



JR Central's "ESG Management"

JR Central's Key Business Activities

JR Central's basic policy is to carry out the following from a medium- to long-term perspective, based on its management philosophy of contributing to the development of Japan's main transportation artery and social infrastructure: To maintain and develop the Tokaido Shinkansen, Japan's main transportation artery, and the conventional line network in the Tokai region in an integrated manner, ensuring safe and reliable transportation as a top priority; to operate "three generations of railways" by constructing the Chuo Shinkansen to make Japan's main transportation artery a dual system; and to work together with Group companies to develop related businesses that have synergies with railways.

Through business strategies based on this basic policy, we have been practicing ESG management, which is the generation of

economic value, such as profits and cash flows, and social value, which is the realization of a sustainable and prosperous society, simultaneously based on solid governance to enhance the trust of all stakeholders. This has led us to achieve sound management, stable dividends and sustainable growth as a company.

For the JR Central Group, with the railway business as its core business, it is crucial to strengthen its competitiveness by developing human resources, making capital investments and developing technologies based on a long-term vision, ensuring safe and reliable transportation as a top priority. To this end, our business activities focus on (1) safety measures, (2) service improvement measures, (3) greater efficiency and (4) pursuit of environmental superiority.

1 Safety measures

The greatest mission of the railway business is to ensure safety at all times and in all circumstances. Regardless of past performance, once a company causes a major accident, trust in the company is lost at once, and even its very existence may be threatened. With this frame of mind, we have been concentrating our greatest energy into safety assurance from both physical and non-physical perspectives ever since our establishment. In terms of non-physical measures, we have been continually building systems to ensure safety, mainly by establishing rules and regulations. Furthermore, human resource development is indispensable to put these systems into practice. Therefore, we promote initiatives to deepen employees' understanding of the nature of duties and rules by proactively thinking about them, in addition to raising their awareness of discipline so that they can comply with the rules themselves. Additionally, we repeatedly perform practical training so as to be able to respond to various situations expected in the event of natural disasters, unforeseen circumstances, or other extraordinary events.

In terms of the physical aspect, capital investment is also important to ensure safety. The majority of JR Central's capital investment to date has been safety-related, totaling more than 4.4 trillion yen since its establishment. For example, for the Tokaido Shinkansen, we have upgraded the ATC (Automatic Train Control) system, implemented earthquake countermeasures such as derailment prevention guards and an earthquake disaster prevention system, and carried out large-

scale renovation to maintain and improve the integrity of Shinkansen infrastructure. For conventional lines, we have introduced ATS (Automatic Train Stop)-PT in all train lines, made various structures quake-resistant, taken measures against heavy rainfall and falling rocks, and improved safety devices on grade crossings. In addition, we are working continually on security measures at railway stations, on trains and at important facilities, and technology development also focuses on safety-related themes to enable such equipment. Also, the Chuo Shinkansen Project, which we are currently working on, is a project aimed at thoroughly preparing for the future aging of the Tokaido Shinkansen and potential large-scale disasters. Looking ahead, we will continue to work on both physical and non-physical measures to hone our "ability to work safely," which is the most important aspect in the railway business.



Crew pointing and calling



Large-scale renovation

2 Service improvement measures

Since its establishment, JR Central has been working continually to improve its railway services. For the Tokaido Shinkansen, our main line of business, we are working to improve our transportation services, focusing on speed and frequency, while introducing new types of rolling stock and improving ground facilities with safety as our top priority. In 2003, with the opening of Shinagawa Station, the maximum speed of all trains was set at 270 km/h, and we shifted to a timetable centered on the Nozomi. In 2020, the maximum speed of all trains was set at 285 km/h, and we established a timetable with 12 Nozomi trains. In addition to increasing the speed and frequency of our services, we are also working to improve the convenience of our "EX Service" ("Express Reservation" and "Smart EX"), an online reservation and ticketless boarding service. We have also been working to improve the services of our conventional lines by, for example, launching new types of rolling stock and increasing the frequency of services through such launches. We are also working to provide barrier-free access and support for overseas visitors to make it easier for customers to use our services.

On the other hand, in the non-railway business, we are striving to strengthen our competitiveness and sales capabilities by enhancing our store assortments, improving services, renovating commercial facilities at stations and continuously making effective use of company-owned land, focusing on areas where synergies with railways can be expected,

such as the integrated management of the JR Central Towers and the JR Gate Tower. Leveraging fresh perspectives and flexible ideas, we will continue to hone our "ability to provide better service" in the railway and non-railway businesses, including the Chuo Shinkansen, which is under construction.



N700S

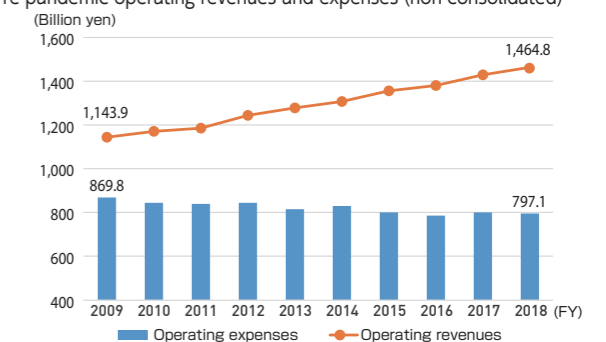
3 Greater efficiency

In addition to increasing revenue by promoting the use of our services through safety measures and service improvement measures, we have been working to improve efficiency and reduce costs in all aspects of business execution, including capital investment, by utilizing the knowledge and technical capabilities we have cultivated and thoroughly pursuing rationality in our business practices without being bound by traditional ways of working. As a result, we have been able to steadily improve our operating profit margin by reducing fixed costs even when operating revenues were increasing, as in the decade or so before the pandemic.

We are also promoting "reform of business operations" to build the most desirable operational system by making full use of ICT in order for the JR Central Group to firmly fulfill its social mission well into the future. Through this effort, we aim to reduce non-consolidated recurring expenses related to the Shinkansen and conventional lines by about 80 billion yen, or approximately 10%, over the next 10

to 15 years. With regard to the Chuo Shinkansen Project, we will continue to improve our "ability to work efficiently" by, for example, continually reducing costs while ensuring safety in all aspects, such as construction, operation and maintenance.

Pre-pandemic operating revenues and expenses (non-consolidated)



4 Pursuit of environmental superiority

Preservation of the global environment is an important issue for JR Central to achieve sustainable growth while earning the trust of society. Inherently, railways have the advantage of being more energy efficient and having less impact on the global environment than other transportation modes. In order to further reduce environmental impact, JR Central is working to further improve the energy efficiency of its railway operations, such as by making its rolling stock more energy efficient.

In addition to the above, we are working to reduce CO₂ emissions further to achieve carbon neutrality by 2050. Specifically, we have introduced Series HC85 cars with lower environmental impact and conducted biofuel experiments to reduce direct CO₂ emissions associated with the use of fuel, which account for approximately 5% of our total emissions. We will also begin simulated driving tests combining vehicle driving test equipment and hydrogen supply development to develop hydrogen-powered vehicles. Research and development will be continued for storage battery vehicles. As for indirect emissions associated with the use of electricity, which account for the remaining approximately 95%, we will introduce additional energy-efficient rolling stock, such as N700S and Series 315, in addition to decarbonization

efforts across the entire power source division in Japan. We will also work to utilize renewable energy. Furthermore, we have expressed our endorsement of the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), which was established by the Financial Stability Board (FSB). We will identify the financial impact of risks brought about by climate change, among others, and promote information disclosure based on the TCFD recommendations.



Hybrid-powered limited express rolling stock, Series HC85

Positive Cycle of "ESG management"

JR Central generates both "economic value" and "social value" by practicing the above key business activities. The generation of these two kinds of value is not independent, but rather mutually beneficial, contributing to the virtuous cycle of ESG management.

As mentioned earlier, we have been generating economic value in the form of profits and cash flows by striving for efficient business operation while significantly increasing revenues as we refine our services with safety as our top priority.

Using such economic value as a source of funds, we have invested generously in human resource development, technological development and capital investment from a long-term perspective to develop our business sustainably, and we have strengthened the foundation for operating our business by enhancing management capital. We use the management capital accumulated to implement various measures while re-investing it mainly in key business activities and to continually strengthen three kinds of ability--the ability to work safely, the ability to provide better service and the ability to work efficiently--to further improve our business and generate greater economic value.

At the same time, improving our business, especially in key business activities, is also directly related to the creation of social value. Building a resilient infrastructure, with our highest priority on ensuring safe and reliable transportation, and supporting Japan's main transportation artery and regional transportation as social infrastructure, as well as developing Group businesses, will contribute to the sustainable development of Japan's economy and local communities [S]. In addition, railways have the advantage of being more energy efficient and having less impact on the global environment than other transportation modes. In other words, we believe that promoting the use of railways while pursuing environmental superiority will greatly contribute to the preservation of the global environment [E]. In addition, by conducting these corporate activities under appropriate governance [G], we believe we can achieve sustainable growth as a company while increasing the trust of all stakeholders by maintaining sound management, returning profits to shareholders based on our basic policy of maintaining stable dividends, and building long-term, stable relationships with employees and business partners.

Generating "Economic Value"

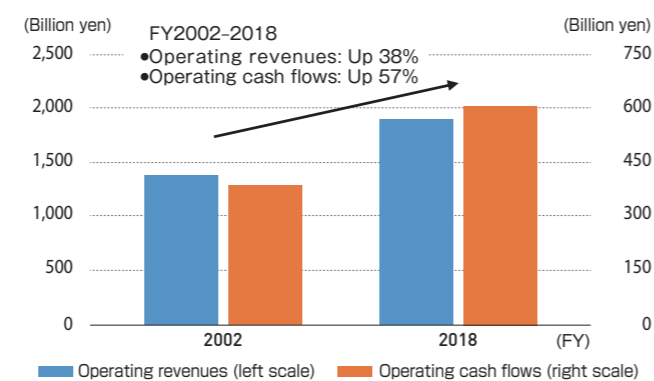
We have used the economic value generated through our business to generate even greater economic value by strengthening our profitability through the continual refining of the Tokaido Shinkansen and other businesses while improving our operational efficiency at the same time. Comparing FY2002, before the opening of Shinagawa Station of the Tokaido Shinkansen, and FY2018, before we were affected by the pandemic, operating cash flows (consolidated) increased 57%.

The cash flows thus generated have been used to alleviate our interest burden by reducing the long-term debt that we have incurred since our establishment. They have also been used to enhance investment in human resources, technology and equipment and to construct the Chuo Shinkansen since FY2014. In the meantime, we have continued to pay stable dividends as a means of returning profits to shareholders.

Such ability to generate economic value is a prerequisite for our ability to operate our business, including the Chuo Shinkansen Project, with a long-term outlook while maintaining sound management

and stable dividends and increasing the trust of all stakeholders at the same time. We are currently making efforts to reinforce earning power, which consist of the two pillars of revenue expansion and reform of business operations, in order to continue fulfilling our social mission into the future.

Growth of operating revenues and operating cash flows (consolidated)



Creating "Social Value"

S Social

S Building safe and resilient infrastructure

Since its inauguration in 1964, the Tokaido Shinkansen has supported the growth of the Japanese economy for more than half a century, with many people using it as the main transportation artery connecting Tokyo, Nagoya and Osaka, the three largest metropolitan areas in Japan. This region is only about 20% of Japan in terms of area, but it is an agglomeration unparalleled in the world with a high concentration of population and generating more than 60% of Japan's GDP. The Tokaido Shinkansen is indispensable infrastructure that boasts an overwhelming presence over other modes of transportation, as it plays a role in providing transportation services, which are the basic elements of the economy and society. We aim to build safe and resilient infrastructure that can protect Japan's main transportation artery at all times.

To that end, we have been dedicating our greatest energy in accident prevention in both physical and non-physical aspects ever since our establishment, developing rules and systems to prevent accidents, developing employees and improving their skills through training, and continually upgrading various safety devices. As a result, the Tokaido Shinkansen has had no accidents resulting in the death or injury of passengers on board since its inception, and the number of rail accidents, including those on conventional lines, has decreased significantly since our founding.

As Japan is an earthquake-prone country, there is concern in our market area about the imminence of earthquakes occurring directly beneath the Tokyo metropolitan area and the Nankai Trough. In recent years, addressing the intensification of natural disasters has also become a major issue. Since our establishment, we have been promoting sufficient earthquake and natural disaster countermeasures from both physical and non-physical perspectives and have built resilient infrastructure that can withstand large-scale earthquakes and severe natural disasters by working continually to strengthen our facilities as well as conducting timely and appropriate operations.

S Providing accessible transportation infrastructure

Based on relevant laws, such as the so-called Barrier-Free Act, JR Central has been cooperating with the government and relevant municipalities to jointly develop, maintain and improve rolling stock and facilities to enable all passengers to use railways safely and with a sense of security. We will make continuous efforts to address the ever-changing demands of society as appropriate.

We also believe that providing overseas visitors with a chance to visit the rich tourist attractions along our railway lines is an important issue from the perspective of increasing railway revenues and revitalizing local regions along the lines. Therefore, JR Central is implementing a variety of marketing measures to encourage tourists to Japan to enjoy the areas along our railway lines casually and conveniently. We are also working on increasing and enhancing facilities and services to ensure smooth access for overseas visitors to our stations and railways. We will continue to make every effort to ensure that our stations and trains are safe and accessible.

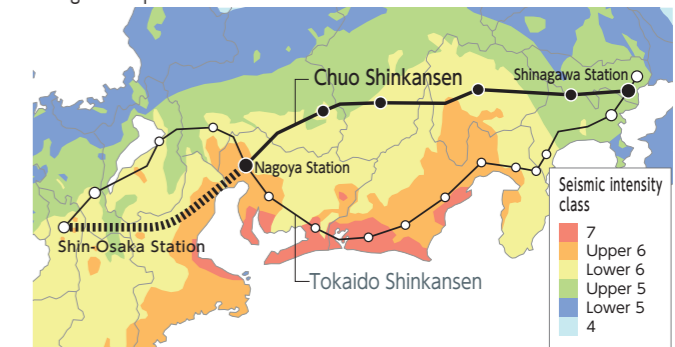
Social Environment Governance



In terms of systems, we are taking measures such as creating dual systems for equipment and securing backups to ensure that service provision to customers and the execution of internal operations are not disrupted in the event of an earthquake or other disaster or due to system failures. We have also taken all possible measures to protect against cyber attacks, including setting up systems critical to train operations as independent systems with no contact with the outside.

Additionally, we are promoting the Chuo Shinkansen Project using the Superconducting Maglev System to make Japan's main transportation artery a dual system as a fundamental measure against the aging of the Tokaido Shinkansen and potential major disasters. This will allow us to further reduce management risk to stabilize our management base and continue to fulfill our founding mission of serving as Japan's main transportation artery.

Distribution map of the estimated greatest seismic intensity of a huge Nankai Trough earthquake



Source: Prepared by JR Central based on "Countermeasures against a Large Nankai Trough Earthquake (Final Report)" by the Central Disaster Management Council (May 2013)



Wheelchair space on N700S



S Local community revitalization

In addition to the Tokaido Shinkansen, which supports Japan's economy and society, JR Central operates conventional lines, mainly in Nagoya and Shizuoka, and develops related businesses mainly in these areas in an integrated manner, thereby fulfilling its mission as social infrastructure that supports people's lives. The conventional lines operated by JR Central, encompassing 12 railway sections, cover approximately 1,400 km in operating kilometers, which is approximately 2.5 times the distance of the Tokaido Shinkansen, and play a role as a means of transportation for daily life, including commuting to and from work and school. While increasing the frequency of services and launching new types of rolling stock, we have been working to maintain our transport network and provide services that are easy to use, complementing each other in combination with the Tokaido Shinkansen. We are also working to revitalize local communities through sales and marketing in coordination with the communities along our railway lines.

Railway stations, where train passengers and many other people gather, are important hubs for local communities, and at the same time, they are important management resources for JR Central. By making the most of these management resources and operating office, commercial, hotel and other businesses in such excellent locations, stations will become more lively, leading to increased use of railways. At the same time, the increase in railway use due to improvements in transportation services will contribute to the growth of our related businesses that we operate at stations. We believe that working together with Group companies to realize such synergies between railway and related businesses will boost the movement of people and revitalize economic activities in the region. An example of this is the formation of skyscrapers around Nagoya Station over the past 15 years and the significant change in the flow of people in the Nagoya district. Further development is expected with the launch of the Chuo Shinkansen.

Development of the Nagoya Station area



Immediately after JR Central's establishment



After the completion of JR Gate Tower



S Human resource development and creation of a rewarding workplace

JR Central views its employees as its greatest management resource. Our management philosophy of "contributing to the development of Japan's main transportation artery and social infrastructure" can be realized at higher levels when the management philosophy and action guidelines are embodied in the work of each employee and then put together as teamwork for thorough implementation. Based on this understanding, we strive to improve engagement* and maximize our corporate value by actively promoting human resource development and the creation of a rewarding workplace. We conduct an annual engagement survey so that the status of engagement can be monitored regularly and quantitatively.

It is also important for us to maintain and promote the health of employees in order to make these corporate activities sustainable. We actively promote initiatives to enhance health and productivity management by establishing a "Health Promotion Policy," which serves as our overall health policy, and an organization to support it, which is headed by the officer in charge of personnel affairs.



* Meaning a state in which an employee is proud of being a member of the company and is happy to work for it



S Innovation advancement

In order for JR Central to fulfill its mission and develop in the future, it is essential to build systems and hardware that will serve as the foundation to support daily safe, reliable and comfortable transportation services through technological development. Thus, with the aim of addressing various technological issues in an integrated and comprehensive manner, we have been engaged in systematic technological development at the Komaki Research Center, which was established in 2002, by setting issues that contribute to company policies, such as ensuring safe and reliable transportation, from a

medium- to long-term perspective. These approaches have resulted in many advanced achievements, such as safety measures against earthquakes and natural disasters, improved services through enhancement of the functions of rolling stock and other equipment, and enhanced environmental performance. In addition, the Chuo Shinkansen Project, as a fundamental measure to strengthen the main transportation artery, is being promoted through the accumulation of technological development at the Komaki Research Center as well as the Yamanashi Maglev Line.

E Environment

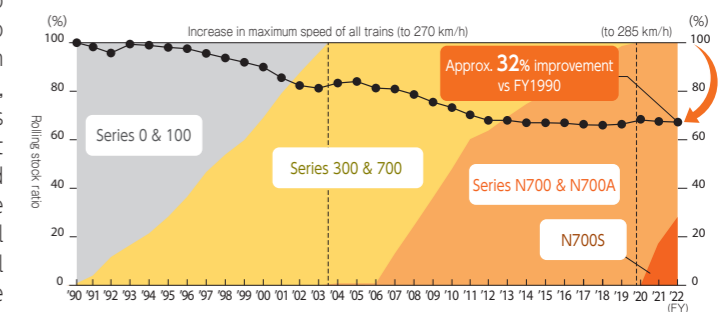
E Global environment preservation

We believe that having as many passengers as possible opt to use railway services, which have a smaller environmental impact than other modes of transport, will reduce the environmental impact of the entire transportation sector and lead to conservation of the global environment. Railways account for only 7% of Japan's CO₂ emissions despite providing 25% of Japan's overall passenger transport volume. JR Central has been working to introduce energy-efficient rolling stock to enhance these characteristics. The latest N700S Shinkansen rolling stock consumes 28% less energy when operating from Tokyo to Shin-Osaka at a maximum speed of 285 km/h compared to the Series 300 (in commercial service from March 1992 to March 2012) when running at a maximum speed of 270 km/h. In addition, compared to an aircraft (B777-200), the Tokaido Shinkansen (Series N700 "Nozomi") consumes approximately one-eighth of the amount of energy per seat when traveling between Tokyo and Osaka and discharges about one-twelfth of the CO₂ emissions. We will continue to improve our transportation services while contributing to global environmental conservation as a corporate responsibility. We will also make efforts to reduce CO₂ emissions further, in line with the

government's 2050 carbon neutrality goal, and improve railway's environmental superiority.

Other measures we carry out to mitigate environmental impact include promoting the effective use of resources through the 3R's (Reduce, Reuse and Recycle) and other initiatives, reducing the release of chemical substances and waste, reducing food loss and recycling materials.

Tokaido Shinkansen's rolling stock ratios and unit energy consumption



G Governance

G Appropriate governance

In the railway business, which is the mainstay of our management, our basic management concept is to steadily implement initiatives necessary to ensure safe and stable transportation, which is our most important issue. We also intend to further reduce our management risks, stabilize management, and secure the interests of all stakeholders, including shareholders, through the Chuo Shinkansen, a large-scale, long-term project we are working on. Since such initiatives require massive long-term capital investment and technological

development, we believe it is vital to manage our business based on a long-term outlook rather than pursuing short-term profitability.

As such, we will engage in our business activities under solid governance that increases the trust of all stakeholders by establishing a corporate culture that places the highest priority on safety and ensures the soundness and transparency of management while at the same time aiming for long-term development as a company.

G Relationships with stakeholders

JR Central's railway business is highly public and has a multifaceted array of stakeholders, including customers, shareholders, employees, business partners and local communities. Therefore, we believe it is important to maintain an overall balance in our relationships with our stakeholders, rather than focusing on just one facet.

We believe that improving the convenience of many users, contributing to the economic and social development of the region and Japan, securing stable profits, returning profits to shareholders, and building long-term stable relationships with employees and business partners will increase the trust of all stakeholders and lead

to our sustainable growth as a company.

Stakeholders	
Customers	<ul style="list-style-type: none"> Safe and comfortable service for everyone Groundbreaking reduction of travel time by the Chuo Shinkansen
Shareholders	<ul style="list-style-type: none"> Sustained increase of cash flows Continuation of stable dividends
Employees	<ul style="list-style-type: none"> Long-term stable employment environment Active and rewarding workplace
Business partners	<ul style="list-style-type: none"> Building long-term, stable, fair and equitable business relationships
Local communities	<ul style="list-style-type: none"> Development of the Japanese economy Revitalization of local communities Building a resilient society
Global environment	<ul style="list-style-type: none"> Conservation of the global environment by expanding the use of environmentally friendly railways