Toward the Future of the Transportation Networks
- Corporate Profile -

Japan Railway Construction, Transport and Technology Agency
JRTT Provides Integrated Shinkansen Construction

Railway construction requires massive initial investments and long construction periods. Therefore, it is extremely difficult for modern private companies to assume the risks in the time between investing and recovering capital. In addition, railway construction comprises an aggregation of various specialized skills. To successfully create the systems that ultimately provide safe, secure railway transportation, organizations with comprehensive technical capacity must manage all aspects to properly exhibit each specialized skill, including accounting, contracts, land, civil engineering, tracks, electricity, buildings and machinery.

Toward that end, JRTT provides integrated construction of the Shinkansen lines based on a scheme using financial resources such as the rail access charge after construction has finished and public expenditures from the national and local governments. Specifically, JRTT constructs Shinkansen lines while coordinating closely with relevant government agencies and local governments, railway operators and others as directed by the national government in each stage from the selection of Shinkansen routes to environmental impact evaluations, designs, land acquisition and construction supervision. JRTT is the only group of railway engineers capable of assuming full responsibility for managing such a far-reaching railway network in its entirety.

To date, JRTT has constructed and opened the Hokkaido, Tohoku, Joetsu, Hokuriku and Kyushu Shinkansen Lines. Presently, we are continuing with the construction of parts of the Hokkaido Shinkansen (between Shin-Hakodate-Hokuto and Sapporo), the Hokuriku Shinkansen (between Kanazawa and Tsuruga), and the Kyushu Shinkansen (between Takeo-Onsen and Nagasaki).

JRTT Assists Coastal Shipping

In an island nation such as Japan, coastal shipping underlies socioeconomic activity and people’s lifestyles; it accounts for over 40% of the distribution of goods throughout the country, and transports roughly 80% of the steel, cement, petroleum products and other supplies that form the foundation of Japanese industry. In addition, passenger ferries are crucial pieces of transportation infrastructure for transporting local residents and daily commodities.

Most coastal ship-owners are small and medium-sized companies. Nonetheless, they must take action in response to changes in the business atmosphere such as restructuring of the shipping industry, business trends, the intensification of safety regulations and other legislation, and technological innovations. To enable shipping operators to respond to these changes, JRTT takes the approach of complementing private businesses with financial assistance as well as technical assistance from the planning stages of shipbuilding, a service unavailable with other financial institutions. This technical support takes the form of a joint ownership shipbuilding program that aims to equip coastal ship-owners with ways to properly respond to a variety of policy issues through the construction of ships with facilities that improve working environments, ships that facilitate modal shifts, ships that contribute to carbon dioxide reduction, and others.
JRTT Assists Urban and Regional Railways

JRTT has assisted third-sector and other railway operators that lack sufficient technical capacity, and constructed railways such as the Tsukuba Express and access lines to Tokyo International Airport, Narita International Airport, Kansai International Airport, Central Japan International Airport and Sendai Airport. After the Great East Japan Earthquake struck, JRTT rushed to the scene to help with the reconstruction of the Sanriku Railway and other devastated infrastructure. JRTT is presently continuing construction of the Eastern Kanagawa Lines as set out in the Act on Enhancement of Convenience of Urban Railways, etc.

We are also employing our capacity for managing railway lines in their entirety to conduct surveys for plans to construct new railway lines and other activities in response to requests from the national government, local governments and railway operators.

In an effort to improve safety and convenience for railway passengers, encourage railway use and revitalize regional communities, we also accept subsidies from the national government to provide assistance to railway operators working on facility upgrades to improve railway networks and further improve convenience.

JRTT provides various assistance to three JR companies—Hokkaido Railway Company, Shikoku Railway Company and Japan Freight Railway Company—to help them update outdated railway facilities and improve their business foundations.

JRTT Assists Global High-Speed Rail Construction

Many foreign countries proactively discuss and promote the construction of railways to mitigate environmental problems, road traffic in urban areas and other issues; many countries throughout the world have high expectations of Japanese railway infrastructure technology.

In an effort to proactively capture this demand for railway infrastructure and translate it into robust economic growth for Japan, the Japanese government has established the Act on the Promotion of the Participation of Japanese Business in Overseas Infrastructure Projects legislation and is taking other steps to spread Japanese high-speed rail and other railway infrastructure throughout the world.

JRTT intends to employ the capacity for Shinkansen construction project management it has cultivated to date to partner with private companies to promote the development of high-speed rail systems globally.

We at JRTT execute these tasks with a high level of ethics and in observance of laws, regulations and the rules of society. We also accept the challenge to proactively engage in new efforts to respond to changes in society.
Contribute to Build Tomorrow’s Transportation Networks.

- We contribute to build safe, secure, eco-friendly transportation networks.
- Our transportation network building helps improve people’s lives and further develop economies and societies.
- In the course of building transportation networks, we use our reliable technical capacity, abundant experience and advanced expertise to the fullest.

JRTT's Code of Behavior

1. We accept the challenge to proactively engage in new efforts to respond to changes in society.
2. We take action responsibly, with a high level of ethics and in observance of laws, regulations and the rules of society.
3. We increase the transparency and efficiency of our work to establish a deep trust.
4. Each and every one of us is fully aware of our roles, and we pool our energy and abilities to increase the strength of the team.
5. We work to improve ourselves through self-study in a highly motivating workplace.

Symbol & Logotype

This symbol expresses the functions of JRTT, and represents the future we will achieve by pooling our efforts and growing. Green represents the land, and blue represents the ocean. Together, the colors symbolize our consideration of the global environment. The JRTT logotype signifies our reliable presence in the transportation industry and the public’s trust in our assistance in public infrastructure.

*The symbol is a registered trademark of JRTT (Registration No. 4857757)
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Continuing the Construction of Shinkansen Lines

Construction of Projected Shinkansen Lines

“Projected Shinkansen Lines” refers to the Shinkansen lines established under the Development Program drafted in 1973 based on the Nationwide Shinkansen Railways Construction and Improvement Act.

JRTT is presently continuing construction work on 3 sections on 3 lines—the section between Shin-Hakodate-Hokuto and Sapporo on the Hokkaido Shinkansen, the section between Kanazawa and Tsuruga on the Hokuriku Shinkansen, and the section between Takeo-Onsen and Nagasaki on the Kyushu Shinkansen—and has already completed the construction of a total of 929 km of tracks on 4 other sections—the section between Shin-Aomori and Shin-Hakodate-Hokuto on the Hokkaido Shinkansen, the section between Morioka and Shin-Aomori on the Tohoku Shinkansen, the section between Takasaki and Kanazawa on the Hokuriku Shinkansen, and the section between Hakata and Kagoshima-Chuo on the Kyushu Shinkansen.

A portion of the rail access charge is applied to finance the construction of Projected Shinkansen Lines, and the national government provides financing for 2/3 of the remainder while local governments cover 1/3.

JRTT retains ownership of the infrastructure after construction, and lends it to each of the JR companies, which operate and manage the lines.

Kyushu Shinkansen between Takeo-Onsen and Nagasaki

We began construction on this section with completion scheduled for around 10 years after the government approval. In January 2015, the national government and ruling parties agreed to complete construction as much ahead of schedule as possible with help from the strongest efforts of local governments along the line.

Hokuriku Shinkansen between Kanazawa and Tsuruga

We began construction on this section with completion scheduled for around 10 years or a little longer after the opening of the section between Nagano and Kanazawa Stations. We are continuing construction work with plans to complete it by the end of FY 2022.

Kyushu Shinkansen between Hakata and Kagoshima-Chuo

[257km]

[Hakama Bridge in Saga Prefecture]
To assist the full opening of the Linear Chuo Shinkansen, we took on a low-interest loan from the Fiscal Loan Fund and provided a long-term, fixed, low-interest loan for a portion of construction expenses to the entity of construction, Central Japan Railway Company.

**Financing for the Expense of Constructing the Linear Chuo Shinkansen**

We began construction on this section with completion scheduled for 20 years after the opening of the section between Shin-Aomori and Shin-Hakodate-Hokuto Stations. In January 2015, the national government and ruling parties agreed to complete construction by FY 2030, five years earlier than scheduled, with help from the strongest efforts of local governments along the line.

In addition to Projected Shinkansen Lines, the Japan Railway Construction Public Corporation—the predecessor of JRTT—constructed the Joetsu Shinkansen (the roughly 270-km stretch between Omiya and Niigata Stations), and JRTT is continuing construction work on the portion of the Chuo Shinkansen (between Shinagawa and Nagoya) commissioned to it by the Central Japan Railway Company.

Tohoku Shinkansen between Morioka and Shin-Aomori

Hokkaido Shinkansen between Shin-Hakodate-Hokuto and Sapporo

Hokuriku Shinkansen between Takasaki and Kanazawa

Photo provided by Central Japan Railway Company
Improvement of Urban and Regional Railways

We are building far-reaching railway networks to bridge urban and regional railways, and are also providing assistance to railway operators and others in an effort to effectively share with society the railway construction technology and other advantages we have cultivated from our experience throughout the years.

Projects to Enhance the Convenience of Urban Railways

These new projects are implemented under the Act on Enhancement of Convenience of Urban Railways, etc., which was enacted in 2005. Under these projects, we build new through lines while effectively using existing railway infrastructure to eliminate the need for transfers and improve promptness, thereby improving convenience for passengers.

The national government, local governments and the entity of construction company each provide 1/3 of the financing for these improvements.

After lines open, the entity of construction retains ownership of the infrastructure and leases it to the entity of operation, which then remits rail access charge to the entity of construction.

Eastern Kanagawa Lines (The Through Lines between Sotetsu and JR/Sotetsu and Tokyu)

The through lines between Sotetsu and JR/Sotetsu and Tokyu are new through lines in a project to improve access from western Yokohama City and central Kanagawa Prefecture to central Tokyo, and JRTT is proceeding with the construction as the entity of construction. The through line between Sotetsu and JR connects Nishiya Station on the Sotetsu Line to the area near Yokohama-Hazawa Freight Station on the JR Tokaido Freight Line, and the through line between Sotetsu and Tokyu connects Hazawa Station (tentative name) to Hiyoshi Station on the Tokyu Line.

Sagami Railway Company is the entity of operation for the through line between Sotetsu and JR. The entities of operation for the through line between Sotetsu and Tokyu are Sagami Railway Company and the Tokyu Corporation.

In addition, we have used green bonds to finance part of this project. For more details, please see the page about environmental efforts.
Development and Improvement for Urban Railways, Regional Railways, etc.

Since 1991, JRTT has provided assistance for railway companies in Japan for the construction of subway lines, new town railway lines and airport access lines, the streamlining of JR lines and other railway lines, improvements to the railway infrastructure of regional railway companies, and more.

New Construction/Improvement of Urban Railways

We provide assistance for new construction and improvement projects on urban railways, from constructing new subway lines to improving connection lines through the effective use of existing urban railway infrastructure and other efforts to improve promptness, converting freight railways into passenger railways and more.

Comprehensive Improvement of Railway Stations

We provide assistance for creating universally accessible stations, improving railway station spaces that provide lifestyle support functions, and the comprehensive improvement of railway stations that are integrated into community building projects.

Upgrading Outdated Infrastructure, etc.

We provide financing and other support to Hokkaido Railway Company, Shikoku Railway Company and Japan Freight Railway Company to help them update outdated railway infrastructure, improve railway infrastructure to improve their business foundations, and more.

Technical Assistance for Railway Infrastructure

JRTT Railway Family Doctor: Technical Assistance for Railway Operators

For repairs, maintenance and other tasks involving railway structures, we send engineers into the field to conduct surveys as necessary, and introduce construction methods, materials and other information suited to the circumstances, provide an assistance system suited to the conditions, and provide other advice. We also provide data for present-state analysis of areas around railways and the like.
Disaster Restoration and Disaster Prevention Measures

JRTT provides assistance for disaster recovery and undertakes disaster prevention measures.

Disaster Restoration Work after the Great East Japan Earthquake

Sanriku Railway Lines Restoration Work

Entrustor: Sanriku Railway Company
Commissioned work sections:
- Kita-Rias Line, between Miyako and Kuji
  Number of stations: 16  Length: 71.0km
- Minami-Rias Line, between Sakari and Kamaishi
  Number of stations: 10  Length: 36.6km

Description of work: Civil engineering, construction of tracks, architecture, mechanical and electrical engineering in the commissioned work sections

Period of work: November 1, 2011 to September 30, 2014

The enormous tsunami waves generated by the Great East Japan Earthquake on March 11, 2011 caused destructive damage to the Sanriku Railway lines. On November 1, 2011, Sanriku Railway Company entrusted JRTT to perform restoration work.

With cooperation from Sanriku Railway Company, local governments and other relevant organizations, we performed construction work on a short schedule of two-and-a-half years, and successfully reopened all lines as planned, starting with the section of the Kita-Rias Line between Tanohata and Rikuchu-Noda on April 1, 2012, and followed by the section of the Minami-Rias Line between Sakari and Yoshihama on April 3, 2013, the section of the Minami-Rias Line between Yoshihama and Kamaishi on April 5, 2014, and the section of the Kita-Rias Line between Omoto and Tanohata on April 6, 2014.

Awards: Japan Society of Civil Engineers Outstanding Civil Engineering Achievement Award (2014), Japanese Geotechnical Society Technical Excellence Award (2014)

Area near Shimanokoshi Station immediately after the disaster (Kita-Rias Line)

Arakawa Bridge immediately after the disaster (Minami-Rias Line)
**Sendai Airport Access Line Restoration Work**

JRTT was commissioned to construct the Sendai Airport Access Line, which opened on March 18, 2007. The damage the line suffered due to the Great East Japan Earthquake on March 11, 2011 was so massive that operations had to be suspended on the entire line.

The Miyagi prefectural government and Sendai Airport Transit Company requested our assistance, and we provided technical assistance on all fronts for the recovery through efforts such as sending out an advance team to conduct field surveys immediately after the earthquake, to accepting two workers from Sendai Airport Transit Company in April 2011 to investigate proposals for restoration measures, manage restoration work, and survey the health of existing structures.

We also established an assistance system within our organization and made other efforts to cooperate with the soonest possible restoration of the Sendai Airport Access Line, reopening the section of the line between Natori and Mitazono on July 23, 2011, and finally reopening the entire line through to Sendai Airport Station on October 1, 2011.

**Awards:** Japan Railway Award (2011)

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**Assistance for Coastline Preservation Measures, Rockfall/Avalanche Prevention, etc.**

To help preserve and protect neighboring residences, roads and farmland, we provide assistance for improving railway infrastructure to prevent rockfall and avalanches, preserve coastlines and the like.

**Preserving the Seikan Undersea Tunnel**

We are upgrading the earthquake disaster prevention facilities, drainage facilities, fire detection facilities, fire extinguishing facilities, evacuation and guidance facilities, transformer substation facilities and other facilities for preserving the tunnel.
Achievement of Construction

JRTT continues to construct urban railways, Shinkansen lines and other integral elements of the national transportation system.

Prominent Railway Construction Efforts

Over the 50-plus years since the establishment of the Japan Railway Construction Public Corporation (JRCC)—the predecessor to JRTT—in 1964, we have constructed a total length of roughly 3,640 km on 118 railways, including the Hokkaido Shinkansen between Shin-Aomori and Shin-Hakodate-Hokuto and other Shinkansen lines, the Tsugaru-Kaikyo Line, JR lines, private railways, and subways entrusted to us by local governments and others. Over that period, we have received many awards from domestic and international organizations alike.

Prominent Railway Construction Efforts

- **Joetsu Shinkansen**
  - Awards: Japan Society of Civil Engineers Outstanding Civil Engineering Achievement Award (1980), others

- **Hokuriku Shinkansen**
  - Awards: Japan Society of Civil Engineers Outstanding Civil Engineering Achievement Award (2015), others

- **Kyushu Shinkansen**
  - Awards: Japan Society of Civil Engineers Outstanding Civil Engineering Achievement Award (2011), others

- **Minatomirai Line**
  - Awards: Brunel Awards Commendation (2005), others

- **Rinkai Line**
  - Awards: Association of Railway Architects Ministry of Transport Railway Bureau Director-General Award (1996), others

Development of Railway Networks

<table>
<thead>
<tr>
<th>Main Railway Lines Developed by JRTT</th>
<th>Existing Lines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shinkansen lines in operation</td>
<td>Shinkansen</td>
</tr>
<tr>
<td>Shinkansen lines under construction</td>
<td>Shinkansen</td>
</tr>
<tr>
<td>Conventional lines in operation</td>
<td>Conventional</td>
</tr>
<tr>
<td>Conventional lines under construction</td>
<td>Line</td>
</tr>
</tbody>
</table>

Minatomirai Line
- Awards: Brunel Awards Commendation (2005), others

Rinkai Line
- Awards: Association of Railway Architects Ministry of Transport Railway Bureau Director-General Award (1996), others
Effects of Improvements

Development of the Railway networks contributes to community development.

Travel Time

Shortening travel time leads to expanded ranges of activity and makes it possible to transport many people more rapidly.

Hokuriku Shinkansen (between Nagano and Kanazawa)  Travel Time to Tokyo Station

<table>
<thead>
<tr>
<th>Region</th>
<th>Before opening Time (hours)</th>
<th>After opening Time (hours)</th>
<th>Shortening Time (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kanazawa to Tokyo</td>
<td>2.28</td>
<td>1.19</td>
<td>1.09</td>
</tr>
<tr>
<td>Kanazawa to Nagano</td>
<td>1.05</td>
<td>2.19</td>
<td>1.14</td>
</tr>
<tr>
<td>Toyama to Tokyo</td>
<td>2.08</td>
<td>1.03</td>
<td>0.95</td>
</tr>
<tr>
<td>Toyama to Nagano</td>
<td>0.45</td>
<td>2.01</td>
<td>1.56</td>
</tr>
</tbody>
</table>

Note: “Transition to 2.5-hour radius” is the total population of the 2-hour radius and the 2.5-hour radius; “Transition to 3-hour radius” is the total population of the 2-hour radius, the 2.5-hour radius and the 3-hour radius.

Sources: The 2015 Population Census (Totals for municipalities as of March 2015)

For travel time, timetables were used to calculate the time required to access Shinkansen stations from administrative offices in each municipality. The timetable published in March 2014 was used for the period before opening, and the timetable published in March 2015 was used for the period after opening.

Kyushu Shinkansen (between Hakata and Kagoshima-Chuo)  Travel Time to Hakata Station

<table>
<thead>
<tr>
<th>Region</th>
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Sources: Estimates prepared based on news releases from the West Japan Railway Company, newspaper articles, etc.
Increase of Human Interaction between Regions

The increase of human interaction between regions has contributed to regional economic developments.

Kyushu Shinkansen (between Hakata and Kagoshima-Chuo)  Flow volume between regions before and after full opening of the Shinkansen

Development of Regional Communities

Narita Sky Access Line (between Inba-Nihon-Ildai and Narita Airport)

The Narita Sky Access Line trims 36 minutes from the travel time between central Tokyo and Narita Airport, and passenger numbers increased 40% in the line’s first four years of operation.

Source: Created based on data from Narita Rapid Rail Access Company.

Tsukuba Express Line (between Akihabara and Tsukuba)

The continual construction of housing and the opening of a large shopping mall along the Tsukuba Express Line produced a 130% increase in users in the line’s first 10 years after opening.

Hokuriku Shinkansen (Sakudaira Station)

A new community has grown around the station.

Kyushu Shinkansen (Kagoshima-Chuo Station)

A bus terminal, parking lot and other improvements continue to be made around the Shinkansen, which is the core of a wide-ranging transportation network.
**Development of New Technology and Research**

**SENS (Cast-in-Place Pile Support System based on the Shield Method)**

SENS stands for Shield ECL NATM System. It is a new tunnel construction system that combines the advantages of several methods. The stability of the tunneling shield from the Shield Method is combined with cast-in-place concrete from the ECL Method and the support from NATM. Using this method on the frontier of the Bedrock Tunneling Method and the Shield Method enables us to safely and economically construct underground tunnels.

We first used SENS for the first time to construct the Sanbongihara Tunnel between Hachinohe and Shin-Aomori on the Tohoku Shinkansen, and then to construct the Tsugaru-Yomogita Tunnel between Shin-Aomori and Shin-Hakodate-Hokuto on the Hokkaido Shinkansen. We expanded the application of the method into urban railway tunnels, and have used it to construct the Nishiya Tunnel on the Through Line between Sotetsu and JR and others.

**GRS-Integrated Bridges**

The structure of geosynthetic-reinforced soil (GRS) integrated bridges integrates 3 members: bridge girders, abutments and embankments (segment improvement approach blocks) behind abutments reinforced with geosynthetics (nets made of reinforcement material, laid in sheets within embankments). The resulting gate-shaped structure requires no support members, which provides benefits such as reduced construction costs and lower maintenance workloads.

We used SENS for the first time to construct the Sanbongihara Tunnel between Hachinohe and Shin-Aomori on the Tohoku Shinkansen, and then to construct the Tsugaru-Yomogita Tunnel between Shin-Aomori and Shin-Hakodate-Hokuto on the Hokkaido Shinkansen. We expanded the application of the method into urban railway tunnels, and have used it to construct the Nishiya Tunnel on the Through Line between Sotetsu and JR and others.

**New Train Control System**

To improve the comfort of the ride and shorten operation times and intervals on the Tohoku Shinkansen between Hachinohe and Shin-Aomori, we used the car-initiated ATC that we introduced on the Tohoku Shinkansen between Morioka and Hachinohe to develop the Non-insulated Track Circuits—the first of its kind on a Shinkansen line—in an effort to simplify both facilities near the tracks and maintenance. To further spread the application of these effects, we also developed the technology so that it is applicable in sections between Nagano and Kanazawa on the Hokuriku Shinkansen where the commercial frequency is 60 Hz.

**Awards:** Japan Society of Civil Engineers Tanaka Award (2014), Japanese Geotechnical Society Technical Excellence Award (2013, 2014)

**Awards:** Japan Society of Civil Engineers Outstanding Civil Engineering Achievement Award (2006, 2012), Japan Industry and Technology Award Judging Committee’s Special Award (2007)

**Awards:** Japan Railway Electrical Engineering Association Railway Electrical Engineering Award (2015)
New Snow Prevention Equipment

We have developed and installed snow prevention equipment on Shinkansen lines that have made major contributions to safe transportation in winter.

- Awards: Japan Society of Civil Engineers Outstanding Civil Engineering Achievement Award (2016)

Air-type rapid snow removal equipment
Equipment that rapidly removes snow that falls from rolling stock onto point frogs (Hokkaido Shinkansen)

Snow removal sprinklers
(Hokuriku Shinkansen)

Eco-Friendly Roof-Delta Connected Transformers

We put roof-delta connected transformers to practical use as alternating current feeding transformers for supervoltage power reception on Shinkansen lines to replace conventional modified Woodbridge-connected transformers, and began using the new transformers on the Tohoku Shinkansen between Hachinohe and Shin-Aomori.

Compared to conventional transformers, the new transformers have a simpler structure and are smaller and more lightweight, which prevents the loss of electricity and is more eco-friendly.

- Awards: Japan Electric Association Shibusawa Award (2007)

Assistance for Technological Development

Technological Development for Safety Measures, Environmental Measures, etc.

To promote the development of railway technology and the improvement of technical standards, we provide assistance to corporations with the capacity to develop technology related to the railway sector.

Research for Railway Plans and Assistance

JRTT conducts various research using GRAPE and other assistance systems in response to requests from the national government, local governments, railway companies and others.

GRAPE Transportation Plan Assistance System

GRAPE* is a system that uses geographic information systems (GIS) to provide assistance for the development of transportation plans, primarily for railways. The system is useful not only for constructing new railway lines, but also for providing visual aids for the analysis and evaluation of policies to improve railway convenience, such as streamlining transfers and revising schedules. GRAPE: GIS for Railways Project Evaluation

- Awards: Japan Society of Civil Engineers Innovative Technique Award (2002)
Promotion of Universal Design and Use of Locally Sourced Materials

Universal Design for Stations that are Accessible and User-Friendly for Everyone

We incorporate the principles of universal design—seeking to create facilities that are accessible and user-friendly for everyone regardless of age, gender or ability—into our improvement of stations while considering economic efficiency from the very start of the planning and design stages.

Safety Platforms

We design platforms with good visibility and adequate space for passenger traffic. We install platform edge doors to keep passengers safe from passing trains and prevent them from falling onto the tracks.

Intuitive Visible Concourses

We design concourses with bright lighting and great visibility. We locate stairs, elevators and escalators so that they are easy for passengers to find, and install informational signage, textured paving blocks and more.

Easy to use Vertical Equipment

We install glass-paneled elevators for higher visibility and crime prevention and make them large enough to accommodate wheelchairs and strollers. We install both escalators and stairs so that passengers can use either to easily move up and down.

Accessible Multifunctional Restrooms

We install fold-out beds, ostomate toilets and other facilities inside multifunctional toilets, and equip both men’s and women’s toilets with simple, multipurpose stalls that are wheelchair accessible. We also install flashing lights to inform people with hearing impairments of emergencies.

Convenient Multipurpose Rooms

Within Shinkansen station buildings, we install multipurpose rooms for passengers to nurse infants, rest when they do not feel well, and other purposes.

For nursing in particular, we take care to install baby changing stations, sinks, curtains for privacy and other facilities.
### Use of Locally Produced Materials

Our frequent use of locally sourced wood in building interiors creates atmospheres with a sense of warmth, which makes stations feel more inviting and also leads to CO₂ fixation, which makes stations even eco-friendlier.

We also use locally sourced stones, metals and other materials in addition to wood.

### Use of Local Craftwork

We use textiles, Japanese paper, lacquerware and ceramics in building interiors, and these local crafts bring benefits in terms of economic efficiency, design appeal, durability and ease of maintenance.

### Considering Universal Design together with users

JRTT works with local governments to exchange opinions with local civic groups in order to incorporate various approaches to universal design into station improvements.

### Universal Design Flow Chart

1. Universal design plan proposal
2. Meeting to exchange opinions
3. Facilities that reflect those opinions

### Building Interiors Created from Locally Sourced Materials to Express the Local Flavor

Stations are the first buildings to welcome travelers to a local area. Therefore, the most common request from communities is for stations that express the local flavor. In response, we aim to use locally sourced materials (locally produced materials and local craftwork) in building interiors in an effort to create stations that express the local flavor and are loved by the members of the community. In consideration of economic efficiency, we also accept locally sourced materials and the like from communities as much as possible.
Joint Ownership Shipbuilding

JRTT provides low-interest, long-term funding and technical assistance to contribute to the building of domestic passenger ships and cargo ships that correspond to policy issues.

Policy Issues

Adapting to the environmental economy (Greening) in coastal shipping
- Promoting the diffusion of Super Eco-Ships (SES)
- Building Ships that Reduce the Burden on the Environment

Regional Development
- Building ships to sail routes to remote islands, etc.
- Building domestic cruise ships to meet tourism demand

Streamlining Distribution
- Promoting a modal shift

Employing crewmembers
- Promoting the planned employment of young crewmembers, female crewmembers, etc.
- Promoting the diffusion of ships with improved working environments

Strengthening Business Foundations
- Preparing a stable, efficient business environment for coastal ship-owners

Joint Ownership Shipbuilding Scheme

Financial Assistance

JRTT
- Covers 70%-90% of the cost of shipbuilding
- By long-term, low-interest funding

Joint owner companies
- Covers 30%-10% of the cost of shipbuilding

Shipbuilding Company
- After completion, registration of joint ownership of ships
- 70%-90% Partial ownership of JRTT
- 30%-10% Partial ownership of Joint Owner Companies
- Period of joint ownership 7 to 15 years
- Pays ship usage fees

JRTT
- Sellout partial ownership of JRTT to the joint owner company
- 100% Joint Owner Companies equity

Regional Development
- Building ships to sail routes to remote islands, etc.
- Building domestic cruise ships to meet tourism demand

Joint Ownership Shipbuilding Scheme

Employing crewmembers
- Promoting the planned employment of young crewmembers, female crewmembers, etc.
- Promoting the diffusion of ships with improved working environments

Strengthening Business Foundations
- Preparing a stable, efficient business environment for coastal ship-owners

Adapting to the environmental economy (Greening) in coastal shipping
- Promoting the diffusion of Super Eco-Ships (SES)
- Building Ships that Reduce the Burden on the Environment

Streamlining Distribution
- Promoting a modal shift

Japan Railway Construction, Transport and Technology Agency
Development of Maritime Transportation Networks

20

Japan Railway Construction, Transport and Technology Agency
Development of Maritime Transportation Networks
Promotion of Shipbuilding that Contributes to Environmental Conservation

We contribute to sustain and develop coastal shipping, which plays an extremely important role in Japan, through the building of ships that reduce carbon dioxide emissions and prevent marine pollution.

Promotion of the Shipbuilding for Routes to Remote Islands

Over the past 50-plus years, we have performed shipbuilding for some 600 ships for routes to remote islands, and the building of these ships, which are the only mode of transportation to and from remote islands, are contributing to the development of regional communities.

Expanding the Target of the Joint Ownership Shipbuilding Scheme

In FY 2018, we added domestic cruise ships to the scope of the joint ownership shipbuilding scheme to respond to inbound tourism demand.

To counter the dearth of crewmembers, we created a reduced interest rate for ships with improved working environments that aim to reduce crewmember workloads and improve their living environments.
Achievement of Joint Ownership Shipbuilding

Through joint ownership shipbuilding of domestically operated passenger and cargo ships, JRTT assists the national economy and people’s lives in Japan.

Prominent Shipbuilding Efforts of JRTT

Over the years since the establishment of the Maritime Credit Corporation—the predecessor to JRTT—in 1959, we have built a total of over 4,000 ships. As the largest shipowners in Japan—we own 267 cargo ships and 56 passenger ships as of March 31, 2017—we contribute to regional revitalization and the streamlining of logistics. Over that period, we have received many awards.

Total JRTT Shipbuilding Efforts

*Completed ships from 1959-March 2018

- 2,994 cargo ships
- 1,019 passenger ships
- Total: 4,013 ships

Shipbuilding Share

- Cargo ships: 39.8%
- Passenger ships: 59.6%

Percentage of ships by the joint ownership shipbuilding scheme in use among new ships sailing within Japan (based on gross tonnage)

*FY 2012-FY 2016 average

JRTT’s Cargo Ships

- The Choun Maru, a 396-G/T general cargo ship
- The Miyuki, a 749-G/T container ship
- The Fukuei Maru No. 2, a 252-G/T oil tanker
- The Kamikita Maru, a 12,430-G/T RORO ship
- The Ryusei Maru, a 498-G/T chemical tanker
- The Kousyu Maru No. 11, a 747-G/T LPG tanker
JRTT's Passenger Ships

Ships for Routes to Remote Islands

The Futaoi Maru, a 49-G/T passenger ship that runs between Futaoijima and Yoshimi

The Iwai, a 43-G/T passenger ship that runs between Iwashima and Yanai

The Sun Liner No. 2, a 122-G/T high-speed ferry that runs between Haboro, Yagishiri-to and Teuri-to

The Ogasawara Maru, a 11,035-G/T ferry that runs between Tokyo and Chichijima

The Takasu, a 124-G/T high-speed ferry that runs between Takashima, Iojima and Nagasaki

Awards: Ship of the Year 2017, awarded in the small-sized passenger ship category

The Ferry Toshima 2, a 1,953-G/T ferry that runs between Naze (Amami Oshima), Takarajima, Kodakarajima, Akusekijima, Suwanosejima, Tairajima, Nakanoshima, Kuchinoshima and Kagoshima

The Iwai, a 43-G/T passenger ship that runs between Iwashima and Yanai

The Akane, a 5,702-G/T high-speed ferry that runs between Ogi and Naoetsu

The Oike Maru, a 19-G/T passenger ship that runs between Tebajima and Mugi

The Ogasawara Maru, a 11,035-G/T ferry that runs between Tokyo and Chichijima

Awards: Ship of the Year 2016, awarded in the large-sized passenger ship category

The Ferry Shimanto, a 12,636-G/T ferry that runs between Tokyo, Tokushima and Shin-Moji

The Osaka II, a 14,920-G/T ferry that runs between Osaka Nanko and Shin-Moji

The Akebono Maru, a 2,694-G/T ferry that runs between Yawatahama and Usuki

Long-Distance Ferries, etc.

Development of Maritime Transportation Networks
We also promote the diffusion of ship technology that contributes to reducing environmental burdens, streamlining coastal shipping and other efforts.

Super Eco-Ships

To promote shipbuilding to replace existing coastal ships, streamline distribution, reduce environmental burdens and otherwise respond to the demands of society, we promote the diffusion of eco-friendly, economical electric propulsion ships known as Super Eco-Ships (SES).

Effects of SES Introduction

Increased Efficiency
- Energy Conservation
  Roughly 20%

Eco-Friendly
- CO₂ Reduced by roughly 20%
- NOₓ Reduced by roughly 40%
- SO₂ Reduced by roughly 20%

Comfort for Passengers and Crew
- Reduced vibrations and noise
  Reduced by 5-10 dB
  (as quiet as a passenger car)
- Reduced engine operation/maintenance work, etc.

Increased Safety
- Lower failure rate, plus ability to operate under partial failures
- Improved ship handling
  (especially within harbors)

Technological Studies

We collaborate with external experts, relevant companies and others to conduct studies and research regarding the labor-saving, energy conservation, safety improvement, onboard working environment improvement and other improvements required by coastal shipping companies, and provide the results of our research to them as technological data.

Feasibility Study on the Introduction of IoT Technology for Coastal Ships (FY 2017)

Securing and training crew members continues to be a critical issue in coastal shipping in Japan. It is more important than ever before to introduce new technology to reduce workloads and improve productivity in order to promote the employment and retention of crew members through the creation of appealing workplaces.

Therefore, we conducted a study of available IoT technology for reducing workloads and improving productivity on coastal ships.

- The “Ships with Improved Working Environments” we created in FY 2018 reflect the results of this study.

Ships with Improved Working Environments
- Ships on which measures are taken to reduce crew member workloads and improve their living environments
Studies of SES Passenger Ships for Routes to Remote Islands (FY 2016-present)

To promote the construction of Super Eco-Ships (SES), we have conducted studies of the total cost, which is the sum of the initial shipbuilding cost and ongoing maintenance cost.

The Sunflower Satsuma, JRTT’s passenger ferry that runs between Osaka and Shibushi

This 719-passenger ferry has been upgraded to include Universal Design guestrooms and other barrier-free facilities. The addition of Universal Design Suites and other efforts to upgrade guestrooms to Universal Design standards means that all passengers—regardless of ability—can enjoy their time aboard the ferry.

Providing Information Based on Technological Studies

We are providing information through seminars to diffuse and promote onboard IoT technology and other technology for ships. We also provide information based on technological studies through our website, which contains a handbook for energy- and power-saving equipment, design documents that result from studies of ship types, an energy conservation manual for small, high-speed passenger ferries, and more.

Shipbuilding by Universal Design

To enable elderly people, handicapped people and others to travel smoothly on public transportation, we build passenger ships that comply with standards set out by the Japanese government.

The Sunflower Satsuma, a 13,659-G/T ferry that runs between Osaka and Shibushi

The bath and toilet in a Universal Design Suite

Standard Cabin upgraded to Universal Design
Recently, awareness of global environmental issues has grown and the demand for inter- and intra-city transportation has been increasing along with economic growth in developing countries in Asia and elsewhere. Therefore, expectations of railways have increased as an excellent mass transit system with a small environmental burden. Presently, many railway projects are being planned and investigated throughout the world, and the railway market is projected to expand to roughly 24 trillion yen by 2021.

However, the construction of high-speed rail requires concerted efforts in construction work for civil engineering, buildings, tracks, electricity and machinery from the investigation stage through to completion. Private companies lack the capacity to fully execute all of these functions in addition to coordinating between departments. Therefore, as JRTT is expected to play a proactive role in coordinating the construction of projected Shinkansen lines in high-speed railway projects overseas, the Japanese government enacted “the Act on the Promotion of the Participation of Japanese Business in Overseas Infrastructure Projects” in August 2018. This act enables JRTT to participate in high-speed rail projects all over the world.

We intend to make full use of the know-how and knowledge we have cultivated through the construction of Shinkansen and other railway lines to date to help build the transportation networks of tomorrow both inside and outside Japan.
Since 1964, JRTT has contributed to build railways all over the world by dispatching many railway experts based on requests from MLIT and others. To date, we have dispatched more than 2,000 experts to a total of 70 countries and regions. We have also accepted fellows and review missions from overseas, and have explained Japan's advanced railway technology to over 4,000 fellows and others from 100 countries and regions.

Taiwan High Speed Rail Project

The opening of the Taiwan High Speed Rail in 2006 marked the first time Japan exported its Shinkansen system. JRTT dispatched employees and cooperated with the project from the planning stages in 1989. Specifically, our cooperation started with the participation of our employees in the feasibility study during the investigation stage, and continued into the bidding stage where we provided recommendations and close investigations of written proposals in technical terms. After the decision was made to introduce the Shinkansen system, we dispatched many of our employees who specialized in the core systems of tracks and electricity as long-term experts, and provided technical cooperation during the construction stage and for comprehensive testing prior to opening. We believe this project is both a successful example of the export of the Japanese Shinkansen system, and a successful example of our comprehensive railway construction technology and know-how amassed in Japan and put to work overseas from the planning stage until the line opened.

India High-Speed Rail Project

At a meeting between heads of state in December 2015, the governments of Japan and India concluded a memorandum of understanding regarding the introduction of a Shinkansen system; the two governments decided that India’s high-speed rail between Mumbai and Ahmedabad would be a Japanese Shinkansen. JRTT has cooperated proactively with the project by dispatching railway experts since the feasibility study during the investigation stage. As the project progresses toward the opening of the line, our employees are on dispatch as comprehensive railway advisors to High Speed Rail Corporation of India Limited, the project entity. In Japan, we have accepted fellows from India, and given them tours of Shinkansen construction sites to help them further their understanding of safety in construction.

Technology Exchange with Sweden

As interest in high-speed rail grows in Sweden, the Japanese MLIT and Swedish ministry of industry concluded a memorandum of understanding regarding cooperation in the railway sector. Based on this memorandum, JRTT has engaged in technical exchange regarding high-speed rail with the Swedish Transport Agency since 2013. The technical exchange involves efforts such as participating in working groups regarding high-speed rail and having our employees serve as lecturers at various seminars, and we introduce Japanese railway technology to Sweden while we learn about Swedish railway technology. We have also accepted fellows from Sweden, and have deepened our exchange through efforts such as tours of Shinkansen construction sites.
Revitalization of Regional Communities

We contribute to the revitalization of regional communities by improving overall communities, actively participating in the creation of appealing towns throughout Japan, and other efforts through our assistance via investment in sustainable regional public transportation, disposal of former Japan National Railways (JNR) land and other efforts.

Revitalization and Rehabilitation of Regional Public Transportation Through Investment

We provide funding and other assistance for the improvement of service levels, the restructuring of lines and other projects that contribute to the formulation of more sustainable local public transportation networks based on the Act on Revitalization and Rehabilitation of Local Public Transportation Systems (Act No. 59 of 2007).

Funding from JRTT enables more flexible fundraising for the initial investments that projects require and can be expected to attract necessary funding from local private companies, financial institutions and others.

Examples of Projects to Promote the Formulation of Local Public Transportation Networks

1. Establishment/operation of LRT/BRT
2. Rehabilitation of regional railways using vertical separation
3. Restructuring of bus route networks
4. Introduction of smart cards and informational guidance systems integrated into the projects

Light Rail Transit (LRT)
Eco-friendly and highly accessible urban public transportation systems that represent an improvement on the operating spaces and vehicle performance of conventional streetcars due to their high degree of promptness and transportation capacity.

Bus Rapid Transit (BRT)
Bus systems that handle the arterial transportation of urban areas with faster, higher-capacity services than normal buses. Articulated buses are one example.
The JNR privatization reforms of 1987 expedited the disposal of many parcels of former JNR land throughout Japan that eventually became public utilities, commercial facilities, condominiums and residential subdivisions that served to develop urban areas and revitalize communities. The largest of those parcels contributed to the regeneration of cities and creation of appealing towns through urban development projects and the like.

Contribute to Attractive Town Development on Land Used by the Former JNR

Prominent Cases of Land Revitalization

Representative Cases of Districts where Land is Already Developed

Shiodome District
The valuable large-scale land asset Shiodome is a critical transportation node that connects central Tokyo to coastal areas. Now home to various mass media outlets that headline a cluster of the headquarters of major Japanese corporations, the area has been transformed into a base for transmitting global information and culture.

Shinagawa District
The east exit of Shinagawa Station is a high-functioning urban subcenter serving as the southern entryway to Tokyo. The opening of Shinagawa Station on the Tokaido Shinkansen line in 2003 and the unveiling of the Shinagawa Grand Commons shopping and office building in 2004 resulted in the creation of an attractive new urban district.

Omiya District
With the aim of improving central and core facilities in the prefecture and providing a concentration of wide-ranging administrative functions, the advantageously located Omiya Switchyard has been redeveloped into Saitama-Shintoshin, a highly accessible amalgamation of higher-order urban functions befitting a central urban area. The site opened in May 2000.

Cases of Districts where Land is Being Developed

Umeda District
Given the location and large size of the land owned by JRTT adjacent to JR Osaka Station (Phase 2 development area), it is regarded as one of the most prime urban properties in Japan. Presently, efforts such as a land readjustment project to bury the feeder to the JR Tokaido Branch Line are under way to create a new district that serves as a foundation for the fusion of environmental efforts and innovation in an effort to help Osaka fulfill its mission of building communities that drive the revitalization of the Kansai region. The first phase of development resulted in the April 2013 opening of Grand Front Osaka.
JRTT’s mission is to provide smooth land and maritime transport, thereby contributing to the healthy development of the national economy and improving the lifestyles of Japanese people. To fulfill this mission, JRTT strives to contribute to society by proactively engaging in efforts to conserve the global environment and creating a transportation network for the future that seamlessly coexists with the abundant and beautiful natural environment.

1. We strive to reduce the environmental burden created in all areas of our business activity, including railway construction, assistance for promoting the improvement of transportation infrastructure by railway companies, maritime transport companies and others, and other support.

2. We observe laws and regulations regarding environmental conservation as well as self-imposed standards.

3. We contribute to regional communities by actively participating in local environmental conservation activities.

Carbon dioxide accounts for most of the greenhouse gases that cause global warming. In FY 2014, the transportation sector accounted for roughly 20% of carbon dioxide emissions in Japan. While automobiles account for 86.2% of carbon dioxide emissions in the transportation sector, ships and railway account for just 4.8% and 4.3%, respectively.

**Carbon Dioxide Emissions in Japan by Sector (FY 2016)**

<table>
<thead>
<tr>
<th>Source of Emissions</th>
<th>(K tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial sector (plants, etc.)</td>
<td>418,000</td>
</tr>
<tr>
<td>Business and other sectors (commercial, services, administrative, etc.)</td>
<td>214,000</td>
</tr>
<tr>
<td>Transportation sector (automobile, railway, ocean, etc.)</td>
<td>215,000</td>
</tr>
<tr>
<td>Household sector</td>
<td>188,000</td>
</tr>
<tr>
<td>Other</td>
<td>171,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,260,000</strong></td>
</tr>
</tbody>
</table>

Source: Data based on the website of the National Institute for Environmental Studies Greenhouse Gas Inventory Office
In addition, since railway and ships are high-volume modes of transportation, a large number of people and things can be carried on each trip and voyage. Passenger railway emits 1/6 the carbon dioxide per person-kilometer of personal automobiles, and freight railway emits 1/8 the carbon dioxide per ton-kilometer of commercial trucks, while ships emit 1/5 that amount.

In light of these facts, railway and ships are more energy efficient and eco-friendly than other modes of transportation. JRTT steadily constructs railways and builds ships in an effort to contribute to the establishment of an eco-friendly transportation system with low carbon dioxide emissions.

Carbon Dioxide Emissions in Japan by Transportation Volume (FY 2016)

<table>
<thead>
<tr>
<th>Mode</th>
<th>(g-CO₂/person-km)</th>
<th>(g-CO₂/ton-km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal autos</td>
<td>141</td>
<td></td>
</tr>
<tr>
<td>Airplanes</td>
<td>98</td>
<td></td>
</tr>
<tr>
<td>Bus</td>
<td>67</td>
<td></td>
</tr>
<tr>
<td>Railway</td>
<td>20</td>
<td>1,159</td>
</tr>
<tr>
<td>Personal trucks</td>
<td></td>
<td>240</td>
</tr>
<tr>
<td>Commercial trucks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ships</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Railway</td>
<td>21</td>
<td></td>
</tr>
</tbody>
</table>

Source: Data based on the website of the MLIT (Ministry of Land, Infrastructure, Transport and Tourism), Policy Bureau Environmental Policy Division

To further understand about the establishment of eco-friendly transportation systems and to create partnerships with regional communities, we cooperate with local environmental conservation activities by participating in related events, hosting site tours, holding technical seminars about coastal shipping and more.

Spreading Environmental Information

To share our basic principles toward environmental conservation and efforts regarding the environmental sector with as many people as possible, JRTT prepares an annual “Environmental Report” in accordance with the Act on the Promotion of Business Activities with Environmental Consideration by Specified Corporations, etc, by Facilitating Access to Environmental Information, and Other Measures.

We invite you to visit our website for more information.

JRTT implements environmental considerations and works to reduce environmental burdens while performing construction, improvement and other work. Here, we explain some prominent examples of these efforts.

### Efforts to Reduce Environmental Burdens

**Eco-Friendly Railway Construction**

Image of Efforts in Tunnel Construction

![Diagram showing tunnel excavation, temporary storage of earth and sand, removal by belt conveyors, spring water, discharged outside shafts, and treated water discharged into rivers.]

1. **Initiative 1**
   - Earth and sand
   - Removal by belt conveyors
     - *Removed by dump trucks in short tunnels*

2. **Initiative 2**
   - Temporary storage of earth and sand
   - Carried away by dump trucks
   - Effective use in other projects

3. **Initiative 3**
   - Spring water
   - Discharged outside shafts

4. **Turbid water treatment equipment**
   - Treated water discharged into rivers

**Promotion of Shipbuilding that Contributes to Environmental Conservation**

We promote the building of Super Eco-Ships (SES), low-emission ships (advanced low-carbon dioxide emission ships, high-performance low-carbon dioxide emission ships) and other ships that contribute to the greening of coastal shipping.

The Tachibana Maru, an SES ferry that runs between Tokyo, Miyakejima, Mikurajima and Hachijojima

- Awards: Ship of the Year 2014, awarded in the large-sized passenger ship category
Green bonds are an effective tool for incorporating private capital into green projects that strive to counter global warming and prevent the deterioration of natural capital. JRTT issued green bonds to fund the project to enhance the convenience of urban railways (the construction of the Eastern Kanagawa Lines).

Our efforts were selected as a model example of green bond issuance for the Ministry of the Environment’s 2017 Green Bond Issuance Model Creation Project, and were recognized as compliant with the ministry’s “Green Bond Guidelines, 2017.”

As an investment in a project to improve the environment through CO2 reduction and other measures, our green bonds contribute to the development of ESG investment, which is gaining prominence on the world stage.

Initiative 1 Removal of Excavated Earth by Belt Conveyors
Earth and sand generated by excavation in tunnel construction is generally carried out of shafts and stored at a temporary location on site, and then carried away by dump trucks or other heavy machinery. However, we used belt conveyors to carry away earth and sand in the Murayama Tunnel on the Hokkaido Shinkansen between Shin-Hakodate-Hokuto and Sapporo, and in the Shin-Nagasaki Tunnel on the Kyushu Shinkansen between Takeo-Onsen and Nagasaki. We employed this method in an effort to contribute to global warming countermeasures by reducing the carbon dioxide emitted by dump trucks and heavy machinery when carrying away earth and sand, and to improve the working environment inside the tunnels by improving the safety of the work and reducing emissions and dust. We intend to continue using belt conveyors in the construction of long tunnels in an effort to reduce carbon dioxide emissions.

Initiative 2 Treatment of Wastewater Resulting from Tunnel Construction
Groundwater from the ground around tunnels becomes mixed with excavated earth and sand during tunnel construction. As an environmental conservation measure, we use turbid water treatment equipment that satisfy wastewater standards to treat the water before discharging it into rivers and the like.

Initiative 3 Use of Soil Generated by Construction in Other Projects
We make proactive efforts to effectively use soil generated by tunnel excavation and other construction as embankment material in other areas as well as to provide it as embankment or fill dirt for other public projects (reclamation projects, residential land development, station area improvement projects, etc.).

Efforts in Issuing Green Bonds

Green bonds are an effective tool for incorporating private capital into green projects that strive to counter global warming and prevent the deterioration of natural capital. JRTT issued green bonds to fund the project to enhance the convenience of urban railways (the construction of the Eastern Kanagawa Lines).

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Overview of JRTT

JRTT is an incorporated administrative agency (an Agency Managed under the Medium-term Objectives) that was established in 2003 by the merging of the Japan Railway Construction Public Corporation and the Corporation for Advanced Transport & Technology.

**Name in Japanese:** 独立行政法人 鉄道建設・運輸施設整備支援機構
（略称 鉄道・運輸機構）

**Name in English:** Japan Railway Construction, Transport and Technology Agency
(abbreviated name: JRTT)

**Established:** October 1, 2003

**Purpose:** To establish a transportation system based on modes of mass transportation by constructing railways, and providing assistance for promoting the development of railway infrastructure by railway companies, maritime transport companies and others, and other assistance. Also, to contribute to the stable development of the national economy and improving the lifestyle of the public.

**Corporate History**

Mar. 1964 Japan Railway Construction Public Corporation (JRCC) (construction of Shinkansen and other railway lines, etc.)

Apr. 1961 Coastal Passenger Liner Corporation

Jun. 1959 Maritime Credit Corporation (joint ownership shipbuilding, etc.) (Japanese Name changed in Dec. 1968)


Apr. 1987 Shinkansen Holding Corporation

Apr. 1987 Railway Development Fund (subsidies to railway companies, etc.)

Oct. 1991 Corporation for Advanced Transport & Technology (CATT)

Oct. 1997 Japanese National Railways Settlement Corporation (sale of land of the former JNR, etc.)

Oct. 2003 Japan Railway Construction, Transport and Technology Agency (JRTT)
Organizational Chart, Address (as of August 31, 2018)

President
  - Vice-President
  - Deputy President
  - Executive Director (7)
  - Auditor (3)

Director-General for Special Project Coordination and Land
Director-General for Audit and Project Management
Director-General for Facility Management and Central Shinkansen Financing
Director-General for Railway Development
Director-General for Construction
Director-General for JNR Settlement Land Business
Director-General for JR Full Privatization Promotion

Deputy Director-General
Audit Department
General Affairs Department
Corporate Planning Department
Finance and Fund Planning Department
Project Management Department
Facility Management Department
Railway Development Department
Engineering Affairs and Transportation Research/Planning Department
Design Department
Land Department
Equipment Department
Electrical Engineering Department
Shinkansen Department
Construction Department
2nd Construction Department
International Affairs Department
Joint Construction of Ship Planning and Management Department
Joint Construction of Ship Assistance Department
JNR Settlement Administration Department
JNR Settlement Land Business Department
JR Full Privatization Promotion and Finance Department
Mutual Assistance Insurance Department

Headquarters:
Yokohama I-Land Tower
6-50-1 Honcho, Naka-ku, Yokohama City, Kanagawa, 221-8315 Japan

Local Branch Bureaus

Tokyo Regional Bureau
Shiba Park Building B
2-4-1 Shibakoen, Minato City, Tokyo, 105-0011 Japan

Osaka Regional Bureau
Shin-Osaka Trust Tower
3-5-36 Miyahara, Yodogawa-ku, Osaka City, Osaka, 532-0003 Japan

Hokkaido Shinkansen Construction Bureau
Maruto Sapporo Building
Kita 2-chome 1-1 Nishi, Chuo-ku, Sapporo City, Hokkaido, 060-0002 Japan

Kyushu Shinkansen Construction Bureau
City 17 Building
2-1 Gion-machi, Hakata-ku, Fukuoka City, Fukuoka, 812-8622 Japan

Aomori Construction Bureau
Aomori Shinnan-Chome Building
2-2-4 Shinnan, Aomori City, Aomori, 030-0801 Japan

Kanto-Koshin Construction Bureau
Kaneko No. 1 Building
2-5-11 Shinyokohama, Kohoku-ku, Yokohama City, Kanagawa, 222-0033 Japan

Direct access from Exit 1b at Bashamichi Station on the Minatomirai Line
5-minute walk from Sakuragicho Station on the JR Lines/Yokohama Municipal Subway Blue Line

Overview of JRTT 35
Contact

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Tel: +81-45-222-9101 (Japanese only)