

(Incorporated in the Cayman Islands with limited liability) Stock code: 1522

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Environmental, 2020 Social and Governance Report

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# **CHAIRMAN'S MESSAGE**



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## 1. CHAIRMAN'S MESSAGE

As the global market continues to pay more attention to sustainability issues, our Group is also actively assuming its responsibility for the environment and society. As China's leading intelligent rail transit system service provider, the Group is committed to improving passengers' mobility experience from an informatisation perspective and creating a healthy and environmentally-friendly "green mobility" approach. We are gradually perfecting our environmental, social and governance (ESG) strategy in order to put our philosophy of sustainable development into practice and create higher value for stakeholders and society.

In 2020, the Group achieved steady growth in operating performance. While actively conducting business activities, we further strengthened the Board's work on social responsibility. We continued to review the Group's corporate social responsibility (CSR) strategy to ensure that we could better meet the CSR requirements of the Stock Exchange, stakeholders and society during our development, thereby contributing to social sustainable development.

As China's leading intelligent rail transit system service provider concentrating on integrated innovation, we empowered cities through our intelligent railway transportation business and infrastructure information business. This has greatly improved train transport efficiency, train energy saving, passenger safety, and passenger mobility experience, enhanced the cities' resource utilisation and improved the safety, convenience, efficiency and comfort of rail transit.

Within the Group, we worked to continuously develop outstanding talents and integrate corporate social responsibility into our culture to implement the Group's sustainable development goals. In 2020, we delivered employee training and improved employee welfare policies with emphasis on employees' working environment and physical and mental health. Meanwhile, we continued to support environmental stewardship by actively sorting waste, strengthening the Group's "green office" concept in our daily work and taking different measures to save energy and reduce waste during daily operations.

Our commitment to sustainable development is not limited to our main business. We arrange employees to participate in various charitable activities to show their care for children and the elderly. We organised such activities as making cakes for parents and elders on the Chung Yeung Festival, supporting poverty alleviation through consumption, and offering assistance to Zhenningbao Township Central Primary School (鎮寧堡鄉 中心小學) in Chicheng County, Zhangjiakou City, Hebei Province. During the year, our employees and their relatives and friends also contributed more than 300 hours of voluntary work in their communities.

We also made utmost efforts to support society in responses to sudden risks through our professional services. During the prevention and control of the pandemic till now, we have made the best of various technological means and comprehensively adopted measures such as information-based project management and control and networked mobile working, to provide clients with services for various businesses without compromising the health and safety of employees. Our efforts have provided a strong guarantee for the smooth, safe operation of Beijing Rail Transit Control Centre, enabling it to continue playing its key role in the operation of the capital's metro system during the Spring Festival.

In 2020, I was pleased to see that the Board, the Company, and all stakeholders had spared no effort to work together to promote sustainable development in and outside of the Group and proactively take on social responsibilities. I sincerely hope that our Group will continue to receive support from all sectors of society in its sustainable development journey and create a brighter future with their help.

Chairman **Dr. Zhang Yanyou** 26 April 2021



# **ABOUT THIS REPORT**

## 2. ABOUT THIS REPORT

### 2.1 Overview

This report provides an annual update on the Group's CSR performance in 2020 while demonstrating the philosophy, actions and results of the Group in connection with environment, society and sustainable development by taking into account key concerns of stakeholders and business characteristics of the Group.

### 2.2 Main scope of the Report

The Company and its subsidiaries ("the Group").

#### 2.3 Time scope

From 1 January 2020 to 31 December 2020.

## 2.4 Preparation basis of the Report

This report is prepared in accordance with the requirements of "Environmental, Social and Governance Reporting Guide" of The Stock Exchange of Hong Kong Limited (the "Stock Exchange").

## 2.5 Description of the Report

This report is published in the traditional Chinese and English. In case of any discrepancies in the content of the report, the traditional Chinese version shall prevail. The electronic version of the report can be read and downloaded through the official website of the Group and the website of the Stock Exchange.

# **ESG MANAGEMENT VISION AND STRATEGY**

## 3. ESG MANAGEMENT VISION AND STRATEGY

The Board is fully responsible for overseeing and reporting the ESG strategies of the Company and is responsible for assessing and determining the ESG risks to ensure the establishment of an appropriate and effective ESG risk management and internal monitoring system.

With the mission of "energising the railway transportation by intelligent technology", the Group is committed to the vision of developing itself into a "world-class leader in intelligent railway transportation". Moreover, the Group adheres to the spirit of "innovation, progress, pragmatism and dedication" and the core values of "putting people first, taking quality as the base, innovation as the source and victory as the goal". It works together with business partners and employees and contributes its efforts to serve and protect the environment of the communities where it operates.

On 1 January 2016, the 2030 Agenda for Sustainable Development adopted by the United Nations officially came into force. It covers 17 Sustainable Development Goals, the following three of which have been chosen by us as our main directions:

- Achieve gender equality and empower all women and girls: We pay attention to providing female employees with equal pay and benefits as well as career development opportunities in the course of our operations;
- Make cities and human settlements inclusive, safe, resilient and sustainable: To meet the needs of urbanisation for transportation, we enhance railway transportation with technology to help public transportation companies provide safer, more convenient, stable, efficient, and affordable transportation services;
- **Take urgent action to combat climate change and its impacts**: As the transportation sector consumes large amounts of fossil energy and electricity, the way of energy saving is critical to the handling of climate change. We are positioned to reduce the impact of products and services on the natural environment by providing overall solutions that adopt simpler design, increase efficiency, and use fewer materials.



# **ABOUT THE GROUP**

## 4. ABOUT THE GROUP

The Group is a high-tech conglomerate specialising in the field of rail transit and integrating investment and financing, technology R&D, and intelligent rail transport construction, operation and maintenance. It is also a market leader in the PIS, ACC, TCC, and other intelligent rail transit business. Guided by the mission of "energising the railway transportation by intelligent technology" and the overall strategic development idea of "One Body, One Platform, One Centre", the Group follows the principle of technological innovation and step up its R&D efforts in developing businesses that set rail transit on a path from information to intelligence such as rail transit cloud platforms, big data construction and analysis, smart subways, and intelligent corridors. It has built a new ecosystem that integrates the development of the IoT (Internet of Things), artificial intelligence, cloud computing, big data and rail transit industries.

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Looking forward, the Group will focus on the intelligent rail transit industry by continuously exploring innovative rail transit technologies and information system solutions adapted to changes in customer needs and build a business structure that offers full life cycle services for the development of our major rail transit business, aiming to be China's leading intelligent rail transit system service provider. Meanwhile, we adhere to the sustainable development philosophy of being green and environmentally friendly and are committed to creating a harmonious, safe, and green rail transit environment. We strive to create a better mobility experience for passengers and transform ourselves into an eco-friendly enterprise while ensuring the sustainable, steady production and operation.

# **AN OVERVIEW OF 2020**

## 5. AN OVERVIEW OF 2020

## 5.1 Market

In 2020, the Group's total annual revenue was HK\$1,550 million, representing a year-on-year increase of 29.8%.

The Group implemented a three-year development strategy and vigorously developed its main businesses with the intelligent rail transit business as the core. It managed to regain the No. 1 ranking in the on-board PIS industry and jumped to the third place in terms of its AFC/ACC business. The Group succeeded in moving into the first tier of the industry. We also continued to improve strategic investment and industrial investment centering on industrial upgrading and enhancing industrial competitive advantages, focus on the integration management of the subsidiaries, associates and joint ventures and the Group in the whole dimension to further strengthen the post-investment control, formulate the "Intelligent Rail Transit Product Technology System Plan" to promote the transformation of scientific and technological research and development achievements, and develop our main businesses.

## 5.2 Employees

In 2020, the Group recruited 181 people, including a total of 15 high-end talents, covering R&D, business, investment and other background, and delivered more than 400 hours of training.

## 5.3 Community

We provided more than 300 hours of voluntary charitable activities to communities and donated an equivalent of over RMB40,000 to alleviate poverty in poor areas.

## 5.4 Environment

In 2020, the Group consumed approximately 1,060,764 kWh of electricity and approximately 5,671 tons of water, and its 5 company cars used up 1,736 litres of petrol.



# THE COMPANY AND THE ENVIRONMENT

## 6. THE COMPANY AND THE ENVIRONMENT

## 6.1 Energy consumption and the environment

### 6.1.1 Energy consumption

In 2020, the Group consumed approximately 1,060,764 kWh of electricity and approximately 5,671 tons of water, and its 5 company cars used up 1,736 litres of petrol. The Group's per capita power consumption was approximately 1,189.20 kwH and per capita water consumption was approximately 6.36 tons.

There has been no issue in use of energy or sourcing water that is fit for purpose.

#### 6.1.2 Emissions

The Group's businesses mainly involve the construction, operation and maintenance of intelligent rail transit systems, infrastructure information transmission services, technology R&D, investing and financing. Therefore, except for some emissions from daily office work (for example, due to electricity and water consumption), the Group rarely produces pollutants (such as air and greenhouse gas emissions, discharge into water and land, and generation of hazardous and non-hazardous waste) during its business activities. The Group does not use any special equipment for collecting statistics on carbon emissions so it cannot provide accurate carbon emission data. However, its carbon emissions can be estimated based on power consumption in its offices.

In 2020, the Group has no incidents related to material environmental pollutions or excessive emissions, and the Group was in compliance with the applicable laws and regulations concerning air and greenhouse gas emissions, discharges into water and land, generation of hazardous and non-hazardous waste that have a significant impact on the Group.

#### 6.1.3 Waste disposal

The Group's assembly and production involve a small number of dismantling and assembly operations. During the process, tin wires have to be joined together with soldering irons, therefore generating a small amount of exhaust gas and waste. The Group installed recirculating filters (filter elements are regularly inspected and replaced) next to office desks to remove exhaust gas. In addition, approximately 5 kg of tin slag is generated every year, which is specially placed in solid hazardous waste boxes and collected by a qualified manufacturer for recycling. The Group does not use any significant amount of packaging materials during its daily operations.

### 6.2 Office and the environment

### 6.2.1 Virtualisation

Continuous efforts were made to develop and promote virtualisation technology, in order to practice the concept of going green and environmental protection. In 2020, BII Trans Tech integrated the Group's hardware equipment mainly through the virtualisation technology based on its actual management situations as a response to China's "Work Plan for Energy Conservation and Emission Reduction in the 13th Five-Year Plan Period", "Beijing's Plan on Energy Conservation, Consumption Reduction and Climate Change Mitigation Responses in the 13th Five-Year Plan Period", and "Overall Implementation Plan of Building Beijing into a Demonstration City of Comprehensive Energy Saving and Emission Reduction Fiscal Policy", with a view to improving the utilisation of equipment resources and reducing energy consumption. Take servers as an example, virtualisation technology allows a single physical machine to create multiple virtual machines that can be dynamically allocated to different application systems. As the application system changes the overhead of system resources, the hardware resources of the virtual machines can be dynamically adjusted, and the hardware resources of the servers can be fully utilised. Virtualisation technology is widely used in servers, networks, memories and other devices, so we can achieve a highly utilised network infrastructure and a stronger, more resilient backup and disaster recovery platform.

The Group adopted virtualisation technology in its management cockpit project launched in 2020. After partitioned into 34 virtual servers for its tender and procurement platform, its existing three physical servers created another three virtual servers for its management cockpit project. The superior units established project management, supply chain, comprehensive budget, online reporting, OA and other systems, while the Group and its subsidiaries configured them by themselves. The systems have been promoted and popularised in this way, which has avoided the investment in hardware resources, reduced the energy consumption of supporting power supply and refrigeration, and reduced pollutant emissions. Based on the average power of 5 kWh per physical server, the use of the virtualisation technology can save 170 kWh per hour. If the electricity is converted into standard coal for calculation, this can save 20.89 Kg of standard coal per hour, reducing carbon dioxide emissions by 55.57 Kg.

#### 6.2.2 Paperless office

The Group actively seeks for and advocates new low-carbon operating models to build a low-carbon, energy-saving, green and environmentally-friendly working environment.

The Group built the internal OA system in 2017 and integrated the OA system with BII's OA system in 2019 to reduce the online operation of two servers. In 2020, the Group launched a project management and supply chain system thanks to the widespread use of the Group's OA system and promotion of the ERP system development. Combined with the building of its own tender and procurement platform and the management cockpit system, these efforts have helped the Group achieve an automated and paperless office, thereby improving work efficiency, updating employees and the management on accurate business information in a timely manner, improving equipment utilisation efficiency, and achieving energy conservation and emissions reduction.

In addition, to respond to the call of the Stock Exchange, the Group continued adopting the electronic version for its Social Responsibility Report in 2020 and will no longer use paper versions to be more environmentally-friendly.

#### 6.2.3 Low carbonisation

The Group uses LED lamps, advocates turning off the lights when leaving, and centrally processes toner cartridges. It encourages employees to practice low-carbon ideas in the areas of clothing, dining, living, consumption and transportation. The employees are also encouraged to adopt low-carbon transportation methods such as walking, cycling, public transport, carpooling, and getting a ride. The Group's employees will preferentially choose high-speed rail instead of aircraft for business trips whenever time permits to reduce carbon emissions. In addition, the Group also adopts an eco-friendly approach in conference management. It holds presidential office meetings every two weeks and asks Party building centre group members to learn together and discuss pandemic prevention and control measures via video conference calls. The Group's subsidiaries can attend meetings via video conferencing to cut down carbon emissions.

The Group uses ceramic tea cups and kettles in meeting rooms, which has greatly reduced the use of paper cups and bottled mineral water. It has also replaced fresh flowers with reusable plastic flowers as decorations for board meetings to reduce the impact on the natural environment.

#### 6.2.4 Water conservation

The Group has adopted measures in minimising the use of water and cultivated the concept of saving for its employees. Several water conservation measures have been adopted by the Group, such as constant checks for water leaks, reporting leaking taps and toilets and the reusing or recycling of water where possible.

#### 6.2.5 Waste sorting

The Group was active in carrying out the waste sorting policy in Beijing. It signed a letter of commitment on waste sorting with all of its employees in the capital city. Waste sorting has been promoted through posters, handbooks, online popular science videos, etc.

## The Company and the Environment (continued)

## 6.3 Project and the environment

# 6.3.1 Increasing subway operational efficiency and reducing energy consumption from subway system

#### 6.3.1.1 Zhengzhou Metro Line 4's AFC project

New equipment and technologies such as self-service ticket processor and functional programming language were applied in Zhengzhou Metro Line 4's AFC project to creatively carry out construction and project management. The project used a 4-layer architecture without a line centre computer system, saving a lot of investment in servers and fully reducing energy consumption. In the meantime, biometric identification technology was widely applied, which reduced the utilisation rate and wastage rate of traditional tickets, and further saved operating resources.

The Group strictly abided by the following (including but not limited to) regulations, policies, standards and norms during the construction of the Zhengzhou Metro Line 4's AFC project:

- (1) Code for Design of Metro (GB 50157-2013);
- (2) Technical Code of Urban Rail Transit (GB 50490-2009);
- (3) Technical Requirements for Automatic Fare Collection System of Urban Rail Transportation (GB/T 20907-2007);
- (4) Standard for Construction Quality Acceptance of Urban Rail Transit Automatic Fare Collection System Engineering (GB/T 50381-2018);
- (5) Technical Specification for Test Technology of Urban Rail Transit Automatic Fare Collection System (CJJ/T 162-2011);
- (6) Code for Data Centre Design (GB 50174-2017);
- (7) Code for Construction and Acceptance of Metro Engineering (GB 50299-1999) (2003 version);
- Technical Code for Protection of Building Electronic Information System Against Lightning (GB 50343-2012);
- (9) Code for Acceptance of Construction Quality of Building Electrical Engineering (GB 50303-2015);
- (10) Code for Engineering Design of Generic Cabling System (GB 50311-2016);
- (11) Code for Design of Low Voltage Electrical Installations (GB 50054-2011);
- (12) Standard for Fire Protection Design of Metro (GB 51298-2018);
- (13) Urban Rail Transit Project Construction Standards (JB 104-2008);
- (14) Information Security Technology Baseline for Classified Protection of Cybersecurity (GB/T 22239-2019);
- (15) Standard for AFC System of Zhengzhou Rail Transit Network;
- (16) Electromagnetic Compatibility Testing and Measurement Techniques Electrostatic Discharge Immunity Test: Level-B Criteria (GB/T 17626.2 or IEC 61000-4-2);
- (17) Electromagnetic Compatibility Testing and Measurement Techniques Surge Immunity Test (GB/T 17626.5 or IEC 61000-4-5);
- (18) Electromagnetic Compatibility Testing and Measurement Techniques Voltage Dips, Short Interruptions and Voltage Variations Immunity Tests (GB/T 17626.11 or IEC 61000-4-11);

- (19) Limits for Harmonic Current Emissions Caused by Low-voltage Electrical and Electronic Equipments (GB 17625.1 or IEC 61000-3-2);
- (20) Industry standards formulated by People's Bank of China, Ministry of Construction, Ministry of Information Industry, etc.;
- (21) China Compulsory Certification (CCC);
- (22) Standards formulated by International Organization for Standardization (ISO);
- (23) Standards formulated by International Electrotechnical Commission (IEC);
- (24) Standards formulated by Institute of Electrical and Electronics Engineers (IEEE);
- (25) Standards formulated by International Telecommunication Union (ITU);
- (26) Standards formulated by Electronic Industries Alliance (EIA) Standards;
- (27) Specifications for design, manufacture, construction and installation of related products;
- (28) Other relevant national standards and norms.





## The Company and the Environment (continued)

#### 6.3.1.2 Kunming Metro Line 4 project

In Kunming Metro Line 4 project, the automatic gate machines supplied by the Group comply with the national environmental laws and regulations. After meeting user needs and ensuring reliable quality, the Group achieved high efficiency, low consumption and environmental protection starting from two aspects of model selection and design. All the machines (including TVM, AGM and BOM) can run in a preset, locally set energy-saving mode. When selecting modules in the initial design stage of the development, the Group chose low-power, high-efficiency products as components of the machines as much as possible. It achieved the expected design effect through strict testing and continuous improvement in the development and implementation stage. For instance, some components including industrial personal computers and passenger operating displays that were made by globally-renowned brands have their energy conversion and power consumption carefully designed and have been put into practice for many years, achieving the purpose of energy conservation and emission reduction.

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During the implementation of the Kunming Metro Line 4 project, the Group strictly abided by the following standards in response to the Opinions on Vigorously Developing Low-Energy Buildings and Green Buildings of the Provincial Department of Housing and Urban-Rural Development of the Yunnan Provincial Development and Reform Commission and the Opinion on Ensuring the Safe Operation of Urban Rail Transit of the General Office of the State Council (Guobanfa [2018] No. 13):

- GB/T 22240-2008 Information Security Technology Classification Guide for Classified Protection of Information System Security;
- GB/T 25058-2010 Information Security Technology Implementation Guide for Classified Protection of Information System Security;
- GB/T 22239-2008 Information Security Technology Baseline for Classified Protection of Information System Security;
- GB/T 2589 General Principles for Calculation of the Comprehensive Energy Consumption;
- Environmental Protection Law of People's Republic of China law and regulations to be followed for energy conservation and emissions reduction, low carbon environmental protection, protection of public health, promotion of ecological civilisation and sustainable development in the course of project implementation; and
- Law on Prevention and Control of Pollution from Environmental Noise of the People's Republic of China – policies and regulations to be followed for prevention and control of pollution from environmental noise, ensuring human health and promoting living environment in the course of project implementation.



## 6.3.1.3 Taiyuan ACC project

As China's first clearing platform built based on the in-depth integration and mutual trust between the traditional clearing system and Internet ticketing system, the Taiyuan ACC project made full use of the computing resources of Taiyuan urban rail cloud platform, adopted a microservices architecture and gave full play to containers, saving a lot of investment in servers, saving resources, reducing energy consumption and improving the efficiency of subway operation.

The Group strictly abided by the following (including but not limited to) regulations, policies, standards and norms during the construction of the Taiyuan ACC project:

- (1) Code for Design of Metro (GB 50157-2013);
- (2) Standard for Construction Quality Acceptance of Urban Rail Transit Automatic Fare Collection System Engineering (GB/T 50381-2018);
- (3) Technical Requirements for Automatic Fare Collection System of Urban Rail Transportation (GB/T 20907-2007);
- (4) Technical Code of Urban Rail Transit (GB 50490-2009);
- (5) Code for Data Centre Design (GB 50174-2017);
- (6) Code for Construction and Acceptance of Data Center Infrastructure (GB 50462-2015);
- (7) Standard for Construction Quality Acceptance of Metro Engineering (GB 50299-2018);
- (8) Technical Code for Protection of Building Electronic Information System Against Lightning (GB 50343-2012);
- (9) Code for Acceptance of Construction Quality of Building Electrical Engineering (GB 50303-2015);
- (10) Occupational Health and Safety Management Systems Requirements;
- (11) Code for Engineering Design of Generic Cabling System (GB 50311-2016);
- (12) Safety Precaution Engineering Procedures and Requirements (GA/T 75-1994);
- (13) Code for Design of Low Voltage Electrical Installations (GB 50054-2011);
- (14) Security Assessment Methods for Cloud Computing Services;
- (15) Standards formulated by International Organization for Standardization (ISO);
- (16) Standards formulated by International Electrotechnical Commission (IEC);
- (17) Standards formulated by Railway Industry Association (RIA);
- (18) Standards formulated by Electronic Industries Alliance (EIA) Standards;
- (19) MIL-STD-189, 471 and 781 (former US military standards);
- (20) European Norm (EN);
- (21) Latest documents of European Telecommunications Standards Institute (ETSI) and their annexes;
- (22) EU RoHS.





## The Company and the Environment (continued)

#### 6.3.1.4 Intelligent community

Based on its own technical strength, the Group created a package of solutions for intelligent communities in Maizidian through big data, facial recognition, a pandemic prevention and control platform, integrated temperature measuring device and an IoT-based anti-pandemic device, helping to improve the fine management level of communities in the sub-district under the normalisation of pandemic prevention and control in different areas such as embassy area, business district, cultural and tourism area and residential area, the Group provided an innovative and intelligent management system for communities from multiple perspectives such as residents, workers and property facilities. The system was integrated with the construction of smart and safe communities.

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The Group abided by all national and local laws and regulations on the control of environmental pollution, as well as the standards and norms issued by relevant departments during the construction of the intelligent community project, such as:

Secondary standards in Ambient Air Quality Standard (GB 3095-2012);

Class II standards in Environmental Quality Standards for Surface Water (GB 3838-2002);

Area-B standards in Comprehensive Emission Standard for Pollutants from Boilers (DB 11/139-2007), a local standard of Beijing;

Discharge Standard of Water Pollutants in Beijing (DB 11307-2005) for the discharge of sewage into the surface water body and its catchment area; the aforesaid standards for the discharge of sewage into the urban sewage treatment plants;

Notice (Jingjiaolubanfa [2017] No. 37) highway department of Beijing Municipal Commission of Transport on issuing the Emergency Plan of Heavy Air Pollution for Transportation and Highway Industry in Beijing (revised in 2017), notice (Jingzhengfa [2016] No. 49) of the Beijing Municipal People's Government on issuing the Emergency Plan of Heavy Air Pollution in Beijing (revised in 2016), notice (Jingjiaoanquanfa [2016] No. 125) of Beijing Municipal Commission of Transport on issuing the Emergency Subplan of Heavy Air Pollution for Transportation Industry in Beijing, notice (Jingfagai [2015] No. 265) on Charging Standards for Dust Emission from Project Construction Sites, notice (Jinghuanfa [2015] No. 5) on the Work Related to the Collection of Smart and Safe Communities in Beijing;

Mandatory standards for civilised and safe construction that operators must strictly abide by, such as the Measures for Management of Project Construction Sites in Beijing ([2013] Beijing Municipal Government Order No. 247), Standards for Safety Protection, Sanitation and Fire Protection of Project Construction Sites (DB 11/945-2012), Technical Code for Fire Safety of Construction Site (GB 50720-2011), and Standard of Environment and Sanitation of Construction Site (JGJ 146-2013);

Class-1 to Class-4 standards on acoustic environment in the Standards for Environmental Noise in Urban Areas (GB 3096-2008) according to the functional zoning of environmental noise in Beijing, with Class-1 standards with for sensitive points such as residential areas, schools and hospitals, Class-2 standards for mixed commercial and residential areas, Class-3 standards for industrial areas and Class-4 standards for both sides of traffic lines. When construction is carried out near residential areas or other noise-sensitive buildings (such as schools and hospitals), measures should be taken in time to reduce the disturbance caused by construction activities to residents around a construction site if the noise exceeds the specified level. Effective measures should be taken to protect constructors in noisy sites.

## 6.3.2 Other projects that support energy conservation and environmental care

The Group adjusted the amount of domestic waste in treatment facilities through the operation and maintenance of the ICC metering system (Phase I) project for domestic waste treatment facilities and accurately collected statistics and recorded the amount of processed domestic waste in various districts and counties as the basis for the payment of relevant fees such as domestic waste treatment fees and economic compensations in full implementation of the Beijing's instructions of "fined management and city beautification".

In addition, we deployed a video conference system in BII's video conference system project to optimise the communication model for enterprise information, enabling remote communication at anytime and anywhere, improving the overall operational efficiency of the enterprise, and helping achieve green office.



# THE COMPANY AND SOCIETY

## 7. THE COMPANY AND SOCIETY

## 7.1 Employees

#### 7.1.1 Employment

The Group proactively improves its human resources system always under fair, open, objective, and just employment principles. It strictly complied with the Labour Law of the People's Republic of China, Labour Contract Law of the People's Republic of China and Regulation on the Implementation of the Labour Contract Law of the People's Republic of China, Employment Ordinance of the Hong Kong Special Administrative Region and other relevant laws and regulations and maintains a zero-tolerance policy against any violations of laws and regulations.

As of 31 December 2020, the Group had a total of 1,104 employees, i.e. 892 internal employees and 212 outsourced employees.

#### 7.1.2 Staff employment

In 2020, the Group recruited 181 people, including 15 high-end talents, covering R&D, business, investment and other background.

### 7.1.3 Remuneration and benefits

The Group's current salary system includes basic salary, performance pay, performance bonus, year-end bonus, performance incentive fund, high-temperature subsidies, and heating subsidies. In addition, the Group pays five social insurances and a housing provident fund, supplementary commercial medical insurance, and accidental personal injury insurance, and provides regular health checkups for employees.

In addition, it offers various benefits such as helping employees apply for working residence permits, household registration for returning overseas students, and point-based household registration. All these measures help further enhance the cohesiveness of employees, encourage employees to more proactively innovate for the Company's development, and are effective in attracting and retaining core talents.

#### 7.1.4 Incentives

The Group pursues position level assessment, makes clear career positioning and pathing for employees, and encourages them to keep improving their professional skills and overall competence. In 2020, the Group adjusted salaries of employees based on a combination of factors, such as the current economic benefits, changes in industry pay, and consumer price index (CPI), as well as their ranks, to effectively protect their interests.

During the year, the Group proactively promoted HR incentive compensation plan. It adjusted salaries and distributed bonuses based on factors such as performance assessment results, position levels, and salary standards within the system through job evaluation and external market benchmarking. The Plan-Do-Check-Act (PDCA) approach was strengthened throughout performance appraisal to exert pressure on junior and middle-level employees. With equal emphasis to evaluation and incentives, the Group improved its talent team based on performance appraisal and gave extra rewards to top performers and timely praise and recognition to good workers. The Group also established a performance incentive fund that rewarded the middle and senior management based on its mid – and long-term performance. It also put in place an incentive mechanism integrating both immediate short-term key indicators

and mid-to – long-term ones associated with its development. In addition, the Group set up a multi-dimensional and multi-level merit-based assessment mechanism, including honorary titles such as advanced groups, outstanding middle-level cadres, outstanding expatriates, and outstanding employees, special achievement awards, and excellent production safety projects to recognise and motivate teams and individuals who have made great contributions to the Group's performance.

### 7.1.5 Working hours and holidays

The Group adopts eight-hour working day and implements national regulations for employees who have to work overtime.

Meanwhile, the Group provides employees with benefits such as statutory holidays, paid annual leave, wedding leave, maternity leave, and funeral leave. A total of 14 employees took maternity leave in 2020.

### 7.1.6 Staff structure

The Group offers equal employment opportunities for people of different races, genders and cultures by clarifying the recruitment management process and disclosing recruitment requirements. It eliminates discrimination in any aspect and strictly prohibits any illegal behaviour. In terms of promotion and career development, the Group strived to achieve gender equality. Meanwhile, it adopts a post-based salary mechanism that allows male and female employees to receive equal pay for equal work.

As of 31 December 2020, the Group had a total of 892 in-service employees with an average age of 35 years old. Among them 888 were full-time employees and 4 were part-time employees (including reemployed retirees and consultants). The Group even offered part-time job opportunities to full-time housewives in Hong Kong, enabling them to work flexibly in their spare time in support of their family.



In the computer information industry, it is common to see more men than women.

Number of employees by age

The Group's workforce has a diverse age structure. The Group offers relatively stable employment opportunities for employees over 40 years old while providing employment and career development opportunities for young people.







Twenty-seven employees in BII Transit Systems (HK) were Hong Kong permanent residents. A total of nine employees had been working for the Company for more than ten years, five of which had been serving the Company for over 20 years. This shows that employees are deeply loyal to the Company.



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The Group creates an open and inclusive corporate culture without racial discrimination. The Group has made job opportunities available to people from underdeveloped areas, with 331 employees from non-urban areas.



The Group provided job opportunities for employees with various levels of education background. It is also advocating education improvement programs to encourage employees to study outside of working hours and improve their level of education.

## 7.1.7 Staff turnover

Number of loss of employees by gender







Number of loss of employees by region





### 7.2 Health and safety

#### 7.2.1 Health and safety system and measures

The Group has developed Production Safety Management Measures, Production Safety Accident Classification Management Measures, Production Safety Accident Response Plan, Production Safety Responsibility System and other various systems to institutionally guarantee employees' work safety. Meanwhile, it organises employees to study the Law on Prevention and Control of Occupational Diseases of the People's Republic of China, pays attention to annual medical check-ups of all employees, equips front-line workers with labour protection supplies, and delivers teaching and training on the correct use and maintenance of labour protection supplies. The Group works to create a safe and sound working environment and continuously enhance employees' occupational health awareness. The Group has complied with the relevant laws and regulations relating to providing a safe working environment and protecting employees from occupational hazards.

During the year, the Group's operations management department conducted a total of 46 onsite safety inspections, covering civil communication projects inside and outside Beijing of BII ERG, ERG (BJ), Huaqi Intelligent, BII Xin An and Litmus. It issued 11 hidden danger rectification notices, and all rectifications were completed, ensuring that the projects were carried out in a safe way. In addition, the Group signed a construction and production safety responsibility letter with suppliers to extend safety protection from its employees to include companies serving it.

#### 7.2.2 Working environment

In the event of an outbreak in 2020, in order to ensure the health and safety of the employees, the Company equipped an emergency isolation room in the office area and provided antipandemic materials such as temperature testing facility, sterilising equipment and masks, disinfectants and disinfectant hand sanitisers in the public area. Anti-pandemic materials were regularly distributed, and offices were cleaned, disinfected and ventilated every day to ensure that employees could work in a comfortable, safe and healthy office environment.

## 7.2.3 Care to employees

During the year, the labour union continuously paid visits and offered condolences for weddings, funerals, illnesses, pregnancy, statutory holidays, extreme weather, etc. These made employees feel that the labour union is their home.

In order to actively respond to the call of national fitness and advocate a healthy lifestyle, the Group organised a number of cultural and sports activities, including "With health technology, do cloud exercise amid pandemic", "Burning your calories" and table tennis and badminton hobby groups, providing employees with rich opportunities to improve physical health, and creating a family-related cultural atmosphere of "unity, friendship, tolerance and sharing".





"Making cakes for parents and elders on the Chung Yeung Festival"



"With health technology, do cloud exercise amid pandemic" on International Women's Day





Building a heartwarming station



Visit to the front-line employees and non-local employees

#### 7.2.4 Safety training

In 2020, we organised five safety production training sessions, covering more than 110 people. We explained the harmful factors and preventive measures of hazardous operations to the front-line operators, and publicised the relevant standards of graded risk control to project leaders, in order to enhance employees' safety awareness and actively lay down risk countermeasures.

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In the same year, the Group neither violated China's current regulations relating to labour and safety nor was involved in major safety issues for employees. In the past three years, there were no work-related injuries or deaths and no days lost due to workplace injury.

#### 7.3 Development training

The Group built a full-coverage, hierarchical and multi-dimensional training system with an aim to creating a high-end talent team in the rail transit field. During the year, the Group delivered more than 400 hours of offline training, with the training expenditure of more than RMB1 million.

Training for mid-to- high-level executives	2020 is also a crucial year for the Group to implement its strategic plan. Considering the training ideas for mid-level cadres and relevant
	achievements in the past three years and the overall work requirements of
	pandemic prevention and control in 2020, the Group focused on the actual
	management of mid-level cadres in the second half of 2020 under the
	content framework of "theory + practice". Specifically, it invited professors
	from National University of Singapore, Renmin University of China and other
	top universities at home and abroad, as well as senior executives from Bayer,
	IBM, Huawei and other first-class enterprises to join its "Navigators' training
	camp" themed on strategic thinking, leadership development, global vision
	expansion, with a view to further improving the competence of mid-level
	cadres to help achieve its strategic goal.

Employee training As far as employee training concerned, outstanding experts from the China Association of Metros were invited to help employees at all levels have more understanding of advanced theories through training on intelligent railway transportation. The Group also selected employees to build a team of young talents, in order to further set up a talent echelon. Based on the growth expectations on young talents, the "Super new stars" training activity themed on "Managers for the future" was held to train young people under the guidance of coaches. The young talents were also dispatched to visit renowned high-tech companies. In addition, the Group actively promoted the application of online training systems to encourage employees to use fragmented time for further study. All these efforts have improved the comprehensive ability and increased core competitiveness of employees.

## 7.4 Labour standards

As a subsidiary of BII, which is directly under Beijing Municipal State-owned Assets Supervision and Administration Commission, the Company has been operating legally and in compliance with national laws and regulations such as Labour Law of the People's Republic of China and Labour Contract Law of the People's Republic of China in terms of human resources management. It has also formulated Staff Recruitment Management Methods and Labour Personnel Management Methods. The Group signed formal contracts with employees who meet employment standards. All employee labour contracts were prepared with reference to the relevant legal system, and staff overtime is reasonably specified to protect the legitimate rights of employees. In 2020, the Group neither had case concerning the employment of minors, forced labour, nor had any labour dispute.

### 7.5 Product innovation

Adopting the "1+5+N" product system, the Group established a standardised big data platform for intelligent urban rail targeting five business directions, namely passenger service, operation and scheduling, operation and maintenance management, technology and equipment, and construction management, in 2020. Based on "1+5", it developed N kinds of intelligent urban rail products and applications to adapt to a new generation. Efforts were made to conduct technical exploration in data middle platform, technology middle platform, edge computing and other advanced technologies, in a bid to empower intelligent urban rail products and applications via technological innovation. During the year, the Group made remarkable achievements in product innovation. Its standardised big data platform for intelligent urban rail was used in the branch line for the Beijing Winter Olympics (Beijing Subway Line 11), a national key project. A passenger density analysis system was utilised in Chengdu Metro Line 9, 200 km/h municipal railway line in Beijing and other projects.

The Group made significant progress in the R&D of AFC products (AG, TVM, BOM and SC) for the intelligent railway transportation industry. The design of the overall plan and technical architecture was completed and approved. Intelligent services, including intelligent security control, intelligent passenger service, and MFAS\MBAS\MPSCADA R&D, as well as visual passenger alarm, passenger counter, passenger density analysis in a train carriage, intelligent pantograph analysis, train black box and other intelligent products, have been implemented and applied in some projects. This means that its strategic upgrading further produced results.

As a member of BII, the Group took part in several cooperation activities within BII and achieved fruitful results. Its "Key technology and equipment of basic platform based on cloud technology" project was selected as BII's pilot scientific research project. Besides, it actively participated in the BII's intelligent equipment technology innovation cooperation project to promote the application of several intelligent subway products in Beijing Subway's projects, and got involved in the communication of urban rail intelligentisation. The Group's efforts gained high recognition and support from all parties.



### 7.6 Intellectual property protection

So far, the Group has obtained 85 core patents and 344 software copyrights in the field of intelligent rail transit, and these results have been widely used in the construction of transportation lines and networks. During the year, the Group attained 53 software copyrights and was authorised with 10 patents. With an aim to seek long-term sustainable development and maximise the benefits, the Group strengthened continuous R&D investment, built core competitiveness in technology, and pushed for growth mainly based on R&D innovation.

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With the globalisation of the world economy and new situation of international intellectual property protection, enterprises are encountering tremendous pressure and challenges in protecting their intellectual property rights. The Group strengthens the protection of intellectual property rights by effectively formulating and implementing an intellectual property management mechanism, thereby giving it a comparative advantage in expertise and resources in a bid to maximise its competitiveness and ability to gain market profits and foster its continuous expansion.

The Group attaches great importance to the protection of intellectual property rights and has incorporated the application or acceptance of intellectual property rights into key assessment indicators of the Board. The Group assigned a special person to be responsible for carrying out the work for the protection of intellectual property rights, who at the beginning of each year will prepare an "Annual Patent and Intellectual Property Application Plan" according to the Group's development strategies, the work plans of various departments and communication with heads at all levels. Besides, in conjunction with the research and development progress of projects, the dedicated person tracks and supervises the patent and intellectual property application plan, and urges the relevant departments to submit applications in a timely manner to intellectual property offices and copyright offices.

### 7.7 Qualification

The Group has good qualifications. It has obtained 21 qualification certifications including CMMI5. The acquisition and continuous maintenance of qualification and management system certificates help highlight the strength of the Group, avoid various risks, improve competitiveness, and lay a solid foundation for the effective bidding of the Group.

In 2020, the Group completed the certification of information technology service management system and the review of renewal of information security management system certificate. It at the same time passed the review of quality management system certification, environmental management system certification, and occupational health and safety management system certification.

Moreover, the Group won the science and technology progress award for urban rail transit issued by the China Association of Metros in 2020. It was honoured as a credit system integrator by the Beijing Software and Information Service Industry Association. This has raised the Group's reputation and increased its brand value.

## 7.8 The Company and suppliers

Guided by the principles of integrity, openness, and sharing, the Group maintains long-term strategic partnerships with suppliers to achieve win-win results in value and co-build a better future in strict compliance with laws and regulations relating to supplier management, including but not limited to the Regulations on the Implementation of the Tendering and Bidding Law of the People's Republic of China.



The Company currently has more than 725 suppliers and other business partners, of which 69% is from North China, 21% from East China and South China, and 10% from Hong Kong and other regions. Meanwhile, we are also intensifying efforts to develop new markets in other cities. As for long-term business cooperation, we gave preference to suppliers who have the greatest potential to innovate and optimise production costs and logistics processes.

The Group has established a comprehensive supplier classification and management evaluation system. According to the Supplier Management Measures (Trial), the operations management department takes the lead to arrange the Group and its subsidiaries to re-evaluate suppliers every year based on various factors, such as business demand, cooperation, qualification and market performance. The List of Qualified Suppliers for 2020 was published.

Suppliers that cooperated with the Group in 2019 were re-evaluated in 2020. A total of 468 suppliers were re-evaluated. The re-evaluation was mainly about price/performance ratio of products or services, supply/service punctuality, after-sales service, solutions, contract performance and payment methods, as well as financial status of the previous year. The Group rated 145 class-A excellent suppliers, 189 class-B good suppliers and 134 class-C ordinary suppliers. There were no class-D (substandard) suppliers.

Furthermore, the operations management department preliminarily assessed the new suppliers in 2020 through qualification review and site inspection. It checked the suppliers on the websites of industrial and commercial administrations from their financial condition, complaints and so forth. Suppliers that were unqualified or may pose a risk to the Group were replaced, the payment methods were changed or binding clauses were added, which have effectively curbed the performance risk. In 2020, a total of 257 suppliers passed the preliminary assessment. The annual re-evaluation will be conducted in June 2021.



#### 7.9 Product liability

#### 7.9.1 Product quality management

The Group always believes that "the quality of products and services is the foundation of a company", and this idea is inculcated into the hearts of every employee in their daily work to develop a strong awareness on the quality of products and services, thereby providing high-quality products and services for customers. High-quality products and services provided by the Group are well received. We received commendatory letters and honours such as "Outstanding Supplier" because of the platform screen door project for Beijing Subway Line 14, Shenzhen NOCC project, Changchun Metro Line 1's BAS project, Beijing Subway Line 16's Phase II project, ticket pricing system reform's phase I project, Kunming Metro Line 4's AFC, AFC system O&M for three suburban railways, BII's information-based O&M, BII's video conference project, Nanjing NCC project and other projects. The Group also received letters of thanks and commendation from CRRC Zhuzhou Locomotive Co., Ltd., CRRC Qingdao Sifang Co., Ltd., Hangzhou Metro Group Co., Ltd. and CRRC Hangzhou Co., Ltd. for its outstanding after-sales services provided by the Group. We will continue improving its products and services, creating a better experience for customers.

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As of the end of 2020, the Group did not announce any product recall due to significant quality problems or irregularities. The Group has complied with the applicable laws and regulations in relation to product liability that have a significant impact on the Group.

#### 7.10 Customer relationship

The Group has established the Customer Relationship Management Control Procedure, which stipulates the mechanism of communication with customers during pre-sale, in-sale and after-sale stages. The operations management department is responsible for discussing and resolving complaints with customers and setting up a temporary complaint handling working group, which is responsible for the analysis and handling of complaints. The Group is also responsible for investigating, recording, taking remedial actions and providing feedback based on customer complaints.

During the year, the Company received 0 significant customer complaints. Its satisfaction survey showed that the customer satisfaction rate was 98.52%. This means that the Group has provided customers with satisfactory services.

## 7.11 Projects and society

**7.11.1 Improving passenger mobility experience for high-quality civil communication services** The Group's intelligent railway transportation business has been enhanced to support efficient and parallel operations of businesses with different characteristics in different scenarios. As one part of the Group's infrastructure information business, the civil communication transmission business provides convenient, fast mobility services for citizens, allowing them to enjoy highquality, high-speed communications services provided by three basic telecommunications operators through the building of transmission systems and improvement of communications network services and public transportation service capabilities. Apart from ensuring communications, the Group proactively participated in the development of rail transit converged cloud and 10 Gigabit Ethernet for Beijing's intelligent subway. The civil communication transmission system of the northern extension of Fangshan Line was opened at the end of 2020, adding another communication line with high transmission and low delay to Beijing, improving the communication service quality of citizens' mobility, and enhancing passengers' mobility experience.

# 7.11.2 Providing "green, effective and intelligent" logistics support via the utility tunnel business

The utility tunnel business is another segment of the Group's infrastructure information business. During the year, "Unified Management Platform for Utility Tunnel" and "Unified Communications System" supported the International Horticultural Exhibition 2019, Beijing, China, providing "green, effective and intelligent" logistics support. The intelligent management platform for utility tunnel can realise intelligent environmental monitoring, remote unified communication and visual intercom, reducing manual inspections, improving operation and repair efficiency, and reducing the incidence of work-related injuries.

During the year, the Beijing 2022 Winter Olympics' underground utility tunnel project that the Group participated in provided a guarantee for the Winter Olympics. This project, known as the 'lifeline' of Beijing 2022 Winter Olympics' Yanging zone, plays an important role in the supply of energy, water for snowmaking, domestic water, electricity and communications, etc. The Group is mainly responsible for the construction of weak current systems and the supply of core intelligent products for Winter Olympics' utility tunnel project. Its "Unified Management Platform for Utility Tunnel" and "Unified Communications System" provide "green, effective and intelligent" logistics support. The intelligent management platform for utility tunnel can realise intelligent environmental monitoring, remote unified communication and visual intercom, reducing manual inspections, improving operation and repair efficiency, and reducing the incidence of work-related injuries. In addition, the western section of Beijing Subway Line 11 (the branch line for the Beijing Winter Olympics) was positioned as a service line of the Beijing 2022 Winter Olympics, a pilot line of intelligent rail transit, and a demonstration line of scitech rail transit. The intelligent construction site project in the charge of the Group provides an integrated intelligent solution for the safety management and control of the construction site. Through the intelligent management system, the Group further enhanced the security capability and prevented the occurrence of safety accidents to ensure the smooth progress of the branch line, as a tribute to the Beijing 2022 Winter Olympics.



7.11.3 Guaranteeing passengers' mobility through ACC/TCC and related O&M services

As the centre of information systems of various subway lines in Beijing, the Beijing Metro Network Control Centre is mainly responsible for interconnecting with various subway lines. The Group's ACC/TCC system and related O&M services enable the ongoing normal operation of the Beijing Metro Network Control Centre's server and network equipment, which is the precondition of orderly, safe and effective operation of Beijing's subways. Throughout 2020, the Group provided logistics support and O&M services for the Beijing Metro Network Control Centre, ensuring the efficient, safe, and stable operation of the capital's rail transportation, ensuring the safety and convenience of daily mobility, and providing important support for social stability and economic growth.

The Group provided supportive services for the Beijing Metro Network Control Centre amid the pandemic without compromising the safety of employees, ensuring the operation of the capital's subways.

#### 7.12 Anti-corruption

In accordance with the requirements of the Party conduct and clean government building of the general Party branch, the Group assisted relevant leaders and employees in revising 44 copies of the "Integrity Risk Prevention and Control Form" one by one, inspected 153 risk points and formulated 153 prevention and control measures.

A warning education conference was held during the year, covering 83 mid-level cadres and Party members from Beijing, Suzhou and Hong Kong. With the advantage of new media, the Group innovatively compiled four issues of Clean Government Electronic News around discipline inspection and supervision, hot news of discipline inspection and supervision, and key regulations of Party discipline.

The Group oversaw and inspected five subsidiaries and controlling companies in Beijing every half a month from political supervision, daily supervision and special supervision according to the Plan of Normalised Supervision and Inspection formulated by the general Party branch. A "cloud inspection" was conducted from time to time to controlling companies outside Beijing and subsidiaries outside Mainland China, which provided a strong guarantee for the prevention and control of the pandemic and the resumption of work and production.

Through the internal OA system, the Group informed all employees of leaders' contact information (email addresses and telephone numbers) and set up a complaint mailbox offline, so as to open reporting channels. Employees can report to the relevant leaders for any problems they discover or any suggestions they wish to make.

There was no litigation of corruption against the Group and its employees during the Reporting Period.

## 7.13 Community charity

### 7.13.1 Charitable donation

On 5 February 2020, the Group donated RMB1 million to Wuhan Charity Federation (武漢 市慈善總會) to support prevention and control efforts and relief work against the COVID-19 pandemic in Wuhan to get through this difficult period with all the people nationwide together.

#### 7.13.2 Community charity activities

In 2020, 100% of the Group's 84 Party members signed a letter of commitment on waste sorting, and participated in community charity activities for more than 300 times.

#### 7.13.3 Poverty alleviation activities

The Group has fully shouldered its social responsibilities of funding impoverished students, helping people in distress and trouble as well as promoting charity endeavours, and made continuous efforts to create a better society. The Group held education activities in designated areas and provided aid to Zhenningbao Township Central Primary School, Chicheng County, Zhangjiakou City, Hebei Province. Its donation for poverty alleviation for education in 2020 is equivalent to approximately RMB60,000.

Via its activity about supporting poverty alleviation through consumption, the Group bought products from designated regions 16 times for approximately 244,000. It looked for new ways to support poverty alleviation through consumption, contributing to solve the problems of "two no worries (no worries about food and clothing) and three guarantees (guarantees in having access to compulsory education, basic medical care and safe housing)" in impoverished areas.

Environmental protection is a must-go path to achieve sustainable development, and the society is the deep soil for the continuous development and growth of a company. Only by taking root in the community and giving back to the society can we achieve symbiosis and prosperity. As a responsible corporate citizen, the Group will continue unswervingly fulfilling its social responsibilities and strive to set a better model.



