



# JRE Group Safety Plan2028

[Summarized Edition] 2024▶2028

Taking the nature of railway work to heart,  
imagine the unexpected, reach for safety!



## 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 responsibility 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.

## The Guiding Principles of Safety

The Guiding Principles of Safety were first established in response to the Sakuragi-chō train accident and fire of 1951. They reflect the enduring spirit of railway workers passed down by following generations.



Sakuragi-chō train accident



Great East Japan Earthquake

### April 24, 1951: Sakuragi-chō Train Accident and Fire

In response to this accident, a recommendation was made by the Civil Transport Bureau of the Supreme Commander for the Allied Powers (SCAP) at the time and the Guiding Principles were established in the "Regulations for the Ensuring of Safety" of Japan National Railways (JNR).

### April 1, 1987: Establishment of JR East

After JNR was privatized, the three Guiding Principles were established in the "Operation Safety Standards" section, based on the Ministry of Transport's "Ordinance for the Assurance of Safe Operation".

### April 25, 2005: Derailment accident on Fukuchiyama Line

After the Fukuchiyama Line accident, certain expressions in the five Guiding Principles inherited from Japan National Railways were changed and it was renamed the "Guiding Principles of Safety".

### March 11, 2011: Great East Japan Earthquake

Emphasizing the importance of remaining calm, thinking carefully, and responding accordingly, nuance was added to encourage the importance of keeping calm and thinking responsibly.

**"Always keep these in mind and never forget them."**

## Top Message

### Working Together to Achieve JR East's "Group Safety Plan 2028"

Ever since the founding of JR East, we have considered safety as a top priority in management and have continued to carry out initiatives with all group companies united to bolster our safety programs. Up to now, we have formulated "JR East's Five-Year Safety Plan" seven times and invested a total of over 5 trillion yen to the improvement of safety, while also promoting the "Challenge Safety" (CS) Movement to cultivate a company culture wherein each individual considers safety on their job and takes the initiative for safer actions. This movement has helped us significantly reduce the number of rail accidents since our foundation.



Meanwhile, there have unfortunately been accidents within the company, such as a train colliding with a utility pole at Ofuna Station in August 2023, and the derailment of a Shinkansen train due to an offshore earthquake in Fukushima in March 2022. Also, natural occurrences such as atmospheric rivers and typhoons now occur almost yearly, often causing significant damage to rail facilities due to flooding and washouts of tracks and bridges. Fatalities from on-the-job accidents such as electric shocks or falls also sometimes occur due to circumstances beyond our control, resulting in the loss of lives of our invaluable employees.

"Protecting lives" is a simple statement of the mission of our group. It is important that each and every one of us work to ensure safety and prevent any serious accidents that would endanger the lives of our passengers or employees.

The circumstances surrounding our group have been undergoing drastic changes. Changes in the interface of people and machines with the introduction of new systems, workstyles and reorganizing, changes in lifestyle and communicating due to the Covid-19 pandemic, and the intensification and increased frequency of natural disasters have increased the likelihood of previously unimagined accidents or events. Continuing to merely follow established methods would make it difficult to respond appropriately.

To address this situation, we have established the "Group Safety Plan 2028" under the theme of "Taking the nature of railway work to heart, imagine the unexpected, reach for safety". Although it may seem impossible to "imagine the unexpected", we are already practicing this concept in our daily work when we anticipate hazards through "KY" (Kiken Yochi, i.e. risk awareness) activities, identifying potential accidents at an early stage through CS activities, and making our own improvements before they can occur. Moving forward, it will be more important to further expand our awareness of potential scenarios.

This means that, rather than merely memorizing methods word-for-word from manuals, we must form an image of worst-case scenarios, understand the mechanisms and workings of newly introduced systems, and share innovation and tips obtained from the perspective of "what works". By being conscious of the nature of the job itself, we can identify issues even under new work methods, imagine situations unlike what we have ever considered, and teach ourselves to take actions geared to safety.

The promise of safety forms the foundation of trust in all services provided by our group. So, let us further bolster safety through cohesion and coordination within the group as a whole.

Many people have provided feedback in the development of this plan. Moving on, we will further evolve it into a plan that works with the current situation, incorporating everyone's feedback over the next five years. Each and every one is a protagonist for this safety plan. Let us continue to promote cohesion and coordination and pursue greater safety levels through proactive risk management.

President and CEO  
East Japan Railway Company

Yuji Fukasawa



# Moving Forward with the “Safety Challenge”

Each individual's action matters!

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Taking the nature of railway work to heart, imagine the unexpected, reach for safety!

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#### JR East Group Philosophy

We seek to earn the trust of all those who are served by our group's services as we prioritize the highest standards of safety.

We will continue to strengthen our networks in all fields of technology and the sharing of information, to bring fulfillment to the lives of people in all levels of society.

#### Basic Principles

##### Commitment to safety

Putting our customers at ease in our quest of the highest standards of safety.

##### “Customer first”

Offering a high quality of service to meet the expectations of our customers.

##### Close relations with the community

Utilizing our network for the development of our communities.

##### Taking the initiative and accepting challenges

Keeping an open mind and a willingness to confront challenges, thinking and acting upon our own initiative.

##### Developing as a group

Fulfilling our social responsibility in achieving sustainable growth as a united group.

**Taking the nature of railway work to heart, imagine the unexpected, reach for safety!**  
**~What are the underlying risks and causes? ~**

To build a safe foundation for our operations through the integration of our legacy of safety, safety mechanisms, and well-designed facilities, to achieve ever safer operations through a deeper understanding of the nature of the previously unforeseen risks and causes.

## Our Changing Circumstances

Internal	Potential risks brought about by changes in workstyle and organization, systems, group administration, and fewer opportunities to learn from actual accidents
External	Potential risks related to greater intensity and frequency of natural events, population decline, advance of Digital Transformation (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) interface
- 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.

## JR East Group Goal

**NO accidents involving injury or fatality, regardless of customer, employee, or any other person\***

\*Includes JR East Group and partner companies

## Five-year target goals

**20% reduction of rail-related accidents:**

- NO rail accidents attributable to the JR East Group
- 50% reduction of platform-related injuries
- Palpable reduction of level-crossing accidents

Percentages compared to 2023 fiscal year

**NO MORE serious incidents**

## Readjusting Safety Levels



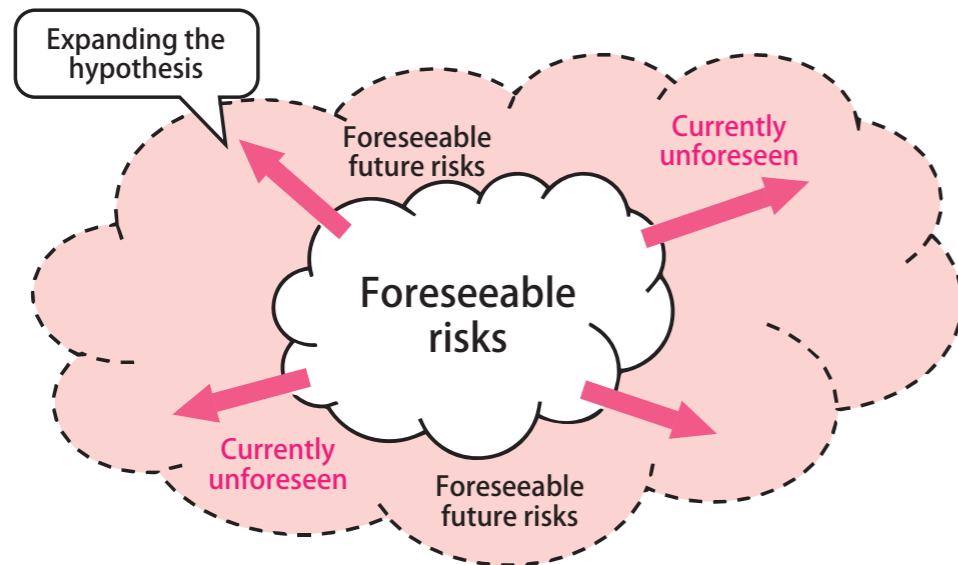
# 2. Foreseeing the Unexpected

## Why we need to foresee the unexpected?

Significant changes in the operating environment have increased the likelihood of heretofore unforeseeable accidents or events. We now need to foresee what is unexpected.

## What does it mean to “foresee what is unexpected”?

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



Conceptual image of expanding personal assumptions

In familiar scenarios, we can predict or imagine through activities such as hazard prediction where risks may lie and what kind of accidents they might cause, when we assess risks related to on-the-job incidents. We must try to be conscious of the fact that things may happen from outside of our realm of experience even in our daily routines.

## How do we widen our assumptions?

The first step begins with increasing your awareness. It is important to consciously increase awareness and widen your sphere of assumptions.

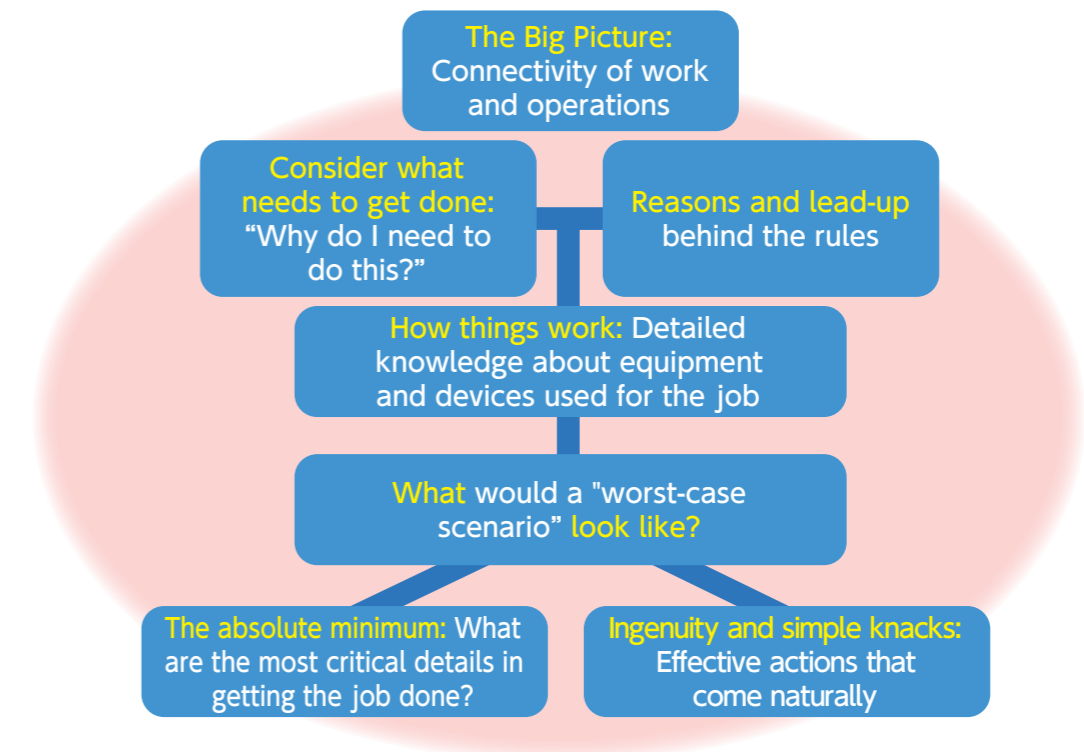
## How do we increase/spread awareness?

We can increase awareness by focusing on the actual nature of the work at hand (that is, “what is this for?”), remembering what has been useful in similar circumstances till now. Reevaluate what you need to do, remember what purpose it serves, why such rules exist, and share ideas and tips with others to spread awareness.

## Know the nature of the job!!

Understanding the actual nature of the job (task) at hand will lead to better awareness of problems even when you are working with new systems.

You can deepen your understanding of the nature of each task and increase your awareness by being more conscious of why you are doing what you do.



The seven things you need to consider about the nature of each job

It is vital to understand that rules and guides are the tools that make each job go more smoothly. One must understand that knowing the nature of the work at hand is not merely a matter of learning the procedures and methods of each job. Taking the initiative to plan and practice to train oneself effectively leads to a better understanding of the nature of work and can also increase awareness.

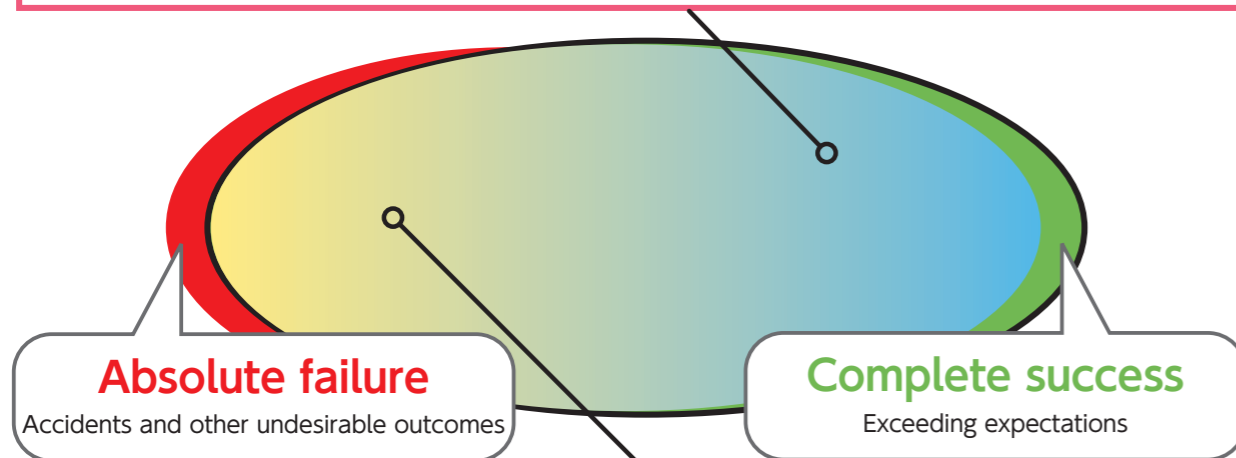
## Understanding the “Why?” in Success

The fewer accidents the better, but that also means fewer opportunities to learn from them. We do not want to wait for failures or accidents to show us our mistakes. That is why we should also focus on our successes and understand what is behind them. Only then can we be more confident in preventing mishaps.

### What worked in the past?

Taking changed circumstances into consideration and adapting to new ones, foreseeing risks and taking appropriate actions, are all ways to help prevent accidents (including unforeseen ones!).

Look into the “little things” you do that have helped avoid mishaps and share your findings.



### Things that have “luckily” gone well

Circumstances where failure could have occurred under less favorable conditions

#### Remember your “My Hiyatto”

Do not just consider your experiences as “what could have happened” but in terms of success; that is, “why it went well in spite of the danger”

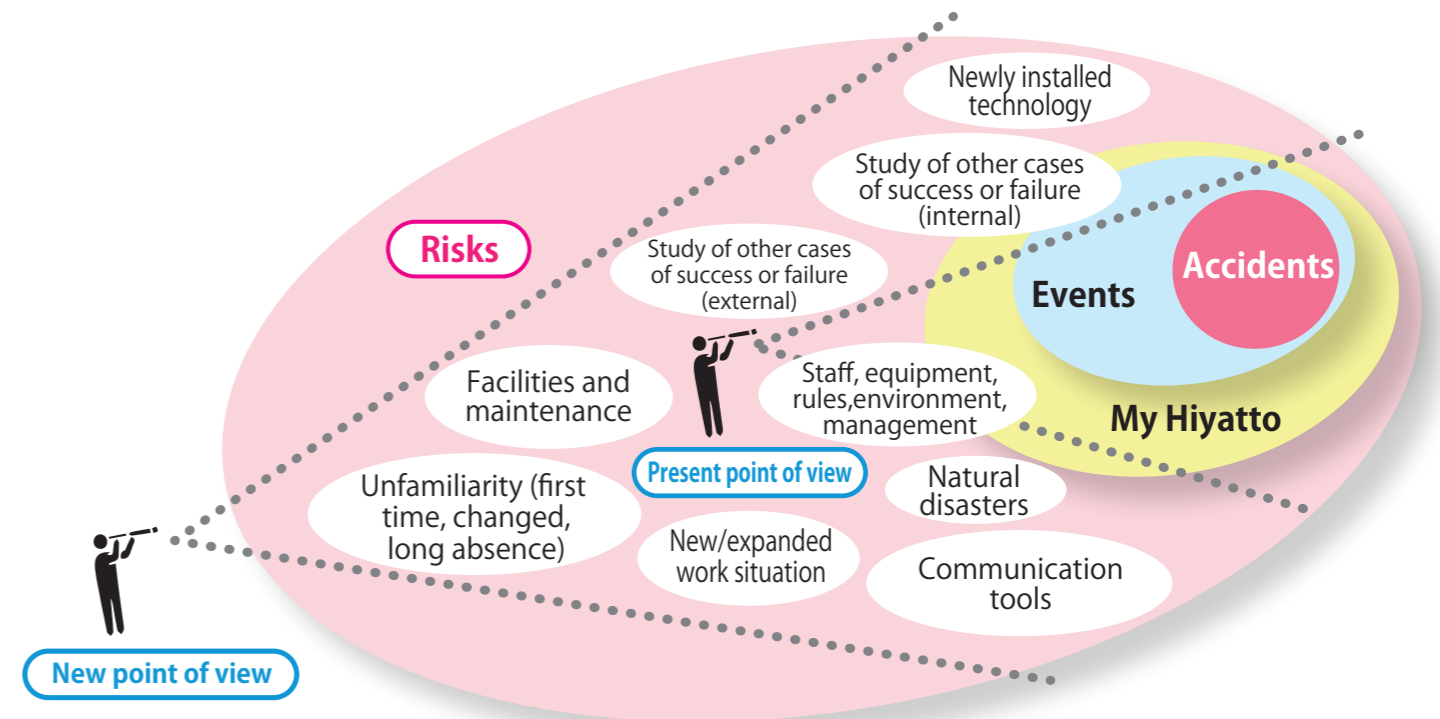
\*Individual experience that could lead to a violation of safety rules

We tend to overlook what actually worked in our favor.

Try observing one another's actions on the job. We can learn from each other and see their wisdom and ingenuity in a new light.

## How can we further increase our awareness?

Try looking at things from a different point of view!



Visualizing the process of increasing 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, Henkō, Hisashiburi)
- Learn from the perspectives of others (everyone has different assumptions).
- Observe! See how it is done at other workplaces, departments, branches, companies, industries, etc.

Start with simple awareness and progress onto imagining what “could” happen, so that you might respond accordingly to hazards and prevent having to regret something that you could have avoided.

# 3. Our Changing World

Our companies are constantly facing new situations and changing circumstances, not only in how we work and how our organization functions, but also through digitalization in certain fields such as train operation. Intensifying and more frequent natural events pose significant challenges as well. Accordingly, we have highlighted four key areas going through particularly important changes that will be requiring attention over the coming five years. Understanding and reconsidering our daily tasks while paying attention to these areas, we can address hazards that were previously unthought of.

## Area #1: Human/machine (or digital) interface

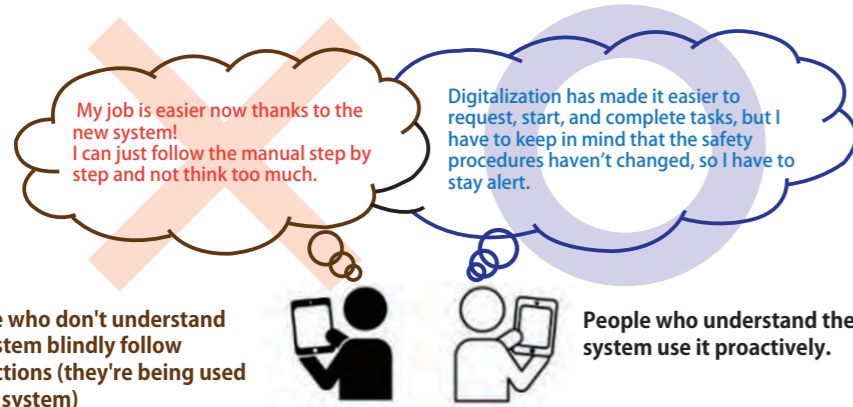
- We must properly understand the mechanics and structures of machines and how they operate in order to make informed judgment for malfunctions or irregular situations that can only be resolved by manpower.
- We must try to foresee unanticipated situations based on our understanding of the above, and carefully consider what is involved when incorporating new systems. Moreover, we must design peripheral systems in close relation to the entire system, an area which has been often overlooked in the past.
- We will raise up specialists in each department who can identify and address necessary changes for the progress of the group's railway systems.



[Trials in automatic operation]



[Training specialists]



[The wrong way and right way to understand a job replaced by a machine]

## Area #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.
- For us to increase the awareness among all employees on the frontlines, we must plan and implement training sessions where each one learns to think critically and independently.
- It will be vital to set up a system to ensure that safety initiatives are established and put into practice at the frontlines, wherein those in leadership roles who both understand the nature of the work can collaborate (as reinforcement to Key Safety Leaders, mentoring both Safety Experts and Junior Safety Experts).



[Training to cultivate thinking skills]



[Creation of a system where those in safety leadership roles can collaborate]

## Area #3: Diversified methods of communication

- With communications technology advancing at a rapid pace, we are no longer bound by constrictions of travel and personal interaction. However, as we also must ensure that crucial details are not overlooked or misunderstood, we need to be selective in how we use which communication tools and for what situations (keeping in mind how information is conveyed and/or received).



[Web meetings]



[Collaboration across workplaces utilizing communication tools]

### The Power of Communication

#### The 3 points of team communication:

- Present ideas
- Discuss with teammates
- Share with workmates

+ Communication of information

#### The 4<sup>th</sup> important point:

- Share best initiatives groupwide!

[Promoting the communication of information across the entire group]

## Area #4: Increased intensity and frequency of natural events

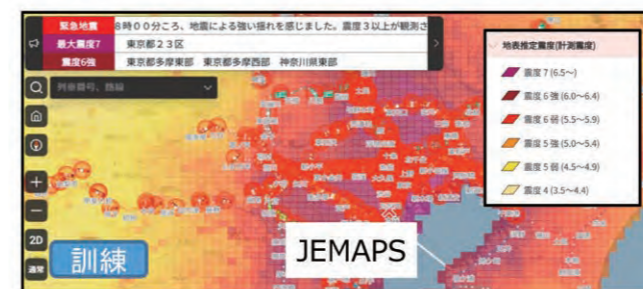
- We will increase use of meteorological data from outside sources, digitalization, establish new systems, and promote investment in disaster prevention training.



[Shinkansen derailment caused by earthquake]



Evacuation support system



[Meteorological data from outside source]



[Response training]

### Furthermore!

In recognition of the impossibility of anticipating all hazards, we strive to deepen our understanding of the nature of risks to be more capable of spontaneous response to unforeseen circumstances.

# 4. Concept of Safety within the JR East Group

## Safety is a Mission Entrusted to Us

### Protecting passengers' lives as well as our own

It goes without saying that the level of safety we have achieved today has been built on the lessons learned from past accidents, some of which have taken people's lives. The pain of those whose lives have been suddenly cut short, or the sorrow of the families they have left behind, are difficult to comprehend. As a party likely to be held responsible when such accidents occur, we must never allow them to be forgotten in the past.

Furthermore, to protect the lives workers, we must also be remember the importance of keeping maintenance work and train operations conducted in safe distances from each other.

With meteorological events also intensifying, we must carefully consider, hold discussions, and be prepared to take action to protect all lives before disaster strikes.



December 5, 1988: Higashi-Nakano accident



February 21, 1999: Yamanote Freight Line accident



December 25, 2005: Uetsu Line accident



February 1, 2011: Daikonbara crossing accident



March 11, 2011: Great East Japan Earthquake (tsunami)



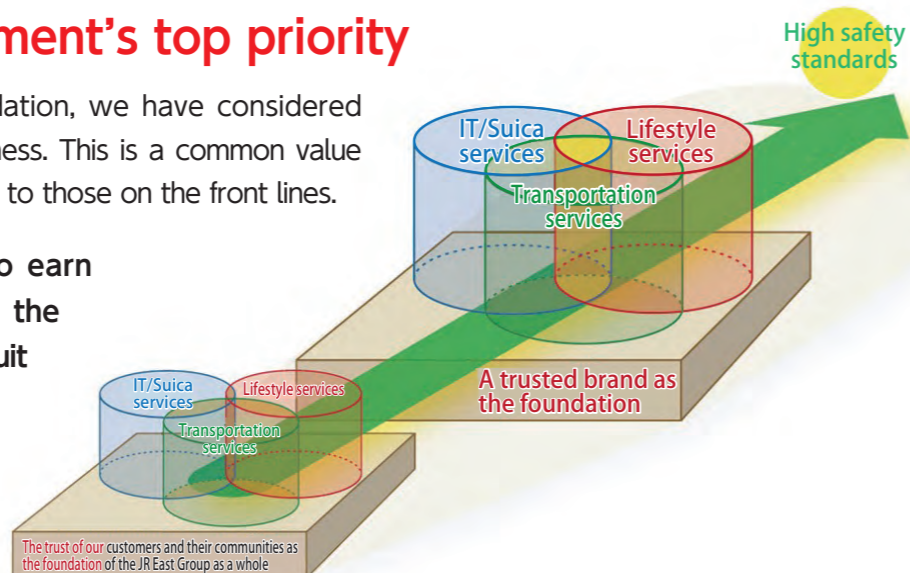
August 5, 2023: Tōkaidō Line Pole collision

## JR East Group's Founding Principles

### "Safety" as management's top priority

Ever since the company's foundation, we have considered safety as our top priority as a business. This is a common value shared by all, from top management to those on the front lines.

Our unchanging objective is to earn the trust of our customers and the community in the continued pursuit of the highest possible standards of safety, which contribute to the sustainability of all our businesses.

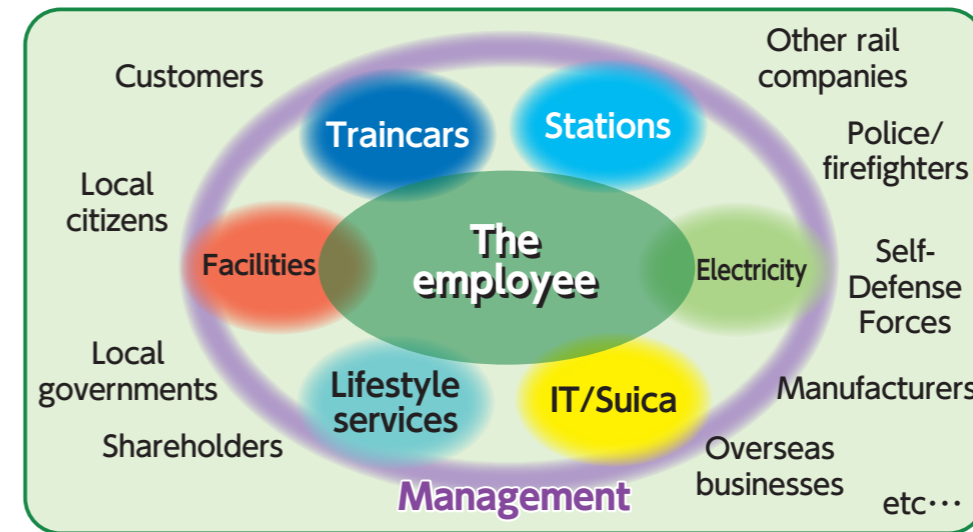


## Our Railway System

### All those within the JR East Group are contributors to safety.

Railways are sustained by various interlinked systems. These systems encompass not only the hardware but also intangible aspects such as the coordinated efforts of employees, cooperation of customers and collaboration with local communities. If any one of these elements is lacking, it would be impossible to maintain, much less improve on, safety. We need to focus on strengthening collaborative efforts at the borderline areas that are the windows between ourselves and outlying organizations as well as society as a whole.

Particularly, a collaborative relationship with society is necessary if we are to prevent accidents on station platforms or at level crossings, which we can do through proactive initiatives such as campaigns to encourage safety awareness for station users or pedestrians at railroad level crossings.



Distributing of safety-awareness flyers

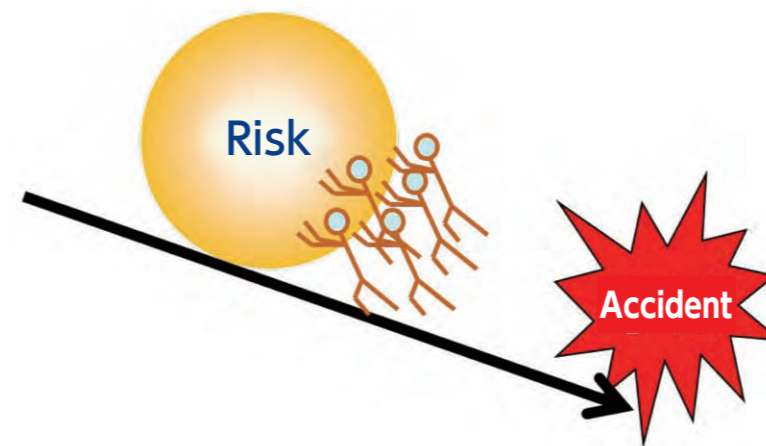


School children learn about railway crossings

## What is the definition of "Safety"?

### Safety: a state in which risk is considered as contained within a tolerable range.

Safety is a concept and not something inherent, rather it is created through continuous effort to contain risk within socially acceptable limits. All individuals act as "sensors" detecting risk, and take action to help prevent accidents before they happen.



We are continuously taking safety measures to avoid risks or hazards from "snowballing" into accidents

### 4 factors for assessing risk

- Frequency
- Damage potential
- Societal values
- Detectability

We assess risks such as below with the above factors in mind.

- A high-speed running Shinkansen
- Equipment for which signs of malfunction or trouble are difficult to detect
- Inherently single-system equipment that cannot be made redundant, such as axles, bogies, rails, and utility poles.

The continuous fostering of safer circumstances contributes to the sustainable growth of the JR East Group and brings more smiles to the faces of all engaged in the group's services.



# 5. 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.

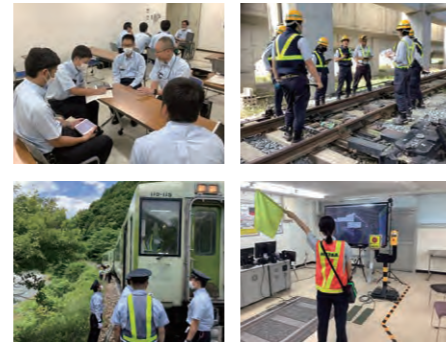
## The Origin of our Safety Culture with the Challenge Safety (CS) Movement

The JR East Group made the transition from the original concept of "safeguarding safety" to "challenging safety" (i.e., accepting the challenge to raise standards of safety) with the inauguration of the CS (Challenge Safety) Movement in September 1988, with emphasis placed on each employee taking responsibility for safety and the initiative to act.

### The initial concept of the CS Movement (1988)

The CS Movement is a campaign in which all frontline employees participate, taking on the challenge of ensuring safety as a team.

- Each employee looks for safety-related issues and considers about how they can be addressed.
- Employees discuss the issues in a group and set achievable goals.
- Each person takes daily actions in order to achieve their goals.



### All "challenges" from the viewpoint of safety are welcome in the CS Movement

For the Group Safety Plan 2028, we encourage a variety of safety initiatives without regardless of form and maintain an open mind remembering the 4 points for CS Activity.

#### 4 rules of CS activities

- ① Present ideas
- ② Discuss with teammates
- ③ Share with workmates

Presentation

④ Share best initiatives groupwide

## 5 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.

### 5 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 and debate"

- Confronting doubts, identify underlying issues to devise realistic countermeasures.

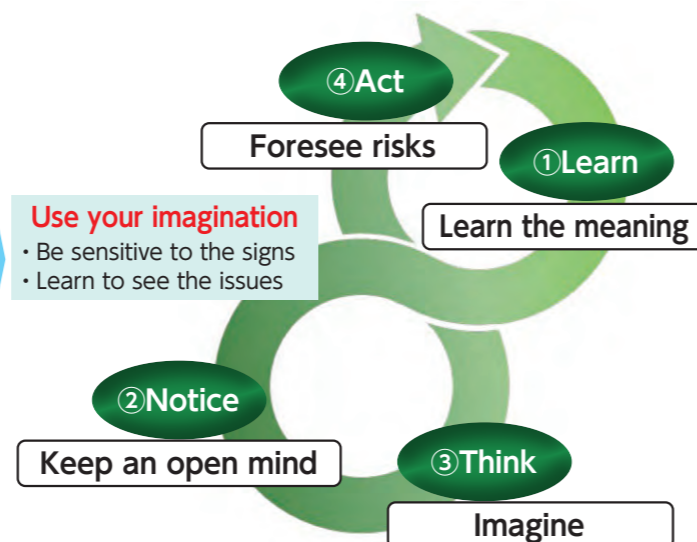
#### The habit of "learning"

- 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.

In the Group Safety Plan 2028, we work on our ability to "foresee the unexpected" based on the five habits at left.



## A Tried and True Code of Conduct for all Group companies

Maintaining safe operations is JRE Group's top priority. If you sense something wrong, stop the train immediately! Don't worry about delays.

### If you sense danger, stop the train!

If you notice something slightly different or not right...

If you have a gut feeling that something is wrong or a bit different, do this one thing:  
Report immediately to a controller or your superior!



## "The San-Gen Criteria" for action

The worksite is where safety issues are compromised. Since that is where the issues are, it is also where the answer lies.

#### Worksite "Genchi"

Visit worksite

#### Facilities "Genbutsu"

Observe facilities (rolling stock, equipment, machinery, tools, etc.)

#### Site staff "Genjin"

Meet and talk with the people involved



## Passing on the tragedy of accidents to later generations

We must promote initiatives to help learn from the tragic and horrifying nature of accidents and teach major accidents as lessons.

#### Accident history Learning Center

Learn from lessons from past accidents.



#### Stories of survivors: Hearing actual accounts

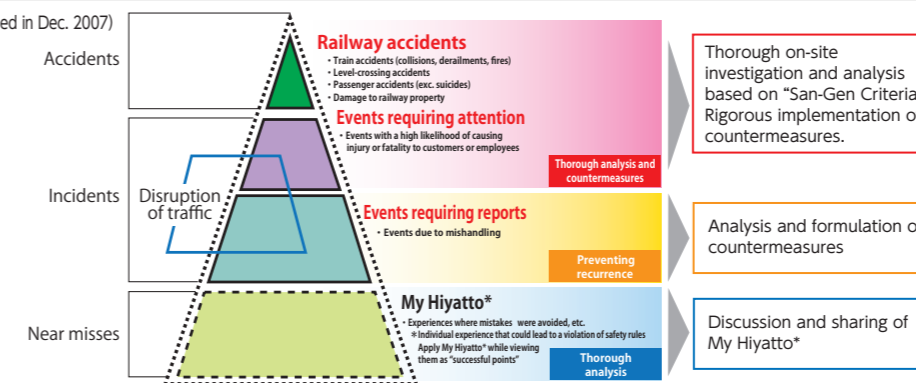
How did they respond and what did they experience?



## Learning and applying the warning signs

To prevent accidents and events or their recurrence, our group has established certain rules to do with reporting and classifying them.

(Revised in Dec. 2007)



Thorough on-site investigation and analysis based on "San-Gen Criteria" Rigorous implementation of countermeasures.

Analysis and formulation of countermeasures

Discussion and sharing of My Hiyatto\*

Be aware of the potential for accidents just before they happen and address them promptly to prevent accidents from occurring.

※ Also to utilize AI and big data, etc., for warning signs.

The JRE Group safety culture is centered on each employee thinking, discussing, and taking action.

# 6. Effective Investment in Safety

Since the establishment of JR East, we have continued to focus on investments in safety. Going forward, we will continue to conduct comprehensive risk assessments in consideration of changing circumstances for more effective investments and upgrading of safety facilities. We will also continue promoting development of technology focused on safety.

## For zero railway accidents attributable to JR East Group

### Strengthen conventional line equipment and Shinkansen equipment, and respond to their degradation

- Strengthen electric power facilities, tracks, structures, and station facilities, and respond to their degradation
- Continue to proceed measures to prevent roof collapses at stations and depots
- Renew and strengthen Shinkansen equipment

### Measures against SPAD (signal passed at danger) conditions and overspeed of operation and rolling stock

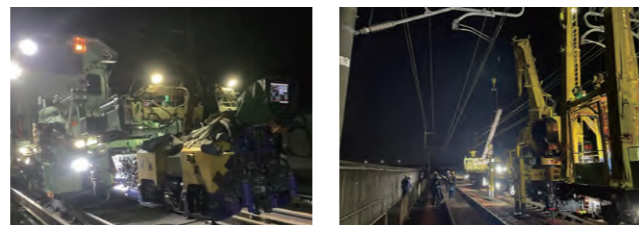
- Continue the installation of ATS-P on local line sections

### Application expansion of systems

- Expand monitoring of vehicles, tracks, and overhead wires, and promote CBM
- Further expansion of the introduction of ATACS (Advanced Train Administration and Communications System)

### Improving the safety of maintenance work

- Consider the application of line closure and maintenance work systems to applicable sections
- Renewal of the maintenance vehicle location system (next-generation system development)



Renewal of Shinkansen equipment



Dedicated Shinkansen "track facility monitoring vehicle" (conceptual completion image)

## For the reduction of risks associated with natural disasters

### Measures against large-scale earthquakes

- Implement further seismic reinforcement measures

We will continue to carry out seismic reinforcement measures for columns of Shinkansen viaducts (approximately 6,000) until FY2028, and Shinkansen utility poles (approximately 4,000) from FY2021 to FY2027.

- Pursue research of early detection of earthquakes
- Further improve measures for Shinkansen derailment

### Countermeasures to prevent rainfall disasters

- Continue to proceed measures against scouring at bridge piers and bulkheads, and slope embankment measures (measures against rockfall and landslides)

### Countermeasures for gale damage

- Apply more accurate methods for evaluating the wind force exerted on rolling stock and aim to implement Shinkansen conducting regulations accordingly

### Countermeasures for snow

- Continue to study risk reduction measures for areas with a high risk of avalanches

### Develop and introduce new detection and inspection technology

- Consider introducing more rational detection methods by utilizing new technologies such as image analysis



Measures for large-scale earthquakes



Rainfall disaster prevention measures

## For a 50% reduction of Railway accidents with casualties at platforms

- Accelerate the installation of platform doors

We will continue construction work on 758 platforms at 330 major stations in the Tokyo metropolitan area commuter lines by around the end of FY2031.

- Aim to develop and implement technology to enhance the detection capabilities of door entrapment in train cars
- Proceed Shinkansen platform door installation plans, focusing on principal terminal stations



Platform doors

## For a steady reduction of level crossing accidents

- Proceed with discussions held with local communities on the elimination and consolidation/reorganization of crossing
- Continue to promote measures against barrier malfunctions in crossing
- Continue to prioritize and install 3DLR obstacle detection device and omnidirectional warning lights
- Continue to develop and introduce GNSS wireless railway crossing control systems which utilizing GNSS and mobile wireless communication networks
- Utilize ITS technology in coordination with the automobile industry



3DLR obstacle detection device



Omnidirectional warning lights

## For preventing occupational accidents

- Implement measures to prevent the occurrence of the three major occupational accidents (struck-by accidents, crashes, and electrocution), such as improving construction surfaces and installing cubicles
- Also continue to implement measures for preventing other occupational accidents such as falls by improving work environment



Construction surface improvement (prevention of struck-by accidents)



Cubicle installation (prevention of electrocution)



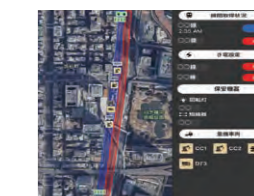
Walkway maintenance (prevention of falls)

## Technological development contributing to the improvement of safety

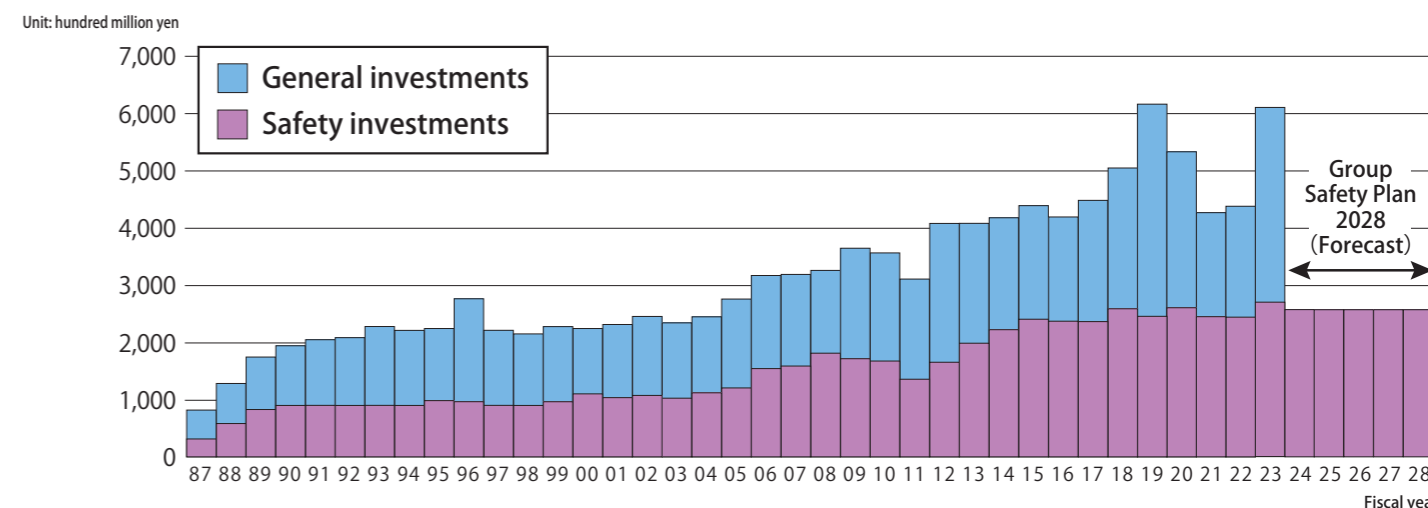
- Development of equipment design and automatic train operation technology aimed at realizing driverless operation
- Development of derailment detection function due to abnormal vibration for Shinkansen
- Basic study for the development of obstruction impact detection device
- Development of person detection function using vehicle side cameras
- Exploration of expanding the application range of driving regulations against gusts using Doppler radar
- Updating of disaster prevention information system (Pre-DAS)
- Development of an IT platform, which visualizes the real time information for railway construction sites through tablets, such as the status of track closures, the installation of safety equipment and the position of heavy construction machinery
- Development of a new system for track confirmation
- Introduction of line position tracking support system
- Research on future predictive safety measures utilizing AI, IoT, and big data technologies
- Research on improving safety skills to prevent human errors and accidents



Countermeasures against gusts using Doppler radar



Visualization platform for railway construction sites (Image is for illustrative purpose.)



Our safety investments for this plan amount to a forecast of 1.3 trillion yen.

\*FY2023 figures are forecasts.



**Group Safety Plan 2028**

Published in November 2023

Published by:

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