

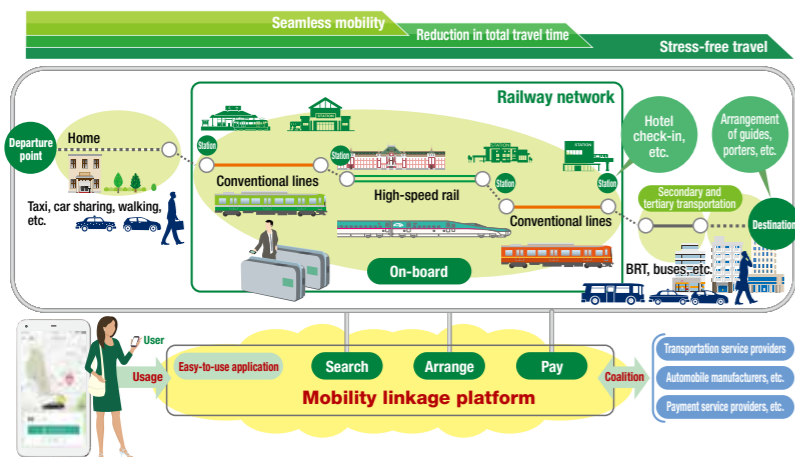


Realization of Mobility Innovations

By integrating railway technologies and IT, JR East will achieve innovations in customer service and train operations.

Based on the accumulation of railway technologies over approximately 140 years in Japan, and by utilizing IoT, big data, and AI, JR East will thoroughly review all of its services taking into consideration the various perspectives of customers. Going beyond the conventional framework, the company will then institute a Mobility Innovation revolution.

All-in-one offering of information, purchasing, and payment for mobility (Establishment of the Mobility Linkage Platform)



Over the years, JR East has been contributing to the revitalization of wayside areas by offering railway and other services mainly at stations. However, by redefining this service as one that ensures smooth mobility from one place to another, we will start addressing a new challenge in order to help to make customers' lives more affluent and fulfilling.

To achieve this goal, JR East is establishing the Mobility Linkage Platform to offer an all-in-one service to our customers, which includes information, purchasing and payment for mobility, in order to provide seamless mobility, a reduction in total transport time, and stress-free travel.

Verification experiments for the establishment of the Mobility Linkage Platform

As a part of our efforts to implement the Mobility Linkage Platform, we are conducting verification experiments on Ringo Pass, a smartphone application which customers can use for multiple transport modes. We are initially offering the application for bike sharing and taxi rides, with the aim of expanding its functions and application to encompass additional transport modes in the future.

Bike sharing Bike-sharing service with Ringo Pass (from Aug. 2018)

- [Membership registration]** Register e-mail address, credit card information, and Suica ID number in the app.
- [Find a port]** Use the Ringo Pass app to find a nearby port and see the number of bikes available.
- [Unlock]** To use the bike-sharing service, touch your registered Suica card to unlock the bike.
- [Return/calculate travel expenses]** An email is sent when you return the bike to the port. The monthly usage fee is paid with your credit card at the beginning of the next month. The e-mail receipt can be used to calculate travel expenses.

Taxi Taxi service with Ringo Pass (QR code payment reservation) (from Oct. 2018)

- [Find a taxi]** Nearby taxis are displayed for efficient searching.
- [Check in]** After getting in the taxi, use the app to read the displayed QR Code. This makes a payment reservation.
- [Pay/calculate travel expenses]** The final fare is determined when you arrive at your designation and the meter is turned to "payment." Just confirm the fare and get out of the taxi. An e-mail receipt is sent for each ride, and can be used to calculate travel expenses.

*Some services are under development.

We have been working to make Ringo Pass available and easy to use on a variety of transport modes. With verification experiments, we ask employees of several monitor companies. Ringo Pass is an application with functions that enable the user to search for transport services, use Suica as a key to unlock a bike or to ride a taxi, and make payments with a registered credit card. Once you have registered for the application, you can start using Ringo Pass for various transport services.
*“Ringo” stands for “Ride and Go.”

Research and development of the next-generation Shinkansen

We will newly manufacture the E956 type Shinkansen experimental railcar train, ALFA-X, to promote the development and realization of the next-generation Shinkansen. For the next-generation Shinkansen, in addition to the conventional concept of providing a safe and high-speed means of travel, we aim to provide new added value, and will promote its development based on the concepts of “Pursuit of further safety and stability,” “Comfort,” “Environmental performance,” and “Maintainability.” The experimental railcar is planned to be completed in the spring of 2019.



E956 type Shinkansen train, ALFA-X (image)

VOICE



Assistant Manager, Mobility Innovation Group, IT Strategy Section, Technology Innovation Headquarters

For the realization of Mobility Innovation

Based on the spirit of open innovation, the Mobility Innovation Group of Technology Innovation Headquarters aims to innovate transport services. Specifically, we collaborate with more than 100 companies and organizations to achieve a nationwide door-to-door service and solve social issues. Additionally, at Technology Innovation Headquarters, experts in various fields including system management, technological development, data analysis, as well as the JR East application team work together. Going beyond the boundary of departments, we draw on all our strengths to achieve Mobility as a Service (i.e., the integration of various mobility services including railways, buses, taxis, rental bicycles).



Chief Rolling Stock Engineer, Shinkansen General Rolling Stock Center (High-Speed Train Test Project), Sendai Branch Office

Shinkansen speed increase project

In this project, we aim to create the next-generation Shinkansen which will provide added value in addition to fulfilling its role as a safe and high-speed transport mode. Currently, for the introduction of the E956 type test train, ALFA-X, we are formulating in-house regulations, establishing inspection systems, and preparing various educational systems. Additionally, we are also planning for test runs and inspections after the introduction. The new test train, ALFA-X, is equipped with numerous newly developed components and before the introduction of the test train, we expect to face various problems. In cooperation with project members, other Rolling Stock Centers, Head Office, Branch Offices, and JR East Group companies, we will establish systems to solve these issues as a whole Group. Additionally, through rolling stock design meetings, we will actively propose improvement plans from the perspective of a frontline maintenance engineer, offering feedback for the manufacture of the mass-production railcars that will be introduced after the test train.

See p.59-60 for related features.