate trains as a result of increased Shinkansen train services, etc., on the other. In addition, in terms of renewable energy development, the Seto Solar Power Plant in Aichi Prefecture started operating in June 2023.

Furthermore, in order to set more scientifically grounded targets, in August 2023 we further made a commitment to set Science-Based Targets (SBT) in 2023. SBT is a greenhouse gas (GHG) emission reduction target scientifically consistent with the target set by the Paris Agreement. By making science-based revisions to our GHG reduction targets, we aim to formulate reduction targets by August 2025. In addition, we will contribute not only to the reduction of GHG emissions by the JR East Group but also to the reduction of GHG emissions throughout the supply chains of all of the Group's businesses.

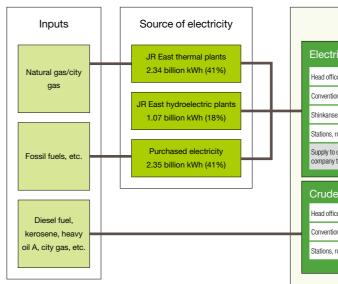




\*1 Electricity: Both electricity generated in JR East's power plants for internal use and electricity purchased from electric companies are included. For details regarding electricity generation and consumption, please refer to the JR East Energy Flow Map below \*2 Fuels: Natural gas and other fuels used for generating electricity in JR East's thermal power plants are not included

#### JR East Energy Flow Map<sup>5</sup>

This shows the flow of energy at the Company from input to consumption. Power supplied by our own power plants and electric companies is used for train operation, station, office lighting, and air-conditioning. Diesel fuel and kerosene, etc., are also used to operate diesel trains, stations, and office air-conditioning.



#### Boundary of Data

Although in principle the boundary for energy consumption and CO2 emissions volumes is only JR East, it includes energy consumption for the applicable operations of the companies to which we entrust station operations. On the other hand, the energy consumption of shops on station premises which are operated by JR East Group companies is not included in the boundary. We match the boundary for the energy consumption for the entire JR East business with that of transportation, plants, and others defined by the Act on Rationalization of Energy Use and Shift to Non-fossil Energy (the Energy Saving Act).

#### 77 JR East Group | INTEGRATED REPORT 2024

#### Boundary of Data

In principle, the scope of data collection for energy consumption and CO2 emissions is JR East alone and its domestic consolidated subsidiaries

#### Calculation Methods

CO2 emissions are calculated in accordance with the Act on Promotion of Global Warming Countermeasures (Global Warming Countermeasures Act), and CO2 emissions resulting from electricity supplied from external sources, including electricity used for rail transportation, are calculated using the adjusted emission coefficients of each power company

\*3 CO<sub>2</sub> emissions attributable to electricity purchased from external suppliers are calculated based on adjusted emission factors.

	Energy consumption	on			
ricity: 5.76 billion l	kWh 20.7 billion MJ		Act on Rationalization		
ce, branch office buildings, etc.	0.07 billion kWh (0.03 million t-CO <sub>2</sub> )		Of Energy Use and      Shift to Non-fossil     Energy		
onal line operation*	2.52 billion kWh (0.90 million t-CO <sub>2</sub> )		(factories,etc.) Act on Rationalization	ies,etc.) tionalization — 4.74 billion kWr y Use and Non-fossil ergy	
en operation	1.31 billion kWh (0.48 million t-CO <sub>2</sub> )		of Energy Use and Shift to Non-fossil		
rolling stock centers	0.84 billion kWh (0.31 million t-CO <sub>2</sub> )		Energy (transportation)		
o other companies, including stor v train operations in our stations	es in station buildings and other 1.01 billion kWh				
e oil equivalent: 5	7 thousand kL 2.2 bill	ior	ו MJ		
ce, branch office buildings, etc.	7 thousand kL (0.01 million t-CO <sub>2</sub> )		Act on Rationalization of Er Use and Shift to Non-fos	sil	1.85 million
onal line operation*	23 thousand kL (0.06 million t-CO <sub>2</sub> )		Energy (factories, etc.) Act on Rationalization of Er	nergy	t-CO2
rolling stock centers	26 thousand kL (0.06 million t-CO <sub>2</sub> )		<ul> <li>Use and Shift to Non-fossil</li> <li>Energy (transportation)</li> </ul>		

#### \* Including BRT (Bus Rapid Transit)

#### Calculation Method

Energy consumption was calculated by the method defined by the Energy Saving Act. Also, CO2 emissions attributable to electricity purchased from external suppliers are calculated based on adjusted emission factors. Moreover, starting with this compilation, the calorific value conversion coefficient for electricity has been changed from the primary energy conversion coefficient set by the Energy Saving Act to 3.6 MJ/kWh.

#### Emissions for the Overall JR East Group Supply Chain

Compared to the previous Zero Carbon Challenge 2050, the GHG Protocol Standard will further increase the amount of CO<sub>2</sub> reductions required, by including the electricity supplied by other companies and emissions by other companies related to the business activities of the JR East Group (Scope 3). In addition, the JR East Group has a high proportion of Scope 1 emissions due to the fact that it owns thermal power plants. Because the Company owns numerous railway assets, including its own energy network, Category 2 emissions account for the largest proportion of its Scope 3 emissions.

ltem	FY2022	FY2023	FY2024	Calculation Standards
Scope 1 emissions	151	152	161 <sup>☆</sup>	Greenhouse gas (GHG) emissions directly emitted from the combustion of all fuels used by the Group, including the operation of diesel railcars and self-operated thermal power plants. GHG emissions from energy sources are included.
Scope 2 emissions	125	127	119 <sup>☆</sup>	GHG emissions indirectly emitted by the use of electricity, heat, etc. purchased from power companies and other suppliers.
Scope 3 emissions	_	316	316	GHG emissions from other companies related to business activities. Totals for individual categories may not match due to rounding.
Category 1 Purchased products and services	—	72	59	Calculated by multiplying the purchase price of products and services purchased from outside the Group by the emissions intensity (*1).
Category 2 Capital goods	_	94	114	Calculated by multiplying the amount of capital investment from transactions outside the Group by the emissions intensity (*1).
Category 3 Fuel and energy-related activities not included in Scope 1 and 2	_	53	55	Calculated by multiplying the amounts of purchased fuel, electricity, and heat used by the emissions intensity (*2) per amount of energy used.
Category 4 Transportation and delivery (upstream)	—	9	7	For upstream logistics, calculations are made by multiplying the purchase value of products and services by the emission intensity (*3). For downstream logistics borne by the Company, calculations are made by multiplying the logistics cost by the emission intensity (*4).
Category 5 Waste generated from business	_	26	17	Calculated by multiplying the amount of waste treated, the amount recycled, and the amount of waste disposal treatment by the emission intensity (*5). For wastewater, calculated by multiplying the volume of wastewater and the value of wastewater treatment by the emission intensity (*6).
Category 6 Business trips	-	1	1	Calculated by multiplying the number of employees who regularly take business trips by the emissions intensity (*7).
Category 7 Employee commuting	-	3	3	Calculated by multiplying the number of employee business days by the emissions intensity (*7).
Category 8 Leased assets (upstream)	-	<1	<1	Calculated by multiplying the energy usage of the leased assets by the emissions coefficient (*8).
Category 9 Transportation and delivery (downstream)	-	<1	<1	Calculated by applying the product distribution (transportation and sales) scenario in the Carbon Footprint Calculation and Labeling Pilot Project Wide-Range PCR (non-energy-using products) and multiplying the product shipment volume by the emissions intensity (*7).
Category 10 Processing of sold products	—	1	1	Calculated by multiplying the sales amount of intermediate products sold by the emissions intensity at the processing stage calculated from our company's data.
Category 11 Use of sold products	_	43	47	Calculated by multiplying the sales volume of products sold and the energy consumption during use based on standard usage scenarios, etc., by the emissions intensity.
Category 12 Disposal of sold products	_	4	3	Calculated by multiplying the amount of waste processed, recycled amount, and waste disposal cost at the time of disposal of products sold by the emissions intensity (*5).
Category 13 Leased assets (downstream)	_	11	9	Calculated by multiplying the energy consumption or total floor area of leased assets rented outside the Group by the emissions intensity (*9).
Category 14 Franchise	-	<1	<1	Calculated by multiplying the total floor area of franchised stores by the emissions intensity (*10).
Category 15 Investment	-	1	2	Calculated by multiplying the emissions of invested companies and projects (*11) by the ownership ratio. Investments other than purely for investment purposes and investments within the Group are excluded.

\*1 Emissions per sales amount was calculated for each trading company from each individual company's CDP response and sustainability report, and used as the emissions intensity. The emissions of individual companies were Scope 1, Scope 2, and Scope 3, Categories 1 to 8. For trading partner companies that do not calculate the emissions, the emissions intensity by sector calculated in the same way was used.

\*2 For fuel, the basic unit data used is from the LCI Database IDEA Version 2.3 (hereinafter IDEAv2.3) of the IDEA Lab, Safety Science Research Institute, National Institute of Advanced Industrial Science and Technology. For electricity and heat, the basic unit data used is from the Ministry of the Environment's Emissions Basic Unit Database for Calculating Greenhouse Gas Emissions Throughout the Supply Chain (hereinafter Emissions Basic Unit DB).

\*3 Emissions per unit of sales by sector multiplied by the logistics cost ratio, calculated from CDP data and each company's sustainability report.

- \*4 Emissions intensity for each supplier's transportation business type calculated from CDP data and each company's sustainability report.
- \*5 The waste disposal amount was calculated using the basic unit data from the National Institute for Environmental Studies' Environmental Load Basic Unit Considering Global Supply Chain Based on Input-Output Tables. The recycled amount was calculated using the basic unit data from the Emissions Basic Unit DB. The waste disposal amount was calculated using the basic unit calculated from the emission factor data in the Ministry of the Environment's List of Calculation Methods and Emission Factors in the Calculation, Reporting, and Publication System (hereinafter referred to as Emission Factors in the SHK System).

Reduction and Substitution of Ozone-Depleting Substances We endeavor to reduce the use of substances specified as controlled in compliance with the Act on the Protection of the Ozone Layer Through the Control of Specified Substances and Other Measures, and to adopt substitutes that have less impact on the environment. Under the Act on Rational Use and Appropriate Management of Fluorocarbons, the JR East Group reported a leakage amount of \*6 Wastewater volume was calculated based on the emission factor data of Emission factor in SHK system. Wastewater treatment cost was calculated based on the emission factor of Environmental Load Basic Unit Considering Global Supply Chain Based on Input-Output Tables.

Unit: 10.000 t-CO2

- \*7 Unit data from the Emissions Unit DB is used.
- \*8 For energy other than electricity, emission factor data from the Emissions Factors in the SHK System is used. For electricity, adjusted emission factors for each contract menu of retail electricity suppliers are used.
- \*9 For energy other than electricity, the emission factor data from the Emission Factors in the SHK System is used. For electricity, the adjusted emission factor for each contract menu of the retail electricity supplier is used. For total floor area, the intensity data from the Emissions Intensity DB is used, and the intensity applied to the buildings of the complex facility is the representative value of the intensity for the purpose with the largest usage ratio.
- \*10 For total floor area, the unit data from the Emissions Unit DB is used, and the unit applied to the complex building is the representative value of the unit for the use with the largest usage ratio.
- \*11 If the GHG emissions of the investee are known, that figure is used. Alternatively, the emissions of the investee are estimated using company information, data from the Agency for Natural Resources and Energy's Energy Consumption Statistics Survey, and emission factor data from the Emissions Factors in the SHK System.

7 thousand t-CO<sub>2</sub>e<sup> $\ddagger$ </sup> for fiscal 2024.

Sulfur Hexafluoride Emissions Reduction

Under the Act on Promotion of Global Warming Countermeasures, JR East Group reported SF6 gas emissions of 3 thousand t-CO2e  $^{\div}$  for fiscal 2024.

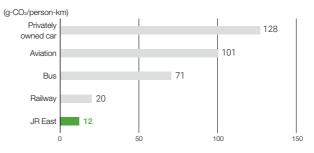
#### Calculation and Disclosure of $\ensuremath{\text{CO}_2}$ emissions by Shinkansen Segments

Based on fiscal 2024 results, we calculated segment-by-segment CO<sub>2</sub> emissions per customer associated with travel on Shinkansen lines. In addition, CO<sub>2</sub> emissions per transportation volume were 12g-CO<sub>2</sub>/person-km for JR East as a whole, and 20g-CO<sub>2</sub>/person-km for Shinkansen segments. This disclosure may be used by companies and other entities to calculate CO<sub>2</sub> emissions associated with customers' travel.

Line	Segment	CO <sub>2</sub> Emissions [kg-CO <sub>2</sub> ]
Tohoku Shinkansen	Tokyo to Sendai	7.0
Joetsu Shinkansen	Tokyo to Niigata	6.6
Hokuriku Shinkansen	Tokyo to Nagano	4.4

For other segments, please refer to the link below (Japanese only): https://www.jreast.co.jp/eco/warming/pdf/co2\_emissions.pdf

#### CO<sub>2</sub> Emissions per Transportation Volume (Passenger Transportation) (Fiscal 2023)



Source: Adapted from the website of the Ministry of Land, Infrastructure, Transport and Tourism

#### Electricity Generated by JR East's Power Plants

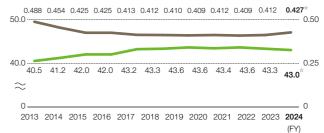
JR East operates a thermal power plant in Kawasaki City, Kanagawa Prefecture, with a total output of 809,000 kW, fueled by city gas and natural gas. We will continue to promote higher efficiency in our power generation facilities and consider the use of hydrogen power generation and carbon capture, utilization, and storage (CCUS)\* technology in order to reduce CO<sub>2</sub> emissions.

Our hydroelectric power plants (in Tokamachi City and Ojiya City, Niigata Prefecture) have a total output of 449,000 kW and support our rail transportation as a clean energy source that does not emit CO<sub>2</sub>. We also aim to coexist with the local community and harmonize with the river environment through the development of fishways and the release of salmon fry.

 $^{\ast}$  CCUS: Technology to separate and capture CO\_{z} emitted from thermal power plants and factories, and store or make effective use of it.

# $\mbox{CO}_2$ Emission Factors and Power Generation Efficiency at JR East's Thermal Power Plant

(%)	(kg-CO <sub>2</sub> /kWh)
60.0	
00.0	0.10



Generation efficiency (left) - CO<sub>2</sub> emission factors (right)

Adjusted emission factor for all self-operated electricity (thermal and hydroelectric power generation)

The adjusted emission factor (preliminary value) for FY2024 was 0.309 (kg-CO<sub>2</sub>/kWh).

# Introduction of Off-Site Corporate PPA Service to the JR East Tohoku Area Headquarters Building



# Nobuyuki Watanabe

Electric Power & Signalling Division Railway Operations Department Tohoku Area Headguarters

The JR East Group has set forth its Zero Carbon Challenge 2050, with the aim of reducing  $CO_2$  emissions from train operations in the Tohoku area to net zero by fiscal 2031. We have engaged in undertakings driven by the enthusiasm of employees hoping to see the Tohoku Area Headquarters take the initiative in these efforts, and we have taken up the goal of achieving 100% renewable energy for the Tohoku Area Headquarters Building.

Focusing on the fact that more and more renewable energy facilities will be facing feed-in tariff (FIT) period expiration, we wondered whether we could achieve our goal by using renewable electricity generated in the Tohoku area more effectively. Through collaboration with the local Tohoku Electric Power Co., Inc., we succeeded in supplying the Tohoku Area Headquarters Building with green electric power that combines environmental value with electricity from Akita Prefecture-based wind power, thus achieving an off-site corporate power purchase agreement (PPA) using post-FIT wind power. This was a first, not only for the Company but also for the entire Tohoku area.

Furthermore, in terms of our daytime electricity demand that cannot be met by wind power, by utilizing the renewable energy options offered by Tohoku Electric Power, we have achieved 100% renewable energy for the Tohoku Headquarters Building. We have also addressed the issues with wind power generation (namely 24-hour power generation) using a method unique to the Company, whereby any unused nighttime electricity is utilized at Sendai Station and Fukushima Station.

Through this initiative, we believe that in addition to achieving carbon neutrality we have also contributed to the sustainable development of the local community, and we will continue to implement such efforts, including fostering environmental awareness among our employees.

Data

#### **TCFD** Recommendation-Related Initiatives

Since the adoption of the Paris Agreement, countries and governments around the world have made major shifts toward decarbonization. Companies must now ascertain the financial impact of climate change-related risks and disclose relevant information to their stakeholders. In January 2020, JR East announced its support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). Using objective data, JR East undertakes a quantitative evaluation of the financial impact of future climate change on its Transportation business. This business is vulnerable to weather and other natural disasters, which have been worsening as climate change progresses.



Overview of TCFD Recommendation-Based Information Disclosure\*1

Recommendations	JR East's Initiatives
Governance	The Sustainability Strategy Committee, chaired by the president and CEO, oversees and makes decisions mainly regarding the establishment and progress of climate change targets and the management of risks and opportunities. The committee includes the Company's vice presidents and executive directors as well as full-time Audit and Supervisory Committee members and outside directors also attend its meetings. The Sustainability Strategy Committee meets twice a year, and the Zero Carbon Working Group and the Hydrogen Working Group report and discuss the progress of CO <sub>2</sub> emissions reductions and hydrogen utilization. A schematic of our promotion structure is presented on page 23.
Strategy	In JR East Group Management Vision "Move Up" 2027, we have committed to practicing ESG management, with the prevention of global warming and energy diversification as our guiding principles. To achieve these goals, we identify and assess the key risks and opportunities that climate change poses to our business activities and verify the appropriateness of our business strategies. In this disclosure, we identify physical risks related to natural disasters as important risks and conduct scenario analysis using elaborate methods based on hazard information and other information published by the government.
Risk management	Within the framework of risk management, each department identifies risks influenced by climate change and specific measures are taken to avoid or reduce these risks. With regard to climate change mitigation, at least once every six months we compile and conduct a detailed analysis of energy consumption, CO <sub>2</sub> emissions, chlorofluorocarbon (CFC) leakage, and financial status for each business. We also identify, specify, and assess risks based on revisions to laws and regulations and other important changes in the external environment. With regard to adaptation to climate change, we are strengthening and promoting efforts to reduce physical risks in the Transportation business due to acute and chronic weather-related disasters.
Metrics and targets	We have set Zero Carbon Challenge 2050 as a goal for the entire JR East Group, aiming to reduce CO <sub>2</sub> emissions by 50% by fiscal 2031 (com- pared to fiscal 2014) and to achieve net zero CO <sub>2</sub> emissions in fiscal 2051. In addition to regularly monitoring progress towards these targets, we are promoting Groupwide initiatives to further ensure our contribution to the realization of a decarbonized society. Please refer to pages 77–80 for the scope of our targets and progress toward achieving them.

\*1 Please refer to JR East's Initiatives in Response to the TCFD Recommendations, available at the following URL, for details of the JR East Group's information disclosure based on the TCFD recommendations (Japanese only): (A) https://www.jreast.co.jp/eco/

#### Details of Strategies

#### (1) Awareness of Risks and Opportunities

We recognize that there are two kinds of risk and opportunity associated with climate change. One is physical–for example, the intensification of weather-related disasters caused by global warming. The other is a transition in the social environment–for example, the strengthening of regulations and technological progress aimed at mitigating climate change. We have identified the following items as the main climate change risks and opportunities for our core transportation business. We are also working on identifying risks and opportunities for our other major businesses.

	Main Risks and Opportunities	Business Impact* <sup>2</sup>	Timing of Manifestation*3
Physical risks	Damage to railway facilities and equipment, and suspension of operations due to windstorms, floods, etc.	Large	Short term
T Hysical Haka	Decrease in passenger volume due to extreme weather (heavy rain, heat)	Small	Long term
	Increased costs due to the introduction and strength- ening of carbon pricing	Not rated	Medium term
Transition risks	Decrease in passenger volume due to competition from other modes of transportation, such as electric vehicles	Large	Long term
	Decrease in passenger volume due to damage or change in tourism resources	Not rated	Long term
Opportunities	Opportunities Greater passenger volume due to preference for lower CO <sub>2</sub> -emitting modes of transportation		Long term

\*2 Scale of business impact: Large: Events with a financial impact of ¥500 million or more in revenues and expenses. At present, there are not enough scenarios for Japan, and items for which the impact cannot be estimated are listed as "not yet assessed."

\*3 Timing of manifestation – scale of time: Short term: Within one year; Medium term: More than one year but within five years; Long term: more than five years.

#### (2) Details of Scenario Analysis (Physical Risks)

In the Transportation business, future passenger volume is expected to decrease due to Japan's declining birthrate and aging population, and the impact is expected to be particularly significant in rural areas. In order to ascertain the financial impact of these factors and to verify the appropriateness of our business and environmental strategies, we conducted the following scenario analysis for fiscal 2051.

#### Scenario Analysis Methodology (Overview)



#### (2) Estimated Financial Impact of Severe Weather Disasters (3) Financial Impact

#### (1) Estimated Change in Future Passenger Revenue Trends Based on Business Area Demographic Projections

We have estimated changes in passenger revenue up to fiscal 2051 based on data such as population and gross domestic product (GDP)\*<sup>5</sup> from the Japan Shared Socioeconomic Pathways (SSPs)\*<sup>4</sup>, which are quantitative scenarios for future socio-economic conditions.

\*4 Japan Shared Socio-economic Pathways (SSP) population scenarios by city, ward, town, and village (2nd edition).

\*5 Population trend data is from Japan SSP's population estimates by city, ward, town, and village, National Institute for Environmental Studies and GDP data is from Global dataset of gridded population and GDP scenarios, International Institute for Applied Systems Analysis (IIASA's).

#### (2) Estimated Financial Impact of Severe Weather Disasters

Up until now, we have conducted scenario analyses assuming flooding of Class A rivers flowing through the Kanto region, focusing on the Tokyo metropolitan area and its surrounding areas, where major railway assets and lines are concentrated. The following disclosure, however, describes two newly conducted scenario analyses.

#### I. Flooding Due to Overflowing of Class A Rivers Whose Drainage Basins Are Home to Shinkansen Rolling Stock Centers in the Nagano, Niigata, and Tohoku Areas

The results of scenario analyses we have conducted to date show that the financial impact of more extreme weather disasters would be particularly heavy if Shinkansen trains parked in rolling stock centers were affected. Therefore, in terms of scenario analysis outside the Kanto region, we have chosen the potential flooding of rolling stock centers, due to the overflowing of the Class A rivers in whose drainage basins they are situated, in the Nagano (Hokuriku Shinkansen), Niigata (Joetsu Shinkansen), and Tohoku (Tohoku Shinkansen) areas.

#### II. Kawasaki Thermal Power Plant Flooded by Storm Surge

It is expected that rising sea levels due to climate change will increase the depth of flooding caused by storm surges. Therefore, in terms of facilities that could suffer heavy storm-surge damage, we have selected potential typhoon-driven storm surges (assuming both current conditions as well as elevated sea levels) affecting the Kawasaki Thermal Power Plant for scenario analysis.

# I. Estimated Financial Impact Due to Flooding of Class A Rivers Whose Basins Are Home to Shinkansen Rolling Stock Centers in the Nagano, Niigata, and Tohoku Areas

			Nagano Area Insen, Chikuma River flooding)		Niigata Area Isen, Shinano River flooding)		Fohoku Area ansen, Iwai River flooding)
Climate Change	Flood Control Measures	Increase in Financial Impact (Loss) (Billions of Yen)		Increase in Financial Impact (Loss) (Billions of Yen)		Increase in Financial Impact (Loss) (Billions of Yen)	
	(Physical Facilities and Human Responses)	FY2051	FY2022–FY2051 Cumulative Total	FY2051	FY2022–FY2051 Cumulative Total	FY2051	FY2022–FY2051 Cumulative Total
RCP2.6 (2°C increase)	No countermeasures	0.79	11.82	0.02	0.27	0.02	0.25
	With countermeasures	0.01	0.20	0.01	0.21	0.01	0.22
	Loss reduction effects of countermeasures	-0.77	-11.62	0.00	-0.06	0.00	-0.03
	No countermeasures	0.97	14.62	0.04	-0.53	0.01	0.17
RCP8.5 (4°C increase)	With countermeasures	0.01	0.20	0.03	-0.42	0.01	0.14
	Loss reduction effects of countermeasures	-0.96	-14.42	-0.01	-0.11	0.00	-0.03

\* "0.00" in this table indicates that the amount of the increase in loss (or loss reduction effect) is insignificant (less than 0.005 billion).



#### Nagano Area (Hokuriku Shinkansen and Chikuma River flooding)\*<sup>6</sup> \*6 Map of areas expected to be inundated by projected rainfall along flood-prone rivers (yellow to red), and Shinkansen lines (blue)

Regarding II, first of all we confirmed

that even if all generators at the Kawasaki Thermal Power Plant were to stop due to flooding, the electricity needed to operate the railway could be supplied by power companies, and there would be no loss of passenger revenue. On this basis, we estimated the occurrence of restoration costs for power plant assets, the increased cost of purchasing electricity from utilities, and the decrease in fuel costs due to the suspension of power generation. As a result, we estimate the increase in financial impact in 2050 under RCP8.5 (4°C increase) at approximately ¥30 million. This is a smaller impact than those in scenario analyses we have conducted so far (damage to railways due to the flooding of Class The results of the quantitative evaluation performed using the above procedure are as follows.

Regarding I, in the Nagano area (flooding of the Chikuma River), the financial impacts of climate change in 2050 are greater under RCP8.5 (4°C increase) than under RCP2.6 (2°C increase), and the cumulative financial impact is expected to increase by approximately ¥14.6 billion from 2021 to 2050 (without inundation measures). We found that inundation measures yield a loss reduction effect of approximately ¥14.4 billion, and that vehicle evacuation and flood prevention measures at the Nagano Shinkansen Rolling Stock Center have a significant loss reduction effect.

Meanwhile, regarding the Niigata and Tohoku areas, as a result of studies conducted based on flood risk maps and projected amounts of rainfall, we found that the Shinkansen rolling stock centers are not expected to be affected by flooding. We therefore conducted quantitative assessments of scenarios that anticipate a certain degree of financial impact, including flooding of the Shinano River for the Niigata area and the Iwai River (a tributary of the Kitakami River) for the Tohoku area. We found that the financial impacts in these areas would be smaller than those in the Nagano area.

Based on the results of these assessments of the financial impact of climate change, we will continue to implement natural disaster countermeasures from both tangible and intangible perspectives in accordance with the degree of importance of facilities, mainly in floodprone areas that are susceptible to heavy impacts.

A rivers flowing through the Kanto region), and we found that there would be no substantial impact on our financial plans.

# II. Estimated Financial Impact due to Storm Surge at the Kawasaki Thermal Power Plant

	Kawasaki Thermal Power Plant (Storm Surge)		
Climata Changa Soonariaa	Increase in Financial Impact (Loss) (Billions of Yen)		
Climate Change Scenarios	FY2051	FY2022–FY2051 Cumulative Total	
RCP8.5 (4°C increase)	0.03	0.48	

#### Financial Impacts of Flooding Due to Storm Surges Negative factors

- Occurrence of restoration costs for power plant assets
- Increased cost of purchasing electricity from utilities

#### Positive factors

Reduction in fuel costs due to power generation shutdown

## **Circular Economy**

#### • Promotion of the 3Rs

#### Policy

Goals

Business activities have wide-ranging impacts on the environment, such as the discharge of general waste from daily station and train operations, industrial waste from general rolling stock centers, wastewater from vehicle washing, kitchen waste from restaurant operations, and general waste from retail sales in the Lifestyle services business.

We will continue to implement initiatives aimed at transitioning to a circular economy for the entire Group, such as 3R (Reduce, Reuse, Recycle) initiatives for reducing waste and boosting recycling.

#### Resource Recycling Targets by Fiscal 2031

	KPIs (FY2031 Numerical Targets)				
	Recycling rate for waste generated at stations and on trains			89%	
Raise recycling ratios	Recycling rate for waste PET bottles generated at stations and on trains			98%	
(per fiscal year)	Recycling rate for waste generated at general rolling stock centers, etc.			93%	
	Recycling rate for waste generated in facility construction projects			92%	
	Provided by B2C (Business to consumer)	Reduction in single use plastics	25%	80%	
Reduce emission intensity		Switching from single use plastic containers and packaging to renewable materials	60%	3%	
(FY2021 standard)		Reduction rate of final disposal amount of food waste	50%	82%	
Reduce emission	Waste (general/industrial) reduction rate and	Reduction ratio*2	32%	51%	
intensity (FY2014 standard)	recycling rate*1	Recycling rate*2	73%	74%	

Promoting Resource Recycling

Resource Flow in a Recycling-Based Society

recycling rates.

(Circular Economy)

We will formulate resource recycling targets according to the individual

circumstances of each of our businesses, promote recycling and

reuse within the Group, and work to reduce waste and improve our

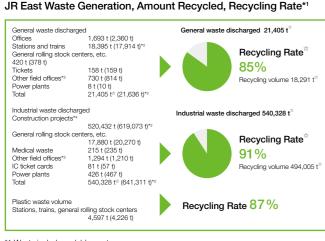
Indicates targets for JR East Group companies

\*1 Excludes overseas JR East Group companies

\*2 Excludes companies that do not generate waste

Groupwide Waste Generation, Amount Recycled, Recycling Rate: Fiscal 2024 Results

# Note: Data in parentheses is for fiscal 2023



\*1 Waste includes salable waste

- \*2 Correction due to over- and under-reporting for FY2023
- \*3 Other field offices; Technical centers, equipment maintenance centers, and other locations such as train crew offices
- \*4 JR East construction projects: Waste generated by our construction projects, but for which contractors legally become the waste-discharging entities, is included in industrial waste.

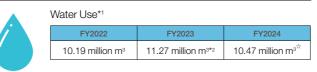


ment for heat recovery. Thermal recycling: A recycling method that recovers waste heat from burning waste to

produce steam and hot water to be used for power generation, hot water supply, etc.

#### Water and Office Paper Usage by the Entire Group

#### JR East Usage Volume



Of all the water that exists on Earth, only 0.01% is in a state that is suitable for human use, and we therefore recognize that water resources are extremely precious. In addition to tap water, industrial water, and groundwater, we actively promote the use of gray water\*<sup>3</sup> in our business activities, and we reuse rainwater and hand-washing water for toilet flushing. Specifically, our rolling stock centers use industrial water for vehicle-body washing and our station offices and toilets use and discharge tap water, rainwater, groundwater, and gray water. JR East appropriately manages water quality based on laws, ordinances, and agreements with local governments and works to conserve water resources.

\*1 Water use comprises the total of tap water, industrial water, and groundwater consumption \*2 This figure has been corrected due to the omission of water usage reporting for fiscal 2023. \*3 Gray Water: Use of water defined as between tap water and sewage. Such water is recycled and used for limited purposes

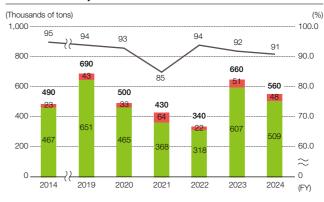
#### JR East Usage Volume

	Office Paper Use			
	Item	FY2022	FY2023	FY2024
Y	Office paper use	732 t	736 t	703 t
	Recycled paper	94%	94%	96%

#### **Collecting and Reusing Waste from Stations and Trains**

The recycling rate of waste generated from stations and trains is being improved through thorough sorting of waste by people and machines at the JR East Tokyo Resource Recycling Center (operated by JR East Environmental Access Co., Ltd.) and other facilities. We recycle magazines and newspapers into office paper, and we recycle all used tickets into toilet paper and other products.

#### Waste from Stations, Trains, General Rolling Stock Centers, and Construction Projects



Amount recycled Amount processed - Recycling rate

In addition, to promote the collection of waste plastic at stations, we are trialing Recycle Stations, which separate waste more precisely than conventional station trash bins. So far, we have installed them at

three stations-Tokyo, Osaki, and Kawasaki-but we are also installing an improved design version at two stations-lkebukuro and Ebisu-to further promote recycling efforts within the Group.



#### JR East Group Companies Usage Volumes

	Water Use*1		
	FY2022	FY2023	FY2024
( )	7.04 million m <sup>3</sup>	8.01 million m <sup>3</sup>	8.50 million $m^{3^{\circ}}$

#### JR East Group Companies Usage Volumes

	Office Paper Use			
	Item	FY2022	FY2023	FY2024
	Office paper use	787 t	787 t	655 t
	Recycled paper	85%	85%	82%

## Formulation and Implementation of the UPCYCLING CIRCULAR **Resource Circulation Concept**

In July 2024, we formulated the UPCYCLING CIRCULAR resource circulation business concept. We will further promote a sustainable circular economy by collecting waste generated from the business activities of the JR East Group, recycling it using new technologies and external collaboration, and utilizing it within the Group.

In specific examples, we are working to create a "double recycling loop" that recycles food waste into both electricity and agriculture. We are implementing an "electricity recycling loop" in which food waste from station buildings and other locations is converted into biogas at the Yokohama Plant of J Bio Food Recycle Co., Ltd. and the Sendai Plant of Tohoku Bio Food Recycle Co., Ltd., and the renewable energy generated is used at Group facilities.

The Company also produces fertilizer using the fermentation residue generated during the biogasification of food waste, and in the future aims to create an "agricultural recycling loop" in which crops grown with this fertilizer will be used by JR East Group restaurants and other establishments.

# UPCYCLING CIRCULAR



# Development of Sound-Absorbing Material Made with Used PET Bottles Collected at Stations



Masao Myoken Shinkansen Facilities Department Shinkansen General Management Department (Current post: Niigata Civil Engineering Equipment

Technology Center, Niigata Branch Office)

In terms of environmental measures along Shinkansen lines, we are installing sound-absorbing panels on the track side of the soundproof walling. We are working to reduce environmental impact by using plastic bottles collected at stations in these sound-absorbing panels and reusing them along railways.

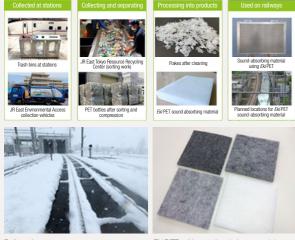
PET bottles collected at stations in the Tokyo metropolitan area are sorted by JR East Environmental Access Co., Ltd. and then taken away by a variety of processing companies, making it difficult to track the processing route. Another issue has been that PET bottles often have leftover drink residue in them, making it difficult to process them into sound-absorbing material.

Therefore, we worked with Group companies and manufacturers to clarify the disposal route for PET bottles and to develop technology for cleaning and fiberization.

This initiative has won rave reviews, and was awarded the 2023 Environmental Design Award\* by the Institute of Noise Control Engineering of Japan.

We are currently conducting feasibility studies on expanding the uses of the material to include sound-absorbing panels for conventional railway lines and as insulation for railroad heaters. \* The four companies that received the award are East Japan Railway Company, JR East Environmental Access Co., Ltd., BSTECHNO Techno Co., Ltd., and Mitsui

Chemicals Asahi Life Materials Co., Ltd. 묮 Recycling PET Bottles Collected at Stations 🍄 📖 斗



Railway heate

Eki PET rail heater insulation material prototype railway heater

#### **Chemical Substance Management and Reduction**

JR East is classified as a business operator handling over a certain amount of specified chemical substances under Japan's pollutant release and transfer register (PRTR) system.\* Accordingly, eight of our sites reported emissions and transfer amounts to the relevant local government bodies in fiscal 2024.

Also, considering the impact on ecosystems, we are working to reduce and substitute chemical substances, for example, by introducing stainless steel railcars that do not require painting.

\* This is a system whereby companies notify their releases and transfers of chemical substances as required by the Act on the Assessment Releases of Specified Chemical Substances in the Environment and the Promotion of Management Improvement. It encourages the monitoring and control of toxic chemical substances emitted into the environment and measures to prevent negative impacts on the environment.

## Nature Positivity

Goals Preservation of biodiversity

#### Policy

The JR East Group operates a wide range of businesses, but its railways in particular have various impacts on the natural environment through train operations and the construction of necessary facilities. Initiatives to preserve biodiversity are necessary to build a sustainable management foundation, and we will achieve nature positivity by continuing to implement a range of initiatives.

#### Maintaining Biodiversity

We will ascertain and analyze the dependencies and impacts of our business on environmental assets as well as the risks and opportunities based on the recommendations of the Taskforce on Naturerelated Financial Disclosures (TNFD), and we will disclose appropriate information. We will also clarify and continue to engage in activities essential to nature positivity.

#### Hometown Forest Planting Program



Yusuke Nagai Department Director of Corporate Planning Department Corporate Strategies Headquarters

(Current post: Mobility Strategy Department Railway Business Headquarters)

In order to preserve biodiversity and contribute to a sustainable society, the JR East Group has been carrying out a Hometown Forest Planting program since 2004. in which we plant tree species that are native to each area and



Fiscal 2024 reforestation activity

regenerate forests using the power of nature. To date, we have conducted tree planting in seven cities, towns, and villages across four prefectures and planted 175,000 seedlings together with JR East Group employees, their families, and local residents.

The trees planted at the Adatara Hometown Forestation in 2004 have grown tall and are absorbing approximately 27 tons of CO<sub>2</sub> per vear. In addition, the Shima Furusato no Mori-Zukuri event, which began in fiscal 2020, has been steadily implementing biodiversity conservation initiatives while also promoting tourism in Gunma Prefecture, where the event was held, as well as deepening collaboration with local high schools. In addition, we have been working to strengthen relationships with the local community and develop human resources, such as by creating opportunities for our field staff to gain experience in planning work, and we have been working on initiatives that will lead to the sustainable growth of our Group.

Looking ahead, we will continue to take on initiatives to enrich ecosystems, including Hometown Forest Planting, in order to foster nature positivity and enhance our corporate value.

#### Tidal Flat Environmental Restoration and Creation of a Place for Learning

In an effort to protect ocean biodiversity, we are working at Takeshiba tideland, which is adjacent to the WATERS Takeshiba development, to revitalize the environment of Tokyo Bay Edomae and create a place for learning. In fiscal 2024, we held monthly Tidal Flats Open Days, where participants were able to experience making lamps from sea urchin shells, making eco-bags using plant-based dyes from the tidal flats, and goby fishing at marine-life workshops, and to take outdoor disaster prevention courses using the tidal flats. These events enable many people to experience the role of tidal flats in biodiversity. We hosted a total of 11 such event days with approximately 600 participants.



Tidal Flats Open Day

#### Maintenance of Railroad Forests

The Company manages approximately 3,900 hectares of railway forests throughout Japan with the aim of protecting railways from snowstorms, avalanches, and the like. By continuing to thin out forests appropriately and plant species suited to the functions of each individual forest, we contribute to the preservation of ecosystems while ensuring disaster prevention functions.

#### Initiatives in Response to the Recommendations of the TNFD

The JR East Group has been working on the regeneration of nature and ecosystem conservation for some time now in order to achieve "Enriching the global environment," one of its six material issues. To better understand and manage the impact of its business on natural capital and biodiversity, the Group expressed its support for the disclosure recommendations published by the TNFD in September 2023, and in March 2024 became the first railway operator to be registered as a TNFD Adopter.

We will continue to make efforts to foster biodiversity and increase corporate value, and work to identify and disclose nature-related risks and opportunities in line with the TNFD recommendations.

Overview of Ir	formation Disclosure Based on the Recommendations of the TNFD
Recommendations	JR East Group Initia
	Linder the same gauerpapes atrusture as the TCED (see page 32), we average and

Governance Our		Under the same governance structure as the TCFD (see page 23), we our impacts on nature and local communities, and risks and opportun
		As a Group with multiple businesses, sales regions, and business lo ecosystems, select high-priority businesses and regions, and then a
	Risk and impact management	Within the framework of risk management, we identify aspects that I mitigate them. Through LEAP approach-based analysis and assess ment measures to mitigate climate change, as well as conduct reson along railway lines.
		In terms of nature-related metrics and targets , we have currently se of trees planted. As we continue to analyze nature-related risks and



Bailway forest (Semboku City, Akita Prefecture)

#### Harmony with the River Environment through the Construction of **Fishwavs**

The Shinanogawa Power Station (Tokamachi City and Ojiya City, Niigata Prefecture), which uses water taken from the Shinano River, aims to function in harmony with the river environment and coexist with the local community through such measures as installing fishways to make it easier for fish to swim upstream and releasing salmon fry into the river.



Construction of fishways (Miyanaka Intake Dam)

F

**Taskforce on Nature-related Financial Disclosures** 

ve oversee and make decisions regarding our dependence on ecosystem services, inities.

ocations, we conduct scoping of our dependencies and impacts on nature and analyze and evaluate them in accordance with the LEAP approach.

have an impact on nature and ecosystems and take specific measures to avoid or sment, we clarify the priorities of nature-related risks and opportunities and implepurce recycling, chemical substance management, and environmental conservation

et such metrics and targets for GHG emissions, solid waste emissions, and number I opportunities, we will consider setting new metrics and goals for nature positivity.

#### Sustainability

# **Enriching the Global Environment**

#### **Strategy Details**

#### Assessment of Nature-Related Issues Based on the LEAP Approach Scoping: Selection of projects for analysis

We used ENCORE\*1 to compare the relationship between the dependencies and impacts of JR East Group's businesses that come into contact with nature (transportation, retail and services, real estate and hotels, and renewable energy) (Table 1). As a result, we positioned the Transportation Business, which is the core business of the Group with a medium level of dependencies and impacts on environmental assets, as a high priority and proceeded with our analysis in line with the LEAP approach.\*2

\*1 A tool developed by UNEP-FI and others to assess the dependencies and impacts of a company's business activities on nature.

\*2 A process proposed by the TNFD for systematically assessing nature-related risks and opportunities (LEAP: Locate, Evaluate, Assess, Prepare)

#### Table 1: Relative Comparison Results of the Relationship between Dependencies and Impacts

Business	Dependency	Impact	Size of Business/ Area
Transportation business	Medium	Low	Large
Retail & Services business	Low	Low	Medium
Real Estate & Hotels business	Medium	Low	Medium
Renewable Energy business	High	High	Small

# Locate: Identifying Priority Areas in the Transportation Business

Regarding the main bases and sections of our Transportation business, namely (1) railway lines, (2) the Shinanogawa Power Plant, and (3) the Kawasaki Thermal Power Plant, we assessed them from the perspectives of both material locations\*3 and sensitive locations.\*4 As a result, we have identified the Shinanogawa Power Plant located in Tokamachi City and Ojiya City, Niigata Prefecture, as a priority location\*5 for our Transportation business (Table 2).

\*3 Areas where a company has operations or assets and that have been identified as having significant dependencies or impacts on nature, or risks or opportunities

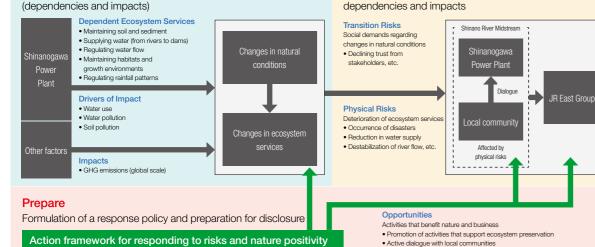
\*4 Areas surrounded by the following characteristics: 1) areas of high importance for biodiversity, 2) areas with high ecosystem integrity, 3) areas where ecosystem integrity is rapidly declining, 4) areas with high physical water risk, and 5) areas important for providing

ecosystem services \*5 Location that meet both the conditions of material location and sensitive location

#### Layout of Nature-Related Issues at the Shinanogawa Power Plant

#### **Evaluate**

Assessment of the relationship between business and nature (dependencies and impacts)



Assess

#### Table 2: Summary of "Locate" Results for the Shinanogawa Power Plant

"Locate" Perspective	Reasons for Identifying the Shinanogawa Power Plant as a Priority Location	
Material location	<ul> <li>The Shinanogawa Power Plant's clean hydroelectric energy provides one-quarter of the electricity used by the Group and supports rail transport.</li> </ul>	
	<ul> <li>The Shinanogawa Power Plant's business is based on water intake from the Shinano River, and it is necessary to consider its dependence on river flow and the impact of water intake on the river basin ecosystem.</li> </ul>	
Sensitive location	• There are areas around the Shinanogawa Power Plant with rela- tively high index values for "areas of high importance for biodiver- sity" and "areas important for providing ecosystem services."	

#### Evaluate: Evaluate the Relationship between Business and Nature (Dependencies and Impacts)

We have outlined the relationship between our business and nature from the perspective of the ecosystem services on which our business depends and the impact our business has on the state of nature. Based on the dependency and impact relationships compiled using ENCORE and the description of hydropower in the TNFD sector guidance, water use was suggested as an important impact driver. The Shinanogawa Power Plant uses a lot of water from the Shinano River to generate electricity. In addition, The Shinanogawa Power Plant has long placed importance on preserving the ecosystem in the Shinano River basin through dialogue with the local community.

Hence, we assessed that water use, which brings about changes in river flow, is an important impact driver, and that maintaining habitats and growth environments, which are necessary for the reproduction and growth of aquatic organisms, is an important ecosystem service. These items are marked with an asterisk in Table 3.

#### Assess: Assessment of Nature-Related Risks and Opportunities Based on Dependencies and Impacts

Based on "Evaluate," we identified nature-related risks and opportunities at the Shinanogawa Power Plant. A summary of major risks and opportunities is provided on page 88 (Table 3).

Assess nature-related risks and opportunities based on

able 3 Nature-Related Risks and Opportunities and Existing Initiatives of JR East						
Risks and Opportunities Related to Dependencies and Existing Initiatives						
Ecosystem Services	Risks	Opportunities	Existing Initiatives			
Maintaining soil and sediment	Damage to facilities and equipment due to landslides	-	<ul> <li>Appropriate management of the area around the facility</li> </ul>			
Supplying water (from rivers to dams)	Reduced operation rate or shutdown of power generation facilities due to reduced water supply (dry rivers, etc.)	_	Preparation of a stable power generation     environment			
Regulating water flow	Reduction or shutdown of power generation equipment due to rising river water levels, damage to facilities and equipment	_	Business continuity planning response			
Maintaining habitats and growth environments*	Declining trust from stakeholders due to deterioration of habitats	<ul> <li>Promoting activities to support ecosystem preservation</li> <li>Active dialogue with local communities</li> </ul>	<ul> <li>Construction of fishways</li> <li>Holding of committees organized by the Company with the national and local governments and experts on construction of fishways</li> <li>Release of juvenile fish</li> <li>Participation in conferences with the national and local governments and experts on improving aquatic environments</li> </ul>			
Regulating rainfall patterns	Suspension of operations due to unstable power generation caused by extreme river flow	-	Maintenance of a stable power generation environment			

Risks and Opportunities, Existing Initiatives Regarding "Impacts" Drivers of Impacts Risks Water use\* Impact of water use on ecosystems Activ Occurrence of water pollution Water pollution accidents Soil pollution Occurrence of soil pollution accidents

For example, one anticipated risk is that if ecosystem services such as the supply of water from the Shinano River to dams, regulation of water flow or regulation of rainfall patterns were to deteriorate, extreme river water level events, such as droughts or rising water levels, could cause destabilize power generation, which could have an impact on our business. In addition, there is a risk that the ecosystem will be affected by water use in the power generation business. Furthermore, if the habitat and growth environment deteriorates and the preservation of the ecosystem is put in jeopardy, we could risk losing the trust of our stakeholders.



Release of salmon frv into the Shinano Rive

Opportunities	Existing Initiatives	
ve dialogue with local communities	<ul> <li>Participation in consultations with national and local governments and experts on improving aquatic environments</li> </ul>	
	<ul> <li>Formulation and implementation of management plans</li> <li>Renewal of power generation facilities</li> </ul>	
	<ul> <li>Formulation and implementation of management plans</li> <li>Renewal of power generation facilities</li> </ul>	

#### Assessment of Existing Initiatives

For many years, the JR East Group has been observing and evaluating the impact of water withdrawal on the natural environment of the river basin and publishing the results of its observations. We also participate in conferences such as the Shinano River Midstream Water Environment Improvement Review Council, and continue to engage in dialogue with the local community about the harmony between our business activities and the natural environment of the midstream Shinano River. Furthermore, we are also working to preserve the ecosystem in the midstream Shinano River, which may be affected by the project. For example, we are carrying out thorough maintenance of the fish ladder installed beside the Miyanaka Intake Dam so as not to impede the upstream or downstream migration of fish that live in the Shinano River, and we are also conducting research and monitoring to further improve the fish ladder. Every spring, we release salmon fry into the Shinano River together with the local fishing association and elementary school students. We believe that such existing initiatives not only mitigate the impact on the ecosystem, but also represent a win-win situation for both nature and business.

The Group will continue to assess nature-related risks and opportunities using the LEAP approach based on TNFD recommendations, and will continue to promote activities to harmonize its power generation business with nature in the midstream Shinano River basin. In cooperation with stakeholders such as local communities and river managers, the entire Group will work toward becoming nature positive.

# **Providing Society with Innovative Technologies and Services**

We will create new services and expedite their introduction to society by actively advancing new technologies and digital transformation in all of our businesses and by taking on ambitious initiatives that go beyond the boundaries of existing businesses.



#### Technology Innovation

• New Fields

# **Technology Innovation**

- Provision of operational management solutions and realization of social innovation through continuous technology innovation based on utilizing external technologies and digital transformation
- Development and empowerment of employees with digital technology skills

#### Policy

We are advancing pioneering technological innovation through open innovation. By creating and strengthening industry-academia collaboration with companies both within and outside of the Group, universities, research institutes, and others, we are building an innovation ecosystem that generates innovation, and we are continuously creating new value.

We believe that human resource development is vital to achieving innovation. We will cultivate diverse human resources with digital technology skills and create areas where they can thrive.

#### KPIs

KPIs (numerical targets for FY2	FY2024 Results	
No. of patents, etc. applications related to digital transformation and services	175 in total	34
No. of newly trained employees with digital technology skills	30,000 in total	6,180 in total

#### Initiatives to Develop Pioneering Technology

In the four areas of safety and security, service and marketing, operation and maintenance, and energy and the environment set forth in our Mid-to-Long-Term Vision for Technological Innovation, we leverage tools such as IoT, big data, and AI to aim to create new value through pioneering technological innovation. In particular, we are focusing on resolving the management and on-site issues that the Group faces, such as the declining working age population, energy and environmental issues, and measures to deal with increasingly severe natural disasters



Next-generation Shinkansen fast train, ALFA-X

#### Basic Concept

We will offer new services and new lifestyle ideas to our customers by actively utilizing external technologies via open innovation and the pursuit of digital transformation. We will also accelerate improvements in safety and convenience, added value in services, and operational efficiency in various business fields. Using the knowledge and expertise we obtain through these activities, we will contribute to social innovation by providing business management solutions outside the Company.

In addition, we will utilize the technologies and expertise we have cultivated in the fields of Mobility and Lifestyle Solutions and summon the collective strengths of the Group to provide enriched lives at a global level.

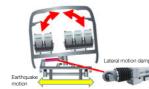
\* For details on our Digital Transformation and Intellectual Property Strategies, please see pages 53-54.



The Mid- to Long-Term Vision for Technological Innovation

#### Major Initiatives

- Developments to minimize damage in the event of an earthquake
- Test running of experimental rail cars (ALFA-X) for the development of next-generation Shinkansen trains
- Development of labor-saving automation of maintenance
- Development of a range of technologies required for future autonomous driving
- Development of the fuel cell hybrid train, HYBARI



earthquake countermeasur



Development of lateral motion damper as an Fuel cell hybrid train, HYBARI

#### Developing Diverse Talent with Digital Technology Skills to Promote DX -

We are currently developing highly skilled IT personnel (experts) at our Digital & Data Innovation Center, which was established in October 2023.

In addition, with regard to middle- and basic-level personnel, from November 2023 we have assigned DX Pros, who are key figures in driving digital transformation, to each branch office and elsewhere to speed up the cultivation of human resources with digital technology skills

We are working to cultivate diverse digital talent across the Company, and have achieved our numerical target of 20% within six months of launching these initiatives.

# Development of Human Resources with Digital Technology Skills by DX Pros

DX Pros have been assigned to each branch office to build an internal network for promoting digital transformation (DX). DX Pros provide hands-on training for employees, who learn how to create no-code apps while using a PC. Through the activities of DX Pros, we will primarily accelerate the development of human resources with intermediate and basic digital technology skills.

#### Main Employee Comments on DX Pro Activities

- There are apps created in other workplaces that we can adopt to improve work in our own workplace. We will incorporate business improvement apps that are being deployed horizontally by DX Pros into our own workplace and accelerate our efforts to improve digital work.
- I didn't know where to start with DX. I'm hoping to catch up with other employees soon since these DX Pros offer assistance from the very basics.
- There are issues that cannot be solved by digital technology alone. We will consider the upstream workflow, examining the rationale behind each task, and work to promote DX, including through the review of regulations and rules.

#### New Fields

# Goals

• Provision of new services and proposal of new lifestyles

#### Policy

By actively engaging in new technologies and digital transformation and taking on challenges beyond the framework of existing businesses, we aim to create new services and fast track their implementation.

#### KPI

KPI (Numerical Target for FY2028)		FY2024 Result
Solving social issues and increasing profits through open innovation	20 in total	2

#### Open Innovation Initiatives -

We will offer new services and new lifestyle ideas by actively utilizing external technologies and we will use the knowledge and expertise we gain through these activities to provide business management solutions outside the Company.

#### WaaS Co-creation Consortium

We formed the Mobility Innovations Consortium in 2017 as a forum for reforming mobility through open innovation. Over the past five years, we have conducted various demonstration experiments and initiatives with the participation of more than 160 companies and organizations. Leveraging this knowledge and expertise, we established a new Well-being as a Service (WaaS) Co-creation Consortium in April 2023 as a forum for enhancing the value of mobility and space. Through open innovation with various companies, local governments, universities, and other entities, we will work to solve social issues in a wider range of areas than we could address on our own and achieve well-being in society.

"Expert' Approximately 200 people (Cumulative total by end-FY20) "Intermediate Approximately

5,000 people ive total by end-"Basic 25,000 people

Formulate and implement DX strategies, oversee operations, and bring about fundamental change Digital & Data Innovation Center (DICe): Formulate and manage governance related to data, AI, etc

Solve business challenges using digital technology Systems human resources cultivation program: Understand business and systems and determine system specifications DX Pro: Lead staff with mid-level and basic skills

Process data and create business documents using digital tools



Hands-on study session with DX Pros





WaaS Co-creation Consortium (Japanese only) https://www.jreast.co.jp/jrewcc/

Major Initiatives in Fiscal 2024

- Tourism revitalization solutions using extended reality (XR) technology
- Verification of expansion of local consumption through wellness and cvcle tourism
- Consideration of new railway antiques purchasing experiences using digital twins
- Verification of the effectiveness of using virtual reality (VR) technology to attract local visitors and promote product appeal
- Consideration of the use of "flying cars" that connect stations with the skies

### Tourism Revitalization Solutions Using XR Technology

As part of the social implementation of XR technology that the Mobility Innovations Consortium tried, we have developed tourist information solutions using augmented reality (AR) and are working to

provide new tourist experiences. Since 2022, we have been introducing these solutions at events within JR East's ambit, such as Hiking from Stations, and they have been well received at numerous locations.

The WaaS Co-creation Consortium is also actively working to develop and utilize XR technology, such as by adding value to tourist experiences through AR and assesing the viability of selling railway antiques in digital spaces.



Tourist information solutions using AR

# Increasing the Engagement of All Group Employees

We will make our Group companies places where each of the Group's diverse employees can demonstrate their abilities in a challenging and rewarding environment.



- Promotion of Diversity, Equity, and Inclusion (DE&I)
- Human Resource Development
- Health and Productivity Management
- Occupational Safety

# Promotion of Diversity, Equity, and Inclusion (DE&I)

#### Goals

- Empowerment of diverse personnel
- Realization of flexible workstyles

#### Policy

• The JR East Group will carry out DE&I-based management to become a corporate group where all JR East Group employees can maximize their capabilities and thrive.

#### KPIs

KPIs (Numerical Targets for FY2028)		FY2024 Results
Percentage of female managers	10%	7.8%
Percentage of female directors	30%	20%
Percentage of managers hired as experienced personnel	20%	19.9%
Percentage of employees with disabilities	2.70%	2.69%
Establishment of facilities suitable for diverse personnel (LGBTQ, etc.)	100% (new construction or major renovation)	100%
Acquisition rate of paternity leave	85% or more	61.9%

JR East's non-consolidated figures

#### Implementing Workstyle Reform that Balances Diversity and Productivity Improvement ———

In fiscal 2025, we launched a new Third General Employer Action Plan, a four-year plan. While continuing our efforts to hire, retain, cultivate, and promote female employees, we will add "active participation" as an aim and strengthen our support for autonomous career development, especially in terms of active participation.

#### Third General Employer Action Plan

Fiscal 2025-Fiscal 2028 (JR East only)

- (1) 35% or more of recruits joining the Company will be women(2) 85% or more retention rate for female employees hired during the period
- nine to 11 fiscal years earlier
- (3) 85% or more of male employees take childcare leave, etc.
- (4) 10% or more of management positions in the Company will be women
- (5) 25% or more women among employees taking part in application-based training programs that contribute to independent career development

#### Basic Concept

The strength of the Group lies in the diverse perspectives and wide variety of values that reflect the attributes, knowledge, and skills of our employees, such as work experience, age, and gender. We will create new engagement between employees and the Company through a sense of accomplishment and fulfillment through work, and leverage the power of human resources with diverse values and flexible imaginations to facilitate fundamental transformation of our business, innovation through new ideas, and improved productivity through more sophisticated work.

For a diverse workforce to make maximum use of their respective abilities, it is essential that they are physically and mentally healthy. We will promote the health of our employees and the creation of safe, comfortable, and accident-free workplaces.

 $^{\star}$  For details on Human Resource Strategies, please see pages 51–52.

# Supporting Employees with Childcare or Nursing Care Responsibilities

To provide further support for balancing work with childcare and/or nursing care, we have introduced programs that exceed the legal standards, expanding these with the implementation of the following reforms in fiscal 2024.

#### New Maternity Gift System

A flat rate of ¥200,000 is paid for each child born.

Increase in Dependent Allowance for Children

Number of Children	Up through September 30, 2023	Since October 1, 2023
1st child	¥10,000	¥10,000 (no change)
2nd child	¥10,000	¥15,000 (+¥5,000)
3rd and subsequent children	¥10,000	¥20,000 (+¥10,000)

#### Increase in Dependent Allowance for Family Members with Serious Illnesses or Disabilities

Eligible Family	Up through September 30, 2023	Since October 1, 2023
Children	¥12,000	¥20,000 (+¥8,000)
Family members other than children	¥10,000	¥20,000 (+¥10,000)

# Further Flexibility in Workstyles for Employees Raising Children with Serious Illnesses or Disabilities

Work and Leave System	Up through September 30, 2023	Since October 1, 2023
Part-Time Work	Until age 3	
Reduced days of work	Until third grade of elementary school	Until third grade
Parental leave (5 days per month)	Until third grade of elementary school	of junior high school
Parental leave (3 days per month)	Until sixth grade of elementary school	

From April 1, 2024, there will be **no age restrictions** for those raising children with serious illnesses or disabilities.

# Interviews with Employees Raising Children with Serious Illnesses or Disabilities

I used the reduced hours work system to care for my disabled child. I considered quitting when the use of reduced work hours expired, but the change in the work system has allowed me to remain in employment. I'm glad I'm able to continue working reduced hours as it means I can stay connected to society through my job.

#### **Employing People with Disabilities**

We are actively hiring people with disabilities as well as working to create an environment in which employees with disabilities can work actively in various positions. As of June 1, 2024, we have approximately 780 employees with disabilities and an employment rate of 2.76% (2.78% for the four applicable Group Companies), which exceeds the statutory rate of 2.5%. That said, since some Group companies have not met the statutory employment rate, we will continue to actively hire Group employees with disabilities and work to create an environment in which they can fully utilize their capabilities and play an active role.

# Expanding Fields in Which Employees with Disabilities Can Play an Active Role across the Entire JR East Group



Yukiyo Furusawa Job Support Team, General Affairs Department JR Fast Green Partners Co., Ltd,

As a special subsidiary of JR East, JR East Green Partners respects the individuality of each employee and strives to create a comfortable working environment for them, while actively working to create jobs that allow employees to fully utilize their capabilities. Through these efforts, we will continue to work hard to improve the competitiveness of our company and expand employment opportunities for people with disabilities.

In October 2023, we launched a Job Support Team to provide employees with comprehensive support in gaining stable, higher quality employment so that they feel motivated and can thrive in their work.

Going forward, JR East Green Partners will promote employment of people with disabilities throughout the Group.

#### Initiatives to Promote Understanding of LGBTQ+ Employees

Thus far, we have expanded the scope of our human resource and benefits systems to include same-sex partners. As well as creating an accepting environment for LGBTQ+ employees to work in, we are building awareness and understanding among all Group employees through universal compliance training. In 2023 we held the first face-to-face networking meeting in four years for those involved, and we took part in the Pride1000 business executive ally network.

#### Comments from Mr. Gon Matsunaka, Representative of Good Aging Yells (Certified NPO)



The network association for LGBTQ+ and other sexual minority employees had a very friendly atmosphere, with each employee sharing stories from the workplace and their personal lives in a positive way. While many companies are moving forward with these initiatives, few companies offer opportunities like these. I feel that these are only possible because of the trust between employees and the executives and the managers. Thank you very much for reaching out to me.

# Increasing Diversity in Hiring and Human Resource Management (Fields of Activity)

# Strengthening Recruitment of Experienced People and Welcome Back Hiring

In terms of hiring experienced personnel and Welcome Back hiring, in fiscal 2024 we introduced year-round recruiting and hiring of experienced personnel, and we are strengthening our recruitment efforts to acquire personnel who can hit the ground running.

#### Interview with a Welcome Back Hire Megumi Noguchi Akabane General Management Center Tokyo Metropolitan Area Headquarters



I joined the Company for the second time in April 2023 as part of the first batch of Welcome Back hires.

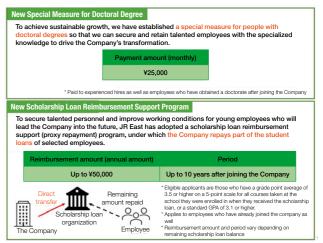
I had left the Company to focus on raising my two children, but as I watched my children grow up, I also felt that I wanted to take on a new challenge, so I decided to apply.

In the future, I would like to use this experience to work in human resource development.

### Promoting the Active Participation and Achievements of Employees of Foreign Nationalities

We strive to employ the best candidates regardless of nationality, and as of April 2024, we employ more than 100 foreign nationals in a wide range of areas. Based on feedback we received in discussions with foreign employees, we are working to create an environment where they can make the best of their abilities, such as by allowing them to bring dictionaries to internal promotion exams and answer questions in English.

## Initiatives to Secure and Retain Talented Personnel



# Workstyles That Allow Employees to Maximize Their Capabilities

In addition to leave of absence and vacation systems that allow employees to balance work with life events such as childbirth, childcare, and elderly care, we encourage flexible and well-balanced work styles that utilize flextime and remote working to improve efficiency and productivity. In addition, as one of our diverse workstyles, we have been promoting the spread of workations and an increase in the number of users through our in-house Workation@JRE system.

# Human Resource Development

• Cultivation of innovation-oriented thinking and diverse career development

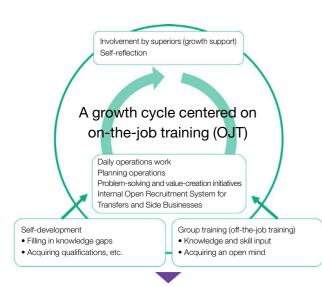
Goals

Expansion of fields of activity

#### Policy

To achieve sustainable growth for the JR East Group, our basic policy is to support the growth and career autonomy of each Group employee and to increase employee engagement. Based on a growth cycle centered on on-the-job training (OJT), the Group is working together on people-focused human resource development that responds to the diverse aspirations and bold challenges undertaken by employees and that supports their growth.

Through various initiatives, we aim to foster a shared mindset among every Group employee as Group innovators who combine a sense of participation in management with the ability to take action, who embody career autonomy, with a sense of job satisfaction, and who always strive for greater heights.





INF 15		
KPIs (Numerical Targets for FY2028)		FY2024 Results
No. of participants in self-develop- ment courses on new value creation	25,000 in total*	5,169 in total*
Assignment of personnel to key growth fields	2,000 or more in total	408 in total
	* indic	ates figures for JR East only

#### Growth of Group Employees

#### Groupwide Human Resources Development

From the perspective of pursuing Group management and integration and collaboration, we provide group training and internal and external correspondence courses for JR East Group company employees in a wide range of roles, from general staff to managers. Example of Group Training

# • JR East Group Career Design Training: Broadening the horizons of

- young people and supporting their career development
- Practical Manager Development Training: Developing the next generation of managers

#### Internal and External Correspondence Courses

- 53 internal courses: Railways, Lifestyle services, etc.
- 285 external courses: Management, Digital transformation, Qualification certification, etc.



Practical Manager Development Training



社内·社外通信研修 2024

オリジナル間

Study guide for correspondence course

#### JR East "Move Up" Forum

Since fiscal 2024, we have been holding the JR East Group "Move Up" Forum in collaboration with Group and partner companies, to share and exchange examples of change and integration and collaboration. In fiscal 2025, approximately 180 people from 43 JR East workplaces and approximately 170



people from 55 Group companies will attend the event, and we will come together as a Group to accelerate our transformation through discussion and presentations about various initiatives.

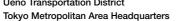
#### Expansion of Fields of Activity

#### Internal Open Recruitment System for Transfers and Side **Businesses**

To provide an opportunity for employees to think proactively about their careers and take on new challenges, we have implemented an internal open recruitment system for transfers, with approximately 320 employees in 19 fields taking on new challenges in fiscal 2024.

We have also introduced a side business system, to provide employees with opportunities for growth through diverse work experience outside the Company so that they can use the insights gained from that experience to create new services and added value. As of fiscal 2024, a total of approximately 300 employees are engaged in side businesses.

#### Interview with Employees Trying Out Side Businesses Yoshihiko Hirakawa Ueno Transportation District



I have learned new things and gained insights that I would not have been able to experience working as a train crew member, and I am aware that this is helping me grow as a person each day. I will continue to create people-focused services as a challenge for the new era.

#### Value Creation Program

To create new value and solve problems, in fiscal 2023 we established the role of Innovative Staff at our operational sites. To support these Innovative Staff, we held a new Value Creation Program training course for a



total of eight days, in which Value Creation Program Participants participants learned about value creation schemes and fieldwork to seek solutions to problems faced by local governments.

#### Participating in the Value Creation Program



Tsukasa Niguma Nagano General Management Center Nagano Branch Office

A total of 30 people participated in the Value Creation Program for Innovative Staff.

Throughout the training period, we took on various challenges, repeatedly engaged in dialogue and thought exploration, verbalized our goals, and performed the roles expected of us, and we gained a genuine sense of the process of highquality consensus building and its results. I will continue to use what I have learned to act as a leader driving new value creation, while also working to train the next generation of employees and contribute to the further growth of the Group.

#### Expanding Employee Fields of Activity Through Organizational Restructuring

Since 2022, we have been reviewing the nature of work and organization within the Company in order to achieve integration of operations, flexible workstyles, and flexible organizations (workplaces), whether it be in our in-field workplaces or planning departments.

To enable speedy value creation and problem solving in close proximity to our customers, we are implementing the transfer of



#### Library Portal

We have taken video content, including highly specialized training lectures, special lectures by Company managers, and lectures by external presenters on management and other topics, and posted it on a centralized in-house portal site, thus providing an online system that allows employees to learn at their own pace.

The portal currently holds 480 videos, including 320 in-house training videos and 160 videos by external lecturers. In addition to being used for self-development, the videos are also used in workplace study sessions.

#### Enhancing Communication with Employees

We are incorporating one-on-one meetings in each workplace as a tool to support our employees' ability to grow and their career autonomy as well as to increase engagement.

So that they understand the purpose of one-on-one meetings and can implement them effectively, we are holding training for managers and posting related video materials for managers and subordinates on our Library Portal to foster the creation of opportunities for twoway communication.



A one-on-one meeting in a workplace



A training session for manage

authority and the integration of planning departments with operational sites as well as the integration of individual dedicated divisions so as to expand the fields of activity for all employees and create more flexible workstyles and career development.

The creation of workstyles that transcend the traditional division of duties and flexible workplaces where each employee can take on a variety of challenges and thrive, allows employees to actively participate in new initiatives and achieve growth through a cycle of participation and growth.

#### Examples of Organizational Reconfiguration at Operational Sites

- Establishment of General Management Centers that combine stations and crew workplaces: In addition to traditional station and crew duties, these centers undertake problem solving and value creation.
- Transfer of the Planning Department's operations in rolling stock workplaces to operational sites: We are working to conduct effective business operations and maintain and improve technical capabilities.
- Establishment of an Equipment Technology Center at our equipment workplaces that integrates the duties of our in-field worksites and branch offices: We are creating an environment where employees can make the most of their capabilities.

Increasing the Engagement of All Group Employees

# Enhancement of Mechanisms and Systems to Support Employees in Taking on Bold Challenges —

Developing Flexible, Diverse Training Courses

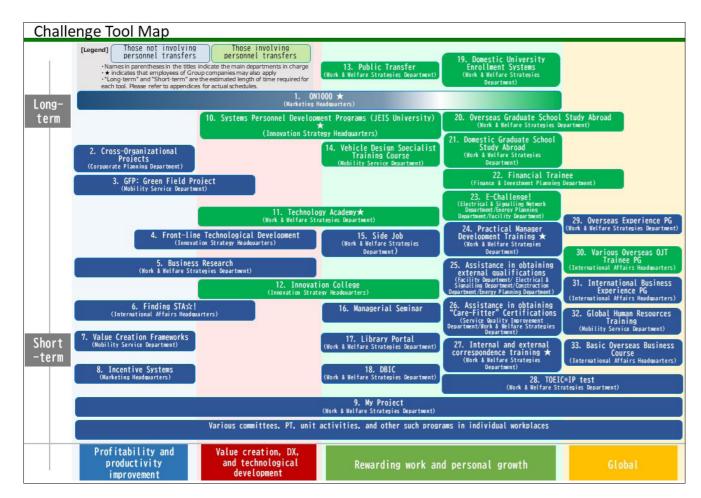
We offer a wide range of high-quality, flexible and diverse training courses tailored to the roles employees need to fulfill, the expansion of their fields of activity, and our business portfolio. In addition to improving knowledge and cultivating the right mindset, we offer our employees the chance to apply for human resource development programs that contribute to their career autonomy in areas such as technology, international business, finance, and foreign languages.

In addition to enhancing mechanisms and systems to respond to our employees' diverse initiatives and ambitions, we provide ongoing support by creating an environment that facilitates the taking on of challenges by our employees, such as by visualizing these programs in the form of a Challenge Tool Map and distributing it to employees.





Domestic Graduate School Study Abroad program Overseas OJT trainees



# Training Foreign Talent (JR East Technical Intern Training)

We provide on-the-job training for foreigners through our technical intern training program. By developing international railway human resources, we aim to cultivate our own employees by expanding human exchanges as well as to contribute to economic development in the Asian region. We have 23 trainees (as of September 2024) from Vietnam, Thailand, and Indonesia working in rolling stock and track maintenance departments.

Going forward, we will position this initiative as initial training prior to employment in roles requiring specific skills and build a long-term human resources development plan.



JR East Technical Intern Training program



# Health and Productivity Management

Goal
 Promotion of employee health

#### Policy

By promoting strategic health management, we aim to improve the health of every employee and foster happiness for our employees and their families, thereby achieving sustainable growth for our employees and the Group. We will also work to address social issues such as extending healthy lifespans.

### JR East Group Health Vision 2029

We have formulated a medium-term plan, JR East Group Health Vision 2029, that focuses on three themes—Body, Mind, and Connection—and we will promote strategic health management through three methods: Collaboration between people and technology, Combining the Group's collective strengths, and Open innovation.

#### JR East Group Health Vision 2029



Health creation con	cept		
	Body	Physical Securing happiness for employed their families	oyees and
Three themes Mind Mental	mental, and social well-being an	nd not merely	
	Connection	Social     the absence of disease or infirmit	ty.
	Colla	boration between people and technology	
Three methods	Combining the Group's collective strengths		
		Open innovation	

#### **Promotion Structure**

We have established dedicated head office and branch office departments as well as the JR East Health Promotion Center, which is staffed by occupational health professionals, and we have appointed health promotion leaders in each location to promote employeeinitiated health promotion at the workplace.

In addition, the directly managed JR Tokyo General Hospital and JR Sendai Hospital support the health of Group employees and contribute to regional medical care. Notably, JR Tokyo General Hospital opened a new health checkup center in April 2024, introducing highly accurate testing using the latest medical technology.

#### KPIs

We will set common health management goals for Group companies and work together as a Group to promote health effectively.

KPIs (Numerical Targets for FY2030)		FY2024 Results
Percentage of employees receiving regular	100%	99.9%*
health checkups		
Percentage of employees receiving stress	05% от тосто	91.2%*
checks	95% or more	91.2%*

 $\star$  indicates figures for JR East only

#### Employee-led Creation of Good Health

We focus on each of our employees, all of whom play a key role in creating good health, and we are working to raise health awareness and literacy by providing information through videos, holding health events and study sessions, utilizing health checkup reports that convert health checkup results into scorecards using our proprietary system, and regularly measuring health literacy.

We also actively promote health by acknowledging the individual efforts of each employee and presenting internal awards to workplaces that demonstrate excellent health performance.







Workplace athletic event



Poster for employee awareness

lata

#### Sustainability

Increasing the Engagement of All Group Employees

#### Certification as a KENKO Investment for Health Outstanding

Organization JR East has been certified as a White 500 KENKO Investment for Health Outstanding Organization 2024 (Large Enterprise Category) for fiscal 2025.



# Supporting Health through Proactive Communication



Mariko Sato JR Fast Health Promotion Center Takasaki Health Promotion Center

Public health nurses in charge of both the Tokvo Metropolitan Area Headquarters and the Tohoku Area Headquarters and each branch take the lead in promoting the health of



employees. It is particularly important to promote health to people while they are still young, and we focus on providing health guidance to those with a body mass index (BMI) of 25 or higher, those with high blood pressure, high cholesterol, high blood sugar or other complications, and smokers, with the aim of preventing the incidence of future lifestyle-related diseases.

We use regular health checkups, workplace inspections, and other opportunities for direct contact with employees as opportunities to encourage them to become more aware of health problems and improve their lifestyle habits, thereby helping them avoid risks

In recent years, we have been proactively using online interviews and providing health education to young people aged 30.

In our work as medical professionals, we will continue to support employees in improving their health awareness and health literacy to encourage behavioral changes in the workforce, focusing on the three themes of Body, Mind, and Connection set out in JR East Group Health Vision 2029.

# **Occupational Safety**

Goal	
Accident-free, safe workplaces	

#### Policy

The JR East Group has set the goal of zero fatal accidents among its employees (including Group companies, partner companies and affiliated companies) and is committed to creating a safe and comfortable working environment.

#### KDI

INF I		
KPI (Numerical Target for FY2029)		FY2024 Results
Fatal employee accidents (including		
Group companies, partner companies,	0	2
and affiliated companies)		

#### Preventing Workplace Accidents and Creating a Workplace Where Everyone Can Leverage Their Abilities with Peace of Mind

In fiscal 2024, there were two fatal accidents (two people) due to electrocution and falls in the railway business, and 156 people were injured in accidents that resulted in time off work.

#### Accidents Resulting in Lost Work Accidents Resulting in Lost Work Time (JR East Employees) Time (JES-Net, etc., Employees)



### Preventing Occupational Accidents

At the JR East Group, we regard struck-by accidents, falls, and electrocution as serious occupational accidents, and we take a range of measures to prevent them

The TC-type wireless train approach warning system (TC alarm) alerts workers to an approaching train using sound. Since its adoption in 1998, we have had no fatal struck-by accidents during maintenance work when using the system.

In recent years, we have been capturing on changes both inside and outside the Company and incorporating new technologies, such as using drones for track surveys and equipment inspections following heavy rains or earthquakes, in an effort to improve work environments and prevent workplace accidents.





Evacuation using the TC alarm system (illustration)



Ascertaining damage using drones

# Improving Confidence in Management

We will build a solid governance system that is resilient to changes to facilitate new challenges, while respecting human rights and conducting trustworthy corporate management.



• Internal Control That Promotes the Undertaking of Bold Challenges • Respect for Human Rights

# Internal Control That Promotes the Undertaking of **Bold Challenges**

#### Goals

- Risk management that supports ambitious new initiatives
- Ensuring stable, appropriate operational management
- Business management in compliance with laws and regulations and corporate ethics, and that ensures information security

#### Policy

- The JR East Group views internal control as follows.
- Various initiatives by all Group employees to realize the Group Philosophy and Group Management Vision appropriately and efficiently
- A system to support employees in taking on new challenges through their own initiative and motivation, leading to growth and structural reform for the Group
- A broad concept that includes the Companies Act and the Financial Instruments and Exchange Act

Specifically, we are working on risk management from the perspective of expanding into new business fields, etc., in addition to the perspectives of ensuring compliance, ensuring safety and security, preventing financial losses, and ensuring the soundness of financial statements, and we aim for the advancement of the JR East Group, and the enhancement of its value.

### Systems and Mechanisms to Support and Encourage the Taking On of Bold Challenges

We have established systems and mechanisms that proactively support and encourage employees to take on bold challenges to develop the JR East Group and increase its value, and we are constantly reviewing and improving them. Starting in fiscal 2025, we have made these systems and mechanisms visible (see Challenge Tools Map on page 95) and will use them to further support and promote the taking on of challenges.

#### **Breakthrough Communication**

As our organization and work structures change, we will be creating more opportunities for employees to exchange ideas with executives starting in fiscal 2024, to encourage them to break down their own barriers and take on new challenges. (Fiscal 2024 results: 44 locations within our Company, 16 Group and partner companies)

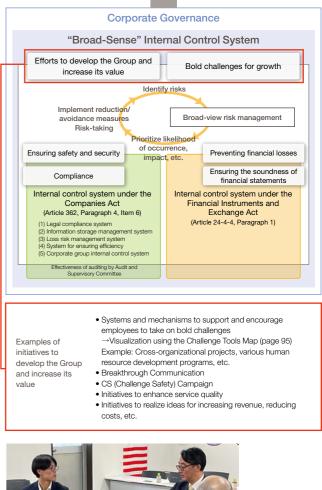
#### **Basic Concept**

To accelerate our transformation and steadily achieve the JR East Group Management Vision "Move Up" 2027 amid a drastically changing business environment, it is essential to put effective governance frameworks in place to take on new challenges.

In addition, as a "network company," we are committed to providing the JR East Group's services to as many customers and residents as possible in different ways, and to earning the trust of all our stakeholders. We will establish a corporate culture that includes respect for human rights.

#### JR East Group's Basic Approach to Its Internal Control System

Realization of Group Philosophy and the JR EAST Group Management Vision "Move Up" 2027





Breakthrough Communication

Improving Confidence in Management

Cross-Organizational Projects (Systems and Mechanisms to Support and Promote Taking on Bold Challenges) Operation of the Special Fuku ga Kurukuru FruiTea



Aizu-Wakamatsu Area Project Members Tohoku Area Headquarters Aizu General Management Cente Koriyama Track Maintenance Techr Aizu-Wakamatsu Area Cente ohoku Area Headquarters

Collaborative Group Companies: JR EAST VIEW TOURISM AND SALES COMPANY LIMITED

Cross-organizational projects are a mechanism for forming teams that transcend the boundaries of departments, divisions, and organizations, and supporting and promoting the taking on of challenges aimed at solving problems. Projects have set budgets, allowing us to quickly implement ideas from our frontline employees who are closest to our customers. The Aizu-Wakamatsu Area Project was launched in December 2019 to leverage the appeal of the Aizu region of Fukushima Prefecture to the fullest extent through a cross-organizational project. From fiscal 2023 to fiscal 2024, we planned and operated the running of the special Fuku ga Kurukuru FruiTea train, which uses the FruiTea Fukushima carriages on weekdays when they are not normally in service.

Our project team has been planning special trains since fiscal 2021. This time, we took advantage of this experience to focus on establishing operations on multiple weekdays. In addition, although we have collaborated with smaller local companies on previous projects, this time we had the idea of working with Hoshino Resorts Bandaisan Onsen Hotel, so our project team members reached out directly to the international hotel operator, which graciously agreed to the idea of collaboration.

During the planning phase, Hoshino Resorts and our project team had numerous frank discussions. As suggested by Hoshino Resorts, we held trial runs, rehearsing the handling of customer service on an actual train, and going beyond established precedents and frameworks to provide the best possible service. Also, because there were concerns about attracting customers to a weekday train service, we approached television stations and newspapers and other media to get the word out to as many people as possible about our special plan.

We ended up running the service seven times over four days in fiscal 2023 and 14 times over seven days in fiscal 2024, attracting a total of 579 passengers. The success of the project both increased profitability and created value by helping revitalize the Aizu region and building momentum for *FruiTea Fukushima*'s final run in December 2023.

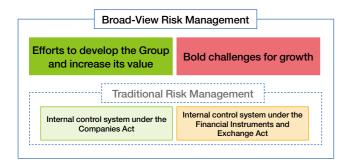
I believe we owe the success of this project to our ability to utilize the mechanisms of this cross-organizational project effectively and quickly put team members' ideas into practice. In addition, the valuable experience gained through this project also led to the personal growth of each individual member of the project team. We will continue to leverage the experience and connections we have built up as a team to create new work and value, and thereby further enhance the Aizu region.

#### Basic Approach to Risk Management

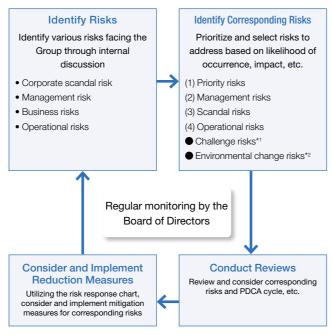
For the Group to improve profitability and undertake structural reforms to speed up "Move Up" 2027, we recognize the importance of broadview risk management that considers risk\* not only from the perspective of reducing negative factors such as avoiding losses but also from the perspective of proactively increasing the value of the Group.

We have established and operate internal controls in accordance with the Companies Act and the Financial Instruments and Exchange Act to ensure stable and proper business operations, while also working to develop the Group and support and encourage the taking on of bold challenges aimed at enhancing value and growth.

\* These include not only risks related to compliance, safety assurance, and natural disasters, among others, but also those related to market changes, the direction our competitors are going in, social and economic conditions in Japan and overseas, and management decisions related to new businesses



# **Risk Management Initiatives**



\*1 Challenge risks are risks that should be considered when implementing new measures or entering new businesse

\*2 Environmental change risks are risks that increase in importance with changes in the usiness environme

La https://www.jreast.co.jp/company/governance/internal\_control.html (Japanese only)

#### JR East Group Compliance Initiatives

Based on the Policy on Legal and Regulatory Compliance and Corporate Ethics, the JR East Group has established a Compliance Action Plan that outlines how we should behave as a corporation and as members of society. While building trust with all stakeholders, we comply with all related laws in our various business fields, such as Mobility services and Lifestyle Solutions services, and we conduct business in accordance with our corporate ethics.

Lapanese only)



#### **Key Compliance Initiatives**

What We Aspire To	Specific Initiatives	Status of Initiatives	
<ul> <li>Understanding the importance of compliance as the foundation of</li> </ul>	Compliance education for all employees	<ul> <li>Implemented for all Group companies in fiscal 2024 (including seconded employees, contract employees, dispatched employees, etc.)</li> </ul>	
<ul> <li>Strengthening our ability to respond to risks that may be present in our business</li> </ul>	<ul><li>Compliance training for managers</li><li>Compliance seminars for executives</li></ul>	<ul> <li>Established individual education programs as part of "Compliance education for all employees"</li> <li>Implemented in fiscal 2024 covering themes including harassment prevention, consideration for sexual minorities, and scandal and crisis management response</li> </ul>	
Regular inspections to ensure	Checklists for confirming basic matters	Compiled summaries of main inspection items related to laws and regulations into a Companywide version and a system-specific version, which are checked at least once a year	
<ul> <li>Prevention and early detection of inappropriate events</li> </ul>	JR East compliance consultation desk (officers, employees, and former employees of all Group companies, as well as executives and employees of business partners, can consult and report via this desk)	<ul> <li>Handled about 290 consultations and reports in fiscal 2024</li> <li>Handled a wide range of consultations and reports, including those related to the handling of laws and regulations, interpersonal problems, and various types of harassment</li> </ul>	
Building sound relationships with     business partners	Inclusion of anti-bribery clauses in Compliance     Action Plan	<ul> <li>Formulated and announced Basic Policy for Preventing Bribery of Foreign Public Officials, etc. in conjunction with our expansion of</li> </ul>	
business partners	Inclusion of a ban on profiteering in work regulations	overseas business	

#### Tax Transparency Initiative

JR East Group has established a Group Policy on Tax Transparency to ensure that we pay taxes appropriately, which is one of our responsibilities as a corporation, while also managing tax risks appropriately and aiming to enhance our corporate value. We will also comply with tax-related laws and regulations in all countries and regions in which we do business and build a highly transparent tax governance system. Land https://www.jreast.co.jp/company/tax\_policy (Japanese only)

#### Basic Policy for Information Security -

We have established the JR East Group's Basic Policy for Information Security and are working to minimize security risks throughout the Group, with the general manager of the Innovation Strategy Headquarters serving as the chief information security officer (CISO).



1	DI.
n	~1

KPI (Numerical Target for FY2028)		FY2024 Results	
mplementation percentage for compliance and nformation security training for all employees	100%	100%	

Compliance training for

#### Information Security Implementation Framework



# Improving Confidence in Management

#### Information Security Initiatives

Administrative Measures

- Security Education and Training • Education for all employees to raise awareness of cybersecurity
- Training for employees in each position within the implementation framework
- Ongoing response training at each Group company to prepare for a security incident

#### 10 Principles of Information Security

 Distributed to each Group employee as a set of rules that every employee must observe. In fiscal 2023, the plan was completely revised in light of the

spread of remote working and the expanded use of cloud services.

### Technological Countermeasures

Security Operation Center (SOC)

- Establishment of an SOC to monitor suspicious communications taraeting the Group
- Configuration of a framework to analyze suspicious communications and escalate them in a timely manner

JR East Endpoint Security Service

- Deployment of integrated security products with virus detection and SOC coordination functions to each computer within the JR East Group
- Addressing of the increasing security risks associated with the expansion of remote working

#### Other Initiatives

- Implementing vulnerability assessments and countermeasures for business personal computers and systems
- Providing Computer Security Incident Response Team (CSIRT) training, including for management. Providing targeted attack email training and other measures

## Personal Data Protection Initiatives

Pursuant to applicable laws and regulations, including personal information protection legislation both in Japan and overseas, we are working to reduce the risk of data breaches by strengthening our personal information management system and reviewing our rules.

- Publication of Basic Policy for Personal Information Handling
- Formulation of internal regulations such as personal information management regulations
- Operational audits conducted at least once a year at all locations
- Publication of privacy policies in response to legislation in the European Union, the United Kingdom, and California, among other jurisdictions
- Regularly scheduled education and training through compliance education and other such programs for all employees

#### Supporting and Promoting Challenges through the Use of Generative AI

To encourage the appropriate use of generative AI to broaden the scope of challenges that Group employees can take on and to support business efficiency and the creation of new ideas, we have formulated Guidelines for the Utilization of Generative AI for the Group.

#### Guidelines for the Utilization of Generative AI

- Defines the basic requirements for utilizing generative AI
- Lists precautions for data input
- Lists precautions for utilizing generated results
- Lists precautions for system implementation and development

# 情報 セキュリティ 10か条 880

**Respect for Human Rights** 

# Goals

- Instilling of respect for human rights
- Sustainable procurement

#### Policy

The JR East Group will contribute to creating a sustainable society by conducting business activities that respect human rights in order to deliver on the Group's philosophy of providing enriched lives for all people.

#### JR East Group Policy on Human Rights

In March 2023, the JR East Group formulated the JR East Group's Basic Policy on Human Rights to promote respect for the human rights of all people, including customers, local residents, business partners, and employees, based on international human rights norms. https://www.jreast.co.jp/e/human-rights/

#### Framework for Promoting Respect for Human Rights

We have established a Human Rights Awareness Promotion Committee to carry out human rights due diligence and promote respect for and instill understanding of human rights through education, seminars, and slogans.

#### KPI

KPI (Numerical Target for FY2028)		FY2024 Results	
Implementation percentage for seminars on human rights	100%	100%	

#### Human Rights Due Diligence

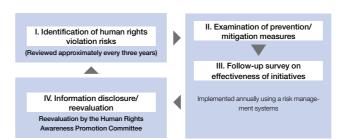
We have identified key themes (prominent human rights issues) to be addressed by understanding the characteristics of the wide-ranging business fields of the JR East Group and taking into consideration the severity and likelihood of human rights violation risks, with reference to the UN Guiding Principles on Business and Human Rights reporting framework and other sources.

Salient Human Rights Issues	Main Types of Specific Anticipated Incidents	Affected Stakeholders
Occupational health and safety; exces- sive work	<ul><li>Accidents resulting in worker death or injury</li><li>Health impacts of long working hours</li></ul>	Business partners Employees
Discrimination; harassment	Harassment of employees by customers     Slurs against LGBTQ+ employees     Discriminatory language in advertising materials     Product settings that lack consideration for gender	Customers Local residents Business partners Employees
Customer safety and privacy	<ul> <li>Accidents resulting in customer death or injury</li> <li>Lack of information provision or consideration for people with disabilities in transportation disruptions</li> <li>Leakage of customer personal information</li> </ul>	Customers Business partners
Human rights issues in the supply chain	<ul> <li>Procurement of raw materials from regions and suppliers where forced or child labor occurs</li> <li>Inadequate supply chain management in transactions with foreign companies</li> </ul>	Local residents Business partners
Consideration for the local community and the environment	<ul> <li>Violation of the "right to transportation" of local residents due to the reconstruction of local public transportation</li> <li>Destruction of the living environment of local residents due to the leakage of pollutants</li> <li>Adverse impact on living environments due to the construction of renewable energy facilities</li> </ul>	Customers Local residents

#### Salient Human Rights Issues and Efforts to Address Them

The significant human rights issues identified include discrimination and harassment, customer safety and privacy, forced and child labor, and occupational health and safety. We will manage and mitigate the risk of these human rights violations through dialogue and appropriate procedures based on international norms.

#### Human Rights Due Diligence Process



#### JR East Group Policy on Customer Harassment

Recognizing that safeguarding each and every JR East Group employee against customer harassment is crucial for the Group to continue growing, in April 2024 we formulated the JR East Group Policy on Customer Harassment. While the Group will continue to respond earnestly to customer opinions and requests, it has clearly stated both internally and externally that it will take a firm stance against any behavior that constitutes customer harassment.

La https://www.jreast.co.jp/e/customer-harassment/index.html

#### Other Examples of Initiatives to Address Salient Human Rights Issues

Increase in Information and Consideration for People with Disabilities in Relation to Transportation Disruptions

• Visually impaired people are invited to take on the role of customers in training sessions simulating long-term train stoppage, and their opinions are reflected in training so as to improve our methods of providing information.



Consideration for LGBTQ+ Employees

• Implementing initiatives to promote understanding of LGBTQ+ -related matters throughout the workplace via opportunities to interact with LGBTQ+ employees

## Sustainable Procurement

The JR East Group has established a procurement policy as a standard of conduct for procurement with consideration for society and the environment throughout the supply chain.

Attps://www.jreast.co.jp/e/order/procurement/procurement\_policy.html

#### Group Procurement Policy

• Revised in October 2021

### Sustainable Procurement Survey

• The content was updated in 2022, and the survey items now refer to the United Nations' International Bill of Human Rights and other international norms related to human rights and the environment.



#### **Communicating with Business Partners**

- Starting in fiscal 2023, we now hold Communicating on Management Challenges sessions about sustainability-related initiatives
- Ongoing communication about quality control



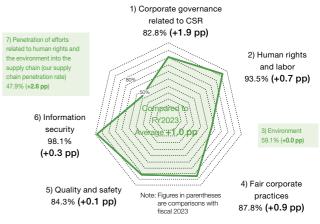
## FY2024 Questionnaire and On-Site Survey Results

Accomplishments	FY2024	FY2023	FY2022
Surveys	1,187 companies	1,386 companies	1,030 companies
On-site surveys*1	37 companies	30 companies	_

\*1 Combined total of "Communication on Management Challenges" and "Communication on penetration of initiatives related to human rights, the environment, and other issues among major suppliers"

• Regarding on-site surveys, in addition to "Communication on management challenges," from fiscal 2024, "Communication on penetration of initiatives related to human rights, the environment, and other issues among major suppliers" will also be conducted.

Survey Results



- Through communication with business partners, progress has improved in all areas.
- We will continue to communicate with business partners to resolve issues together and aim to further improve KPIs.

# **Future Initiatives**

ĸ	Р	
1		l

KPI (Numerical Target for FY2028)		FY2024 Results
Penetration of initiatives related to human rights, the environment, and other issues into major suppliers (supply chain penetration percentage)* <sup>2</sup>	100%	66.7%

\*2 Survey item No. 7) was conducted for major suppliers. Stand-alone figure for JR East

- To achieve KPIs, we will continue to conduct questionnaire-based and on-site surveys to deepen communication with our business partners.
- We will continue to hold the JR East Group Procurement Representatives' Conference to accelerate sustainable procurement across the Group, including identifying risk items in terms of human rights, the environment, and other issues.