

Sustainability Report

2022 »»» 2023



Contents

General Manager's Message /01

About Us /03

15th Anniversary of the First Line Opening /04

Figures of BJMTR /07

Corporate Governance /11

About This Report /58

15 Safety First

Strengthening operational risk management	17
Ensuring safe metro operation	18
Ensuring employee safety	23
Ensuring supplier safety	23
Strengthening information security management	24
Strengthening privacy protection	24

39 Community Inclusion

Creating an inclusive travel environment for all ages	40
Empowering youth education	41
Enriching metro culture	43
Conducting volunteer services	45

25 Excellent Service

Continuous transport capacity enhancement	26
Optimizing travel experience	26
Application of new technology	28
Protecting public health	28
Transportation services for major events	29
Providing diverse services	29
Listening to customer voices	30

47 Partner Cooperation

Supply chain management	48
Promoting industry communication	50
Participating in the formulation of industry standards	51
Cultivating industry talents	51
Achieving win-win cooperation	52

31 Employee Growth

Shaping corporate culture	32
Supporting employee development	33
Improving the benefits system	36
Diversified recruitment channels	37
Caring for employees	38

53 Environmental Protection

Addressing climate change	54
Implementing pollution prevention and control	56
Advocating green travel	57



General Manager's Message



Thank you for reading our Sustainability Report 2022-2023. This year marks the 15th anniversary of the opening of our first line. Over the past 15 years, we have successfully opened 5 lines, a total of 113 stations, with the route length reaching 190.4 kilometers, accounting for approximately 23% of Beijing metro network and over 7.7 billion passengers have been safely transported. We have always adhered to the principle of promoting urban sustainable development through high-quality and efficient services, continuously improving our service to provide passengers with a safe, convenient, and comfortable travel experience.

The years of 2022 and 2023 are full of challenges and opportunities for us. During the pandemic, we implemented effective measures to ensure the stable operation of our lines and the safety of passengers. We successfully completed several transportation services for major events, including the Beijing Winter Olympics and Paralympics, the 20th National Congress of the Communist Party of China, and the Third Belt and Road Forum for International Cooperation. In response to the rare extreme weather in 2023, such as unprecedented heavy rainfall and strong snowfall, we made every effort to ensure a comprehensive response, ensuring the safety and smooth travel of passengers. On the basis of ensuring the operational safety of existing lines, we also successfully opened the southern section of Line 16 (BJL16) and the northern section of Line 17 (BJL17), with Line 16 achieving through-train service. In the centesimal operation performance evaluation system in Beijing metro network in 2022 and 2023, all lines scored 100.

We have undertaken a series of explorations and practices in addressing climate change, pollution prevention, and advocating for green travel. We have successively implemented a variety of carbon reduction projects, including the optimization of train operation levels of Line 4-Daxing and Line 14, energy-saving retrofits of station air conditioning and ventilation systems, LED lighting upgrades in stations, and the application of variable frequency drives for escalators.

We have established an integrated operational management system by consolidating five major management frameworks, thereby creating a complete management structure and business process-based management standards, significantly enhancing operational efficiency. We have also established an asset lifecycle management system that engages in proactive, forward-looking, and comprehensive management to achieve a balance of risk, performance and optimal cost throughout the asset lifecycle. To better manage

ESG matters, we have incorporated ESG management elements into the company's integrated management system to comprehensively and systematically manage risks and opportunities related to the environment, society, and governance.

We strive to strengthen our safety defenses by continuously improving our safety management system, establishing various work regulations, and formulating targeted risk management procedures to ensure comprehensive safety production coverage across all aspects of the company's operational management. We implement a safety production responsibility system at all levels, emphasizing that safety production must extend down to the frontline positions within the organization. Additionally, we enhance safety management through technological innovation, such as successfully achieving fully automated operation of the FAO system on the southern section of BJL17, further improving the safety and reliability of our trains.

We are committed to creating social value by addressing the needs of special groups, continually optimizing equipment and facilities, customizing various sign, and building communication bridges to provide platforms for people with disabilities, thereby creating an inclusive travel environment for all ages. We also build career development pathways for our employees, improve learning and development systems, conduct skill assessments, and enhance employees' professional competencies and skills. Moreover, we carry out a series of public cultural initiatives in the M-Series program, expanding station cultural display spaces and enriching passenger travel experiences. We have developed STEAM education projects and promoted Metro Safety Camp to empower youth education, increasing their understanding of the rail transit industry, and cultivating interdisciplinary skills and safety awareness. Additionally, we strengthen communication and collaboration with local governments,

associations, and enterprises in the same industry, actively exploring innovations in models, talent development, and promoting the practice of TOD (Transit-Oriented Development) concepts to facilitate sustainable urban development.

Looking ahead, we will continue to learn from the experiences of MTR, uphold the core value of "Safety First, Excellent Service, Collaborating and Enterprising, Pragmatic and Highly Efficient", consistently practice the concept of sustainable development, actively respond to global challenges such as climate change, promote green transportation development, and support the low-carbon transformation of cities. At the same time, we will strengthen collaboration with governments, communities, and other stakeholders to jointly build a more harmonious and sustainable urban transportation system.

In conclusion, I sincerely hope this report provides you with a better understanding of BJMTR's efforts and achievements in sustainable development. We also look forward to your valuable feedback and suggestions regarding our work. Let us join hands to create a brighter future together!

Frank Liu

General Manager of Beijing MTR Corporation Limited

About Us

Beijing MTR Corporation Limited (referred to as "BJMTR") was jointly established on January 16, 2006, by Beijing Infrastructure Investment Co., Ltd. (BIIC), Beijing Capital Group (BCG) and MTR Corporation (MTR). At present, BJMTR participates in the investment, construction and operation of Beijing Metro Line 4, Line 14 and Line 16 by adopting PPP model. Additionally, it manages Daxing Line through O&M model and operates Line 17 with rolling stocks lease. The total route length of lines is about 200 km, of which 190.4 km and 113 stations are now in service.



200 Km

Total route length of lines
under administration



190.4 Km

Route length in service



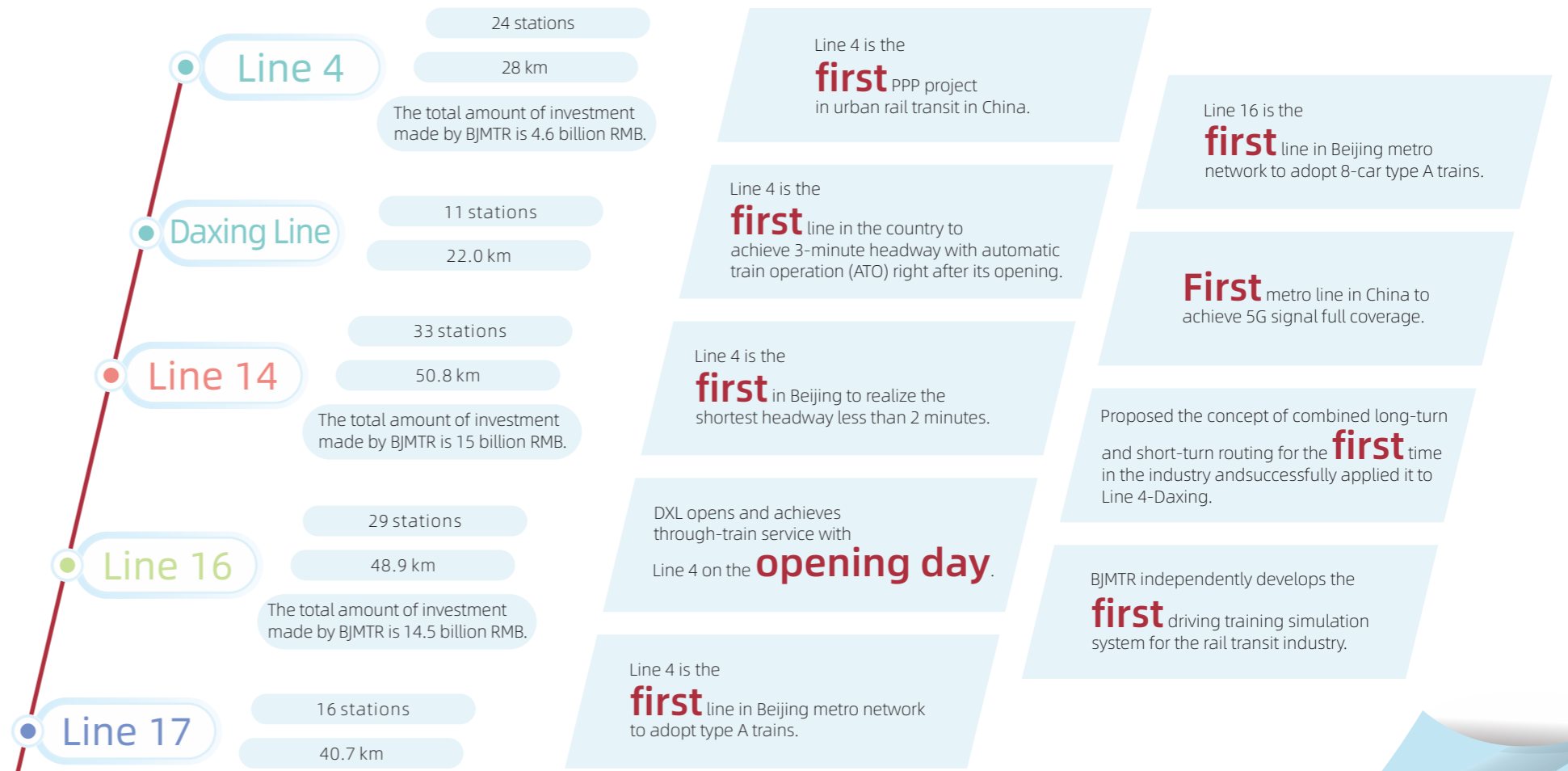
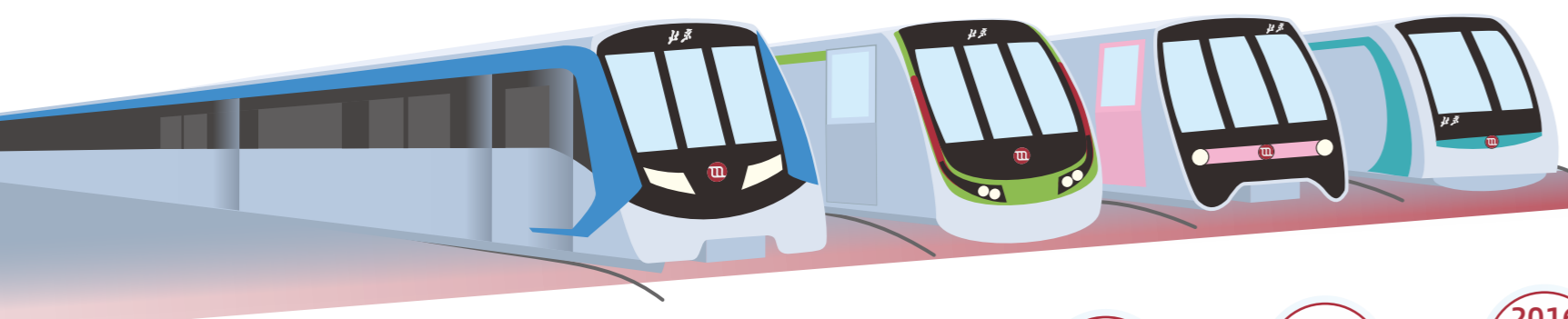
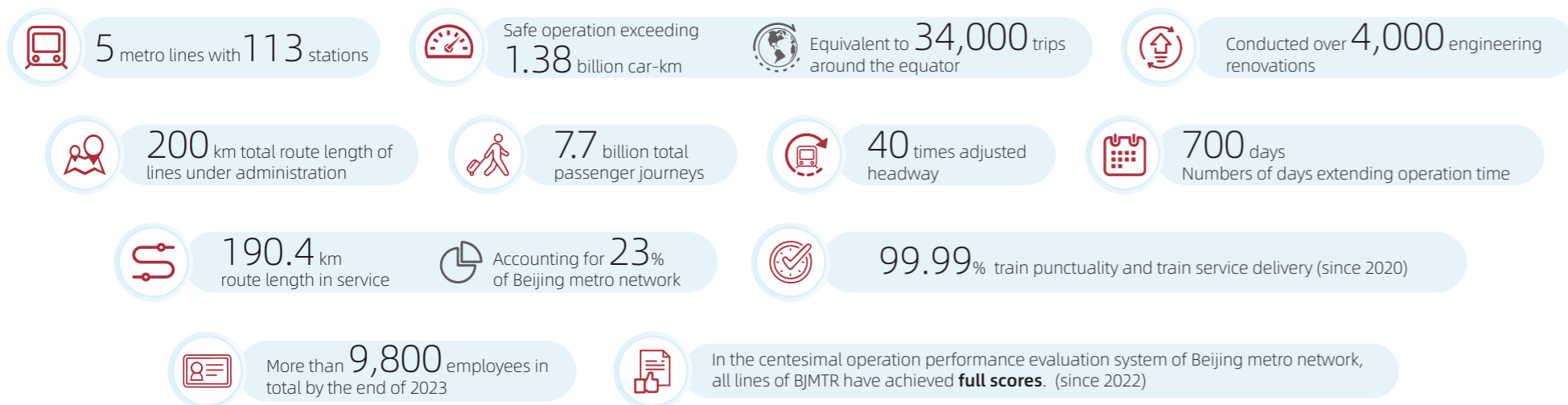
113

Numbers of stations



15th Anniversary of the First Line Opening

The first line opened in 2009, adhering to the core value of "Safety First, Excellent Service, Collaborating and Enterprising, Pragmatic and Highly Efficient." BJMTR continuously expands its network, enhances services, innovates in management and technology, and promotes the sustainable development of urban rail transit.



Looking ahead, BJMTR will embark on a new journey, working hand in hand with you, caring for every journey and accompanying you along the way.

Corporate Culture

Vision

We aim to be an internationally outstanding metro operator to facilitate sustainable development of the city with excellent quality and efficient service.

Mission

Care for every journey, accompany you along the way.

Core Value

Safety First

Excellent Service

Collaborating and Enterprising

Pragmatic and Highly Efficient

Figures of BJMTR

(2022-2023)

1.11 billion

Total passenger journeys

28,707

Revenue car-km operated
(10,000 car km)

26 %

Increase compared
with 2020-2021

190.4 km

Total route length in service by the end of 2023

23 % of Beijing metro network

113

Stations in service by the
end of 2023

28 times

Optimization of train diagrams

1.160 million

Average daily patronage in 2022

1.890 million

Average daily patronage in 2023

99.99 %

Train punctuality and train service delivery

< 2 min

Shortest headway

219 days

Numbers of days extending operation time

98.64 %

Passenger satisfaction
in 2022

98.32 %

Passenger satisfaction
in 2023

100 %

AED coverage

2,226

Emergency drills

939 GWh

Operation electricity consumption

1.8 %

Decline compared with 2020-2021

13

Energy-saving projects

9,888

Employees in total by the end of 2023

2,717

Employees pass the skill certification

48

Number of community activities

2,489

Volunteer hours

26,882

Beneficiaries

Corporate Governance

Organization structure

The highest authority of the company is the Shareholders' Meeting, which decides on significant matters of the company. Under the Shareholders' Meeting, there are the Board of Directors and the Board of Supervisors. The Board of Directors is responsible for executing the resolutions of the Shareholders' Meeting and discussing and deciding on company matters according to the "Shareholders' Agreement" and the "Articles of Association". The Board of Supervisors is responsible for inspecting the company's finances and supervising the behavior of the directors and senior management in performing their duties. Below the Board of Directors, there is the General Manager's Office, which is responsible for the company's daily operational and management work, decides on matters related to metro construction, operation management and maintenance, as well as commercial activities related to metro operations, and reports to the Board of Directors while providing suggestions.

Integrated management system

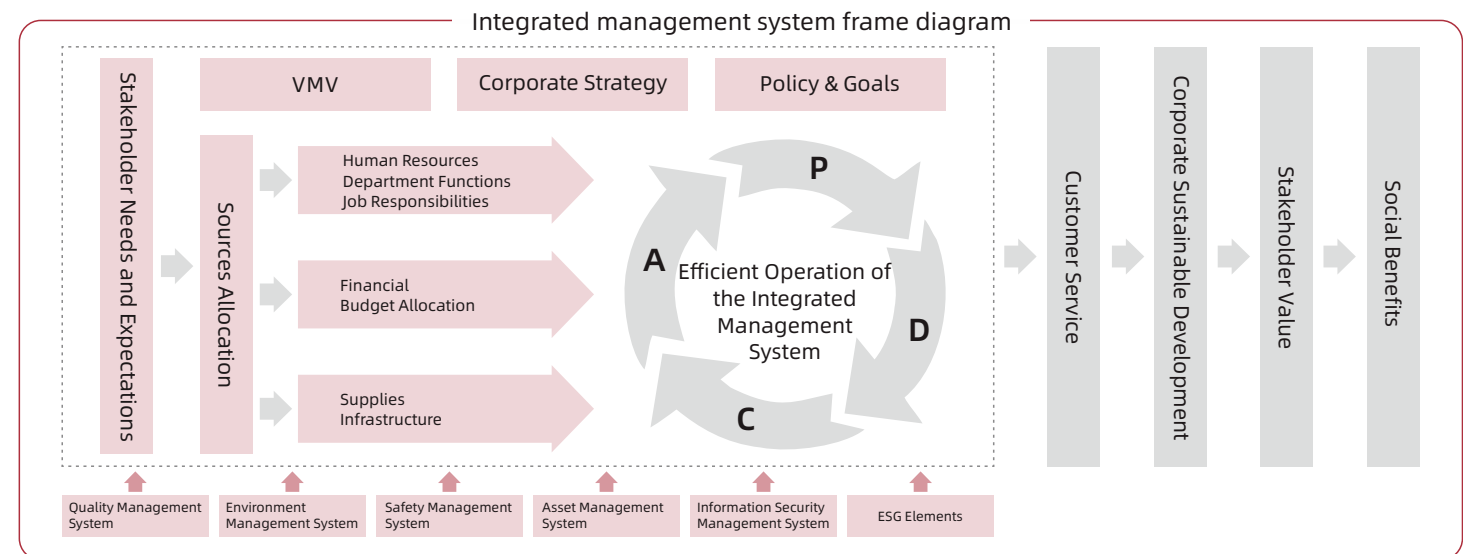
To enhance systematic management, BJMTR has created an integrated management system by integrating the quality, environment, occupational health and safety, information security, and asset management systems (IMS). The company continually improves and optimizes the IMS by incorporating ESG (Environmental, Social, and Governance) factors. In the newly revised "Integrated Management System Manual" of 2023, ESG management goals have been included in the company's management goals to regulate the execution, measurement, and improvement of ESG initiatives.

100%

Due rectification completion rate after passing the third-party audits for ISO9001, ISO14001, and ISO45001 quality, environmental, and occupational health and safety management systems

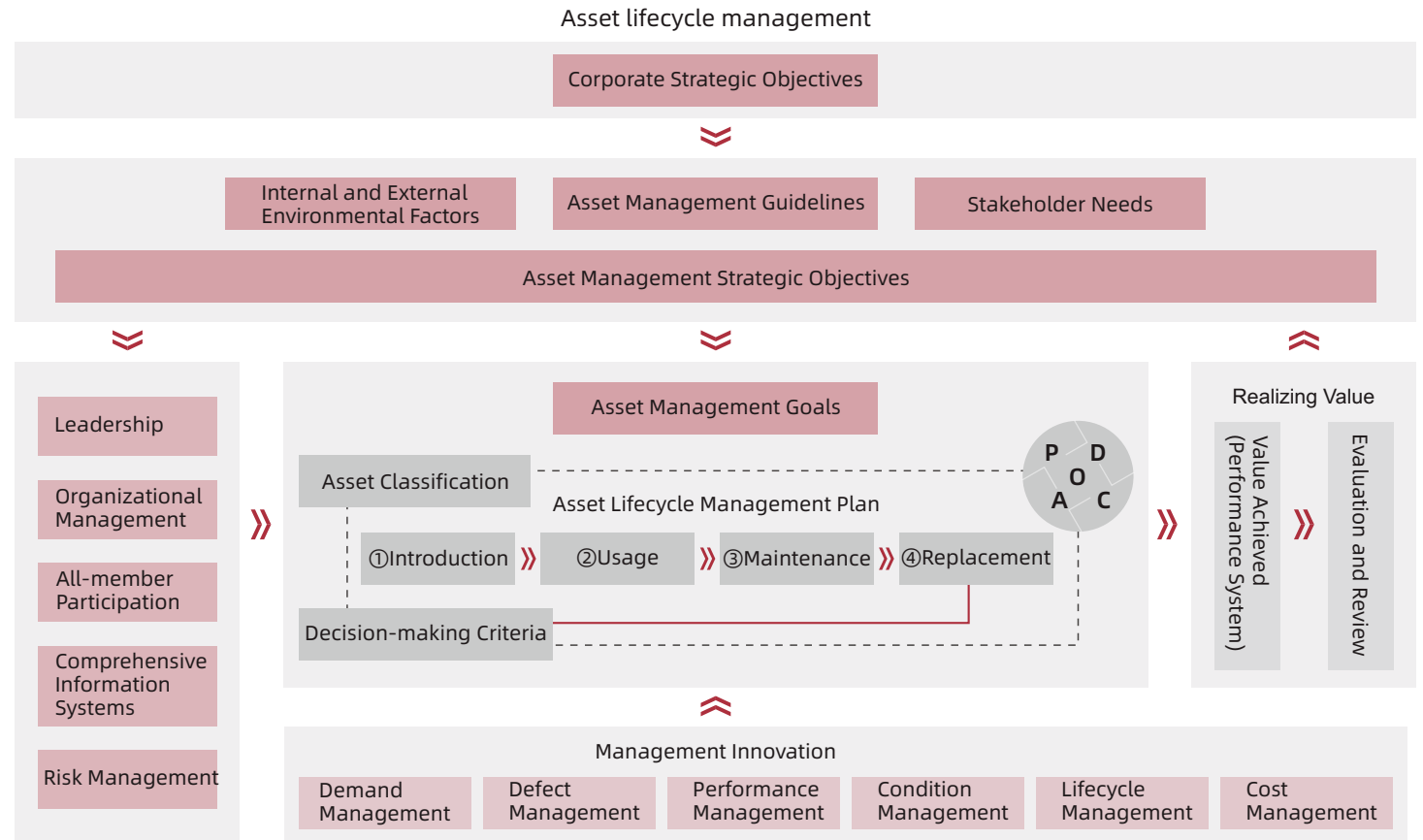
100%

Due rectification completion rate after passing the third-party audit for the ISO/IEC 27001 information security management system.



Asset management

BJMTR employs scientific methods to implement proactive, forward-looking, comprehensive, and systematic asset management actions throughout the entire asset life cycle, aiming to achieve a balance of risk, performance and optimal cost throughout the asset lifecycle. We lead with a forward-looking approach, using value assessment and risk assessment as decision-making criteria. Through various means such as demand management, hazard and risk management, performance management, condition management, life management, and cost management, we promote participation from all employees in the operational asset management work. During the 2022-2023 period, BJMTR continuously optimized its asset management system, innovated asset management methods, successfully passed the system's re-certification in 2023, and conducted a maturity evaluation of the asset management system to further enhance asset management capabilities.



100%

Due rectification completion rate after passing the third-party audit for the ISO 55001 asset management system.

Asset lifecycle management system

Risk management

BJMTR has established a risk management mechanism to identify, assess, register, control, and monitor risks that may impact the company's operations, reputation, finances, and safety. It employs the principle of "As Low As Reasonably Practicable" (ALARP) to control various types of risks.

Sustainable development governance

BJMTR places great importance on promoting sustainable development. Guided by this principle, it has established development directions and pathways that include Environmental, Social, and Governance (ESG) factors, continuously advancing the annual implementation of ESG goals and plans.

BJMTR sustainable development governance key indicators and objectives

Key indicators	Objectives
Clean Energy and Energy Efficiency	<ul style="list-style-type: none"> By 2025, total electricity consumption will be reduced by 4 million kWh compared to 2023, resulting in a decrease of 2,400 tons of carbon emissions (10,000 kWh = 6.04 tons of carbon emissions). By 2025, the generation of renewable energy will reach 10 million kWh (from photovoltaic power generation).
Community railway and volunteering activities	<ul style="list-style-type: none"> Between 2022 and 2025, approximately 100,000 people will benefit from community and volunteer activities.
Caring for customers with special needs	<ul style="list-style-type: none"> All newly opened stations will be accessible, equipped with barrier-free washrooms, accessible entrances and exits and baby care lounge or relative facilities.
Gender equality and inclusion	<ul style="list-style-type: none"> By 2025, the proportion of female senior managers will be 18%.
Caring for staff	<ul style="list-style-type: none"> The number of beneficiaries from annual employee health care activities reaches 8,000.
Recruitment and Promotion	<ul style="list-style-type: none"> A minimum of 200 internship positions will be provided each year.

Promoting digital development

BJMTR is actively advancing the company's digital construction, providing data and information support for business management, assisting in operational decision-making and resource allocation, optimizing costs, and enhancing efficiency.

- The company has established an industry-leading Enterprise Asset Management System (EAMS). This system embodies the management concept of asset lifecycle management and plays an important supporting role in various areas including maintenance strategies, linear assets, process control, resource scheduling and dispatching, frontline mobile operations efficiency, decision assistance, cost reduction and efficiency enhancement, as well as system integration. It not only meets current asset management needs but also fully supports future development strategies.
- To improve the informatization of process approval activities, the company has built a low-code development platform. As of December 2023, 35 forms and approval applications have been developed, covering various application scenarios such as administration, security, technical engineering, human resources, and station operations. This effectively enhances work efficiency and reduces the consumption of material resources such as paper, printing, and storage.
- The company has established an enterprise data portal system to create a unified data model, providing intuitive and dynamic data display information for various business departments. This system offers precise decision-making support for business analysis and system monitoring. Additionally, the system is closely integrated with business applications, promoting the transformation of business processes towards automation and intelligence.
- In April 2022, the company launched a document management system, enabling online retrieval, browsing, and borrowing of documents which has significantly improved the efficiency of document access and enhanced the security and convenience of document management. In August of the same year, digitalization work for documents began. By the end of 2023, the digitization of archived files from various departments and completion documents for the Line 4-Daxing and the western section of Line 14 has been completed and put into use.

Ethics and integrity

BJMTR strictly abides by the *Companies Law of the People's Republic of China* and other relevant laws and regulations governing anti-corruption, fraud, and money laundering, and is committed to establishing a fair, transparent, candid, and trustworthy working environment. The company clearly prohibits actions that violate laws or breach professional ethics in its *Employee Code of Conduct Management Regulations*, through clauses on conflict of interest identification and reporting, anti-harassment and anti-discrimination, and the prohibition of embezzlement and misappropriation.

Safety First



Indicators of ESG

B2 Health & Safety:
GDB2, B2.1, B2.3

B6 Product Responsibility:
GDB6, B6.5

B8 Community Investment:
B8.1, B8.2



0

Accidental casualties



∞

Train service reliability*

* Average trouble-free operating mileage per train delay of 5 min or longer

BJMTR always adheres to the principle of "Safety First," prioritizing the safety of the public, passengers, and staff. We enhance our safety management system by establishing various operational procedures and developing targeted risk management programs. This includes comprehensive hazard inspections, actively promoting a safety culture, and continuously improving the company's safety performance.

The company views safety production management as a top priority. Under the leadership of the company's Safety Management Committee, safety management is integrated into the entire operational management process, ensuring all aspects of safety production are covered, including operational safety, equipment safety, fire safety, construction safety, information security, vehicle safety, food safety, and property safety, extending to every job position within the organization.

To ensure effective implementation of safety management, we have established a routine safety monitoring and inspection mechanism, conducting regular safety checks to actively identify and rectify issues, ensuring hazards are addressed in a timely manner. Simultaneously, we continuously enhance employees' safety awareness and sense of responsibility, fostering an atmosphere of collective commitment to safety. By strengthening safety enforcement, we take serious action against violations and reward individuals or teams with outstanding safety performance, encouraging ongoing attention and dedication to safety work.



Implementing safety production in every aspect

Strengthening operational risk management

BJMTR conducts risk management through a tiered control system, refining various risks into an operational safety risk database while enhancing daily hazard inspections and remediation.

Risk management

BJMTR categorizes operational safety risks into five areas based on business segments: facility monitoring and maintenance, equipment operation and repair, train organization, passenger service, and operating environment. Risks are detailed based on specific risk points and their potential impacts, determining safety risk levels and formulating risk control measures, resulting in the operational safety risk database. The risk levels are classified from high to low as major, significant, general, and minor, based on the likelihood of risk events occurring and their potential consequences.

Hazard management

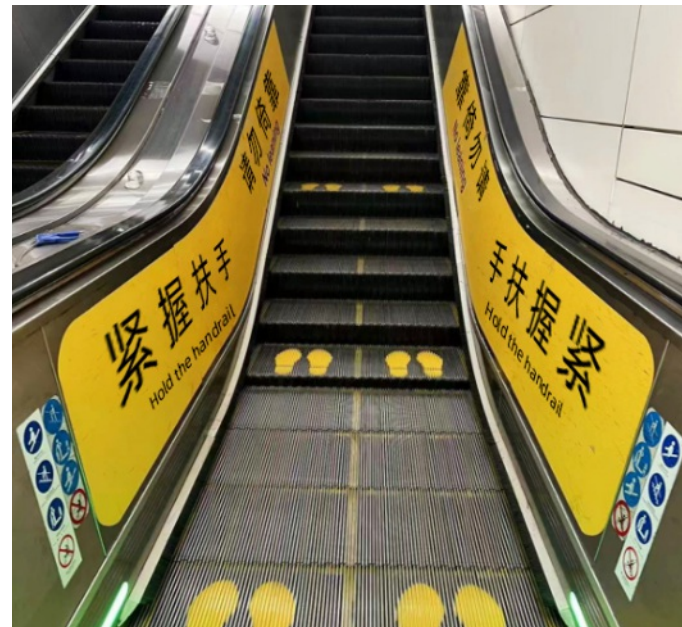
BJMTR conducts in-depth and comprehensive hazard inspections and remediation through daily patrols and special inspections. Each department analyzes risk control measures item by item, breaking them down to relevant positions following the principle of "one Hazard Checklist for one position", creating a hazard inspection handbook. Each station has established a local hazard registry to track and manage hazard inspection and remediation status in a timely manner. For hazards that cannot be immediately eliminated, temporary control measures are implemented to ensure manageable conditions.

Ensuring safe metro operation

Passenger safety

To ensure passenger safety, BJMTR has implemented various measures, including optimizing safety signage, conducting passenger safety education publicity, and promoting metro safety knowledge within communities.

At its stations, BJMTR actively guides passengers to use the escalators correctly and quickly locate the elevators by posting safety reminders for escalator use, spraying standing position indicators on the escalator steps, and placing elevator location signs on the platform, assisting passengers in achieving safe and convenient travel.

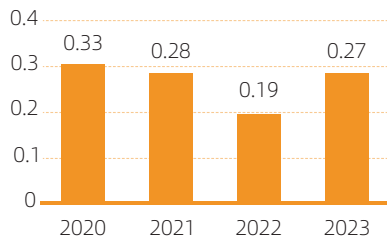


Spraying standing position indicators on the escalator steps



Setting up guidance signs for the elevator location

Number of passenger injuries per million passenger journeys*



*Note: From 2020 to 2023, the overall passenger injury rate showed a downward trend. In 2022, the indicators for that year declined significantly compared to other years due to the impact of the pandemic.

To guide passengers to use the metro safely and courteously, BJMTR has designed and produced a series of print and video materials on various themes, including elevator safety, boarding safety, passage safety, and civilized riding. These materials are promoted through station media such as light boxes, the PIS system, and posters, as well as on the company's WeChat and Weibo social media platforms.



Station light box passenger safety awareness posters

Additionally, BJMTR engages with communities en route to educate residents about metro safety guidelines and help elderly passengers become familiar with the use of metro facilities. This proactive approach effectively reduces the likelihood of accidents during travel. Through these comprehensive measures, BJMTR aims to create a safer travel environment for all passengers, allowing them to ride with confidence and peace of mind.



Volunteers explaining emergency assistance knowledge to residents

Vehicle safety

Based on the characteristics of urban rail vehicles, BJMTR continuously explores and improves vehicle management to enhance vehicle performance and reduce safety risks. During the vehicle introduction phase, emphasis is placed on reviewing the safety, reliability, availability, and maintainability of vehicle technical plans. In the usage phase, the focus is on studying the operational capability of vehicles and service standards. In the maintenance phase, attention is given to formulating and reviewing maintenance strategies, establishing and optimizing production organization, conducting vehicle risk and hazard management, and monitoring vehicle performance. During the replacement phase, the focus is on developing and reviewing long-term replacement plans, conducting vehicle condition assessments, and optimizing resource allocation through effective lifecycle management to improve operational efficiency. In 2023, the company received the title of Benchmark Unit for Equipment Management Standardization from the China Equipment Management Association for its "*New Model of Equipment Management Based on Urban Rail Vehicle Characteristics*."

Fire safety

BJMTR regularly conducts fire drill tests to verify the overall performance of station firefighting equipment and facilities, enhance employees' practical skills, and ensure the reliability and effectiveness of firefighting devices in emergencies. Additionally, the company has developed a fire evacuation simulation platform using intelligent simulation software. This platform simulates evacuation times and capacity under maximum passenger flow and formulates the best evacuation plans based on the simulation analysis results to ensure the safe evacuation of passengers in emergencies.



Awarded the title of Benchmark Unit for Equipment Management Standardization

Emergency safety

BJMTR continuously enhances its emergency response capabilities for unexpected incidents, strengthening the emergency coordination mechanisms at all internal levels. It incorporates regular drills for various professional teams into departmental routine management, improving employees' ability to respond promptly and handle situations effectively. For example, the company conducts emergency drills using a combination of practical exercises and tabletop simulations. The content covers critical incidents including train derailments, train collisions, train separations, structural issues, track failures, malfunctions of key systems and equipment such as power supply, communication, signaling, and vehicles, as well as fires, sudden surges in passenger flow, passenger accidents, flood and snow prevention, and terrorist attacks.

Case

Before the opening of the two new lines (sections) on Lines 16 and 17, BJMTR conducted a comprehensive emergency drill in collaboration with external agencies such as the Beijing Fire and Rescue General Team (Metro Division), Public Security, and the Law Enforcement Team. This effectively tested the coordination mechanisms and collaborative capabilities between the company and external rescue units, strengthening communication and cooperation with these external agencies.



Comprehensive emergency drill for the opening of Line 17

2,226 large-scale
emergency drills in 2022 and 2023

Lean production

The lean production work in facility engineering at BJMTR has been carried out for five years from 2019 to 2023. It initially focused on track refurbishment and has gradually extended to include power supply equipment, electromechanical devices, and civil engineering facilities. The number of lean production projects has also continuously increased, with a total of 183 projects conducted over the five years.

Case

In the field of manual rail grinding, BJMTR developed a grinding technology plan using a combination of MC3 and MP12 machines. By comprehensively analyzing abnormal rail wear data, causes of wear, and rail material factors, the plan achieved significant results in the company's application, reducing rail defects by 30%. This not only improved the lifespan and safety of the rails but also decreased maintenance frequency. Employees involved in this project were honored with the title of "2023 Equipment Management Series Craftsman Spirit Practitioner" by the China Equipment Management Association.



Certificate of "Craftsman Spirit Practitioner"

Technological innovation

BJMTR continuously promotes technological improvements and innovations by overcoming bottlenecks in risk and efficiency. It seeks practical solutions to address real issues and pain points in maintenance work, continuously enhancing maintenance quality and line safety.

Case

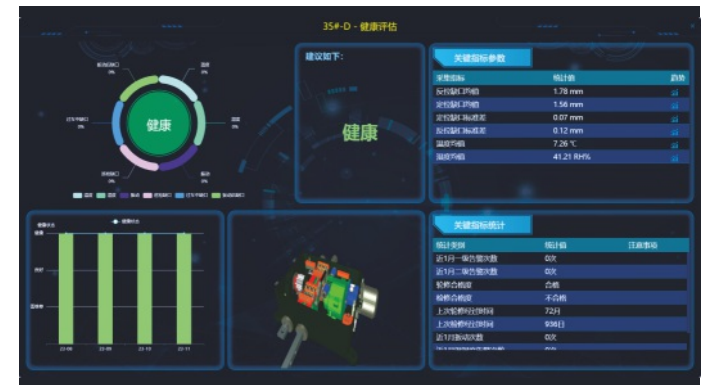
BJMTR has developed an intelligent integrated track inspection vehicle, leveraging the experience from traditional manual inspection work to improve the efficiency and quality of inspections for rails, trackbeds, and tunnel structures. By using this intelligent vehicle, the organization of inspections has changed from separate inspections for rails, trackbeds, and tunnel structures to a more integrated approach. This effectively saves on labor and time costs, enhances maintenance efficiency, and opens up new directions for optimizing traditional metro maintenance models. The project won the first prize of the Beijing Society of Metros Science and Technology Progress Award from the Beijing Society of Metros in 2022.



Intelligent integrated track inspection vehicle

Case

BJMTR collaborated with partners to develop a point machine fault diagnosis and health management system, gradually realizing functions such as monitoring point machine status, fault warning, trend analysis and forecasting, condition diagnosis and maintenance guidance, and health assessment management. This project promotes efficient maintenance and helps shift the focus of point machine maintenance to condition-based repair.



Urban rail transit point machine fault diagnosis and health management system

Ensuring employee safety

BJMTR is committed to creating a safe and healthy work environment and has implemented a series of measures to ensure employee safety.

Injury prevention training

In 2022, the company initiated an injury prevention training program tailored to the characteristics of the rail transit industry and practical management needs. Experts from various fields, including the China Academy of Safety Science and Technology, Peking University, and the Beijing Emergency Management Science and Technology Institute. The program combined theoretical training with practical experience and was organized for employees at all levels within the company, aiming to enhance their safety awareness and knowledge of safety production, as well as to improve safety management capabilities.

Improvement of personal protective equipment

In accordance with the new national standard "*Specification for the Provision of Personal Protective Equipment*" (GB39800.1-2020), the company comprehensively reviewed and revised its "*Management Procedures for Labor Protection Products*." A list of "*Common Labor Protection Products and Applicable Scenarios*" was established, clearly defining the types of labor protection products, implementation standards, applicable scenarios, and selection criteria. Additionally, based on departmental needs, five new types of personal protective equipment were added.

Safety culture promotion

BJMTR conducts a series of activities, including safety information dissemination, disaster prevention and mitigation campaigns, and themed events for Safety Month and Quality Month, to cultivate and strengthen employees' safety awareness and behavior.

- We continuously conveyed safety knowledge, shared safety experiences, and reported safety achievements to employees through various channels, issuing a total of 65 safety information updates.
- Before major events and holidays, we created and published 12 safety advisory promotional posters.
- Organized six national safety production month themed activities, with a total participation of 9,000 people.
- Organized three themed activities for Quality Month, with a total participation of 6,000 people.

131,708 hours

Corporate-level safety training in 2022 and 2023.

13 sessions of injury prevention

training, with **1,600** employees participating in 2022 and 2023.

The company was awarded the title of "**Healthy Enterprise of Beijing**" in 2022 and 2023, and was selected as an excellent case for the second batch of healthy enterprise construction by the National Health Commission.

Ensuring supplier safety

BJMTR continuously standardizes the safety management system for suppliers, refining and detailing a series of supplier safety management processes. These include safety ratings for operations or projects, safety qualification reviews for contractors, bidding/tendering, safety training and accreditation, supervision and inspection, safety audits, performance reviews, and evaluations, all aimed at strengthening effective management of contractor safety objectives.

Through regular oversight and assessments by the Contractor Safety Management Committee, BJMTR keeps a close eye on the safety performance and accident records of its contractors. Additionally, it invites outstanding contractors to participate in the company's safety promotion activities, raising awareness of regulations and safety requirements while sharing best practices and experiences.

Strengthening information security management

In the face of increasingly complex cyber threats and risks, BJMTR continuously enhances its information security management, improving protective capabilities to ensure the safe and stable operation of the metro system.

Improving the company's information security system

By aligning with legal regulations and ISO 27001 requirements, the design of the information security system framework has been optimized. This has resulted in a comprehensive information security system that includes organizational, management, risk control, data protection, and technical protection frameworks.

Conducting cybersecurity protection measures

By analyzing network vulnerabilities, conducting exposure assessments, and generating security analysis reports, the company continuously optimizes its cybersecurity risk monitoring and incident response procedures, enhancing its ability to cope with cyberattacks and security incidents.

Enhancing employees' awareness of cybersecurity

Utilizing various formats, we provided cybersecurity awareness education to company employees, covering topics such as safety systems, data governance, and risk response. Over the past two years, a total of more than 30,000 participants have engaged in the training.

Case

In 2022, BJMTR completed 11 cybersecurity protection missions, totaling 161 days of protective monitoring, which covered significant events such as the Winter Olympics, the Winter Paralympics, the National Cybersecurity Protection Drill, and the 20th National Congress. During the National Cybersecurity Protection Drill, BJMTR served as the defending party and achieved excellent results, receiving commendation and recognition from the Ministry of Public Security. In 2023, as the defending party, BJMTR participated in a cybersecurity offense and defense drill organized by the Cyberspace Administration, Beijing Municipal Commission of Transport, and China Urban Rail. During the offensive and defensive drills held by the Beijing Cyberspace Administration, BJMTR achieved second place in the transportation sector due to its outstanding performance.

Strengthening privacy protection

To comprehensively protect passenger data and privacy, and to ensure data security and compliance, BJMTR strictly adheres to national laws and regulations regarding data governance. The company classifies its data into four security levels for tiered protection, with particular emphasis on the personal sensitive information of passengers and employees. Various measures, including encryption and data masking, are implemented to ensure the security of sensitive information.

Excellent Service



Indicators of ESG

B6 Product Responsibility:
GDB6, B6.2



99.99%

Train punctuality and
train service delivery



28 times

Optimization of
train diagrams



219 days

Days extending
operation time

BJMTR upholds the philosophy of 'Excellent Service' and continuously improves its operational service system. It consistently enhances service elements throughout the entire process to provide passengers with a safe, comfortable, and convenient travel experience.

Continuous transport capacity enhancement

To ensure smooth travel for passengers, BJMTR continuously optimizes train scheduling by adjusting headway, extending peak operation hours, and increasing train frequency, making travel more efficient and convenient for passengers.

Line 4-Daxing: Since adopting the train scheduling mode of combined long-turn and short-turn routing in 2021, Daxing Line has officially entered a two-minute headway. In 2023, BJMTR optimized train scheduling again, extending the morning peak service on workdays by 20 minutes, achieving a 17% increase in capacity and enabling the transport of over 5,000 additional passengers in a single direction.

Line 14: In 2023, through various measures such as shortening headways and delaying the last train, the capacity during weekday evenings on the key business district sections of Line 14 in Chaoyang District has been increased by 41%, transporting over 13,000 additional passengers in one direction. During the weekend evenings, capacity has been increased by 13%, transporting over 3,700 additional passengers in one direction.

Optimizing travel experience

BJMTR is continuously enhancing operational management and service quality, optimizing station facilities, improving the metro travel environment, and perfecting accessibility features to provide travel services that meet passenger expectations.

Contactless button elevator

At Beijing South Railway Station on Line 4, BJMTR has pilot-tested a contactless button for the elevator, allowing passengers to operate the elevator without touching any surfaces, thus providing a more convenient experience. This innovation is particularly beneficial for passengers with large luggage, the elderly, and wheelchair users.



Contactless button elevator

Intelligent station service robots

BJMTR has introduced station service robots at National Library Station on Line 4 and Line 16, as well as at Taiyanggong Station on the northern section of Line 17. These robots can guide passengers to designated areas within the station, answer common travel questions, and help passengers understand station layouts and surrounding street maps.



Intelligent station service robot Jingtiezai

Installation of lifts and stair climbing vehicles

To provide passengers with an unobstructed travel environment, BJMTR has improved the accessibility facilities at its stations. For example, three lifts and two stair climbing vehicles have been added at Xizhimen Station and Taoranting Station on Line 4.

Upgrading ticketing system

In May 2022, in response to municipal government pandemic prevention requirements, Beijing Rail Transit Operating Control Center initiated an upgrade of the Beijing public transport ticketing system. BJMTR swiftly responded and completed testing and implementation. After the upgrade, passengers can automatically verify their nucleic acid test results when swiping their cards to enter, significantly improving travel efficiency during the pandemic.

New luggage ramps

In August 2023, BJMTR upgraded the stairs at Xizhimen Station on Line 4 by adding luggage ramps at both the platform and transfer corridor stairs to assist passengers carrying large luggage.



New luggage ramp added to the stairs at Xizhimen Station on Line 4

Optimization of train air conditioning

BJMTR has added a preheating function to the air conditioning systems on some trains, effectively addressing the issue of low perceived temperatures in the passenger compartments during cold weather and significantly enhancing travel comfort.

Meeting diverse ticketing needs

With the rollout of various internet ticketing applications for Beijing's rail transit, new gate entry methods have been introduced between 2022 and 2023. BJMTR actively prepared for the launch of these new services to ensure smooth implementation and meet passengers' diverse ticketing preferences.

"Family-style" accessible toilets

To accommodate the travel needs of different groups, each station on the northern section of Line 17 is equipped with "family-style" accessible toilets. These facilities include accessible toilets and sinks, children's toilets and sinks, multifunctional folding tables, and baby seats, providing a safer and more convenient travel experience for families with children, as well as for the elderly and people with disabilities.



The northern section of Line 17 introduces "family-style" accessible toilets at each station

By the end of 2023, the coverage rate of accessible facilities on the new lines reached **100%**.

Optimization of station sign

BJMTR has upgraded the sign at certain stations and carriages to facilitate accessible travel for passengers.



Large lettered numbering at station entrances and exits



New "priority use" signs on wide AFC gates



Prominent "priority seats" signs posted on trains

Application of new technology

BJMTR has implemented new technology in metro settings. After thousands of tests, drills, and the establishment of a comprehensive emergency mechanism, the FAO system on the southern section of Line 17 has successfully achieved fully automated passenger operation. This system includes features such as obstacle detection, door gap foreign object detection, and real-time image transmission. Through deep integration of multiple systems, it enables automated operation, precise parking, and automatic door opening and closing, ensuring passenger safety and enhancing operational efficiency.

Protecting public health

All stations of BJMTR have completed the installation of AEDs, and 100% of station staff have undergone training by professional first aid organizations and obtained relevant qualifications.

Case o

In the past two years, BJMTR staff have successfully rescued four passengers at Beijing South Railway Station, Yongdingmenwai Station, and Bei'anhe Station, by leveraging their extensive station operation experience and professional first aid knowledge, utilizing AED devices within the critical time for rescue.

During the pandemic, all lines at the stations measured the body temperature of passengers entering the stations and set up temporary isolation areas. Passengers with abnormal temperature readings were taken to the isolation area for re-measurement, registration, and medical personnel were called. Announcements, posters, PIS screens, and bulletin boards were used to remind passengers to wear masks throughout their time in the station. Daily public health management was maintained, including disinfection of equipment, facilities, and the environment within the station and ensuring proper ventilation. Necessary epidemic prevention supplies such as hand sanitizers and masks were provided to passengers. Staff underwent multiple temperature checks daily and wore masks and other protective equipment while on duty, ensuring that all eligible personnel received vaccinations.

100%

AED coverage by the end of 2023

Transportation services for major events

In 2022-2023, Beijing hosted significant events, including the 2022 Beijing Winter Olympics and Paralympics, the 20th National Congress of the Communist Party of China, and the 3rd Belt and Road Forum for International Cooperation. The transportation support tasks for these events were characterized by their lengthy duration, high level of security, and international impact. BJMTR established a two-level command and dispatch system at both the company and site levels to coordinate and implement various support measures, creating a favorable transportation environment for the successful hosting of major events and effectively completing all transportation support tasks.

Providing diverse services

BJMTR focuses on passenger needs and promotes the improvement of convenient facilities within metro stations, creating a "one-stop metro retail" service to meet the diverse service requirements of passengers.

Adding convenient stores

From 2022 to 2023, BJMTR added a total of 15 convenient stores across its lines. These stores include staffed convenience stores offering various products such as breakfast, snacks, cold drinks, and daily necessities. Additionally, unmanned vending machine stores were established within the stations to provide passengers with smart and convenient shopping services.

New self-service machines

In October 2023, gift vending machines were introduced on Line 4 and Line 14 to meet passengers' demands for a higher quality of life and to create a young, fashionable metro environment.



Metro convenience store



Gift vending machine

Listening to customer voices

BJMTR is committed to listening to customer feedback from all aspects. We collect customer needs through multiple channels, respond quickly, conduct in-depth analysis, provide timely feedback, and promote service improvements, creating a closed-loop management system to continuously enhance the customer experience.

Satisfaction surveys

BJMTR has hired third-party research agencies to conduct professional assessments of its service levels. Through conducting passenger satisfaction surveys, the company aims to gain deeper insights into passenger needs. Based on the survey results and actual conditions, service improvement initiatives are implemented to continuously enhance the overall level of operational services.

Complaint handling

BJMTR always prioritizes customers, actively anticipating, listening to, and responding to their needs. For valid passenger complaints that include contact information, the company replies within five working days, achieving a 100% response rate for valid complaints. Additionally, the company gathers passenger opinions and suggestions through various channels such as Weibo, WeChat, and its official website to continuously improve service levels.

Special experience officers

BJMTR upholds the philosophy of connecting the metro with the community by inviting passengers, residents along the lines, students, media, internet citizens, and people with disabilities to become special experience officers. By inviting them to experience BJMTR's operation services and various activities, the company gathers valuable suggestions to enhance the quality of public transportation services.



BJMTR invites people with disabilities to become special experience officers

Employee Growth



Indicators of ESG

B1 Employment:
GDB1, B1.1

B3 Development & Training:
GDB3

B4 Labour Standards:
GDB4, B4.1



9,888

Employees in total by
the end of 2023



2,717

Employees pass skill
certification



BJMTR has been awarded the title
of "Top 100 Employers in China"
for seven consecutive years

Employees are the engine for the company's sustainable development. BJMTR is committed to fostering and promoting corporate culture, establishing a comprehensive employee growth plan and an effective training system. The company provides generous benefits and comprehensive support to ensure that every employee feels the company's care.

Shaping corporate culture

BJMTR understands that corporate culture is not only crucial for enhancing team cohesion and guiding employee behavior but also a foundational element for long-term corporate development. To this end, the company is dedicated to building a corporate culture that reflects its unique characteristics. This is achieved by establishing a clear set of values and implementing a series of practical activities and cultural dissemination efforts to ensure the corporate culture resonates with employees and translates into their actions.

To provide employees with a more comprehensive and systematic understanding of the company culture, BJMTR has released the "Corporate Culture Handbook" and "Young and Exemplary - Stories of BJMTR Culture", which aim to promote the practice of company culture through studying exemplary figures. In addition, the company organizes a series of diverse activities, including Cultural Training Camps, BJMTR Forums, Star Talks, and Vibrant Story Quiz Competitions, guiding employees to think proactively and be self-driven, thereby fostering an efficient and collaborative team. In 2023, the company's "Cultural Behavior Blooming Plan" won the gold medal at the 8th National Corporate Learning Design Competition organized by CSTD (Chinese Society for Talent Development).

★ Case ◦

The "Into the Frontline: Cultural Market" series of events organized by BJMTR is greatly appreciated by employees for its interactive and engaging experiences. Through the approach of engaging with frontline, the "Cultural Market" activities encourage employees to participate in offline reading challenges, online story quizzes, and to share cultural stories and cases related to safety and quality. This promotes a deeper understanding and practice of the company's corporate culture among employees. During the period of 2022-2023, the event garnered attention from 25,000 participants, attracted over 5,000 attendees, and collected more than 300 employee stories.



Into the Frontline: Cultural Market series of events

★ Case ◦

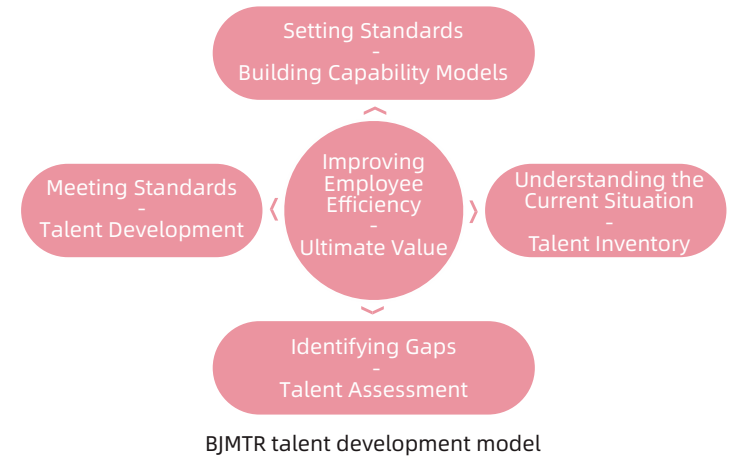
"Dear Harbor - 2023 BJMTR Family Day" is a unique interactive platform created for employees, serving as an important link for their families to engage with the company. The event features interactive Q&A sessions, Safety Camp, guided tours of the depot, and cultural experience activities, allowing employees' families to gain a deeper understanding of the work environment and the rich corporate culture.



Employees and their children participated in Family Day activities

Supporting employee development

BJMTR focuses on the long-term development of its employees, establishing a comprehensive and systematic talent assessment as the foundation for a robust talent development system. Through the talent cultivation model of “set standards - understand the current situation - identify gaps - meet standards,” the company aims to enhance the overall capabilities of its employees, continuously injecting vitality into corporate development.



Management training

The company comprehensively implements core course training within the learning and development system to help managers at various levels master essential management skills. At the same time, it deepens collaboration with business teams and utilizes diverse learning methods such as online, offline, and live broadcasts. Based on the capabilities and characteristics of business talent, we carry out customized training for junior and mid-level managers, as well as talent reserve development. By organizing knowledge, extracting experiences, and transforming learning, we continuously promote a deep learning cycle, comprehensively enhancing the practical abilities of management personnel at all levels towards a more professional and efficient direction.

81,766 hours
management training in 2022 and 2023.

90%
Average coverage of core management training courses.

10,761 participants
attended the management training.



Team management skills training



Business simulation training

Skill training

In terms of skills training, BJMTR adopts a comprehensive training model focusing on skill upgrading training & teaching, with the support of the skill appraisal system. Through a sound training course system, skill training exercises and a modern training & teaching platform, the company provides job skill training, appraisal, and assessment for frontline metro operation employees. The company has also refined the "Skill Position Employee Knowledge and Skill Model," clarifying the capability requirements for employees at different stages, from entry-level to junior, intermediate, senior, and technician (from low to high). Additionally, through multi-dimensional assessments—including tracking learners' academic performance, knowledge and skills performance, Online and offline class feedback, and frontline evaluation feedback, we have established a comprehensive communication and feedback mechanism, thereby enhancing the quality and effectiveness of the training.

Training facilities development

- We have launched a brand-new E-learning training management system, introducing features such as "Learning Map," "Resource Center," and "Live Courses," providing employees with more flexible course arrangements and opportunities for self-directed learning.
- We have built and put into operation the Line 4 and Line 16 driving training systems, which have been applied to the theoretical and operational assessments for Level 5/Junior Operators of drivers in 2023.

Skill appraisal

BJMTR has deepened its skill appraisal work. By the end of 2023, the company developed skill appraisal standards for 29 technical occupations, and reviewed the theoretical question bank, as well as created knowledge and skill models for these positions, enhancing the skill assessment evaluation system. In 2022 and 2023, we completed skill appraisal for 29 technical occupations, both theoretical and practical, with a total of 2,717 employees passing skill certification. Among them, 1,387 employees obtained national skill certification.

Enhancing professional quality

In line with core business needs, the company has comprehensively improved the quality of its workforce, enhanced safety operation skills, and promoted safe production. In the Beijing Employee Vocational Skills Competition for metro train drivers, BJMTR was awarded the title of Special Contribution Unit. Two employees from the Train Operation received the title of Senior Vocational Skills Expert, and five employees were awarded certificates of honor for being among the top ten in their respective job categories.

From 2022 to 2023, a total of

860,265 hours of technical training have been conducted.

In 2022 and 2023, we completed

skill appraisal for **29** technical occupations, both theoretical and practical, with a total of

2,717 employees pass skill certification. Among them,

1,387 employees obtained national skill certification.

Stimulating potential

BJMTR actively promotes the Work Improvement Team (WIT) culture, an initiative originating from MTR that has been ongoing in the company for over a decade. The WIT encourages frontline staff to identify and improve shortcomings in their work, thereby achieving continuous improvement and enhancing work efficiency and service levels. The company employs various methods, including optimizing incentives, facilitating the implementation of proposals, and hosting the WIT Annual Presentation Ceremony, to foster the generation of high-quality proposals and support their execution. In 2022 and 2023, 385 WIT programs were established, with 3,305 employees enthusiastically participating and submitting 420 proposal reports.

Case

In 2023, BJMTR's proposal of "Improving the maintenance efficiency of the platform passenger information system (PIS) screens" won the WIT Best Proposal Award (Mainland China) and the Best Stage Performance Award (Mainland China) at the WIT Annual Presentation Ceremony. By independently developing and assembling a quick-release module for the PIS screens, the maintenance efficiency and safety of the maintenance process have been improved. Currently, the design of the circuit board in the quick-release module has been applied across all lines of BJMTR.



Healthy Team participated in the 2023 WIT Annual Presentation Ceremony

In 2022 and 2023, **385** WIT programs were established, with **3,305** employees enthusiastically participating and submitting **420** proposal reports.

Improving the benefits system

BJMTR provides a system of sound remuneration and benefits, legally ensuring that all employees are covered by social insurances (endowment insurance, medical insurance, unemployment insurance, employment injury insurance and maternity insurance) and housing fund. In addition to the statutory benefits, the company offers supplementary benefits such as enterprise annuities, commercial insurance, annual health check-ups, paid sick leave, holiday bonuses, summer cooling allowances, and heating subsidies. In 2022 and 2023, the company achieved a 100% coverage rate for social insurance and housing fund contributions, with a 100% employee health check-up coverage rate and a 62.38% participation rate in the enterprise annuity plan.

100%

Labor contract coverage in 2022 and 2023

9,888

Employees in total by the end of 2023

1,187

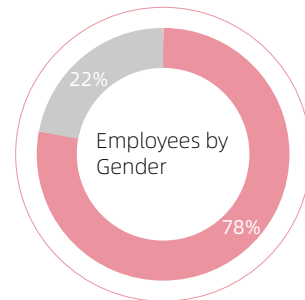
Newly Recruited Employees

6.32%

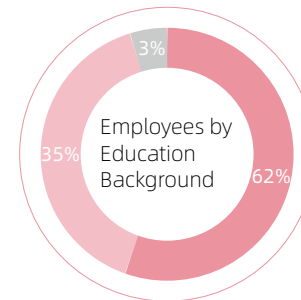
of employees from ethnic minority groups

22.74%

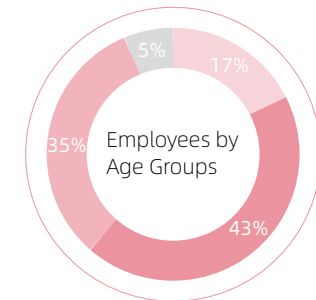
of female employees among mid-to-senior level (M1 and above) management personnel



● Female ● Male



● Below bachelor's degree ● Bachelor's degree
● Master's degree and above



● Below 25 ● 25 to 35
● 35 to 45 ● Above 45

Diversified recruitment channels

BJMTR actively expands both online and offline recruitment channels, building on existing school-enterprise cooperation, campus and social recruitment, to ensure that all groups can equally access job opportunities. During the period of 2022-2023, the company released recruitment information over 200 times through its WeChat and partnered public accounts. Additionally, the company innovatively attempted recruitment through "live streaming," conducting more than 10 live recruitment sessions that attracted over 30,000 viewers. Offline, the company utilized resources such as station lightbox and PIS screens to promote recruitment and expand the reach to potential candidates.

Case

The company emphasizes strengthening communication with vocational schools. In addition to expanding existing partnerships, it actively seeks collaboration with relevant vocational schools around Beijing. For example, we initially collaborated with Hebei Jiaotong Vocational and Technical College and conducted 'cloud presentations' through multi-point live streaming to inform teachers and students outside Beijing about job opportunities at BJMTR, where they can acquire skills and have stable career growth. From 2022 to 2023, the company launched a total of 75 order classes and recruited 1,759 students.

Case

BJMTR views its trainee program as a cradle for cultivating future technical experts and management talents in the metro industry. By training versatile talents with integrated competitiveness, the program aims to provide excellent backup resources for the company's various business areas and offer sustainable momentum for industry development. For 13 consecutive years, the trainee program has supplied quality talent for the company's grassroots management and technical positions. During the 2022-2023 period, the company recruited a total of 123 trainees, collaborating with over 16 educational institutions.



The company was awarded the title of **"Top 100 Employers in China"** for 2023 in the annual evaluation of the "Best Employers in China," organized by Harvard Business Review, the Social Research Center of Peking University, the National School of Development at Peking University, and Zhilian Recruitment. This marks the seventh consecutive year the company has received this honor. Additionally, the company was recognized as one of the **"Top 10 Best Employers for Stable Employment."**



Campus recruitment through online and offline channels

Caring for employees

BJMTR values the work experience of its employees, continuously providing comprehensive resources and support to help improve their quality of life and overall well-being.

Daily care

The company places great importance on employee mental health. Since 2022, it has launched the Employee Assistance Program (EAP), tailored to the characteristics of personnel in the rail transit industry. This service provides counseling and guidance for employees and their families regarding mental health issues. For employees in special roles, such as train attendants, the company conducts personal psychological assessments to help them better manage their emotions and psychological stress. Through these initiatives, the company aims to support the mental well-being of its workforce effectively.

Employee care

The company offers additional support to colleagues facing difficulties in their work and personal lives, helping employees through tough times. For instance, during the 2022-2023 period, the company's labor union assisted and provided comfort to 11 employees who faced temporary financial hardship due to illness or accidents. Additionally, various outreach activities are continuously organized, including "Summer Cooling," "Winter Warmth," and holiday support initiatives, distributing various care items to approximately 113,000 individuals in total.

Case

In August 2023, Beijing and Hebei were hit by severe flood disasters. The company promptly reached out to support 79 employees who were significantly affected by the disaster, allowing them to truly feel the care and warmth of the company.

Work-life balance

While creating favorable working conditions for employees, we invigorate them through a variety of cultural and sports activities. During the Hong Kong Chamber of Commerce Sports Carnival, the BJMTR union organized teams from the company's soccer, basketball, badminton, and table tennis associations to actively prepare for competitions. They participated in five-a-side basketball, table tennis, badminton, and the "BJMTR Cup" five-a-side soccer and three-on-three street basketball competitions, achieving remarkable results with 3 gold medals, 2 silver medals, and 2 bronze medals across 9 events. Additionally, in 2023, the company established a Photography and Filmmaking Association, gathering creative enthusiasts from various fields. By sharing skills and collaborating on projects, we enhance communication and cooperation among employees.



Activities of the soccer, basketball, and photography and filmmaking association

Community Inclusion



Indicators of ESG

B8 Community Investment:
GDB8, B8.1, B8.2



48

Number of community activities



2,489

Volunteer hours



26,882

Beneficiaries

Creating an inclusive travel environment for all ages

The metro plays a vital role in urban transportation, connecting people's lives and driving community development. BJMTR is dedicated to promoting community inclusion and strengthening cooperation with surrounding communities to enhance the quality of urban life.

BJMTR is continuously creating an all-age-friendly travel environment. While promoting the renovation and optimization of barrier-free facilities and sign within metro stations, the company collaborates with several organizations, including the Beijing Disabled Persons' Federation, the Beijing Barrier-Free Environment Construction Promotion Center, the Sign Language Association, and various disability associations. Together, they have conducted a series of activities, including customer travel demand survey seminars, station experiences and exchanges, volunteer services for disabled persons, and themed public art exhibitions, to enhance communication with disabled individuals and professional institutions. BJMTR also focuses on details by providing etiquette training for station staff, as well as specialized training for services aimed at elderly and disabled passengers. We have produced the "*BJMTR Travel Service Guide for Passengers with Special Needs*," allowing employees to better understand the requirements of special groups and deliver more personalized and high-quality services.



Wheelchair passengers experience barrier-free facilities at the station



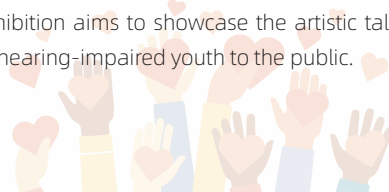
Sign language trainers teach commonly used service signs in the metro



"BJMTR Travel Service Guide for Passengers with Special Needs" manual

Case

BJMTR set up the "Love Together" BJMTR themed public art exhibition at the northern section of Line 17, showcasing over twenty artworks created by students from the Art and Design Department of Special Education College of Beijing Union University and hearing-impaired students from Beijing Jianxiang School. The exhibition aims to showcase the artistic talents of hearing-impaired youth to the public.



"Love Together" BJMTR themed public art exhibition



Hearing-impaired students introduce the creative concepts behind their works

Empowering youth education

Youth are the talents and leaders of future society. BJMTR leverages its advantages to continuously invest resources in providing learning and growth opportunities for young people.

BJMTR STEAM Education Project

BJMTR STEAM Education Project is the first STEAM education initiative in rail transit developed by BJMTR. The project employs various formats such as STEAM courses, metro engineering simulation teaching aids, and popular science picture books related to metro to enlighten young people about knowledge in areas such as rail transit engineering and technology. It aims to enhance their understanding of the industry and cultivate their interest and exploratory spirit towards rail transit from a young age.

The project targets primary school students in grades 1-2, developing the picture book *"An Exploration Journey with Jingtiezai"*. For students in grades 3-5, it uses commonly seen equipment and facilities in the metro scene as teaching materials, creating six STEAM-themed metro courses and six sets of metro engineering simulation teaching aids. For sixth-grade and middle school students, an upgraded version of the metro STEAM course has been developed, focusing more on teaching engineering methods and design processes, allowing students to explore more possibilities through practical experience.

During the 2022-2023 period, the project entered communities and schools along the line, conducting over ten pilot lectures, which received enthusiastic responses from participating teachers and students. BJMTR continues to refine the courses based on feedback from students and teachers to provide a better learning experience.

In 2022, as a member of the key research project *"Practical Research on the Development of Crowdfunding-Based Interdisciplinary Digital Curriculum"* under the "14th Five-Year Plan" by the China Educational Technology Association, BJMTR developed an upgraded version of the STEAM education curriculum. This project has successfully concluded and received an **"Excellent"** rating.

In 2023, BJMTR was recognized as a **Science Popularization Base** by the Fengtai District Science and Technology Information Bureau for BJMTR STEAM Education Project.



Volunteer instructors explain platform screen door knowledge to students



Students create and debug their train models



BJMTR is recognized as a Science Popularization Base by the Fengtai District Science and Technology Information Bureau

BJMTR Safety Camp

BJMTR continues to promote the BJMTR Safety Camp project, which aims to disseminate metro safety knowledge and the concept of civilized travel. Through engaging and interactive science experiment shows that combine education with fun, the project explains metro safety and civility. By leading students to visit and experience various metro job roles, the project guides passengers to prioritize safety during green travel, avoid risks, and care for their own and others' lives, becoming advocates, practitioners, and guardians of green, civilized, and safe transportation. Additionally, the project employs metro-themed safety popularization videos into 20 primary schools en route, promoting metro safety knowledge for elementary school students on metro travel safety during their break times.

During 2022-2023, BJMTR Safety Camp

conducted **10** online and offline
activities, benefiting **5,886**
students.



Student representatives experience a simulated "driving" of the train



Students participate in interactive science experiments in Safety Camp lessons

Enriching metro culture

BJMTR makes full use of its advantages of media within stations and trains to continuously roll out M-series public interest programs through various online and offline methods, enriching passengers' travel experience.

M-Library

BJMTR continues to collaborate with authoritative institutions such as the National Library, launching various thematic activities in different forms. By adding cultural themed exhibitions and other new display formats, it aims to create a metro cultural space that integrates "travel, reading, exhibitions, and experiences." From 2022 to 2023, the project launched 8 themed reading promotion activities, providing passengers with nearly 170 time-limited free E-Books and audio-video reading materials.

Case

In 2023, M-Library hosted the themed event "Exploring the Imprints of Civilization," introducing innovative reading formats. A themed exhibition was set up in the space near Exit E of the National Library on Metro Line 16, showcasing nearly 20 replicas of cultural relics. The exhibition highlighted significant 20th-century Chinese documents known as the "Four Great Discoveries" of ancient Chinese literature: Oracle Bone Script from the Shang Dynasty, texts from the Juyuan Han tomb, Dunhuang manuscripts, and Ming-Qing cabinet archives. This initiative traced the roots of Chinese history and explored the essence of Chinese culture, inviting passengers to embark on a journey of cultural experience together.



M-Library sets up the themed cultural exhibition "Exploring the Imprints of Civilization" at the National Library Station on Line 16



Passengers enjoy Dunhuang manuscripts in the reading space of the M-Library at Ciqi Station

1.2 million online views at M-Library by the end of 2023.

M-Sports

To enhance the Winter Olympic atmosphere, BJMTR collaborated with the Xinhua News Agency client to host the "Let's Move Forward Together" photo exhibition for the Beijing Winter Olympics. Passengers at stations operated by BJMTR can enjoy captivating photos from various events, highlights of major venues, and classic moments of people participating in winter sports displayed on lightboxes, escalator signs, train televisions, platform screen doors, and trackside electronic screens, allowing them to experience the passion of the Winter Olympics even while traveling in the metro.



M-Sports: Beijing Winter Olympics "Let's Move Forward Together" image exhibition lightbox poster



Passengers can scan QR codes to view stunning photographs from the Beijing Winter Olympics events.

Conducting volunteer services

The company has long been promoting volunteer services, encouraging employees to utilize their expertise in participating in these initiatives. They share metro information and convenient measures with nearby organizations and community residents. Additionally, the company collaborates with local schools to promote student volunteer groups' involvement in metro operations.

Community volunteer services

BJMTR organizes employee volunteers to engage with nearby streets and communities, utilizing their professional skills to educate residents on the correct usage of metro station facilities and safety travel knowledge while sharing practical travel information. During traditional festivals, volunteers provide companionship and warm wishes to elderly community members. With the arrival of summer vacation, they lead community children in learning commonly used English phrases related to the metro. When new metro lines are launched, volunteers share information about these new services with residents. Additionally, they encourage community members to provide feedback and suggestions about metro operations, helping to enhance the service quality continually.

From 2022 to 2023, a total of

2,489 hours of volunteer
service were contributed, benefiting
26,882 people.



Volunteers engage in joyful interactions with residents



Volunteers explain English sign to kids in community

Station volunteer services

BJMTR, in collaboration with several schools en route, has established a sustainable volunteer service model known as "One Station, One School." This model means that each school corresponds to volunteer service work for a specific station. At the same time, the design of the volunteer service projects at the stations is continually optimized to ensure that the services meet passenger needs while also being convenient for student participation.



Volunteers assist passengers in using ticket vending machines



Volunteers guide passengers in entering and exiting AFG

Partner Cooperation



Indicators of ESG

B5 Supply Chain Management:
GDB5, B5.1, B5.3



694

Cooperating suppliers
(As of the end of 2023)



4

Number of standards and specifications BJMTR involves in fomulation



17

Employees selected for the association's expert database

BJMTR closely collaborates with suppliers to create a safe, reliable, and efficient supply chain environment. At the same time, the company places great importance on cooperation with partners, adhering to the principle of mutual benefit and striving to create greater value for stakeholders.

Supply chain management

To build a collaborative and win-win value chain, BJMTR further improves its supplier management system, optimizes supply chain management strategies, and continuously enhances suppliers' sustainable development capabilities.

Supply chain management strategies

Strategies

- Procurement management has shifted from simple purchasing to "rational procurement."
- Select the appropriate products and services at the right price, at the right time, based on reasonable demand, obtained through suitable suppliers to effectively acquire products and services.

Strategic procurement

- Implementing category-based strategic procurement to refine categories and establish reasonable procurement strategies based on different categories.
- Promoting centralized purchasing, signing long-term framework agreements with suppliers, deepening strategic cooperation, and exploring areas for expansion such as technology and collaboration methods to achieve more efficient and broader procurement goals.
- Deepening the development of e-commerce procurement models to maximize efficiency and enhance the transparency of market resources and prices.

Supply chain management

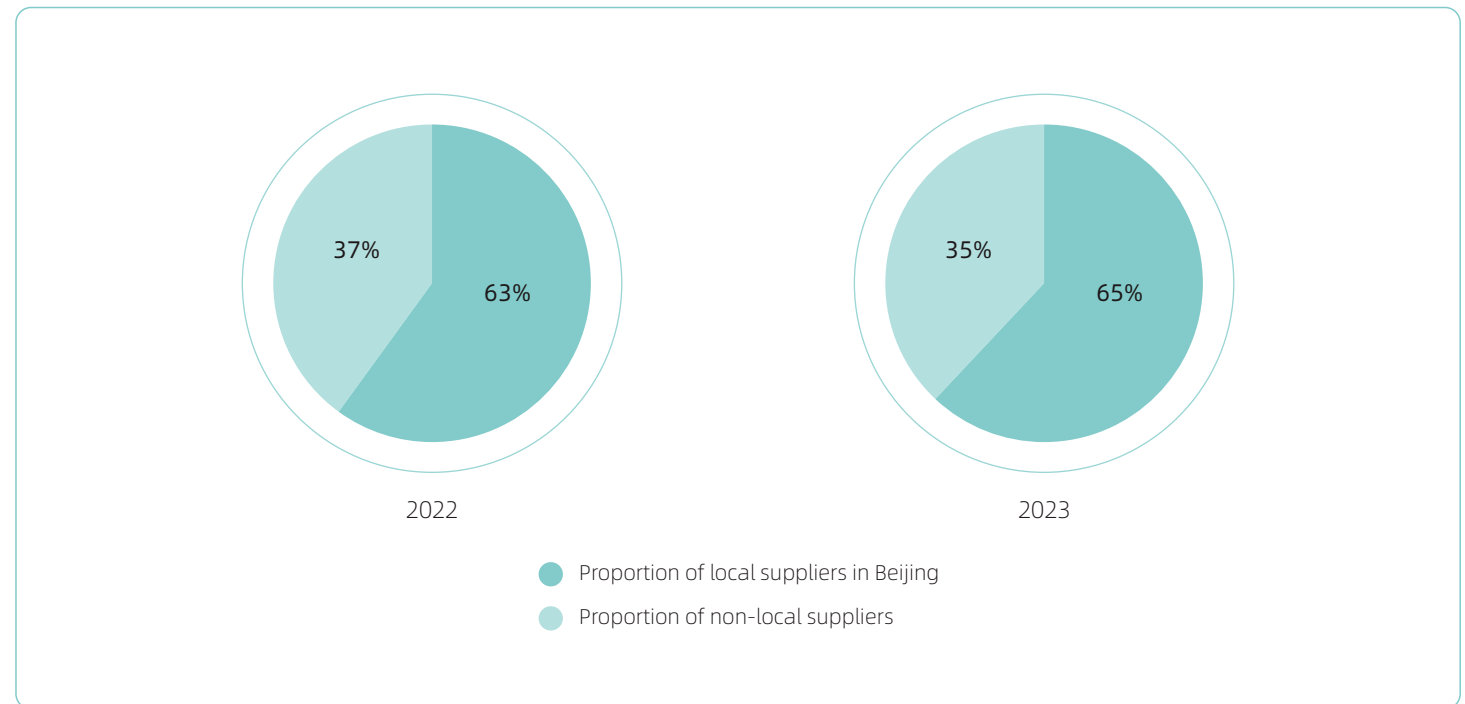
- Collaborating with internal and external stakeholders in the supply chain to identify opportunities for cost optimization, thereby achieving win-win results and sustainable development goals.
- We acquire suppliers via multiple channels in a fair, just and open manner. We have ensured fair bidding through information sharing, mutual supervision, complaint channels, and rules and regulations.

By the end of 2023, BJMTR has

collaborated with **694**
suppliers, establishing long-term and
stable partnerships.

Building a sustainable supply chain

BJMTR recognizes the importance of collaborating with local suppliers. This cooperation not only reduces logistics costs and greenhouse gas emissions but also actively promotes the development of the local economy and maintains community relations.



The company actively encourages suppliers to proactively address environmental and social risks, boosting their ESG management capabilities. For projects that may have environmental impacts, the company conducts assessments for environmental project construction and pollution waste disposal to ensure that 100% of suppliers comply with applicable national or local environmental, health, and safety laws and regulations.

Promoting industry communication

BJMTR actively participates in various industry exchange activities organized by government departments and relevant organizations to learn and share advanced industry concepts and experiences, working with all parties to drive high-quality development in the rail transportation industry.



General Manager of BJMTR, Frank Liu, attended the 7th World Metropolitan Transport Development Forum and delivered a keynote speech at the thematic forum on "Improvements on Rail Transit Services in the Context of High-quality Development."

In 2022 and 2023, BJMTR participated in

232 association and industry

exchange activities, with **17** employees selected for the association's expert database and

hosted **51** visits from government departments, stakeholder units, and related enterprises.



Leaders of BJMTR attended the 2023 Beijing Annual Conference of China Summit of Metro Operators and gave speeches

Participating in the formulation of industry standards

BJMTR actively participates in the development of national, industry, and local standards and specifications, continuously improving and exporting the BJMTR standard system to support the standardization and normalization of the industry.

Case

At the invitation of the Ministry of Transport, the company led the development of the "*Technical and Management Specifications for Operations of Urban Rail Transit Fully Automatic Operation Systems*." This comprehensive effort involved outlining operational scenarios and associated risk points for fully automatic operations. The work culminated in the formulation of the operational system, position settings, normal operating rules, abnormal operating rules, and passenger service rules. Additionally, the company actively participated in establishing technical requirements for signal systems, vehicles, and platform doors, ensuring that user needs from an operational perspective were met. This was aimed at aligning the operational management measures with system functions, effectively controlling operational risks.

Standards & specifications BJMTR involved in development in 2022 and 2023

Year of participation	Type	Title
2022	Group standards	<i>Guidelines for the Construction of Cybersecurity Standards System for Urban Rail Transit</i>
2023	Group standards	<i>Capability Standards and Evaluation Guidelines for Key Positions in Fully Automatic Lines</i>
2023	Departmental Regulation	<i>Technical and Management Specifications for Fully Automatic Operation of Urban Rail Transit Systems</i>
2023	Local standards	<i>Technical Requirements for the Reconstruction of Existing Urban Rail Transit Lines</i>

Cultivating industry talents

Based on the internal launch of skill assessment work, BJMTR established BJMTR Skill Appraisal Co., Ltd. (referred to as "BJMTR Skill Appraisal") to conduct assessment and certification for rail train drivers, as well as to provide consulting services for skill assessment systems and skill training. From 2022 to 2023, BJMTR Skill Appraisal carried out five batches of theoretical and operational assessments for rail train drivers at the Level 5/Junior Worker level, with a total of 476 participants. Additionally, through external training and consulting, they trained 240 professionals for 26 metro operating companies from 21 cities and 2 vocational colleges.

BJMTR participated in the formulation of

4 standards and specifications in 2022 and 2023.

Achieving win-win cooperation

While promoting the development of its core business, BJMTR values communication and collaboration with the government, shareholders, and other stakeholders. It actively seeks strategic cooperation with all parties to achieve mutually beneficial goals.

TOD

Beijing is promoting the integrated development of transit and urban areas, as well as the construction of rail micro-centers, and is continuously introducing integrated policies and mechanisms to empower rail transit. Currently, MTR and BJMTR are utilizing the concept of TOD (Transit Oriented Development) and the "Rail + Community" model. They are leveraging their experience in rail operations, TOD planning and design, development and construction, as well as operational management to support the sustainable development of Beijing.

In November 2023, after MTR and BICC signed a cooperation intent agreement for the sub-center hub, BJMTR and both parties established a joint working group to collaboratively plan an integrated operation scheme.



Advisor for the Mayor of Beijing

On November 18, 2022, Dr. Jacob Kam, CEO of MTR, attended the 15th Meeting of International Business Leaders Advisory Council for the Mayor of Beijing, where he discussed the issue of "adaptive reuse" of historical buildings based on MTR's experience in Hong Kong and overseas in recent years. He elaborated on various models to promote the renovation and update of old urban buildings, providing references for advancing urban renewal in Beijing.



Dr. Jacob Kam, CEO of MTR, participated in the 15th Meeting of International Business Leaders Advisory Council for the Mayor of Beijing via video and delivered a keynote speech

Environmental Protection



Indicators of ESG

A1 Emissions:
GDA1, A1.1, A1.2, A1.6

A2 Use of Resources:
GDA2, A2.1

A4 Climate Change:
GDA4, A4.1



939 GWh

Operation electricity
consumption



1.8 %

Decline compared with
2020-2021



13

Energy-saving
projects

As a provider of clean, efficient, and low-carbon transportation services, BJMTR maintains a keen awareness and continuously adjusts and optimizes its environmental strategies to contribute to the creation of a green and sustainable urban transportation system.

604,000 tons
greenhouse gas (GHG) emissions
generated from energy consumption in
2022 and 2023.

1.8%
The operation electricity consumption
per car-km decline compared with
2020-2021.

As of 2023, the proportion of fossil
energy in total energy consumption
has dropped from 13% (a historical
high) to **8.3%**.

Addressing climate change

Overall planning

BJMTR fully draws on MTR's experience in green and sustainable development. Through the improvement of energy-saving and low-carbon management mechanisms, refined operational management, implementation of energy-saving and low-carbon projects, optimization of energy structure, and operational guidance design, a series of explorations and practices have been carried out.

Implementing energy-saving and carbon reduction

To achieve green development goals, BJMTR has developed an energy-saving and low-carbon development plan, promoting the implementation of energy-saving and low-carbon projects in a systematic and high-quality manner.

Increasing resource efficiency

- The optimization of train operation levels of Line 4-Daxing and Line 14 has been implemented. Train operation levels are continuously adjusted based on passenger flow, using energy-saving modes during off-peak times, ensuring passenger service while maximizing the use of every kilowatt of electricity.
- Lighting strategies for public areas in stations and track sections have been optimized, with "one plan for one station."
- The Cloud Innovation Computing Center utilizes differentiated energy delivery algorithms, significantly reducing energy consumption in the data center.

Implementing energy-saving retrofits

- While the company is carrying out traditional energy-saving retrofitting projects such as the energy-saving transformation of station air conditioning and ventilation systems, LED lighting upgrades, and the application of variable frequency drives on escalators, it has also utilized existing equipment and facilities to implement projects such as the automatic control optimization of the air conditioning system for trains on Line 4-Daxing and the enhancement of train electric braking systems.

Optimizing energy structure

- Through a series of control measures, including climate compensation control for natural gas boilers and refined temperature management in heating areas, the consumption of natural gas for heating in the depot is reduced. Additionally, a series of refined management measures, such as consolidating engineering sectors, are implemented to reduce diesel consumption in rail engineering vehicle operations.

Enhancing low-carbon awareness

- BJMTR actively engages in industry exchanges and learning, organizing training sessions and internal seminars focused on the theme of "Green and Sustainable Development of Rail Transit" to enhance employees' knowledge and awareness of low-carbon energy-saving practices.

Reducing disaster risks

Extreme weather events brought about by climate change, such as flooding, heavy rain, and snow, inevitably pose challenges to metro operations and safety. To address these challenges, BJMTR has implemented a series of preventive measures and emergency preparedness initiatives. For example:

- Prior to the flood season, conduct a review, revision, and training of flood prevention plans in advance. Before the flood season and arrival of winter, organize drills for flood response plans and snow day preparations.
- Before the flood season and winter, conduct a special inspection of flood and snow prevention supplies across the entire line.
- When severe weather is imminent, issue early warnings and organize all stations en route to prepare according to the relevant plans.

Case

BJMTR has piloted the installation of smart flood control baffles at Gate G of Qilizhuang Station on Line 14 and Gate C of Jiaomen Xi(W) Station on Line 4. During heavy rainfall, when the water level outside the metro entrances rises to the same height as the platform, the baffles automatically lift. They adjust their angle according to the water level until they are fully opened, preventing external water from entering the metro station. This effectively enhances the efficiency and reliability of emergency flood prevention efforts.



BJMTR pilots the installation of smart flood control baffles

Implementing pollution prevention and control

Pollutant management

BJMTR continuously optimizes its pollution prevention and control strategies and methods, consistently monitoring, controlling, and managing pollutants that may arise during metro operations.

Environmental goals

- The company has established important environmental factors covering five aspects: wastewater discharge, exhaust emissions, noise emissions, vibration emissions, and soil pollution, which encompass the company's environmental objectives and corresponding indicators across all operations.

Environmental monitoring

- Monitoring is conducted on five environmental pollutant detection categories, including wastewater discharge, exhaust emissions, noise emissions, vibration emissions, and environmental hygiene, ensuring that pollutants meet discharge standards.

Equipment and facilities

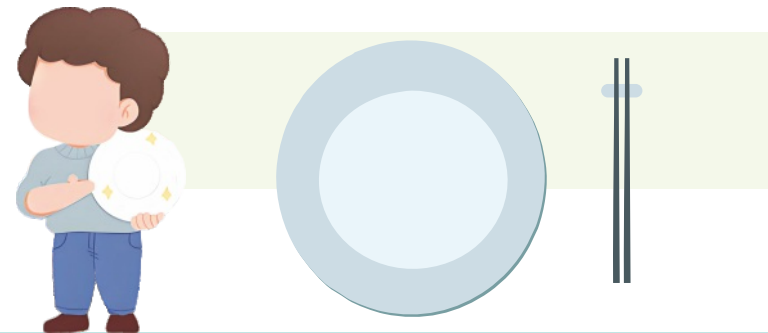
- Environmental protection equipment and facilities are provided for the discharge of wastewater, exhaust, noise, vibration, and solid waste, with timely maintenance, servicing, and inspections of these equipment and facilities.

Emergency response

- Based on the assessment of sudden environmental incidents, an emergency plan for such events has been developed.

Reducing kitchen waste

In terms of kitchen waste management, BJMTR promotes the "Clean Plate Campaign," encouraging employees to reduce food waste. Additionally, in response to employee needs, the company offers half-portions or smaller food items to minimize waste at the source.



Advocating green travel

BJMTR makes full use of its platform advantages to actively carry out green-themed promotional activities through various online and offline channels, guiding passengers to focus on a low-carbon and healthy lifestyle.

M-Sports

BJMTR continuously carries out the M-Sports project, organizing a series of promotional activities themed low-carbon environmental protection, and national fitness to raise passengers' awareness of environmental protection and promote a green, low-carbon lifestyle. In 2023, the M-Sports project launched the "Awaken Green Living" low-carbon environmental protection campaign, using the company's social media and station media to advocate for public attention on ecological issues and encourage the choice of green, low-carbon sustainable living.



Themed event at stations: "Encouraging passengers for low-carbon travel"



Station media displays themed promotional posters advocating for a low-carbon, environmentally friendly lifestyle

About This Report

Since 2016, Beijing MTR Corporation Limited has released a sustainability report every two years, disclosing the company's concepts, measures, and achievements in environmental, social, and governance (ESG) aspects to various stakeholders. This report is the fourth sustainability report publicly published by Beijing MTR Corporation Limited.

Report Scope

This report discloses the topics identified as important to Beijing MTR Corporation Limited during the period from January 1, 2022, to December 31, 2023, with some content tracing back to previous years. The report covers Beijing MTR Corporation Limited and its subsidiaries. For better readability, "Beijing MTR Corporation Limited" is also referred to as "BJMTR," "the company," or "we" in this report.

Reporting Guidelines

The 2030 Agenda for Sustainable Development issued by the UN

GRI Sustainability Reporting Standards (GRI Standards) issued by Global Sustainability Standard Board (GSSB)

Environmental, Social and Governance Reporting Guide issued by Hong Kong Exchanges and Clearing Limited (HKEX)

Guidance on Social Responsibility (ISO 26000:2010) issued by the International Organization for Standardization

China national standard *GB/T 36001-2015 Guidance on Social Responsibility Reporting*

Data Sources

All data in this report is from BJMTR's statistical reports, official documents or public information.

Reliability Assurance

BJMTR assures that no fictitious record, misleading statement, or material omission are included in this report. BJMTR is responsible for the report's authenticity, accuracy and completeness.

Learn More

The report is available in both Chinese and English. In case of any ambiguity between the two versions, the Chinese version shall prevail. Please access the report's PDF version and more information about our sustainable development practices on our official website: <http://www.mtr.bj.cn>.

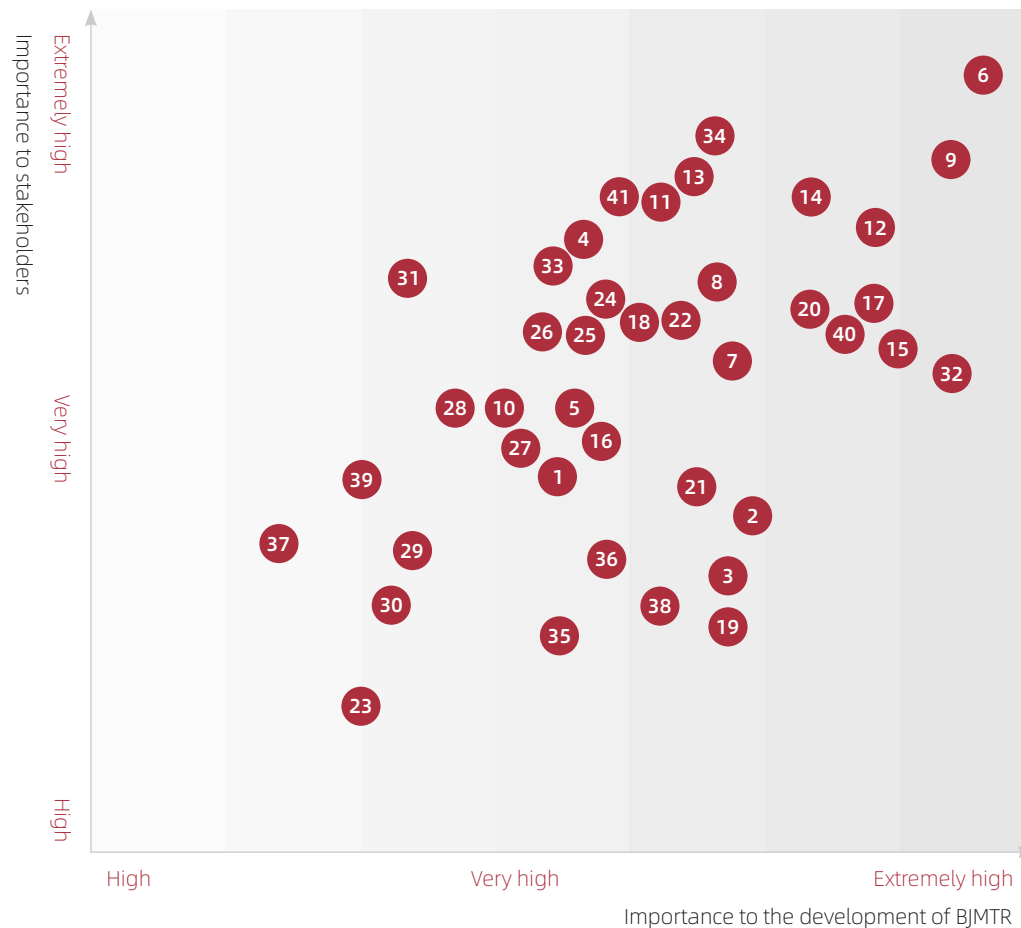
Feedback

We sincerely look forward to your insightful comments and suggestions regarding BJMTR's sustainable development measures, performance, and disclosures. Please send your feedback to pr@mtr.bj.cn.

Material issues assessment

BJMTR values the opinions of various parties when promoting sustainable development practices. To better understand stakeholders' concerns and expectations, we distributed questionnaires on sustainability material issues to stakeholders before preparing the report, collecting and organizing a total of 1,343 valid responses. According to the assessment result of material issues, we focused on the key disclosures of issues such as guaranteeing safe metro operation, enhancing passenger service experience, and preventing pollution in this report.

Materiality matrix



- | | | | |
|----|--|----|--|
| 1 | Governance framework and processes | 22 | Policies and systems encouraging innovation |
| 2 | Integrity in business operations and fair trade | 23 | Employees' participation in corporate operation and management |
| 3 | Risk management | 24 | Community communication and engagement |
| 4 | Transparent operation | 25 | Providing equal opportunities for vulnerable groups |
| 5 | Digital transformation | 26 | Education and culture |
| 6 | Guaranteeing safe metro operation | 27 | Volunteering service |
| 7 | Protecting the health and safety of passengers | 28 | Sustainable procurement |
| 8 | Ensuring occupational health and safety of employees | 29 | Supplier evaluation |
| 9 | Enhancing emergency management and rescue capabilities | 30 | Supplier training |
| 10 | Ensuring information security | 31 | Promoting social responsibility to the value chain |
| 11 | Protection of passenger data and privacy | 32 | External exchange and industry advancement |
| 12 | Increasing metro capacity | 33 | Collaborating with various institutions for innovation |
| 13 | Improving station facilities | 34 | Reducing carbon emissions in operations |
| 14 | Improving passenger service experience | 35 | Supporting clean energy development |
| 15 | Transportation services for major events | 36 | Waste management |
| 16 | Meeting the needs of diverse populations | 37 | Water resource management |
| 17 | Customer service, consultation, and complaint handling | 38 | Improving energy efficiency |
| 18 | Exploration and application of new technologies | 39 | Green office |
| 19 | Working conditions and social security | 40 | Pollution prevention and control |
| 20 | Employees training and development | 41 | Enhancing climate adaptability |
| 21 | Enhancing employees' well-being | | |

Our response

Material issues	Corporate Governance	Safety First	Excellent Service	Employee Growth	Community Inclusion	Partner Cooperation	Environmental Protection
Governance framework and processes	●						
Integrity in business operations and fair trade	●						
Risk management	●	●					
Transparent operation	●						
Digital transformation	●						
Guaranteeing safe metro operation		●					
Protecting the health and safety of passengers		●					
Ensuring occupational health and safety of employees		●		●			
Enhancing emergency management and rescue capabilities		●					
Ensuring information security		●					
Protection of passenger data and privacy		●					
Increasing metro capacity			●				
Improving station facilities			●				
Improving passenger service experience			●				
Transportation services for major events			●				
Meeting the needs of diverse populations			●				
Customer service, consultation, and complaint handling			●				
Exploration and application of new technologies			●				

Material issues	Corporate Governance	Safety First	Excellent Service	Employee Growth	Community Inclusion	Partner Cooperation	Environmental Protection
Working conditions and social security				●			
Employees training and development				●			
Enhancing employees' well-being				●			
Policies and systems encouraging innovation				●			
Community communication and engagement					●		
Providing equal opportunities for vulnerable groups					●		
Education and culture					●		
Volunteering service					●		
Sustainable procurement						●	
Promoting social responsibility to the value chain						●	
External exchange and industry advancement						●	
Collaborating with various institutions for innovation						●	
Reducing carbon emissions in operations							●
Supporting clean energy development							●
Waste management							●
Improving energy efficiency							●
Pollution prevention and control							●
Enhancing climate adaptability							●



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