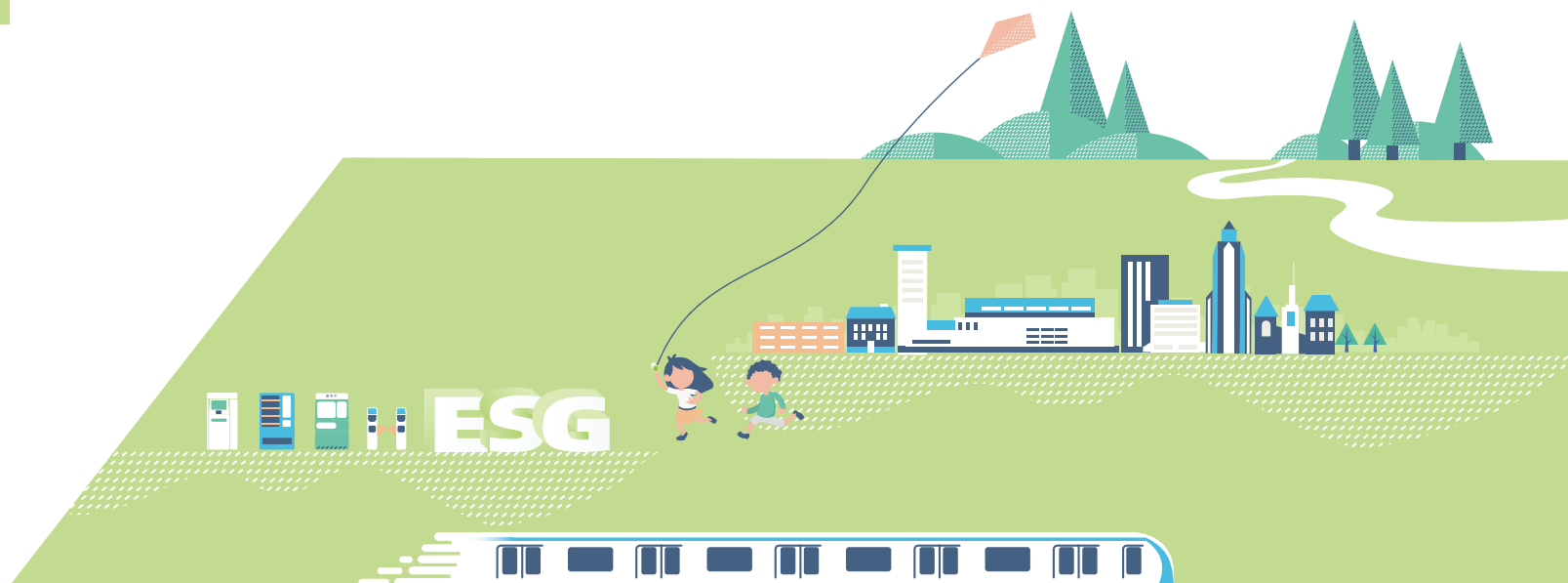


# Sustainability Report

2020-2021



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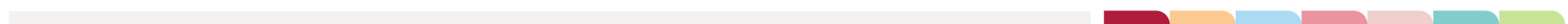
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# General Manager's Message



**Dear stakeholders,**

Thanks for reading our Sustainability Report 2020-2021. We hope that this report can present our practices and achievements in fulfilling corporate social responsibility (CSR) and sustainability in 2020 and 2021.

Over the past two years, the global COVID-19 pandemic has profoundly affected people's lives. Although buffeted by severe challenges, our employees pulled together, and a series of preventive measures were implemented in accordance with the overall deployment of the government, providing safe, convenient metro services for the public.

Despite the challenging pandemic, several lines (sections) were still opened smoothly. At the end of 2020, the middle section of Beijing Metro Line 16 (BJL16) opened for operation, as well as at the end of 2021, the south section of BJL17, the remaining section of BJL14 and Yuyuantan Park East Gate station of BJL16 opened for operation. The total length in operation of our network now reaches 148.5 km. Moreover, we keep optimizing the train scheduling and provide people-oriented services, to ensure high-level operational service performance. In 2021, the average service delivery and punctuality of lines operated by BJMTR were both 99.99%. In 2021, the west section of BJL14 and BJL16 scored 100 in the centesimal operation performance evaluation system in Beijing metro network for all 24 lines, tied for the first place, while BJL4-DXL ranked the third.

The year 2021 marked the 15th anniversary of BJMTR. We have always valued our performance in environmental, social and governance (ESG), and integrate ESG concept into daily management. We develop a comprehensive management system for integrated operation to promote total quality management. We also improve the safety management system to enhance the safety performance in various business areas, thus ensuring the safety of the public, passengers and employees. We introduce new technologies and new ideas into operation management, to raise the operational service and maintenance efficiency and quality, and better passenger experience by transforming the internal space of stations and trains, adding diversified convenience service equipment and facilities, and carrying out M-Series public interest programs. Meanwhile, we build a career

development ladder, optimize job rank structure, establish an employee competence model, and improve the learning development system, to support employees' long-term development. We actively carry out the Special Experience Officer program and expand We Media platforms, to listen to the public and communicate wider with stakeholders. We continue to promote BJMTR Safety Camp program and develop metro STEAM Education courses, to cultivate teenagers' awareness of safe travel and innovative spirit, and empower the community with advantage of rail transit industry. In addition, we strengthen exchanges and cooperation with local governments, associations and peer companies, to tap into model innovation and personnel training, and jointly promote the urban rail transit industry towards sustainable development. Moreover, we launch energy-saving and carbon-reducing programs in trains, stations and depots, and increase the use of clean energy, facilitating Beijing, and even China, to achieve carbon peak and carbon neutrality.

We believe that advancing the coordinated development of economy, society and environment is the key to sustainable development. In the future, we will further improve our operational service, optimize the public's travel experience, and strengthen the integration with communities, creating a more pleasant urban travel space. We will actively respond and live up to the expectations of stakeholders and keep optimizing CSR system with a responsible attitude and innovative measures. Furthermore, we will join hands with employees and partners to grow together, so that rail transit can better promote sustainable and high-quality urban development and contribute to building China into a country with strong transportation network and realizing SDGs.

**Wilson Shao**

**General Manager of Beijing MTR Corporation Limited**

# Figures of BJMTR

980 million

Total passenger journeys

22,853

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

5.81 %

Increase compared  
with 2018-2019

148.5 km 1/5 of Beijing metro network

Total route length in service by the end of 2021

91

Stations in service by the  
end of 2021

11 times

Optimization of train diagrams

1.127 million

Average daily patronage in 2020

1.544 million

Average daily patronage in 2021

99.99 %

Train punctuality and train service delivery

< 2 min

Shortest headway

122 days

Numbers of days extending operation time

759 GWh

Total electricity consumption

3.64 %

Decline compared with 2018-2019

100 %

AED coverage

136

New self-service machines

1,024

Emergency drills

92 %

Passenger satisfaction in 2020

95.43 %

Passenger satisfaction in 2021

8,610

Employees in total by the end of 2021

6.22 million

People benefited from BJMTR Safety Camp online and offline

3,365

Employees with vocational skill level certification

2,905

Volunteer hours



Scan to learn more



# About Us

Established on January 16, 2006, Beijing MTR Corporation Limited is a joint-venture company of Beijing Infrastructure Investment Co., Ltd. (BIIC, 2% shareholding), Beijing Capital Group (BCG, 49% shareholding) and MTR Corporation (MTR, 49% shareholding). At present, BJMTR participates in the investment, construction and operation of Beijing Metro Line 4, Line 14 and Line 16 by adopting PPP model, and is responsible for the operation and management of Daxing Line and Line 17(with rolling stocks lease).



**200<sup>+</sup> km**

Total route length of lines  
under administration



**148.5 km**

Route length in service



**91**

Numbers of stations



# Corporate culture

## Vision

- Based on the idea of Transit Oriented Development (TOD), facilitate diversified businesses, connect, and promote community development with caring services, become a leading city operator in the world.

## Mission

- Provide safe, reliable, comfortable and convenient services, create a civilized and friendly travel environment, improve the quality of urban life, and make BJMTR the customer's first choice.
- Encourage employees to learn and innovate, provide them opportunities to grow along with the company.
- Based on railway transportation construction and operation, realize sustainable development, and provide good return on investment to shareholders.

## Values

### Safety First

- Mitigate foreseeable risks systematically and properly, safeguard the safety of public, client, and staff.
- Possess enough knowledge and skill, secure the quality of work.
- Be abide by procedures, execute precisely according to the procedures, and let safe behavior become a habit.

### Customer Focused

- Be customer focused, actively foresee, listen to and response to the demand of client.
- Keep service commitment, exceed the expectation of customer.
- Be professional at all the time, win the respect and trust of customers.

### Efficiency and Effectiveness

- Pursue holistic interest of the company.
- Be goal targeted, break through tradition and convention, solve problem with innovative ideas.
- Be cooperative to achieve synergy with staff's complementary strength.

### Can Do

- Self-initiated with strong career ambition, stand for high standard professionalism.
- Face challenge and be accountable, be good at solving problem with available resources to achieve the goal.
- Establish close inter-trusted and cooperative working relationship with internal and external partners.

## Our strategy

Guided by our vision, mission and values, we have planned the strategic direction for 2020-2024, which clarifies and decomposes management guidelines in business activities for implementation.



Framework of Relationship between VMV and Strategy

### Strengthening core business in rail transit

- Enhancing work quality and passenger experience
- Improving the professional skills of employees
- Intensifying experience sharing and knowledge management
- Applying international advanced rail transit management and technology

### Expanding into relevant fields

- Operating rail transit business around the Beijing-Tianjin-Hebei region
- Promoting the strategy of TOD to develop new business
- Using new technology to advance the development of public transit and related industries
- Innovating in business models

### Creating benefits for stakeholders

- Responding to the needs of the government to advance the industry development
- Ensuring good return on investment for shareholders
- Creating an attractive employee development platform
- Coordinating development with other external stakeholders
- Practicing CSR and promoting the brand of BJMTR

### Pursuing sustainable development

- Maintaining the integrated management system and implementing the concept of total quality management
- Developing a learning organization
- Reasonably planning and increasing the effective utilization of resources with business acumen
- Treating each other as customers to enhance collaboration

# Corporate Governance

A sound governance structure and an efficient governance mechanism jointly constitute the basis for an enterprise to fulfill its business objectives and development vision. Clinging to the concept of responsible management, BJMTR promotes system construction, optimizes the internal control process, and systematically identifies and prevents internal and external risks related to corporate governance, quality and safety, thus injecting sustainable strength into corporate management.

## 100%

Due rectification completion rate after passing the audit of quality, environment and occupational health and safety management systems

## 100%

Due rectification completion rate after being certified to ISO 27001 Information Security Management System (ISMS)

## 100%

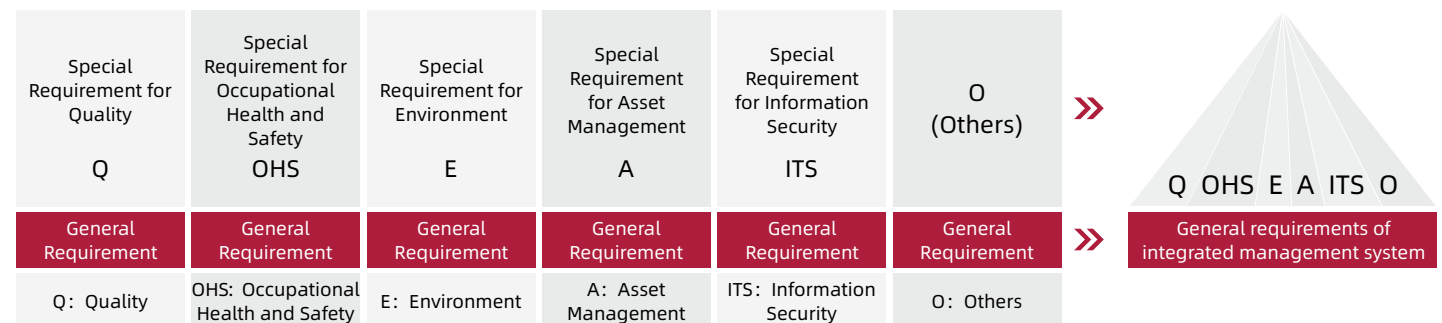
Due rectification completion rate after being certified to ISO 55001: 2014 Asset Management - Management Systems (AMMS)

## Organization structure

As the highest authority of BJMTR, the Board of Directors (BOD) decides major issues in accordance with the provisions of the Articles of Association. The GM Office Meeting and the Audit Committee are set up under the BOD. As the highest management organ of BJMTR, the GM Office Meeting is responsible for all daily operation and management activities, and decides all issues related to the operation, management and maintenance of the lines operated by BJMTR. The Audit Committee supervises the operation of both financial reporting system and internal control system, and reports directly to the BOD.

## 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. Under the PDCA( (plan-do-check-act)management logic, the system manages existing business sectors and business value chains in a closed loop, clarifies the functions and responsibilities of various departments, and identifies key business links, so as to effectively optimize management methods and streamline workflow.



BJMTR integrated management system



Certificate of Registration of ISO 55001:2014 Asset Management - Management Systems

## Case

### BJMTR's signature asset management system

Operation assets refer to equipment and facilities that directly serve metro operation and have clear quantifiable business functions, which play a decisive role in metro operation safety, performance and cost. Under the framework of integrated management system, we have fostered a signature asset management system combining relevant international standards with our business model, to effectively improve asset management efficiency and asset utilization. We were certified to ISO 55001: 2014 Asset management - Management systems in 2020, becoming one of the enterprises certified to AMMS early in the domestic rail transit industry.

## Total quality management

Putting quality at the core, we have established a scientific, rigorous and efficient quality system to provide services that meet the needs of users. In 2020, we launched the work of total quality management, aiming to translate the concept of total quality management into concrete quality improvement actions. We advocate the concept of "Responsible for Quality". With lean production quality tools such as value flow chart, GEMBA Walk and practical problem-solving methodology, we have helped business departments improve work quality, enhance business performance and provide better travel services for passengers.

## Risk management

We have established a set of management mechanisms for identifying, evaluating, registering and controlling possible impacts on operation, reputation, finance and safety to actively identify various risks and better grasp opportunities. We also regularly publish the *Enterprise Risk Management Newsletter* to enhance employees' awareness of risk prevention.

## Ethics and integrity

We strictly abide by the *Companies Law of the People's Republic of China* and other laws and regulations governing anti-corruption, fraud, and money laundering. We integrate morality and integrity building into internal regulations such as the *Regulations on the Management of Employee Behaviors*, and hold zero tolerance for any violations of laws and occupational ethics on corruption, bribery, fraud and money laundering.

# Safe Travel



## Indicators of ESG

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

B6 Product Responsibility:  
GDB6, B6.5

B8 Community Investment:  
B8.1, B8.2



0

Accidental casualties



109.39 million car-km/time

Train service reliability in 2020\*



59.21 million car-km/time

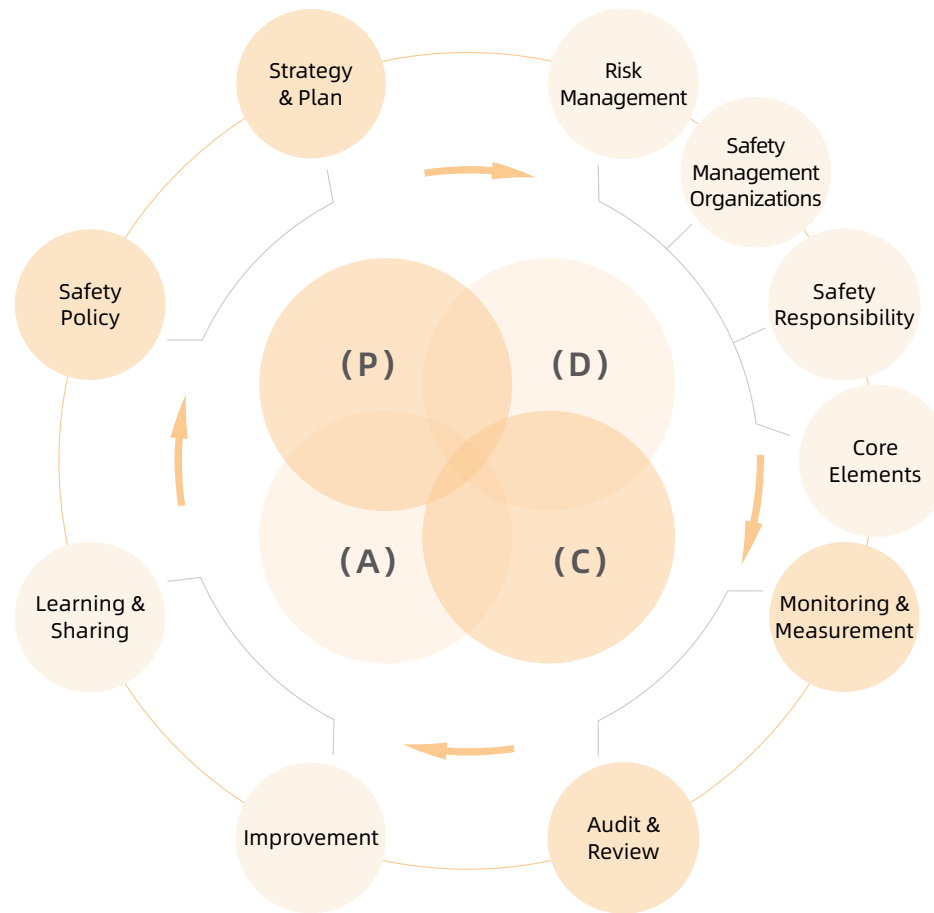
Train service reliability in 2021\*

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

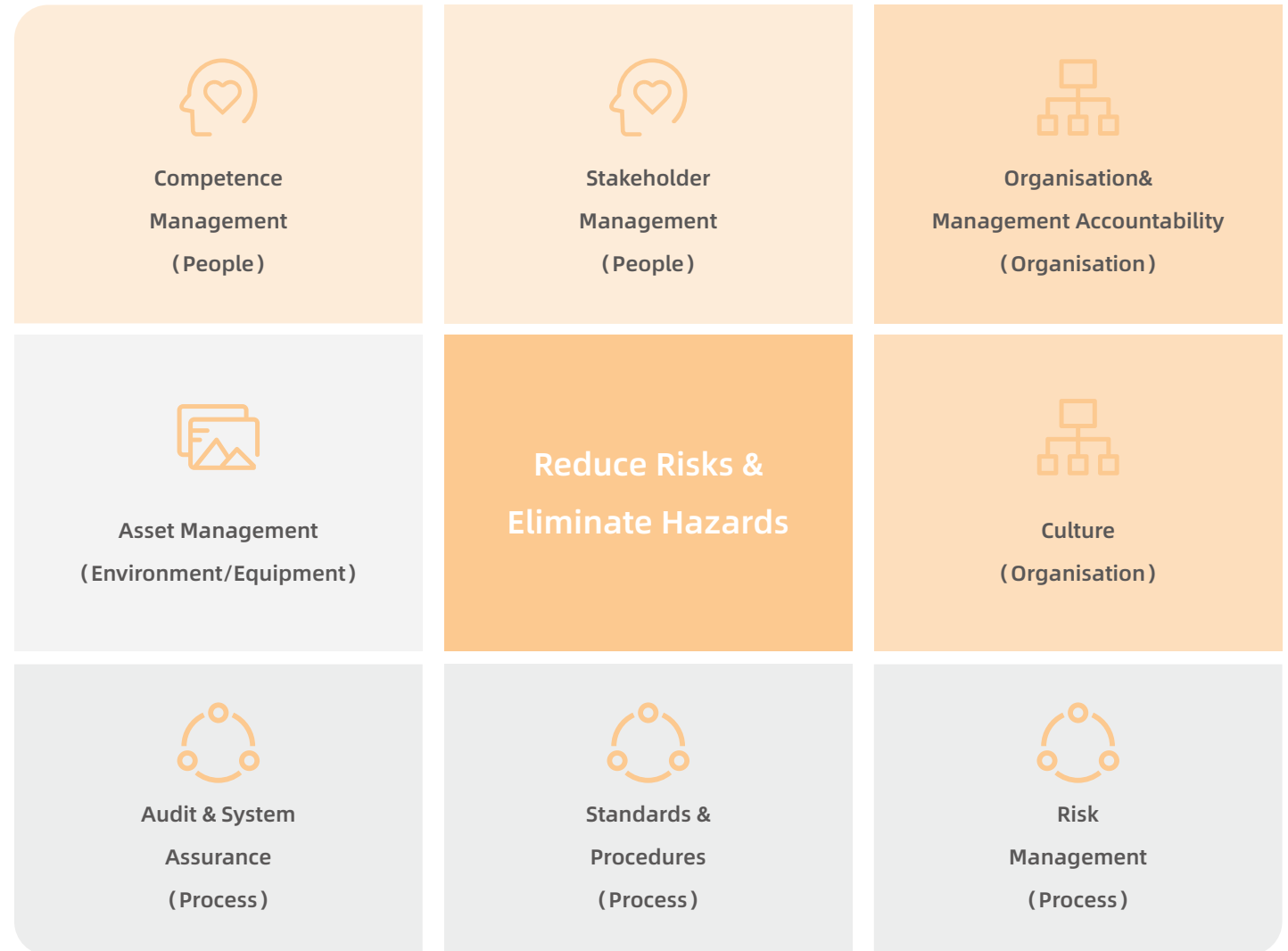
It is our primary goal to make every metro journey safe and reliable. In line with laws and regulations and based on effective management mechanisms, we keep improving our safety performance in various business areas, and systematically and reasonably mitigate foreseeable risks, to ensure the safety of the public, passengers and employees.

## Building a safety management system

With a focus on frontline risks and hazards in metro operation, we develop specific management objectives and measures around eight core elements of safety management system, and strive to achieve the primary goal of “reducing operational and occupational health risks and eliminating hazards” by improving safety performance.



Framework of safety management system based on PDCA cycle



Eight core elements in safety management



## Strengthening operational risk management

Effective control over metro operational risks is the basis of our safety management. In 2020 and 2021, we continuously strengthened management of risks and hazards to minimize operational risks to a reasonably feasible level, and took measures such as data analysis, system improvement and activity promotion to reduce human-caused incidents.

### Risk management

- Establishing a hierarchical risk management organization, clarifying relevant responsible persons, and holding regular meetings to discuss risk-related issues
- Identifying risks according to the *Administrative Measures for the Classified Control of Urban Rail Transit Operational Safety Risks and Disposal of Hidden Dangers*
- Leveraging ASRisk system for IT-based dynamic management
- Identifying the risks in operational risk incidents occurred
- Identifying operational risks arising from upgrading and renovation and conducting quantitative risk assessment and value assessment

### Hazard management

- Establishing and updating the record of hazards in accordance with the actual conditions of all departments
- Launching identification and disposal of hazards by “one Hazard Checklist for one position” to eliminate violations
- Developing rectification plans for internal safety hazards
- Coordinating with external entities to develop rectification plans or improvement measures for safety hazards involving external cooperation

Operational risk control elements

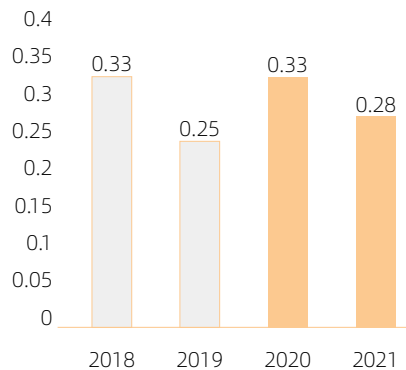
### Case

#### Raising the risk warning level for escalators

In 2021, based on relevant data collected from CCTV monitoring system, we analyzed information in passenger injury data, such as passenger types prone to fall, and the location and time of passenger injuries. Accordingly, we optimized warning and alarm strategies, scoring a 100% detection of personnel falling and a 93.33% correct detection of targets with mobility inconvenience. As a result, the frequency of passenger falling on escalators was controlled technically.

## Ensuring safe metro operation

### Number of passenger injuries per million passenger journeys



\*Note: Passenger injuries not caused by BJMTR are included to better improve our safety and management quality.

As an operator of urban rail transit, we regard safety as our key responsibility as always. While improving the reliability of operating equipment and facilities and securing the safe operation of metro information system, we step up efforts in emergency management capabilities, creating a safe travel environment and workplace to ensure operational safety.

### Lean production

Metro operation involves a large number of equipment and facilities. To ensure them in good conditions, we introduce the concept of “lean production” to improve maintenance efficiency and quality, securing metro operation and passenger safety with reliable equipment and facilities. We carry out fine maintenance on equipment and facilities, with a focus on accuracy and effectiveness. After the research, analysis and evaluation of maintenance data, we identify the key parts of professional equipment prone to failure. Through accurate and deep maintenance or optimization of local key points, we have improved the maintenance quality of equipment and facilities to ensure their safe operation.

Since 2020, we have rolled out lean production projects in electromechanical, power supply, track, train, signal system, communication system, automatic fare collection (AFC) system, among others. Dozens of such projects have been completed.

Track Quality Index (TQI) is an international comprehensive index and evaluation method of track quality. Our track team takes to lead in introducing the concept of TQI in China’s rail transit industry, and using it to control track quality. We have achieved the target of controlling the TQI of BJL14 and BJL16 below 8 and that of BJL4-DXL below 10, through workflows such as inspection by track inspection car, manual analysis, formulation of maintenance plan, standardized operation (including rail pre-grinding, customized grinding, and elimination of rail joints), and operation quality back-check. Currently, all our lines are up to and beyond the industry standard and Beijing rail transit standard, indicating a leading level in the domestic rail transit industry.

### Case Fine testing and maintenance reduce the failure rates of platform screen doors

Since failures of electromagnetic lock wire series on the platform screen doors of BJL16 could not be identified intuitively and handled easily, and electromagnetic lock wire series do not support a simultaneous test of multiple doors, we designed and produced a test kit. Upon test with the kit, maintenance personnel can accurately identify the cause of failure, effectively improving the maintenance efficiency. No similar failures have occurred since then.



Maintenance of electromagnetic lock wire series

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# 1,024

Large-scale emergency drills in 2020 and 2021

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## Emergency management

Under the safety management concept of “safety first and prevention priority”, we continuously improve our emergency management system, revise our comprehensive plan, and organize emergency drills in accordance with laws and regulations, so as to comprehensively strengthen safety precautions and timely respond to emergencies. For example, before the opening of new lines, we will organize comprehensive emergency drills with external forces including public security and law enforcement brigade to raise the emergency awareness and response capabilities of our employees, so as to effectively protect the safety of passengers.



Emergency drill

## Information security

As the information technology (IT) develops rapidly, the information security in metro operation is increasingly significant. In recent years, China has introduced a series of information security laws and regulations, including the *Cybersecurity Law*, the *Data Security Law*, the *Personal Information Protection Law*, and the *Regulation on Protecting the Security of Critical Information Infrastructure*, raising information security to a national strategy. As always, to secure the safe operation of metro information system and protect passengers' personal sensitive information is one of our sustainability priorities. In 2020, we set up an information security team to develop a sustainability information security system with BJMTR feature built on scientific information security framework and concepts at home and abroad.

In 2020 and 2021, as an operator of Beijing Rail Transit under key protection, we participated in the key network security task of many events. We developed targeted work plans in accordance with the event characteristics, with a focus on strengthening the overall monitoring over industrial control information systems, multimedia screens of stations and trains, and office networks. By resolutely implementing the “regular report” system of information security incidents and the 24/7 duty system, we ensured the safe operation of corporate information system during the process.

BJMTR values the protection of passengers' information security. By enabling manual review and mask processing in our external publishing system, we can shield personal privacy information and thus protect passengers' information rights.

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BJMTR was re-certified to

# ISO 27001: 2013

Information Security Management System in both 2020 and 2021

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## Creating a safe travel and work environment

The COVID-19 impact not only affected people's daily life and work, but also posed great challenges to metro operation. As the health and safety of passengers is our priority, we scientifically and orderly take preventive measures to provide passengers with a safe, convenient and healthy travel environment. Moreover, we make all-out efforts to protect staff's safety and health, such as building internal safety culture to improve their safety capabilities and awareness.

### COVID-19 control

At the outbreak of COVID-19, we set up a COVID-19 task force to guide working groups on timely deployment. We adopted scientific and precise preventive means in strict accordance with government requirements and measures to ensure passengers' travel.

#### Creating a safe travel environment

##### Properly arranging transport capacity

- Preparing train diagrams according to maximum transport capacity and dispatching flexibly based on actual passenger flows
- Preparing spare train, extending operating time and increasing shuttle trains as appropriate to reduce gathering in trains and stations

##### Increasing preventive measures

- Setting up fixed temperature measuring devices, together with hand-held equipment, to realize fast temperature measurement in stations with large passenger flow
- Equipping each security check point with a temporary isolation area for passengers with abnormal body temperature, and reporting any abnormality to the relevant medical department as soon as possible
- Applying large circulation operation mode to stations and trains throughout the day, to increase ventilation volume
- Disinfecting tickets for passengers, disinfecting automatic fare collection and security check facilities once an hour, and disinfecting all public areas five times a day
- Increasing disinfection of toilets, with those at interchange stations and key stations disinfected every half an hour, as well as disinfection of faucets, handrails, buttons and other parts where passengers frequently contact
- Carrying out train-wide disinfection with dates indicated, before departure, at shuffles and after return

##### Refining the passenger transportation management plan

- Applying "one plan for one station" to passenger flow management, and strengthening promotion and guidance outside each station to disperse passengers at entrance and exit
- Equipping with an observer to monitor the load factor of the trains in real time, and taking flow limiting measures as appropriate

##### Establishing a cooperative mechanism

- Establishing a linkage mechanism composed of station police, track law enforcement, local government, courtesy guide and bus connection to jointly maintain the order inside and outside the station

##### Launching promotion of COVID-19 control in various forms

- Producing a promotional video on COVID-19 response and broadcasting it circularly on the Passenger Information System (PIS)
- Promoting preventive measures to passengers by in-station light box, poster, banner, PIS, public address system, advertisement and self-media matrix
- Producing posters to popularize preventive knowledge for metro travel, and putting up them in communities en route

Meanwhile, BJMTR established a regular COVID-19 response mechanism, and issued and implemented the *Emergency Plan for Public Health Incidents of Infectious Diseases*, with an aim to strengthen the health testing, protection, promotion and education of employees, thus ensuring their health and safety.

### Strengthening internal preventive measures

#### Strictly implementing COVID-19 monitoring

- Releasing the *Handling Procedures for Emergencies such as Fever and Suspected Confirmed Cases during the COVID-19 Response Period* to ensure timely handling of emergencies
- Checking and recording the health status of employees, and measuring body temperature for all on-the-job employees on a daily basis
- Establishing an information notification process and implementing a regular report system to track and follow up the return travel information of employees leaving Beijing

#### Strengthening employees' protective capabilities

- Providing PPE (Personal Protection Equipment) supplies for employees, including masks, gloves, goggles and disinfectant, in accordance with job needs
- Strengthening disinfection of all public areas such as centralized office areas, canteens and apartments, no less than three times a day
- Advocating video conferences based on network systems to avoid gathering
- Strengthening canteen management through one-way access and one person at each table for dining
- Enabling online office system and cloud desktop channel to secure flexible office

#### Carrying out promotion and education

- Releasing COVID-19 control model stories and promotional videos on internal newsletter, intranet and corporate culture mini program, to promote preventive knowledge and strengthen employees' awareness of protection
- Launching COVID-19-related trainings on online learning platforms such as E-learning, to guide employees for sharing and learning



Station disinfection by staff



In-station promotion of COVID-19 control

## Internal safety culture

We always pay attention to the physical and mental health of employees. We increase efforts in work-related injury management and occupational health management. By fully identifying operational risks, carrying out regular occupational health checks and occupational health hazard detection, and organizing safety capability training, we improve our employees' safety capabilities and awareness on an ongoing basis.

We have rolled out various internal safety culture activities under the theme of "Can Do to eliminate safety hazards and safeguard the security defense". In particular, we continue the Behavior-Based Safety (BBS) Project to enhance employees' safety awareness through promoting concepts, training observers, observing, recording and analyzing unsafe behaviors, and making corresponding improvements.

In 2021, we passed the re-evaluation of "Beijing Safety Culture Demonstration Enterprise" by Beijing Emergency Management Bureau.

### Case Launching the "Fall Protection and Limited Space Rescue" campaign to improve employees' rescue capability

BJMTR launched the "Fall Protection and Limited Space Rescue" campaign in the "Special Experience Center for Fall Protection and Limited Space Rescue" with advanced equipment. In an experiential drill mode, the campaign facilitates employees to understand the types and use methods of individual anti-fall safety equipment, master the protective requirements for high-altitude operations, and experience emergency rescue measures in limited space.

119,990 hours

Corporate-level safety training in 2020 and 2021

85

Safety culture campaigns in 2020 and 2021



An employee with limited space rescue equipment



Safety knowledge contest



Safety review activity

# A Pleasant Urban Travel Space



## Indicators of ESG

B6 Product  
Responsibility:  
GDB6



**99.99 %**

Train punctuality and  
train service delivery



**11 times**

Optimization of train  
diagrams



**122 days**

Days extending operation  
time



**136**

New self-service  
machines

Space is built for people. Putting people's perception and experience at the core, BJMTR provide travel services for passengers from preparation to take the metro to arrival at the destination. Functions such as convenience, art and culture are also integrated into our operation for creating a pleasant urban travel space.

After the trial operation of new train diagrams, the one-way peak-hour transport capacity of DXL has increased by **36%**, equivalent to additionally transporting about **10,000** passengers per hour for one way

By adding trains in service and optimizing the train scheduling, the transport capacity of BJL14 can be increased by **34%**.

## Improving metro transport capacity

In 2021, three new lines (sections) were opened, offering passengers more convenient travel choices. Meanwhile, we optimized the train scheduling of lines already in service and shortened the minimum headway during peak hours, to improve transport capacity and provide passengers with a better travel experience.

### Three new lines (sections) opened

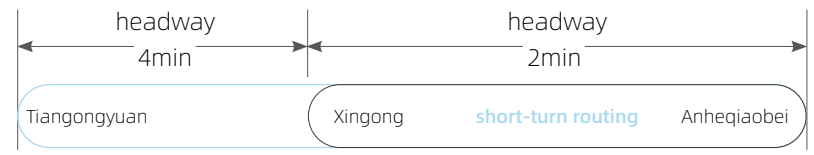
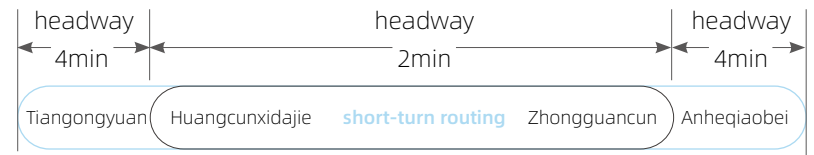
On December 31, 2021, the south section of BJL17, the remaining section of BJL14 and the Yuyuantan Park East Gate station of BJL16 began operation simultaneously. On the same day, the BJL14 realized full line operation. Since then, the total length in operation of our network reached 148.5 km.

- From Jiahuihu station in the south to Shilihe station in the north, the south section of **BJL17** is composed of seven stations with a length of 15.8 km. While providing convenient metro travel for more passengers, its operation will effectively boost the development of the new urban area.
- Composed of five stations, namely Dongguantou station, Lize Shangwuqu station, Caihuying station, Xitieying station and Jingfengmen station from west to east, with a total length of 50.8 km, the remaining section of **BJL14** offers residents en route more travel convenience.
- Yuyuantan Park East Gate station was opened and thus increased the total length of **BJL16** to 31.9 km, which is convenient for commuters around and passengers visiting Yuyuantan Park.

### Better train scheduling

We keep seeking an optimal match of transport capacity and volume, and adjust the train scheduling in accordance with the change law of passenger flow to cope with the staged large passenger flow during morning and evening peak hours.

- BJL4-DXL: We try out new train diagrams based on the innovative train scheduling mode of combined long-turn and short-turn routing: add transport capacity into DXL before 8:00 and more empty train for short-turn routing into BJL4 after 8:00 on workdays. By this means, we can deal with uneven passenger flow at different periods and sections, and guide passengers to travel at off-peak hours.
- BJL14: We shorten the headway of the east section of BJL14 during morning and evening peak hours to three minutes on workdays, adjust the time of first and last trains, and extend the operating time of both west and east sections of BJL14, to facilitate passengers' travel.
- BJL14: We extend the peak hour service time of the east section of BJL14 by half an hour from 16:57-19:15 to 16:57-19:45, allowing for an increase of transport capacity by 40%, which can transport additional 1,860 passengers, thus ensuring smooth travel.



long-turn routing

Train scheduling mode of combined long-turn and short-turn routing for BJL4-DXL



## Optimizing service quality

Putting customers first, we constantly improve the quality of operation management and operation services. We evaluate daily service performance, listen to and handle feedback, and timely respond to passenger needs, to provide metro services that meet passengers' expectations.

### Evaluating and improving service level

Guided by SERVQUAL model, by evaluating the existing service level from sign, information, equipment and facilities, environment and order, train service and service provided by staff, we measure the gap between existing service and passengers' expectations, to accurately improve service quality.

### Conducting passenger satisfaction surveys

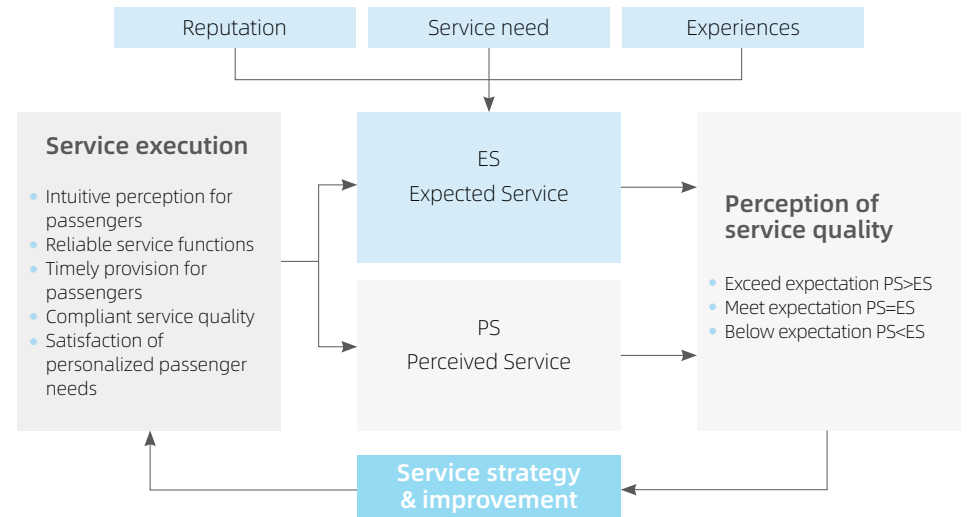
In accordance with the *Evaluation Standard of Urban Rail Transit Service Quality* issued by the General Office of the Ministry of Transport, we have developed an indicator system of passenger satisfaction, and also engage a third-party investigation agency to professionally evaluate our operation service level, identify core advantages and shortcomings, and track passengers' needs, so as to better meet their expectations.

### Responding to passenger complaints and comments

We anticipate, listen to, and respond to customer needs and actively seek solutions to enhance service experience.

### Upgrading service image

Our second-generation uniform together with its accessories are comprehensively upgraded from appearance, material and functions. While featuring humanity and affinity, our uniform becomes more recognizable, which is convenient for passengers to identify and get help quickly.



BJMTR service quality model

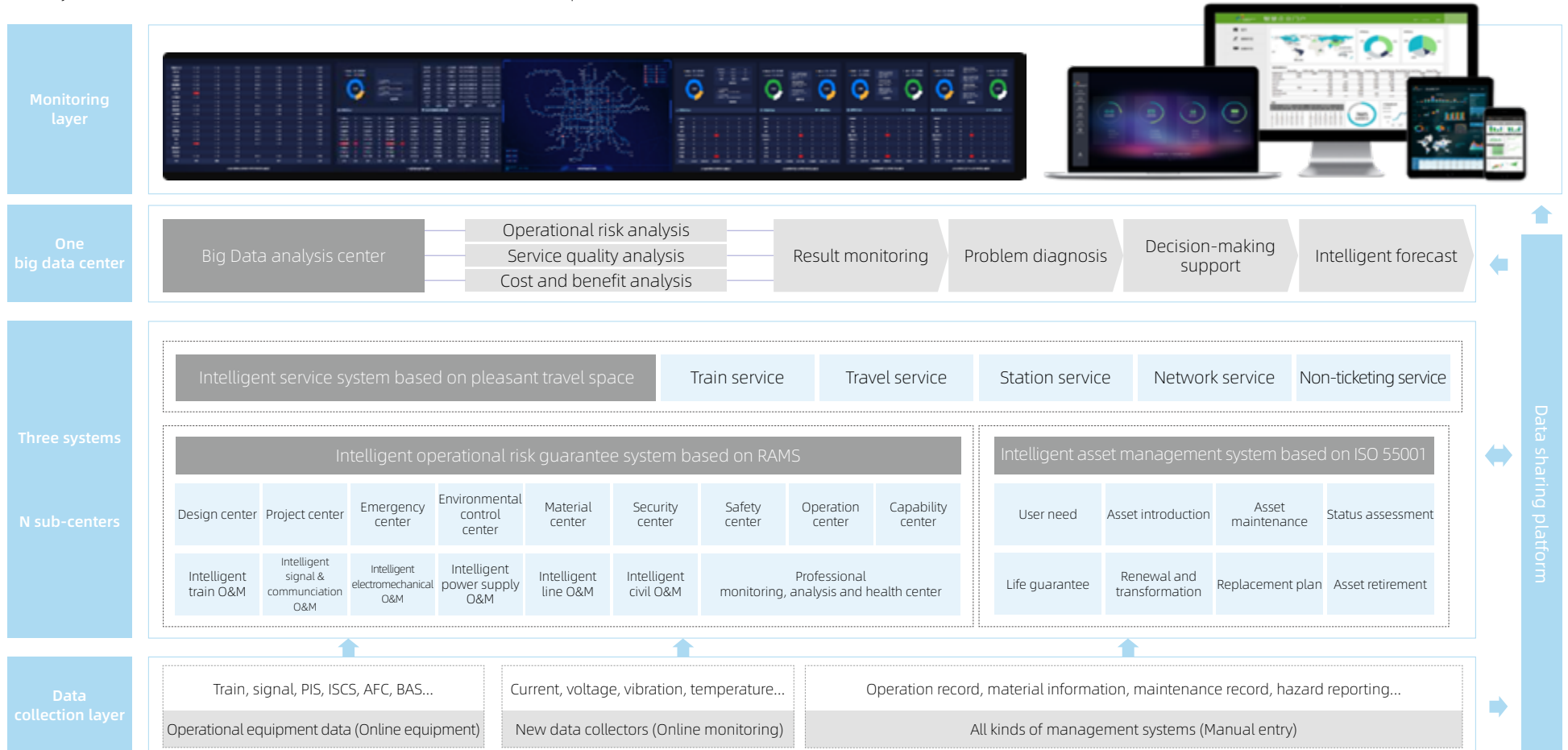


BJMTR second-generation uniform

# Building smart metro

With the development and application of new technologies such as big data, Internet of Things (IoT) and artificial intelligence (AI) in the field of rail transit, smart metro has brought passengers a more convenient and efficient travel experience. We introduce new technologies and new tools to build systematic solutions for intelligent operation, service and asset management, so that metro can better serve urban life.

By working out the master plan for “1+3+N” smart metro, we improve both safe operation and passenger service to maximize the application value of assets. The plan was released in the whole industry as one of the achievements of the 2021 China Summit of Metro Operators.



Overall architecture of “1+3+N” smart metro

Based on the master plan for “1+3+N” smart metro, we constantly introduce intelligent and innovative technology projects, to provide passengers with a safe, comfortable and intelligent travel experience.

#### Case Intelligent station service robot on duty to offer a better travel experience

“Dear passengers, you are arriving at the National Library station” . On September 28, 2021, our travel service robot Jim provided passengers with intelligent services at the National Library station. As Beijing rail transit’s first intelligent station service robot, Jim features multiple intelligent service functions, such as in-station navigation, response to passenger questions, and information inquiries, as well as autonomous learning, providing passengers with a better travel experience.

#### Case China’s first OCC expert robot developed to improve the efficiency of fault handling

In 2021, BJMTR completed China’s first OCC expert robot project through a series of research and development. While assisting dispatchers in both fault analysis of emergencies and recording of fault handling to effectively improve efficiency, the OCC expert robot helps them learn professional skills and increase business skills which secure passengers’ safe travel.



Intelligent station service robot

## Improving in-station equipment and facilities

In 2020 and 2021, we renovated numerous in-station equipment and facilities, including adding AED facilities, transforming transfer passages and AFC gates, optimizing signs, upgrading air conditioners, and adding heaters, to bring passengers a more safe, convenient and comfortable travel experience.

### Full coverage of AED equipment

We have gradually equipped all our 91 stations with AED and developed AED use guidelines, to ensure that staff can use them correctly and skillfully. All of our front line station staff have completed the training provided by a first-aid professional institution and obtained relevant qualifications. (Note: AED = Automated External Defibrillator)



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# 100%

AED coverage in all 91 stations in service

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BJMTR AED equipment

## Convenient and comfortable stations

To provide better travel experience, we focus on improving the convenience and comfort of the station environment, and are committed to creating a pleasant travel environment for passengers.

- Renovating and upgrading air conditioners: In July 2020, 36 air conditioners at Xizhimen station of BJL4 were transformed into 40 new air conditioners with air outlets on four sides, more evenly and faster cooling the environment during summer days.
- Adding heaters: In December 2020, heaters were added outside B2 of DXL Xihongmen station during cold wave.
- Transforming transfer passages: Transfer passages at Xuanwumen station of BJL4 have been renovated by increasing BJL2 to BJL4 transfer passages from one to two, and BJL4 to BJL2 transfer passages from one to three. Thus, BJL4 to BJL2 transfer time during peak hours is reduced from eight minutes to less than three minutes, facilitating passengers to transfer quickly.
- Transforming and replacing AFC gates: Five one-way AFC gates at Jiangtai station of BJL4 have been replaced with two-way AFC gates. During morning and evening peak hours, our staff will adjust the inbound and outbound modes in accordance with passenger flows, so as to facilitate fast passenger access.



36 air conditioners at Xizhimen station of BJL4 have been transformed into 40 new air conditioners with air outlets on four sides

Fast access after replacing one-way AFC gates with two-way AFC gates in Jiangtai Station

## Eye-catching signs

In 2021, we optimized and integrated the signs in stations and on trains, aiming to provide passengers with more timely and eye-catching travel guidance.

Optimizing self-service ticket purchase signs for all lines operated by BJMTR, including TVM signs and those in customer service center, to guide passengers for fast self-service ticket purchase, recharge and adjustment.

Replacing some traditional printed comprehensive information signs with LCD screens, adding PIS screens to display dynamic information, and setting up electronic signs at key positions in stations of the south section of BJL17, to help passengers obtain more timely and accurate travel information.

Putting up a LCD dynamic electronic map on the upper part of each doors of trains of BJL17 for passengers to get the arrival information in time, and choose an appropriate in-station path after getting off through intuitive in-station information, such as the position of current carriage and the position of the platform after getting off.



LCD screen on the wall of the BJL17 station concourse



BJL17 in-train dynamic electronic map

## Providing diversified services

We always think in the shoes of passengers. Keeping an eye on actual needs of passengers in station concourse, transfer passages and trains, we constantly optimize service details to provide passengers with better quality and considerate metro services.

### More convenience facilities

Since the outbreak of COVID-19, on the basis of existing vending machines, ATMs, automatic photo-taking machines, fresh flower vending machines and POP MART vending machines, we have introduced mask vending machines to facilitate COVID-19 control and make passengers better protect themselves. In December 2021, we opened the first intelligent metro convenience store at Laiguangying station of BJL14, providing passengers inside and outside the station with convenient and considerate service, namely fair-price snack food and beverages, daily meals, and daily necessities, etc.



Intelligent shopping services for passengers in a metro convenience store

### Cultural & creative products

We constantly design and roll out popular cultural & creative products under rich themes in various forms, to satisfy consumers' pursuit of personality and fashion, increasing the fun of metro travel while providing metro services.



BJMTR building block train model

### Upgraded in-station media

We have replaced traditional light box media with LED electronic screens throughout BJL17, making it China's first metro line with full coverage of electronic screen media. We have also upgraded the traditional media at Xidan station, Wangjing station and Dawang Lu station with oversized light boxes + small spacing LED electronic screens. In this way, we strive to create Bright Series landmark new media, improving travel experience while providing passengers with more information.



Electronic media screen by platform trackside of BJL17

## Response to diversified passenger needs

Committed to social inclusion, we continuously create an open and inclusive metro environment to offer diversified passenger services.

### Equipping stations with baby care lounges

Seven stations in the south section of BJL17 are equipped with baby care lounges at the platform, to provide a private nursing environment for lactating mothers. Within nursing rooms are facilities such as baby care desks, sinks and hand dryers, as well as decorations such as artificial plants, cartoon posters and stickers to increase the cozy atmosphere.

### Renovating accessible travel facilities

In order to facilitate passengers in need, we have renovated accessible facilities, optimized the streamline of blind tracks, and added accessible signs in over 80 stations of BJL4-DXL, BJL14 and BJL16. Meanwhile, we have strengthened accessible trainings for employees to improve their capabilities of providing considerate services.

### Enjoying a journey with music

A cozy and relaxing travel environment can help busy passengers relieve stress during their journey. We play classic piano pieces as background music during our service hours at pilot station of Shilihe of BJL17, adding more warmth and music fun to travel.



Baby care lounge in a station of BJL17



## Creating cultural and art space

Metro culture is an important part of urban culture. We rolled out M-series public interest programs to leverage metro space to convey cultural and artistic inspirations via integrating cultural and art elements into stations ,bringing and artistic inspirations, bringing refreshing travel experience to passengers.

### M-Library

Jointly initiated by BJMTR and National Library of China, M-Library is a public interest program officially launched on January 12, 2015. Through in-station libraries, book trains, thematic stations, and interactive book drifting activities, the program recommends classic works of various themes and enables online free reading of high-quality e-books, so that passengers can enjoy reading during fragmented travel time. By the end of 2021, M-Library has provided passengers with free full-book reading of over 300 e-books and over 1,000 audio books, recording a total of 1,428,600 online views.

In 2020 and 2021, through six reading promotion campaigns under such themes as “Chinese Year of Poetry”, “Reading amid COVID-19”, “Listen to the Voice of the Times”, and “Enjoy Reading in Science and Technology” based on festivals and social hot spots such as Spring Festival, World Book Day, COVID-19 response, and the CPC’s centenary, M-Library pushed over 80 quality e-books and 20 audio books.



“Listen to the Voice of the Times” themed activity poster



Scan to read e-books by passengers

## M-Gallery

M-Gallery is a large-scale public interest program initiated by BJMTR in 2016. As the first metro gallery in Beijing, M-Gallery is built into a space of photos based on metro media, allowing passengers to experience diversified customs and cultures in metro stations during their fragmented travel time.

In July 2021, to celebrate the centenary of the CPC, the “Youth of the Times and Future Pioneers” works exhibition was held at the National Library station, which is China’s first 5G + MR (Mixed Reality) experience exhibition in the field of urban rail transit that combines the real world with the virtual world. Passengers can be immersed in some paintings and calligraphy works and interact with the works in real time during the exhibition.

## M-Broadcast

M-Broadcast is a public interest program initiated by BJMTR in 2017. By creating metro-related voices, the program enriches travel experience and conveys urban civilization, culture and sentiment.

From December 21, 2020 to January 1, 2021, The Fair and CCTV News organized the “Good Night 2020” warm metro voice activity, in partnership with 11 metro operators including BJMTR. A total of 13 celebrities and the BJMTR General Manager were invited to record good night voices, sending warm good night and New Year greetings to millions of passengers for 12 consecutive nights.



5G + MR (Mixed Reality) experience exhibition at the National Library station of BJL4

# Illumination of Future for Employees



## Indicators of ESG

B1 Employment:  
GDB1, B1.1

B3 Development  
and Training:  
GDB3

B4 Labour  
Standards:  
GDB4, B4.1



**8,610**

Employees in total  
by the end of 2021



**3,365**

Employees with vocational skill  
level certification



京港地铁  
BJMTR

BJMTR obtained the vocational skill level  
appraisal certification approved by the  
Beijing Occupation Skill Authentication  
Management Center

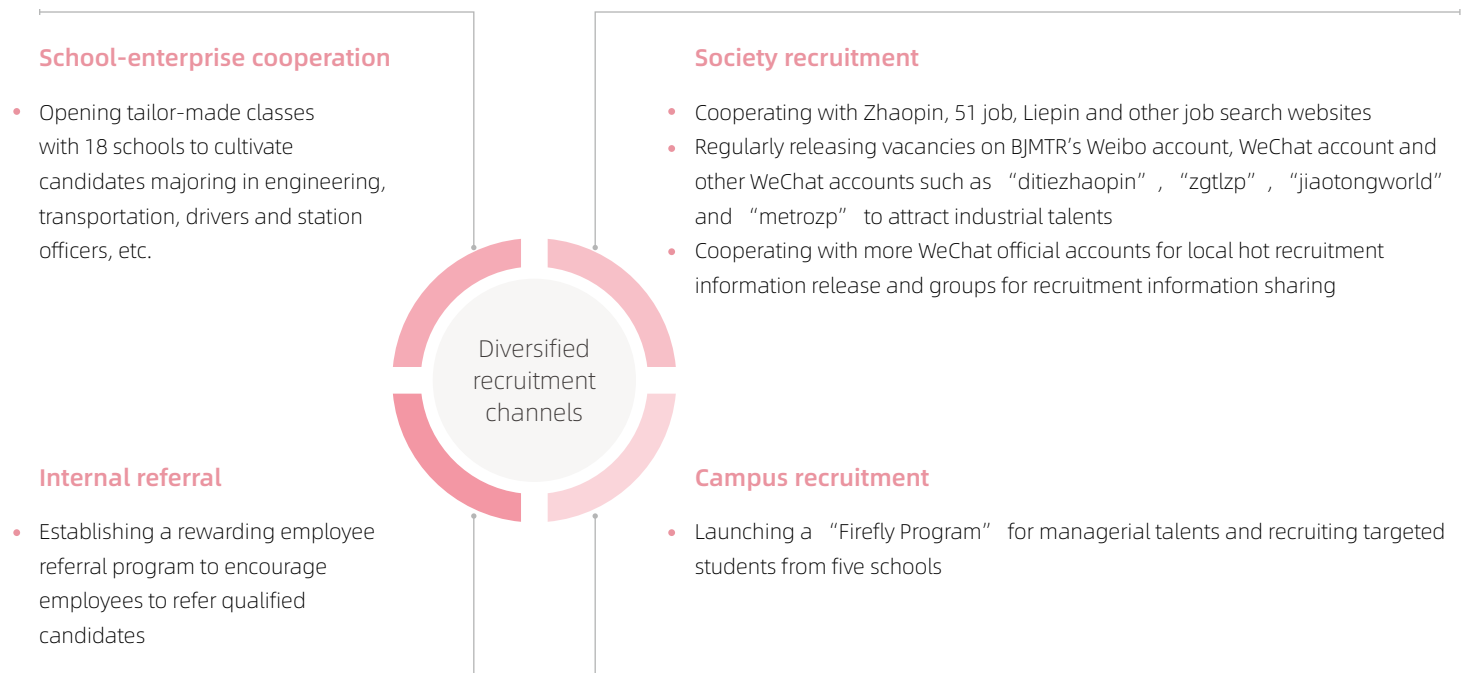
Employees are the greatest assets for BJMTR. We build a growth stage for self-actualization for employees, allowing them to sense all-round support from work to life as a sanguine striver.

## Protecting employee rights

BJMTR spares no effort in safeguarding the rights of every employee. In strict accordance with relevant national laws and regulations such as the *Labor Law* and the *Labor Contract Law*, we promote fair and just recruitment regardless of factors such as gender, nationality, religion and marital status and also attract professional talents from diversified recruitment channels, striving to create a workplace of equal opportunities and mutual respect for all employees.

## Diversified recruitment channels

In order to attract more professional and outstanding members, we recruit talents in various ways based on online and offline channels, including school-enterprise cooperation, campus and society recruitment, injecting fresh blood for sustainable corporate development. Moreover, we have established a rewarding employee referral program to encourage employees to refer potential candidates.



## Sound remuneration and benefits

We provide a system of sound remuneration and benefits. For example, we pay social insurances (endowment insurance, medical insurance, unemployment insurance, employment injury insurance and maternity insurance) and housing fund for employees according to law, as well as enterprise annuity plan as supplementary pension. Our social insurances and housing fund coverage is 100%. In addition to basic guarantee, we provide additional benefits such as commercial insurance and paid sick leave.

**100%**

Labor contract coverage in 2020 and 2021

**6.1%**

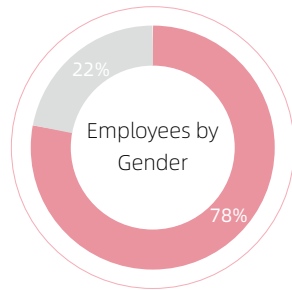
Percentage of employees from ethnic minority groups

**22%**

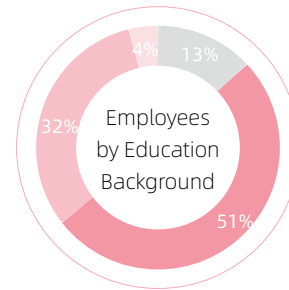
Percentage of female employees

In 2021, BJMTR was granted as one of China's Top 100 Employers in the selection jointly sponsored by Zhaopin and Peking University Center for Social Research

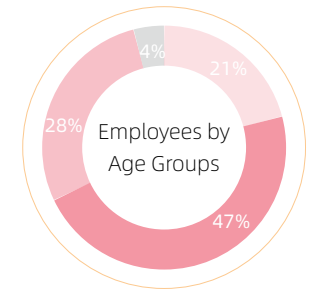
It has been the **5th** year in a row for BJMTR to receive this honor since 2017.



● Female ● Male



● Junior college below ● junior college  
● Bachelor's degree ● Higher than bachelor's degree



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

## Care for female employees

BJMTR is committed to maintaining gender equality in operation and safeguarding the legitimate rights of female employees. For example, in 2021, according to the latest birth policy in Beijing, we immediately adjusted the maternity leave management system to ensure qualified staff to enjoy relevant leaves as soon as possible. In addition, we organize a series of women-related activities every year to enrich their spare time and improve their well-being.



Thematic flower arrangement activity for female employees

# Supporting employee development

BJMTR values employees' long-term development. We have established competence model based on the new job rank system and a scientific and sound training system with rich training courses. All of these will help comprehensively enhance the personal ability of employees and continuously inject vitality into corporate development.

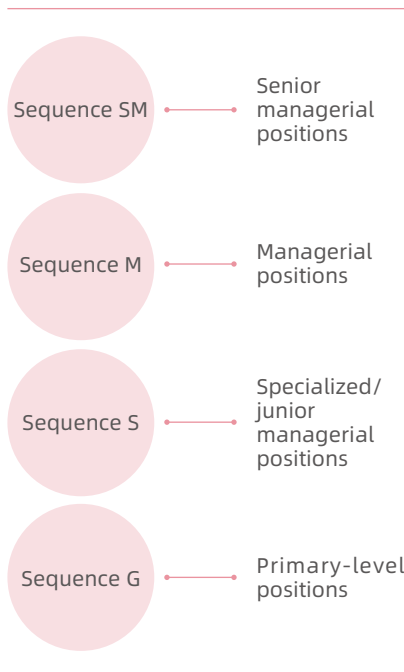
## Career ladder

We have optimized the original job rank structure into four sequences. Under hierarchical management, the new job rank system sets differentiated requirements and ranks for different sequences, creating different development paths. Dual channels of management promotion and technical development have been developed to help rationally plan the ladder for managerial and technical talents.

Through programs such as Firefly Program, Talent Farming Camp, Starlight Group, and Think Tank Group, we combine employee abilities at different stages with the talent development plan for more efficient program training and resource allocation, thus building a hierarchical career ladder for employees to help reserve core managerial talents.

## Employee competence model

Upon in-depth alignment with the strategy and future business planning, we have developed a competence model which clarifies the talent standards to lay the foundation for talent selection, development and performance management. The competence model identifies the talent requirements from role positioning, core business and relationship handling. Finally, nine core competence are defined to make clear the competence performance required by each job rank, helping employees clarify their current situation and development direction to match our talent training and management needs.



BJMTR's new job rank system

Competence Model			
Leadership and management ability	Strategic thinking	Business acumen	Incentive effect
	Employee management and development		
General ability	Work management	Problem solving	Pursuit of excellence
	Safety and quality		Communication and relationship management
Professional ability	Reference to resume and job description, including but not limited to related professional education, work experience and job qualifications		
Values	Safety First, Customer Focused, Efficiency and Effectiveness, Can Do		

Employee competence model

## Management training

We have built a sound learning and development system in accordance with job requirements and employee competence model. By combining course learning with employee career development paths, the system develops core courses and rules for managers at different levels. We also launch dedicated training and customized training programs for knowledge streamlining, experience extraction and learning transformation. Based on online and offline teaching, live streaming courses and other blended learning means, we keep advancing the deep learning cycle to comprehensively promote the practical ability of managers at all levels to be more professional and efficient.

Primary-level employees G1-G3	Supervisor		Managers M1-M2	Senior Managers SM1
	S1-S2	S3-S4		
Company policies and regulations*	Crew management skills*	Personnel management skills*	Team member management*	Strategic thinking*
Code of conduct for employees*		Problem analysis and solving*	Management execution*	
Safety knowledge*	Report writing*	Effective communication*	Manager workshop	
Basic operational knowledge*	Professional cultivation	Target management	Target management*	Reform management*
Customer services		Structured thinking writing	Financial management of non-financial personnel	
Can Do culture camp	Communication skills	Behavioral interview method based on ability	HR management of non-HR personnel	
Professional cultivation for employees		Project management	Thinking and decision-making	
Time management	Safety management workshop*	Strategic thinking	Coach skills/Subordinate training	
Problem solving tools	Performance coaching		Customer orientation	
	Expression presentation		Partnership workshop/Other workshops	
	Emotional stress management		VUCA leadership/Excellent team building	
	Can Do culture camp		Corporate operation sand table	
			Influence and expression	



Training on personnel management



Trainee tutor training program

79.4%

Average coverage of core management training courses in 2021

73,822 hours

Management training in 2020 and 2021

Note: The above core courses are general courses, and courses with \* are compulsory.

Core management training courses

## Skill training

We combine MTR's training system with our operational needs to form a comprehensive training mode focusing on skill upgrading training & teaching, with the support of the skill appraisal system. Relying on a sound training course system, skill training exercises and a modern training & teaching platform, we provide job skill training, appraisal and assessment for frontline metro operation employees, ensuring them equipped with required skills.

### Case School-enterprise cooperation cultivates professional talents

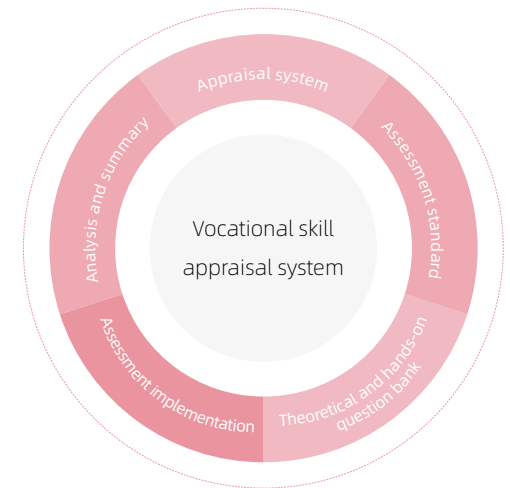
We have launched the tailor-made class program with Beijing Vocational Transportation College for 16 consecutive years, delivering quality talents for urban rail transit. Based on practical teaching, tailor-made classes combine hands-on courses with offline teaching to progressively transit students into professionals. While satisfying our demand for talent training, the program has improved the professional skills education level of Beijing Vocational Transportation College, achieving win-win cooperation.



Hands-on learning by students from a tailor-made class

## Skill appraisal

On the basis of skill training, we have established a complete vocational skill appraisal system to broaden the development channels of primary-level staff, helping improve their skills and ability. In 2020 and 2021, we obtained the vocational skill level appraisal certification approved by Beijing Occupation Skill Authentication Management Center and completed skill appraisal for 29 technical occupations, with a total of 3,365 employees obtaining relevant vocational skill certification.



Vocational skill appraisal system

874

new employees recruited through school-enterprise cooperation in 2020 and 2021

BJMTR was rated as **Beijing Corporate Practice Base for Vocational College Teachers** by Beijing Municipal Education Commission in 2020

BJMTR was rated as **Excellent Workplace Experience Base for Graduates in Beijing** in 2021



## Stimulating innovation

BJMTR encourages employees to face challenges and be accountable and strives to create a workplace of continuous improvement and innovation. Learning from the experience of MTR, we introduce the concept of work improvement to enhance work quality for better operation performance, while cultivating innovative thinking and systematic working methods of employees. Over the years, nearly 100 award-winning proposals in the Work Improvement Team (WIT) program have been promoted and applied in metro operation. In 2020 and 2021, we sorted out 62 gold award-winning proposals under continuous application and produced promotional videos of proposal application, to guide employees to stretch their brains as well as improve and promote continuous business optimization.



Steampunk Team participated in the 2021 WIT Online Annual Presentation Ceremony

### Case

#### Application of a WIT award-winning proposal

In 2020, BJMTR's proposal of Reducing Mismatch Rate of Train Station Parking in ATO mode of BJL4-DXL Trains won the WIT Best Proposal Award at the WIT Annual Presentation Ceremony(Chinese Mainland). Through design optimization to extend the train approach plate, the parking accuracy of train in ATO mode has been effectively improved and thus enhanced operation service performance and passenger experience. In 2020 and 2021, we renovated 24 platforms of BJL4-DXL, reducing the overall ATO mismatch rate by 52.81%.

ATO mismatch: Currently, most of metro trains adopt automatic train operation (ATO) mode. To ensure passengers to get on and off trains smoothly, accurate parking at the specified positions is necessary. In case of position deviation, the driver needs to park the train manually, which will affect subsequent train arrival and passengers' riding comfort, thereby reducing operation efficiency.

## Advocating corporate culture

BJMTR identifies culture building as a driver to corporate development. We have published the BJMTR 2.0 Corporate Culture Behavior Characteristics to deepen the spirit of Can Do, helping employees have a clear understanding of Dos and Don'ts and practice the invisible and intangible corporate culture. To implement the new corporate culture, we share culture behavior characteristics through various activities such as manager workshop training, orientation, starlight Q&A, knowledge contest, and VMV periodical Q&A, guiding employees to integrate cultural beliefs into their work behaviors.

### Case “Like V Action” cultural campaign

From June to September 2021, we launched the selection of original works related to cultural values. Employees were invited to show corporate culture practices of colleagues at work by videos and paintings, aiming to enhance their understanding and cognition of culture behavior characteristics, and motivate more employees to practice corporate culture. A total of 74 works (including 47 short videos and 27 paintings) were collected.



First Prize in Painting



First Prize in Video

### Case Culture-themed team building campaigns

In 2020 and 2021, we offered all departments a package of cultural activities based on new corporate culture, aiming to advocate employees to integrate corporate culture values into team buildings, enhance their understanding and perception of corporate culture, and raise team cohesion and sense of belonging. 59 culture-themed team buildings were held based on the package.



Culture-themed team buildings

## Safeguarding employee well-being

BJMTR is committed to creating a comfortable, healthy and pleasant workplace for employees. Moreover, we care for the physical and mental health of every employee and actively help them solve difficulties, so as to enhance their sense of happiness, belonging and identity.

### Protection of employee health

We value the physical and mental health of every employee. To this end, we offer regular health checks for all employees, including special ones for those of special occupations, and also provide health benefits such as Chinese medicine diagnosis. Psychological decompression courses are opened to help them relax and work more efficiently.

### Care for employee vocational health checks

We regularly conduct satisfaction surveys to all employees. We encourage employees to give feedback and offer advice, building a positive and healthy working atmosphere and creating a wonderful work experience. According to survey results in 2020, both job satisfaction and engagement of employees remained high, with numerous indicators improved over 2017 and beyond the norm of China's national database.

### Care for employees in need

We provide support for employees in need at work and in life to help them tide over difficulties. In 2020 and 2021, our Labor Union helped and visited six employees in short-term poverty due to illness or accident. We continued sympathy visits in summer, winter and three important festivals, distributing about 88,000 pieces of sympathy supplies.

### Work-life balance

In active response to the national call for Health China Initiative, we organize a series of sports activities such as Can Do Run, table tennis match and football match to relieve work pressure and stimulate vitality of employees, allowing them to enjoy work and life with a relaxed and peaceful attitude.



Football match



Employees in "Can Do Run" activity

# A Harmonious and Inclusive Community



## Indicators of ESG

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



65

Communities and schools  
outreached



6.22 million

People benefited from BJMTR  
Safety Camp online and offline



2,905

Volunteer hours

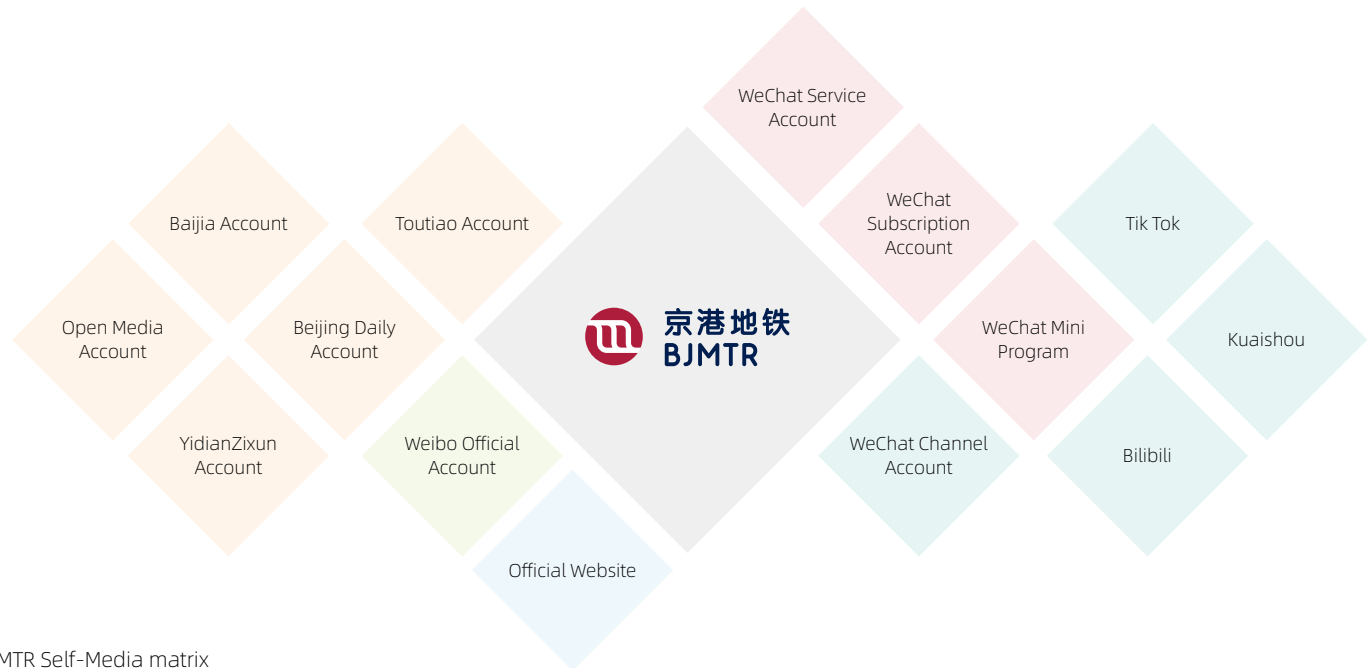
Community is at the foundation of sustainable business growth. Committed to the vision of connecting and promoting community development and based on our advantages, we invest resources for a long time to contribute to community development and drive communities to grow together.

## Building diversified communication platforms

We actively engage in dialogue with the public and communities, bringing our care and services to more groups. Aspiring to be good neighbors and partners with surrounding communities, we strengthen communication with the public and listen to the voices from communities through multiple channels, such as, expanding our Self-Media matrix, offering more online inquiry services, promoting the Special Experience Officer program, and holding meetings with residents.

### Online Self-Media matrix expansion

BJMTR has built an online Self-Media matrix focused on online services and brand promotion, containing 14 platforms such as Weibo official account, WeChat accounts (Service Account, Subscription Account, Mini Program and Channel Account), official website, and accounts on Tik Tok, Kuaishou, Bilibili, Toutiao, YidianZixun, Open Media, Beijing Daily, and Baijia. We release signature content based on the characteristics of various platforms. While facilitating inquiries about travel information, the Self-Media matrix spreads brand concepts and advantages in a way that conforms to the information acquisition habits of passengers, and provides a platform for communication and interaction with the public. It thus meets diversified needs of the government, passengers, community residents, institutions en route, media, netizens and other relevant parties.



BJMTR Self-Media matrix

## Promotion for the Special Experience Officer program

BJMTR launched the Special Experience Officer program in 2019. Residents and passengers are invited to offer suggestions and comments on metro operation services through more channels such as meeting with the management and open days to help us continuously optimize the quality of metro operation services, jointly creating a sound travel environment.

### Case

#### An online meet-and-greet for new lines launched to invite residents as special experience officers

In December 2021, before the opening of three new lines (sections), we held an online meet-and-greet in WeChat flash groups for in-depth exchanges with residents and netizens around opening, where information on operation services were shared, and passengers' expectations and suggestions were solicited. We also invited residents and netizens to keep an eye on the service and environment of metro operation in daily travel and offer advice for metro operation as special experience officers.



Online communication with community residents and fans en route

## Empowering communities with our industry advantages

BJMTR promotes the prosperity of communities en route based on our resources and expertise. We develop the metro-tailored STEAM courses to cultivate the innovative spirit of teenagers, continuously promote BJMTR Safety Camp program to popularize metro safety and courtesy knowledge, and organize M-Sports to advocate the concept of healthy lifestyles. Furthermore, we carry out featured volunteer services to bring warmth and care to stations and communities. Due to the COVID-19 impact, we appropriately adjusted the number and scale of offline campaigns and increased the proportion of online ones, with an aim to protect the health and safety of the public and employees.

### Technology-enabled teenager empowerment

Leveraging our expertise in the field of rail transit engineering and technology, we combine metro travel with engineering technology principles and have innovatively designed STEAM courses based on metro equipment and facilities involved in daily travel. The STEAM courses integrate related science, technology, engineering, arts and mathematics knowledge to promote teenagers' understanding and application of mechanical and electrical knowledge.

In 2021, we developed six teaching tools and supporting courses based on metro equipment and facilities. 30 volunteer lecturers and 55 volunteers were recruited to form a course team for trial lectures in communities en route, leading teenagers to explore metro machinery principles and cultivate their practical ability. The courses were well received by students and parents. STEAM courses have also been included as a sub-project into the national key project *Practical Research on the Development of Interdisciplinary Digital Curriculum* with Educational Crowdfunding.

#### Case STEAM courses in communities along BJL16

On September 25, 2021, we invited 12 families from surrounding communities to experience the STEAM courses. Focusing on the screen door, we introduced to children its development history, types, and expertise such as control and working principle. Through block building and role-play game, we led children to learn the mechanical transmission principle and engineering design process in a lively and interesting way.



“Screen door” block building by children with the help of volunteers

## Campaigns on safe travel

As a large-scale passenger safety promotion series initiated by BJMTR in 2016 for public interest, BJMTR Safety Camp is mainly designed for children aged 5-18 and their parents. By popularizing the knowledge of metro travel through lively courses, the program subtly enhances the teenagers' awareness of safe travel. In 2021, the BJMTR Safety Camp program won the Excellent Course Award in the "Collection and Exhibition Evaluation Activity of Online Classroom Resources" held by Beijing Academic Society for Education.

### Case "Metro Guardian" occupational experience event

On March 27, 2021, we held a BJMTR Safety Camp occupational experience event. Guided by safety counselors, over 30 students became "metro guardians" to learn the knowledge of safe metro travel and know various safety signs and equipment and facilities. Immersed in the real scenario, they quickly mastered the formula of safe metro travel, and publicized it to passengers at escalators, platforms and other positions. While sensing their responsibility as "metro guardians", students promoted the knowledge of safe travel to their classmates and families.



BJMTR staff share knowledge of safely taking escalators to students.

6.22 million

people benefited from BJMTR Safety Camp online and offline in 2020 and 2021

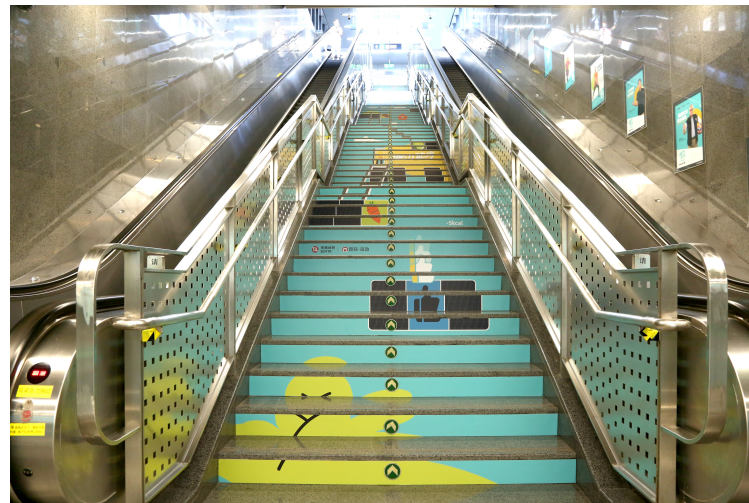


## Advocate for a healthy lifestyle

Leveraging the unique metro space and metro media, we hold public interest campaigns regularly, allowing participants to feel the charm of sports at close range. We popularize the concept of a green and healthy lifestyle in an interesting way, and encourage the public to live a healthy lifestyle and choose low-carbon travel.

### Case M-Sports "City Walk" campaign

From August 7 to 23, 2020, BJMTR launched a healthy clock-in campaign in 73 stations of BJL4, DXL, BJL14, and BJL16. To create a more dynamic sports space, we set up metro stairs clock-in and brisk walking, release original metro fast dances, and launch public interest videos on healthy lifestyle along daily commuting routes, to help the public raise their health awareness.



BJMTR in-station colorful stairs with the function of calorie calculation to advocate a healthy lifestyle Active interaction between passengers and wall stickers on site

## A signature volunteer service system

We continue to create a signature volunteer service system of “going out and bring in”. While encouraging employees to provide volunteer services for the elderly and the disabled in communities en route, we offer social volunteers an open platform to participate in metro volunteer services, involving more people in public transport services.

### Community-based volunteer services

In 2020, we continued to improve our “Going Forward” community volunteer services. Based on the previous experience of community-based volunteer services, we developed the *BJMTR Community Volunteer Service Manual*, which sorts out the organization method and process and will help improve the efficiency and effectiveness of volunteer services so that we can provide better volunteer services for communities.



Volunteers listen to the feedback of community residents about metro services



Floral experience brought by volunteers to residents



*BJMTR Community Volunteer Service Manual*



Exchanges on calligraphy art between volunteers and residents



Metro English lecture for community children

Voluntary services for nearly **500** residents in **26** communities en route in 2020 and 2021

### Station-based volunteer services

We continue the “Going Forward” station-based volunteer services and set up volunteer service counters in key stations with large passenger flow during holidays, to provide travel assistance for passengers and let volunteers experience the happiness of helping others.



Volunteer assistance to fast ticket vending



A volunteer service counter to provide metro services for passengers

# Win-win Partnership



## Indicators of ESG

B5 Supply Chain Management:  
GDB5, B5.2, B5.3



**100 %**

Suppliers in compliance with applicable national or local laws and regulations on environment, health and safety by the end of 2021



**99.6 %**

Suppliers included in the pool of qualified suppliers by the end of 2021

We step up efforts in coordinated development with upstream and downstream players and have established close, trustworthy and harmonious partnerships with suppliers. Actively assuming industry-level missions and responsibilities, we strive to grow together with the industry and create a win-win ecology of mutual benefits.

## Advancing suppliers' responsibility management

BJMTR values the sustainable development of suppliers. We assess and manage suppliers through reviews on their eligibility and qualifications, specify relevant requirements for operation safety and health in contracts, and identify their qualifications to implement projects related to environmental protection and disposal of contaminated waste, in a bid to ensure all of our suppliers are in compliance with applicable national or local laws and regulations on environment, health and safety. In addition, 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.

## Growing with suppliers

A sustainable supply chain can drive BJMTR towards better operation and spur suppliers towards long-term development. We step up efforts for closer cooperation with suppliers and actively guide suppliers to fulfill their social responsibilities, aiming to improve their relevant capabilities. By the end of 2021, 99.6% of suppliers were included in the pool of qualified suppliers, laying a sound foundation for long-term stable partnerships with them.

### Standardized procedures

Deepening cooperation with suppliers in procurement and bidding, and establishing standardized procedures by specifying service needs and acceptance standards, to continuously enhance suppliers' comprehensive service capability and service quality

### Supplier assessment

Analyzing suppliers' weaknesses and improvement space during the cooperation in accordance with the results of the *Supplier Performance Assessment Form* to promote their continuous improvement and enhance their comprehensive capability

### Resource sharing

Sharing forward-looking resources and information in technical and managerial expertise in projects cooperation with suppliers to expand the fields of cooperation

### Long-term cooperation

Encouraging suppliers to provide good services by signing long-term agreements and Blanket Purchase Agreement (BPA), etc., to foster more long-term and stable cooperation

### Product development

Leveraging our experience in metro operation and contractors' manufacturing experience to strengthen technological innovation and develop products suitable for metro industry, thus meeting our demand for safe operation

## Contributing to industry

While committed to corporate development, we strengthen exchanges and cooperation with local governments, associations and peer companies. We actively undertake key scientific research projects from government departments and share relevant experience and technical thinking, aiming to promote the progress and long-term development of the industry.

### Participating in the formulation of industry standards

Based on our technical and managerial experience and expertise in the urban rail transit industry, we actively contribute to formulating national, industrial and regional standards, with an aim to improve and deliver the system of BJMTR standards and boost the scientific and standardized development of the industry.

Standards contributed by BJMTR in 2020 and 2021	
Administrative specifications	<i>Technical Specification for Operation of Urban Rail Transit Signaling System</i>
Local standards	<i>Specification for Management of Urban Rail Transit Services</i>
Beijing traffic standardization technical documents	<i>Application Implementation Guide of Metro Transit Video Monitoring System</i>
	<i>Detection Implementation Guide of Metro Transit Passenger Information System</i>
	<i>Application Implementation Guide of Metro Transit Passenger Information System</i>
Group standards	<i>Application Implementation Guide of Metro Transit Public Address System</i>
	<i>Urban rail transit—CBTC Signaling System Alarm—Technical specification</i>
	<i>Technical Specification for Connection Engineering between Urban Rail Transit Underground Station and Surrounding Underground Space</i>
	<i>Criteria for Customer Satisfaction Measurement and Evaluation</i>
	<i>Standards for Urban Rail Transit Vocational Skills, Training and Appraisal (Second Batch)</i>

## Undertaking key scientific research projects

In 2020 and 2021, BJMTR undertook and participated in key scientific research projects initiated by the Ministry of Transport and Beijing Municipal Commission of Transport, aiming to actively explore the application of new technologies in the urban rail transit industry.

### R&D of train fault classification and intelligent monitoring technology for urban rail transit

As one of the 33 key scientific research tasks issued by the Ministry of Transport in 2021, this project was included in the list of 2021 key scientific and technological projects in the rail transit industry on November 14, 2021. As one of its leading undertakers, BJMTR participated in formulating the specification of train fault statistics and classification, led the development of train fault data analysis and management system, and researched the intelligent fault monitoring technology suitable for multi-specialties and multi-lines and developed the prototype. Scheduled to be completed by the end of 2022, it has secured phased results such as the *Research Report on the Plan for Statistical Classification of Train Faults* by the end of 2021. Its results are valuable to be promoted throughout the industry.

### Digital twin integrated demonstration platform for spatial infrastructure in metro protected areas of urban rail transit

In November 2021, this project was included in the list of key scientific and technological projects in the rail transit industry and is planned to complete research and trial application by the end of 2022. As one of the R&D organizers, BJMTR actively participated in the research. It will develop a high-precision three-dimensional map of protected areas through BeiDou Ground Base Enhancement System (BGBES), and an intelligent monitoring and application platform for protected areas based on AI image recognition technology, and carry out safety monitoring and application of protected areas through large-capacity optical fiber sensing network. By applying digital twin technology in the information management of the protection areas, a technical safety precaution system will be established.

## Cultivating rail talents

BJMTR delivers skilled talents for the rail transit industry based on our training system and management experience. In 2020 and 2021, we undertook training tasks for over 550 managers and technicians from all over the country. We also completed five projects, including the corporate practice for urban rail professional teachers of Beijing National Training Program, and the “1+X” vocational skills teacher training lectures in urban rail transit industry, providing theoretical lectures and on-site training for over 200 teachers and students. By actively imparting industry expertise, we contributed to the development of talents in the industry.



Graduation ceremony of “Workshop on Management of Urban Rail Transit Operation”



## Carrying out various exchange activities

We actively engage in various industry exchange activities organized by government departments and relevant organizations. We keep learning and sharing advanced industry concepts and experience to promote the high-quality development of rail transit industry. In 2020 and 2021, we participated in 206 regional and industrial exchange activities.



Attending "2021 Tianjin-Hong Kong Cooperation Week" to discuss the cooperation opportunities between Tianjin and Hong Kong



Attending ZGC Forum AI + Transport Parallel Forum to exchange and share ideas on scientific and technological innovation

## Achieving win-win cooperation

Based on MTR's mature management philosophy for over 40 years and our advantages, we step up efforts in strategic exchanges with other market players, striving to expand business cooperation. We are actively establishing a win-win development platform to create diversified cooperation opportunities.

### Concluding the *Framework Agreement on Comprehensive Cooperation* to deepen cooperation between Beijing and Hong Kong

In November 2020, at the 23rd Beijing-Hong Kong Economic Cooperation Symposium, BJMTR entered into the Framework Agreement on Comprehensive Cooperation with Beijing Infrastructure Investment Co., Ltd. and MTR Corporation Limited. It aims to develop a comprehensive cooperation mechanism for rail transit industry between Beijing and Hong Kong based on Beijing's plan for rail transit development, Beijing-Tianjin-Hebei coordinated development strategy and city sub-center development blueprint. By leveraging respective resource advantages under the "1+X" cooperation mode, all parties will have high-level visits and business information exchanges to jointly promote comprehensive cooperation and progress of specific projects, with an focus on the program of Beijing rail transit new lines, practice of Transit Oriented Development (TOD) concept, transformation of old lines for better operation services, optimization of existing metro networks, management and operation of commercial projects, industry-wide cooperation of smart metro, and cultivation of rail talents, among others.

### Introducing TOD concept in an integrated comprehensive utilization project

TOD has always been BJMTR's vision. In November 2020, BJMTR cooperated on the Beijing Dawayao Project with Beijing Capital Group and Greenbase Technology Group. As the first station micro-center research project, the Beijing Dawayao Project introduced the TOD concept based on both the expertise of shareholders in property development and rich experience in rail transit operation. By designing and developing Dawayao station of BJL14 and promoting the comprehensive property management mode, BJMTR fulfilled corporate social responsibility and attracted more passengers, further reducing its financial pressure and enhancing its capabilities to resist risks.



Signing ceremony of Beijing Dawayao Project

### Establishing Beijing Institute of Collaborative Innovation to jointly build smart metro in Beijing

In December 2020, Beijing Institute for Collaborative Innovation was inaugurated. As one of the initiators, BJMTR would promote the digital transformation and innovative application of Beijing rail transit from learning, research and utilization, based on both operational needs and technical practice, thereby effectively contributing to the intelligent development of Beijing rail transit in the new era.



Signing ceremony of Beijing Institute for Collaborative Innovation

# Environment Protection



## Indicators of ESG

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

A2 Use of Resources:  
GDA2, A2.1, A2.2,  
A2.4

A4 Climate Change:  
GDA4, A4.1



**759 GWh**

Total electricity consumption



**13**

Energy-saving projects and measures



**18 %**

Reduction in water consumption in 2021 over 2019

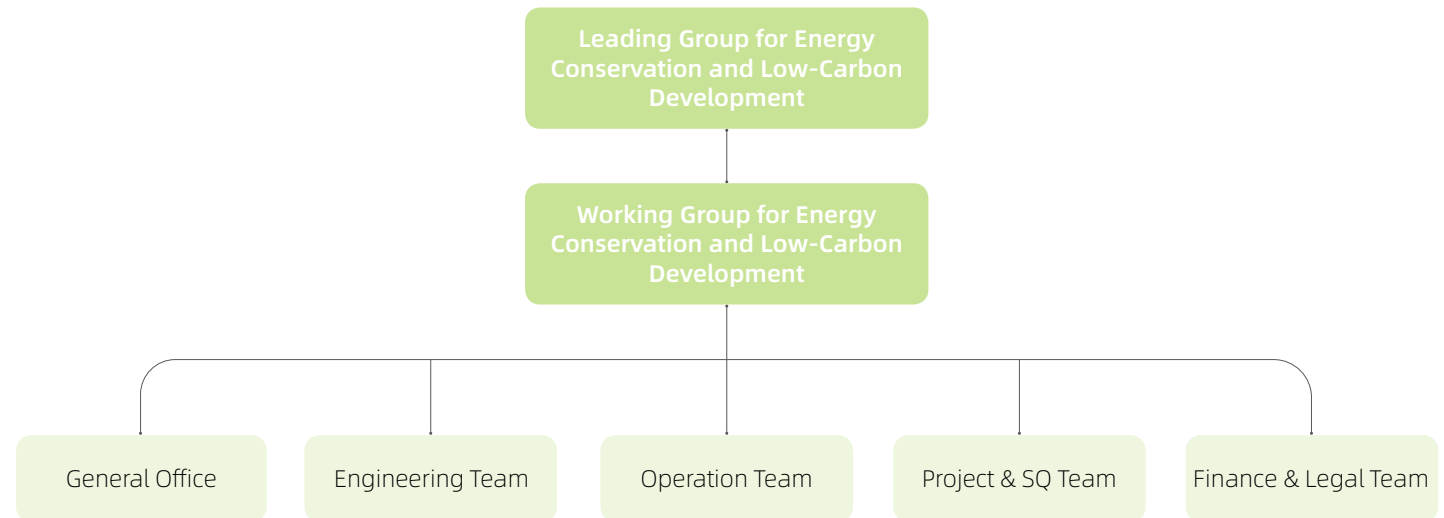
Green ecology that underpins a better life is a requirement for corporate sustainable development. We always adhere to the concept of green and low-carbon development and value the development and application of low-carbon operation and advanced energy-saving technology. Based on targeted measures, we strive to minimize the impact of metro operation on the ecological environment to realize harmony with the environment.

**473,000** tons

Greenhouse gas (GHG) emissions generated from energy consumption in 2020 and 2021

## Practicing low-carbon operation

Climate change is a major challenge facing mankind today. Under the national vision of “peaking CO2 emissions before 2030 and achieve carbon neutrality before 2060” , we keep improving the *Energy-saving Management System*, carry out energy management work based on the working group management mechanism, and apply the concept of low-carbon operation to all our business links. Based on the development of new technology industry, we have set up a “1+5” pool of energy-saving rolling projects. By implementing energy-saving and low-carbon projects for the current year and planning projects for the next five years, we orderly advance energy-saving and low-carbon work. In 2021, we reduced carbon emissions by about 9,100 tons through energy-saving and carbon reduction projects for existing lines, and won the ESG - Ecological and Environmental Contribution Award of the Yicai·the Corporate Social Responsibility Ranking 2021 in China with remarkable results in sustainable development.



Organization structure of energy-saving management

## Promoting energy-saving and consumption reduction

While fully guaranteeing travel experience, we launch a series of energy-saving and low-carbon projects based on the operational conditions of lines to minimize GHG emissions from energy consumption in metro operation. All-round energy-saving optimization in metro transport services and corporate operation management are ensured to effectively improve energy utilization efficiency.

### Case Optimization of train driving levels to reduce traction electricity consumption

In 2020, BJMTR launched a project to optimize the driving levels for BJL4-DXL and BJL14. The project selected the optimal train driving level as appropriate based on the change of passenger flow and headways, aiming to minimize train traction electricity consumption at a reasonable level while offering quality passenger transportation services.

#### Station energy consumption management

- Frequency conversion of station escalators
- Optimization of station and tunnel lighting time
- Lean management of air conditioners in stations
- Optimization of PIS display switch time in stations
- Closing of independent lighting bands of screen doors

#### Train energy consumption management

- Optimization of train driving levels for BJL4-DXL and BJL14
- Optimization of TQI

#### Depot energy-saving projects

- Optimization of climate compensation for depot heating system

Energy-saving projects and measures in 2020 and 2021

# 6.97%

The electricity consumption per car-km decreased over 2018 and 2019

## Applying clean energy

Applying clean energy facilitates the reduction of GHG emissions and pollution to the urban environment. BJMTR explores the application of clean energy based on actual operational conditions. In 2021, we researched the rooftop solar PV system in depots, and planned to begin construction in 2022, so as to materialize the mode of "self-consumption, surplus feed-in grid". This will help raise the proportion of clean energy utilization and reduce the overall carbon emissions.

## Adapting to climate change

Urban rail transit system needs to be prepared for extreme weather and natural disasters. As climate changes, urban rail transit system is facing an increasingly severe test. Actively adapting to climate change is our key move to prevent climate risks. We keep adjusting the coping strategy to improve our capabilities in response to climate change. Built on early warning and prevention, we seek to minimize the negative impact of extreme weather on metro operation. In 2020 and 2021, we coped with possible heavy rainfall ahead of time. In line with the principle of “early detection, early action, early rectification and early prevention”, we prepared for flood season and built a travel safety barrier for passengers. In 2020 and 2021, no danger in flood season occurred to any lines operated by BJMTR.

### Safeguard measures in flood season



Preparation of flood control sandbags by staff

#### Setting up rescue teams

- Setting up eight flood control and emergency rescue teams in accordance with specialties and job responsibilities such as power supply, signal & communication and engineering, to provide a strong guarantee for flood control and emergency rescue, with rescue team members increasing from 1,461 to 1,574 in 2020 and 2021

#### Developing one map and one scheme for one station

- Developing a map of catchment areas for each key station for flood control under the principle of “one map and one scheme for one station”, and showing catchment areas outside the station on a plan to master the key distribution of flood control in advance and be prepared for emergencies

#### Preparing flood control supplies

- Reserving more than 30,000 flood control supplies of eight categories, including flood control sandbags, non-slip mats, drainage pumps and flood control baffles, in all stations and depots each year
- Equipping entrances with non-slip warning signs and non-slip mats, and arranging more cleaning staff to clean up the accumulated water on the ground at entrances and stairs in rainy days
- Preparing disposable raincoats in advance at all stations and distributing to passengers free of charge as appropriate

#### Establishing a linkage mechanism

- Establishing a cooperation mechanism with station police and other entities, to maintain the operation order of stations during the flood season and ensure the travel safety of passengers

## Reducing environmental pollution

BJMTR keeps fine-tuning the strategy of pollution prevention to minimize possible noise, waste water, waste gas and waste residue in metro operation. In 2020 and 2021, BJMTR engaged a third-party institution to identify environmental factors and risks. We set up a tiered management mechanism and an emergency plan for environmental emergencies, to regularly monitor such environmental factors as noise, waste water, waste gas and air quality as required by laws and regulations, and make timely rectifications. In strict accordance with national laws and regulations, we revised the *Guide to Hazardous Waste Management* (hereafter referred to as the “Guide”), and organized departments to review and check it as well as exchange and share with each other accordingly, so as to better improve the safety and compliance of hazardous waste recycling and disposal. In 2020 and 2021, all of the generated hazardous wastes were recycled and disposed by contractors with relevant qualifications.

## Increasing water use efficiency

Facing the increasing water scarcity, we should not only deal with the current demand, but also control the possible risks in the future. BJMTR implements relevant national policies, regulations and standards associated with energy, and has continuously strengthened the management of water resources. Our water-saving work has improved the water use efficiency.



# 18%

Reduction in water consumption in 2021 over 2019

In-station water-saving posters

## Passing on low-carbon awareness

BJMTR believes that everyone should be involved in a green and low-carbon life. Therefore, we advocate the concept and behavior of low-carbon life, and encourage the public and employees to start from the trivial side, delivering a more sustainable green and low-carbon life. For the public, we leverage all kinds of media to advocate green travel and raise their low-carbon awareness; for employees, we popularize low-carbon knowledge and advocate energy-saving concept by such means as green office, environmental protection training, and promotional initiatives.

### Green office

For better spreading green and low carbon concept, BJMTR actively practices green office. In terms of consumables, we advocate less-consuming glass partitions, new office furniture, and online office to minimize the use of paper; to save water, we timely repair and dispose dripping and long-time water running; as for electricity consumption, we advocate all staff to reduce the use of indoor lights and turn off the power in time.



New office furniture

### Case

#### “CA Signature Program” reduces paper waste

BJMTR improves work efficiency and promotes green office by means of mobile attendance, CA certification, RPA robot, in which CA is a means of online attendance approval. While establishing the legal effect of electronic signature to safeguard the legitimate rights of employees, the “CA Signature Program” also significantly reduces the use of paper. After the CA is applied, more than 1 million pieces of office paper can be saved every year.



## Energy-saving and low-carbon training

BJMTR organizes training sessions and exchange activities themed on “Energy-saving and Low-carbon Development Path of Metro Stations under the Goal of Carbon Neutrality” as well as energy-saving and low-carbon knowledge contests to help employees learn energy-saving knowledge, raise low-carbon awareness and clarify BJMTR’s new development direction.

## Advocate for green travel

During our ongoing “Green Travel” campaigns, we organize activities such as the World Car Free Day and M-Sports “City Walk” together with social media platforms, in order to contribute to urban low-carbon development.

### Case “World Car Free Day” campaign

On September 22, 2020, BJMTR launched the “World Car Free Day” campaign for community residents en route and all staff to advocate the concept of green travel. During the visit to communities, volunteers explained the knowledge of low-carbon travel to residents, and encouraged them to sign the Car Free Day Pledge. Employees were also encouraged to become practitioners of low-carbon travel.



Signing of Car Free Day Pledge under the guidance of BJMTR volunteers

# CSR Management

BJMTR integrates the CSR concept into both strategy and operation. Leveraging our core advantages, we improve safety management and service quality, engage in community development, work with partners for win-win results, and value employee growth and environmental protection. Together, we pursue the harmony and unity of economic, environmental and social benefits with stakeholders.

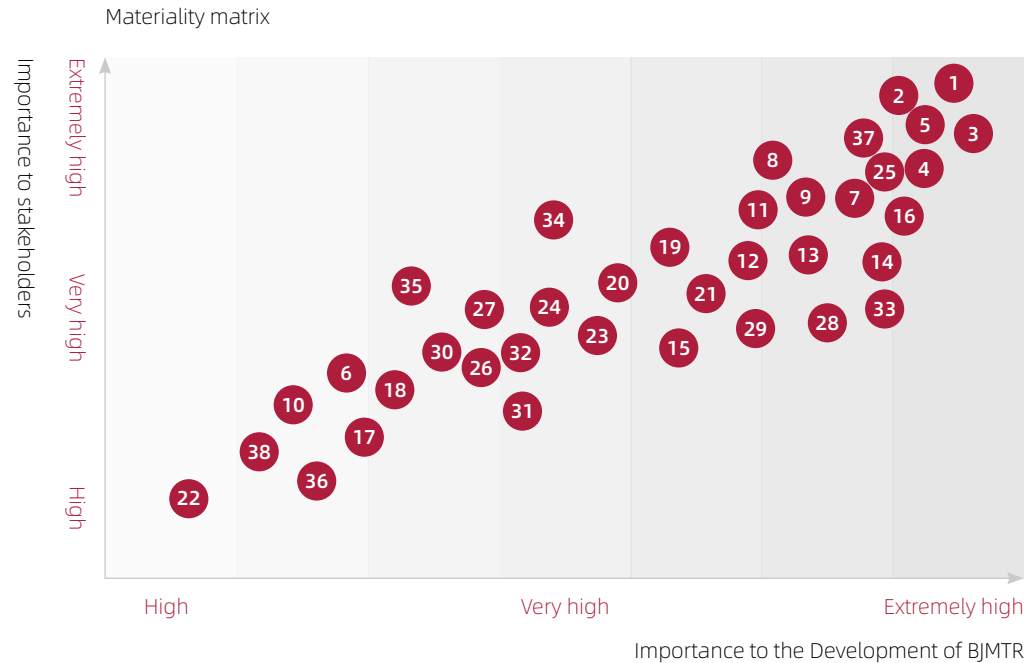
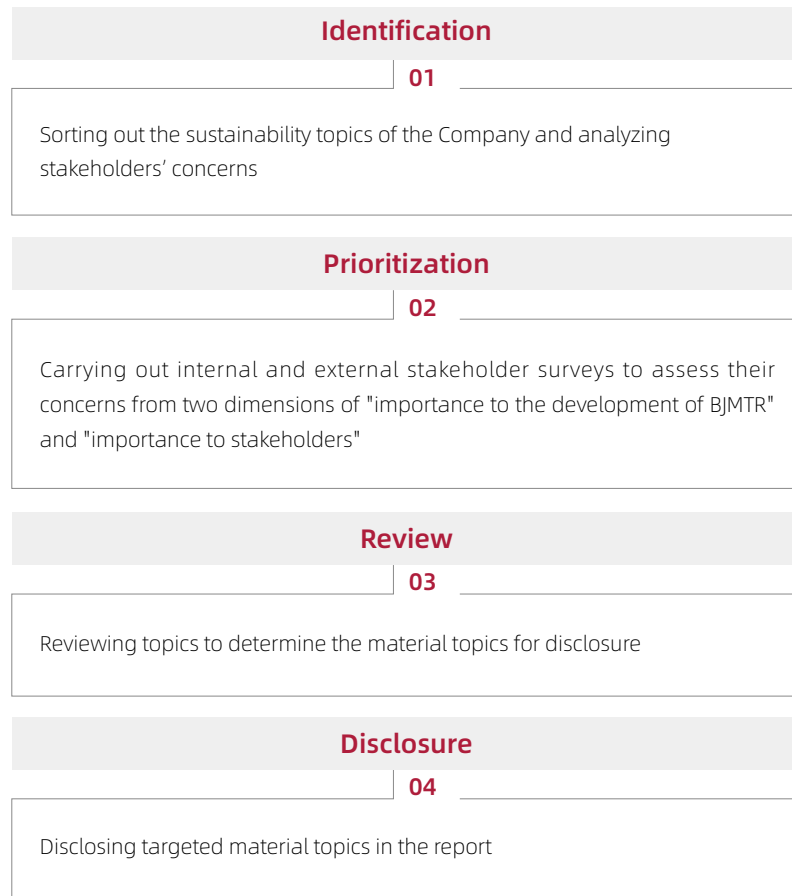
## CSR management system

Based on our business, we actively respond to the Sustainable Development Goals adopted by United Nations, such as "industry, innovation and infrastructure", "sustainable cities and communities" and "responsible consumption and production". We have further improved our CSR management system to ensure the effective operation and continuous improvement of our practices in six major areas, including safe operation, quality service, employee care, community development, win-win partnership and environmental protection. This facilitates us to continuously create comprehensive value for our stakeholders. To raise employees' awareness of social responsibilities, we invite experts to give special trainings so that employees could deepen their understanding of the core sustainability concept.



# Material topics identification

To better understand the concerns and expectations of stakeholders and respond to their demands, we distributed questionnaires on material sustainability topics to stakeholders. Finally, 1,862 valid questionnaires were collected. According to the assessment result of material topics, we focused on the disclosure of topics such as "guaranteeing safe metro operation", "protecting basic rights of employees" and "green operation" in the report.



- |  |  |   |
|--|--|---|
| 1   Guaranteeing safe metro operation                      | 15   Employees training and development          | 30   Water saving                                       |
| 2   Increasing metro capacity                              | 16   Occupational health and safety of employees | 31   Sustainable procurement                            |
| 3   Improving station facilities                           | 17   Improving employees' well-being             | 32   Supplier evaluation                                |
| 4   Improving passenger service experience                 | 18   Fair and inclusive workplace                | 33   Developing diversified businesses                  |
| 5   Protecting the health and safety of passengers         | 19   Advocating safe, courteous and green travel | 34   Promoting social responsibility to the value chain |
| 6   Building smart metro                                   | 20   Infusing metro with art and culture         | 35   External exchange and strategic cooperation        |
| 7   Enhancing emergency management and rescue capabilities | 21   Community communication and engagement      | 36   CSR management                                     |
| 8   Improving information security                         | 22   Volunteering service                        | 37   Risk management                                    |
| 9   Improving passenger satisfaction                       | 23   Equal career development opportunities      | 38   Transparent operation                              |
| 10   Special passenger care                                | 24   Using clean energy                          |   |
| 11   Passenger privacy protection                          | 25   Green operation                             |   |
| 12   Handling of customer complaints                       | 26   Enhancing climate adaptability              |   |
| 13   Transportation services for major events              | 27   Waste management                            |   |
| 14   Guaranteeing basic rights of employees                | 28   Improving energy efficiency                 |   |
|  | 29   Low-carbon management concept               |   |

# Response to material topics

Key topics	Our response							
	Corporate governance	Safe Travel	A Pleasant Urban Travel Space	Illumination of Future for Employees	A Harmonious and Inclusive Community	Win-win Partnership	Environment Protection	CSR Management
Guaranteeing safe metro operation	●	●	●					
Increasing metro capacity			●					
Improving station facilities			●					
Improving passenger service experience			●					
Protecting the health and safety of passengers		●	●					
Building smart metro			●					
Enhancing emergency management and rescue capabilities		●	●					
Improving information security		●						
Improving passenger satisfaction			●					
Special passenger care			●					
Passenger privacy protection		●						
Handling of customer complaints			●					
Transportation services for major events		●						
Guaranteeing basic rights of employees				●				
Employees training and development				●				
Occupational health and safety of employees				●				
Improving employees' well-being				●				
Fair and inclusive workplace				●				
Advocating safe, courteous and green travel		●				●	●	



# About This Report

This is the third sustainability report released by Beijing MTR Corporation Limited. It discloses the company's concept, actions and achievements in sustainable development and ESG. Compared with previous reports, the ESG information disclosed in this report is richer and more comprehensive.

## Report Scope

January 1, 2020 - December 31, 2021, with some contents tracing back to previous years.

## Report Boundary

The Report covers Beijing MTR Corporation Limited. For better readability, it is abbreviated as "BJMTR" "the Company" or "we" in this report.

## Reporting Guidelines

Transforming our World: *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*

*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 CSR practice on our official website: <http://www.mtr.bj.cn>.

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\*ESG is an acronym for Environmental, Social and Governance, which reflects the performance of a company in environmental, social and corporate governance. It is a key non-financial indicator. In 2015, the Hong Kong Stock Exchange issued the Environmental, Social and Governance Reporting Guide, requiring listed companies in Hong Kong to disclose their ESG Reports. The sustainability reports consecutively issued by MTR Corporation in the past years strictly comply with the disclosure requirements of the guide.

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# Appendix: ESG Indicator Index

Subject Areas and Aspects	General Disclosure and Key Performance Indicators
A. Environmental	
<b>Aspect A1: Emissions</b>	General Disclosure: Information on the policies and compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.
	A1.1 The types of emissions and respective emissions data.
	A1.2 Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).
	A1.3 Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).
	A1.4 Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).
	A1.5 Description of emission target(s) set and steps taken to achieve them.
<b>Aspect A2: Use of Resources</b>	General Disclosure: Policies on the efficient use of resources, including energy, water and other raw materials.
	A2.1 Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).
	A2.2 Water consumption in total and intensity (e.g. per unit of production volume, per facility).
	A2.3 Description of energy use efficiency target(s) set and steps taken to achieve them.
	A2.4 Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.
<b>Aspect A3: The Environment and Natural Resources</b>	General Disclosure: Policies on minimising the issuer's significant impacts on the environment and natural resources.
	A3.1 Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.
<b>Aspect A4: Climate Change</b>	General Disclosure: Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.
	A4.1 Description of the significant climate-related issues which have impacted, and those which may impact the issuer, and the actions taken to manage them.

Subject Areas and Aspects	General Disclosure and Key Performance Indicators
B. Social	
<b>Employment and Labour Practices</b>	
<b>Aspect B1: Employment</b>	General Disclosure: Information on the policies and compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.
	B1.1 Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region.
	B1.2 Employee turnover rate by gender, age group and geographical region.
<b>Aspect B2: Health and Safety</b>	General Disclosure: Information on the policies and compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.
	B2.1 Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.
	B2.2 Lost days due to work injury.
	B2.3 Description of occupational health and safety measures adopted, how they are implemented and monitored.
<b>Aspect B3: Development and Training</b>	General Disclosure: Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.
	B3.1 The percentage of employees trained by gender and employee category (e.g. senior management, middle management).
	B3.2 The average training hours completed per employee by gender and employee category.
<b>Aspect B4: Labor Standards</b>	General Disclosure: Information on the policies and compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labor.
	B4.1 Description of measures to review employment practices to avoid child and forced labor.
	B4.2 Description of steps taken to eliminate such practices when discovered.



Subject Areas and Aspects	General Disclosure and Key Performance Indicators
<b>Operating Practices</b>	
<b>Aspect B5: Supply Chain Management</b>	General Disclosure: Policies on managing environmental and social risks of the supply chain.
	B5.1 KPI B5.1: Number of suppliers by geographical region.
	B5.2 Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.
	B5.3 Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.
	B5.4 Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.
<b>Aspect B6: Product Responsibility</b>	General Disclosure: Information on the policies and compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.
	B6.1 Percentage of total products sold or shipped subject to recalls for safety and health reasons.
	B6.2 Number of products and service related complaints received and how they are dealt with.
	B6.3 Description of practices relating to observing and protecting intellectual property rights.
	B6.4 Description of quality assurance process and recall procedures.
<b>Aspect B7: Anti-corruption</b>	B6.5 Description of consumer data protection and privacy policies, and how they are implemented and monitored.
	General Disclosure: Information on the policies and compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.
	B7.1 Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.
	B7.2 Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.
	B7.3 Description of anti-corruption training provided to directors and staff.
<b>Community</b>	
<b>Aspect B8: Community Investment</b>	General Disclosure: Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.
	B8.1 Focus areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport).
	B8.2 Resources contributed (e.g. money or time) to the focus area.

# Feedback

## Dear stakeholders,

Thanks for reading our 2020-2021 Sustainability Report. In order to better understand your expectations and improve our sustainable development, we sincerely look forward to your insightful comments and suggestions.

1. What type of stakeholder are you?

- Government and supervisory authorities
  Investor
  Passenger  
 Employee
  Supplier
  Industry
  Social organization  
 Community
  Media
  Others (Please specify) \_\_\_\_\_

2. What do you think of BJMTR's fulfillment of social responsibility in general?

- Very good
  Good
  Average
  Poor

3. To what extent does this report cover the information you concern?

- Very good
  Good
  Average
  Poor

4. To what extent does the report truthfully reflect BJMTR's CSR practice?

- Very good
  Good
  Average
  Poor

5. What do you think of the readability of this report?

- Very good
  Good
  Average
  Poor

6. Can you find the information that you concern easily in this report?

- Very good
  Good
  Average
  Poor

7. What do you think of the layout design of this report?

- Very good
  Good
  Average
  Poor

8. What suggestion do you have for BJMTR's sustainability report?

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9. What suggestion do you have for BJMTR's CSR practice?

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