

京投軌道交通科技控股有限公司

BII Railway Transportation Technology Holdings Company Limited

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



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Part 1: Environmental, Social and Governance Report Overview

ABOUT THIS REPORT

BII Railway Transportation Technology Holdings Company Limited (together with its subsidiaries hereinafter referred to as "the Group", "BIITT" or "we") has prepared this 2022 Environmental, Social and Governance ("ESG") Report in accordance with the Environmental, Social and Governance Reporting Guide (the "Reporting Guide"), which is contained in Appendix 27 to the *Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited* ("Main Board Listing Rules") as stipulated by The Stock Exchange of Hong Kong Limited ("SEHK").

This report incorporates a statement from the Board of Directors ("the Board") and has followed the reporting principles of Materiality, Quantitative and Consistency as well as the Reporting Boundary in respect of collecting relevant materials, analysing data and reviewing information over the course of its preparation and compilation.

For details of the corporate governance practices of the Group, please refer to the Corporate Governance Report section on pages 48-66 of the 2022 Annual Report.

REPORTING PERIOD AND BOUNDARY

This report focuses on the Group's ESG policies, targets and initiatives from 1 January 2022 to 31 December 2022 (the "Reporting Period"). Unless otherwise specified, the domestic and overseas businesses covered by the policies, systems, statements and key performance indicator data in this report are consistent with the scope of the Group's financial report.

The Group will continue to refine the scope of its ESG reporting, and may expand the scope and depth of such reporting in the future based on the result of its annual review. In this issue, the Group publishes its ESG targets and measures to achieve them, as well as ESG performance in the reporting year.

DATA SOURCES AND RELIABILITY ASSURANCE

The information in the 2022 ESG Report, including the Group's policies, initiatives, practices and case studies, comes mainly from its internal policies, statistics, reports and records. The Group is responsible for the authenticity, accuracy and completeness of the content in this ESG report.

REPORT DISCLAIMER

The Board is accountable for the ESG strategy formulation and reporting. This ESG Report is published in both Chinese and English. Should there be any discrepancy, the Chinese version shall prevail. In case of any conflict or inconsistency between this report and the Group's 2022 Annual Report, the Annual Report shall prevail. The interpretation of this report is consistent with the Group's 2022 Annual Report.

This ESG Report is available for downloading on the website of the SEHK (www.hkexnews.hk) and the website of the Group (https://www.biitt.cn).

CONFIRMATION AND APPROVAL

This report was reviewed and submitted by the Chief Executive Officer to the ESG Committee, and was finally approved by the Board on 27 March 2023.

CONTACT AND ENQUIRY

The Group is committed to continuously improving the quality of its ESG disclosure and is looking forward to suggestions from investors and other stakeholders. Our contact information is as follows:

BII Railway Transportation Technology Holdings Company Limited Investor Relations

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Part 2: Corporate Purpose

GROUP OVERVIEW

The Group focuses on the digitalisation of rail transit, including high-speed railways, intercity and suburban railways, and urban metro lines, and smart city infrastructures, providing several digitalised solutions of core operation systems and maintenance services, supported by its proprietary research and development ("R&D") and innovation in system integration.

Rail transport is a pivotal infrastructure which serves as a lifeline enabling the economic activities and the operation of modern cities. We support railway and metro operators as well as infrastructure administrators in safeguarding the system safety and efficiency in daily operations, which offer the mobility entitlement and convenience to all city dwellers and travelers. We are proud to have played an enabling role for the families and the cities we serve.

Through an in-depth understanding of its customer needs and industry evolution, and continued exploration and application of innovative technologies, the Group has grown to a promising scale and leading position in Passenger Information Systems ("PIS"), Automated Fare Collection ("AFC") systems and Automated Fare Collection Clearing Centre ("ACC") systems for rail network. As at 31 December 2022, the Group established its presence in 53 cities across 28 provinces, autonomous regions and special administrative regions in China. It also extended its geographical reach to 14 overseas markets including India, Indonesia, Mexico and Brazil, achieving additional avenues for revenue, thanks to its abundant experience in delivering high-quality metro and infrastructure projects in Beijing municipality over years.

In the first half of the year, due to the market environment in the core business area, the performance of the Group underwent fluctuations. With the stabilisation of the external environment in the second half, the Group overcame the impact of various unfavourable factors, promoted the healthy development of various businesses and steadily improved the quality of its business operations. In 2022, the Group's overall operating performance remained stable, with an annual revenue of approximately HK\$1,638.9 million.

HONOURS AND AWARDS



Enters the list of national
"science and technology reform
demonstration enterprises"
issued by the State-owned Assets
Supervision and Administration
Commission of the State Council



Second Prize of Beijing Science and Technology Award by Beijing Municipal Government



Named as high-tech corporation by Beijing Municipal Science and Technology Commission, Beijing Municipal Bureau of Finance, State Taxation Administration and Beijing Municipal Tax Service



the Safety Management Committee of China Association of Metros, a member of Smart Transport Information Engineering Branch of the Chinese Institute of Electronics and Vice Chair of 5G Applications Industry Array

ESG TARGETS

The Group is committed to serving public interest by way of enabling its customers with effective solutions and products. At the same time, we strive to improve energy efficiency in our operations, cultivate talent and ensure production safety. With these in mind, the Group crystalises six ESG Goals, which are aligned with its quality and service promises.

BIITT ESG Goals



The six targets represent our corporate purpose and are consistent with our corporate culture and values. They are also in alignment with the United Nations' Sustainable Development Goals ("SDGs"), six of which are selected for our benchmarking on an on-going basis.

Corporate Culture and Core Values



CORPORATE CULTURE:

Creativity of an entrepreneur, Progressiveness as a climber, Persistence from a cultivator, and contribution by a responsible person



CORE VALUES:

people-oriented, quality-based, innovation-driven, results-oriented

BENCHMARKING AGAINST THE UNITED NATIONS' SUSTAINABLE DEVELOPMENT GOALS

The Group incorporates a benchmarking exercise against the UN SDGs in the process of defining its business strategy and ESG targets. Four from the 17 goals are selected to underpin our business activities and management approaches, further showcasing our corporate purposes. They are – Goal 3: Good Health and Well-being; Goal 8: Decent Work and Economic Growth; Goal 9: Industry, Innovation and Infrastructure; Goal 10: Reduced Inequalities; Goal 11: Sustainable Cities and Communities; and Goal 13: Climate Action.

	SDGs	The Group's business approach	Report chapter
//	insure healthy lives and promote vell-being for all at all ages 1.6 By 2020, halve the number of global deaths and injuries from road traffic accidents	We enable rail transit operator's operational performance by enhancing the functionality of our own products and services, raising the general public's awareness of the safety and convenience of traveling by rail, and by providing mobility options and solutions that enhance passenger experiences	Part 2 Part 5
a d	romote sustained, inclusive and ustainable economic growth, full and productive employment and lecent work for all 3.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value. 3.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.	We uphold the principle of equality and non-discrimination and offer competitive remuneration packages to achieve equal pay for equal work. We also set targets to help employees further grow and achieve self-worth. We provide our employees with avenues to voice their interests and offer contract employment opportunities and job trainings for migrant workers.	Part 9

	SDGs	The Group's business approach	Report chapter
9 MULSTRY IMPOVATION AND INTRASTRUCTURE	Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation 9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.	We participate in the construction of rail transit systems in China and other developing economies and the R&D of smart cities, and provide informatisation services for urban infrastructures.	Part 5 Part 6
10 REDUCED INCQUARTES	Reduce inequality within and among countries 10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status. 10.3 Ensure equal opportunity and reduce inequalities of outcome, including through eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and actions in this regard.	We are committed to equal employment and do not discriminate on the basis of age, region, religion, etc.	Part 10
11 SUSTAINABLE CITIES AND COMMUNITIES	Make cities and human settlements inclusive, safe, resilient and sustainable 11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.	We participate in the construction of rail transit systems in China and other developing economies, providing means for the general public to travel and facilitating their daily lives and activities.	Part 5 Part 6 Part 7
13 CLUMATE ACTION	Take urgent action to combat climate change and its impacts 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.	We reduce greenhouse gas emissions through a series of energy saving and emission reduction measures.	Part 8

Part 3: Corporate Governance and Material Topics



ESG GOVERNANCE SYSTEM

The Group has built a three-tier ESG governance system, the Board of Directors – ESG Committee – ESG Working Group, and strengthened real-time communication among different functional and business departments, so as to meaningfully integrate ESG elements into operational practices and ensure effective control of the management systems.



KEY ESG INITIATIVES

During the reporting period, the ESG Committee and the ESG Working Group kicked off a number of key initiatives in accordance with their defined responsibilities, aiming to gradually integrating ESG elements from conceptual framework into the Group's strategic considerations and business decisions.

2022 Key ESG Initiatives:

- 1. Set Targets: By taking into account of both disclosure requirements and our current business activities, the Group has produced six ESG targets with thoughtful deliberation, covering energy saving and efficiency reduction of own operations, improving energy efficiency of products and solutions, contributing to green travel initiatives, staff training and talent cultivation and enhancing occupational safety management.
- 2. Strengthen Governance: To align with the updates of the HKEX Corporate Governance Guide, we revised the whistleblowing and anti-fraud policies to bolster a positive and healthy corporate culture. In response to the compliance weakness identified in the 2021 ESG report, the ESG Working Group worked with various departments, including procurement, human resources and legal affairs, and proposed inclusion of ESGrelated requirements in five internal policies to ensure ESG management are implemented in daily business activities.
- 3. Reinforce Communications: Through one-on-one interviews, focus group discussion and customised questionnaires, the ESG Working Group communicated with more than 100 stakeholders. Results were collected and analysed to form the basis for the annual review of material topics.
- 4. Manage Energy Consumption: Guided by China's 30.60 decarbonisation goals and the disclosure requirements of the HKEX on emission reductions, the Group mapped out the scope of energy consumption and set management targets, which are supported by a preliminary greenhouse gas ("GHG") inventory and data review. Such exercise re-calibrated the relationship of ESG management with business development, with an initial system taking form on the monitoring and managing of resources and energy consumption.

Part 3: Corporate Governance and Material Topics (continued)

MATERIALITY ASSESSMENT

Stakeholder Identification and Engagement

The Group's identification and disclosure of material ESG topics is an important reporting principle that underpins this report. We understand that corporate decisions impact stakeholders differently. Keeping this in mind, we have strived to engage with our stakeholders including governments and regulatory bodies, customers, shareholders and investors, suppliers, local communities and employees in constructive dialogues via ongoing, regular business activities and/or dedicated channels, with the aim of better understanding their views and soliciting their feedback.

Stakeholder Communication

Key Stakeholders	Expectations and Requests	Communication Channels
Governments/Regulatory Bodies	Compliant operation Safe production Tax Payment Healthy development of the industry	Information disclosures Supervision and inspection Consultation Forums and seminars
Shareholders/Investors	Consistent and stable returns Sound governance structure Strengthened risk control Open and transparent information	Annual General Meetings Regular reports and announcements Investor communication Company website and press releases
Customers and Industry Associations	Quality products and services Customer privacy protection Customer rights protection Meet customer needs	Marketing Exhibitions Customer visits Satisfaction surveys Industry conferences
Suppliers	Fair Trade Integrity and reciprocity Collaborative improvement Drive management and technology advancement	Procurement education activities Supplier meetings Contracts and agreements Collaboration on project delivery Training
Employees	Welfare and compensation package Employee rights protection Healthy and safe working environment Training and capability development	Internal publications Employee events Career development communications Employee surveys Training
Communities and Public	Environmental responsibility Integration into community development Employment	Poverty alleviation Charitable activities News and announcements Company website

Identification of Potential Material Topics

In 2022, the Group continued to engage and communicate with its stakeholders through the channels detailed above. References were also made to 1) national policies and targets on carbon emissions; 2) the requirements stipulated by relevant regulatory bodies; 3) guidelines from industry associations; 4) media coverage on ESG-related topics in the industry; 5) suggestions and requirements from customers; and 6) major concerns identified by the business units and functional departments of the Group during the year. With findings from these processes, we collated and defined the Group's ESG topic universe for the year, which comprises 4 environmental, 12 social and 3 governance-related topics over risks and opportunities.

Part 3: Corporate Governance and Material Topics (continued)

The preliminary results of the Group's GHG inventory shows that the majority of its energy consumption comes from electricity use in offices and by product assemblies. This indicates the Group's GHG emissions are primarily from purchased electricity and relevant impact to climate change could be limited. Reflecting such conclusion, the scope of environmental topics is hence reduced to 4 from 10 last year.

BIITT Material Topics

Environment Topics							
1. Carbon emissions	2. Climate-related impacts	3. Energy consumption					
4. Waste management							
	Social Topics						
5. Compensation and welfare	6. Development and training	7. Production safety					
8. Intelligent transport and smart city	9. Product/service digitalisation	10. Technological innovations					
11. Service/product quality	12. Customer satisfaction	13. Privacy and data security					
14. Intellectual property rights	15. Sustainable supply chain practices	16. Community relations					
	Governance Topics						
17. Fair competition	18. Anti-corruption	19. Feedback mechanism					

Materiality Assessment

Based on the aforementioned material topics, we conducted three group interviews with employees, and over 10 one-on-one interviews with investors, customers and suppliers. In addition, the ESG Working Group distributed online questionnaires and received 58 valid responses.

Given the industry's strong relevance to public interest, we adopted the double materiality principle of the Global Reporting Initiative ("GRI") recommended by the HKEX for the ranking of material topics, looking at both the impact on stakeholders' judgement and decision-making, and the impact on economy, environment and society. The materiality matrix for the year is formed drawing from the results of the analyses of these two axes. The top eight most important topics are production safety, technological innovations, service/product quality, customer satisfaction, intellectual property rights protection, intelligent transport and smart city, product/service digitalisation, and anticorruption.

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BIITT Materiality Matrix

Board Statement

In December 2015, nearly two hundred countries signed the Paris Agreement at the UN Climate Change Conference ("COP 21"), and subsequently submitted their nationally determined contributions, aiming to reduce GHG emissions from human activities and slow down climate change. The Chinese government has actively participated in it and announced a timetable for carbon peaking and carbon neutrality. During the reporting period, the Group identified its current status of energy consumption and carbon emissions, took into consideration of both the characteristics of the industry and the stage of development of the Group, and set the targets of reducing carbon emission intensity by 10% and 15% by 2025 and 2023, respectively. Besides, the Group also set five additional ESG targets related to service and innovation, production safety, employee development and community support, in the hope of enabling customers in the collective building of sustainable mobility and harmonious communities.

The Board is accountable for the Group's ESG strategy and performance. The ESG Committee under the board is actively working to identify risks and opportunities and integrate them into the risk management and internal control systems, while at the same time has kickstarted the preparation of relevant disclosures under the framework of the Task Force on Climate-related Financial Disclosures ("TCFD").

The Board discussed and recognised the priority issues identified from the materiality topic universe and matrix, and approved this conclusion to be addressed accordingly in the following report sections.

Part 4: Enhance Compliance Management and Strengthen Governance

It is of pivotal importance to maintain a high level of business ethics and compliance management for corporations to deliver strategic objectives and operational effectiveness. The Group continues to enhance its compliance management system to ensure that management structure and policies are effective and compliant with its governance practices.

BUSINESS ETHICS

The Group's business activities strictly comply with all applicable laws and regulations of the countries and regions where it operates, as well as with the entry requirements and standards of those markets in which its products are sold. It actively safeguards and promotes fair competition practices in all its markets. A series of relevant internal policies are in place to ensure that business practices are performed accordingly. Our internal control function regularly conducts conformity assessment and potential risk analyses.

The Group also abides by the requirements of the SEHK in respect of connected transactions and management of inside information. It has established corresponding internal policies and review mechanisms, including the *Information Disclosure Management System*, the *Measures for the Management of the Registration of Insider Information* and the *Measures for the Management of Connected Transactions*, and provides trainings and engages external consulting services for relevant position-holders. In 2022, the Group reviewed the *Measures for the Management of Connected Transactions*, made amendments to the approval and reporting process as well as exemption requirements, in particular that the Legal Compliance Department is required to assess connected transaction risks in contract review process. For connected transactions, all directors¹ took part in a special training and the Board approved the revision of the aforementioned policy, with a view to strengthening the ability to identify and manage connected transactions and relevant disclosures.

In 2022, given multiple appointments of new directors, the Board arranged induction training for new directors, covering the Group's governance principles, key risks, development strategy, market approach, product and service leadership, customer and supplier landscape, and employee morale. During the reporting year, we also provided ESG, insider information and disclosure trainings to all Directors².

During the reporting period, all Board members³ participated in anti-corruption trainings in a total of 9 person counts, staff members partook in anti-corruption trainings in a total of 64 person counts. The Group launched the newly revised Measures for the *Management of Whistleblowing and Measures for the Management of Anti-corruption* to ensure whistleblower protection and consistency in the verification and investigation processes of cases reported via various channels (Please reference company website). In 2022, the Group did not have and was not aware of any corruption lawsuits or external investigations against the Group or its employees.

COMPLIANCE MANAGEMENT

The year of 2022 was the second year of our three-year long compliance management project. The Group mainly focused on organisational structure and responsibility, systems and processes, audit process, evaluation and supervision, execution results, training, and external consultant engagement.

The Chief Executive Officer of the Group serves as the ultimate responsible person for compliance management, and the Chief Compliance Officer is charged with daily legal compliance duties, including taking part in major decision-making and advising on risk prevention, to ensure that external regulatory requirements are effectively incorporated into relevant internal policies so as to deliver related objectives through daily operation.

- All Directors at the time of the Board's Connected Transaction Training on 30 August 2022.
- All Directors at the time of the Board's ESG Training on 30 August 2022.
- All Directors at the time of the Board's Anti-Corruption Training on 30 December 2022.

Part 4: Enhance Compliance Management and Strengthen Governance (continued)

We continued to facilitate the process from trial to full implementation of four internal policies launched last year, namely the Regulations on Compliance Management, the Measures for the Management of Procurement Compliance, the Measures for the Management of Intellectual Property Rights Compliance and the Measures for the Management of Legal Compliance Audit, and successfully marshalled collaborative operation underpinned by compliance audit, compliance evaluation and cross-function meetings, further strengthening the second line of defense undertaken by legal affairs and compliance teams.

We continued to review current policies and processes to ensure sufficiency and prevent overlapping. A total of 69 internal policies were revised, 6 abolished following consolidation, and 1 new policy issued. Policy revisions primarily focused on the following: the Regulations on the Management of Connected Transactions, the Regulations on the Management of Internal Audit, the Regulations on Policy Management, the Regulations on Procurement Management, the Regulations on Information Management, and the newly-launched Regulations on the Management of Legal Affairs.

Two of the policies, namely the Regulations on the Management of Connected Transactions and the Regulations on the Management of Internal Audit, are instrumental in ensuring our practices are compliant with effective processes, so as to safeguard a high standard of corporate governance with uncompromising rigor demanded from the internal control and risk management teams. The adjustments to the Regulations on Policy Management established the definition principles, hierarchical structure and the corresponding approval authorities. The amendments to the Regulations on Procurement Management and the Regulations on Information Management institutionalised integrity building and anti-corruption commitments into the procurement system, and specified the guiding principles of energy saving, low carbon and environmental-friendly procurement in our equipment selection process.

The Group's Legal Compliance Department also conducted a special training for senior management, key functional departments and subsidiaries during the year, entitled "Practical Interpretation of Compliance Management Guidelines for Municipal Enterprises, Acting in Compliance to Fulfil Responsibilities and Ensure Safety". The training explained the essence of compliance work and cross-departmental collaboration from three aspects, namely overview, practical interpretation of guidelines and interpretation of non-compliance practices. It also organised an internal training on "Essentials of External Publicity and Advertising Compliance in the Rail Transit Sector", and introduced the emerging trends on advertising regulations in relation to compliance responsibilities of marketing.

The Group has established the structure of its compliance system with policies and process in place. Compliance work and initiatives have begun to bear fruit since kicking off two years ago. The awareness and practice of compliance management are taking root within the Group.

Part 5: Identify Latent Needs and Enable Service Upgrade

Providing customers with high-quality products and services have always been the pursuit of our business. The Group continues to keep monitoring the macro regulatory landscape and industry trends, so as to stay current in highly integrated and intelligent solutions of our two main businesses, namely intelligent rail transit and infrastructure information, addressing evolving customer needs and the requirements of social development.

DRIVE GROWTH WITH REGULATORY TRENDS

In January 2022, the State Council of China released the *Development Plan for Modernised and Comprehensive Transport System* during the 14th Five-Year Plan Period, which noted that China's urban rail transit has been transitioning from a period of rapid development to a stage where the industry will be centred around improving management efficiency, operational reliability and service quality. In August 2022, the China Association of Metros launched the *Action Plan for Green Urban Rail Transit Development in China* to guide industry players to align with the national 30.60 goals, putting forward industry outlook and targets, suggesting to increase the share of urban rail transit in large cities to over 50% by 2030, and reducing the overall energy consumption intensity and traction energy consumption intensity by 15% compared to 2020. In July, the Ministry of Housing and Urban-Rural Development and the National Development and Reform Commission jointly issued the *National Urban Infrastructure Construction Plan* for the 14th Five-Year Plan, advocating a model of rail transit integration in urban planning that allows rail transit to effectively facilitate city functions and spatial structure, and applying next generation of information technology in building new intelligent communities that are characterised by energy saving and low emission.

INNOVATE INTELLIGENT SERVICES FOR THE PUBLIC

The rail transit industry of China provides safe and convenient daily commute services to hundreds of millions of people every day. As a major player in China's ecosystem of rail transit development, operation and services, the Group keeps the business abreast of the evolving industry and regulatory trends, and maintains its leading position in Passenger Information Systems ("PIS"), Automated Fare Collection System ("AFC"), Automated Fare Collection Clearing Centre ("ACC") system and Traffic Control Centre ("TCC"). Nevertheless, the Group also explores potential market needs that enable rail operators to enhance operational efficiency and optimise user experience, and delves into smart solutions of urban development and community services that help improve the livability and quality of life for city dwellers.

The Group provides critical systems and decision-making information for rail operators, infrastructure construction and operators. As at 31 December 2022, the Group offered products and services in the areas of intelligent rail transit and infrastructure information in 53 cities from 28 provinces and autonomous regions. Our business footprint overseas has expanded to 23 cities in 14 countries.

Metro operators and urban infrastructure builders are the ultimate customers of our solutions and integration projects. In view of new industry trends, they need to reduce power consumption of metro operations remarkably in the future while ensuring operational safety, build forward planning and information management capabilities for operations and maintenance, and elevate the usage of rail transit by improving passenger experience.

With these new needs and pain points in mind, the Group completed future products planning in early 2022, focusing on four areas, namely intelligent passenger service, intelligent operation and maintenance, road network control and intelligent community. The Group also initiated the development of a number of solutions and upgrade of existing products and services so as to serve the evolving social functions. Those relatively mature products and solutions among them are being rolled out.



BIITT Sustainable Development Goals to Enable Customers

Focusing on digital and technology-based applications, we provide critical system solutions and data for informed decision, aiming to improve operational efficiency and passenger experience. We also tailor-make digitalised management systems for infrastructure developers, aiming to enable real-time control actions and construction site safety.

We shall incorporate energy efficiency upgrade into our annual review plan for all existing products and solutions, and seek to develop new products with strength in energy efficiency.

We empower the public to enjoy a civil and convenient lifestyle with our smart community solutions, help solve public transport pain points together with our customers, and support the vulnerable groups in smart city transition.

We continue to participate in the facilitation of the building of cloud platform for rail transit businesses. By applying cloud technology to various business systems, we help metro operators to reduce their investment in servers and server room spaces, while improving overall operational efficiency. Through data collection, aggregation and analysis, we also help our customers in assessing the likelihood and probability of parts being damaged at stages over their life cycle, and anticipating the durability of key components, so as to assist in their effective planning for maintenance cycles with data-supported management of their operating assets. To enhance passenger experience, our solutions provide abundant useful passenger information, such as train schedule and frequency, congestion in compartments and on platform, as well as different environmental indicators in the carriage.

Empowering Social Functions: Reducing duplication of investment, enhancing efficiency of equipment use and management, and improving passenger communication and experience.



Multi-cloud Application and Integrated Cloud Platform

Urban rail transit consists of multiple systems. Each of which comes with its own server and technical applications and encounters long-standing challenges such as scattered infrastructure, high investment costs and data silo. A cloud platform can not only reduce the number of equipment and server room space, but also help build a unified operation environment for the applications, providing on-demand capacity alongside rapid deployment of new functions and systems. Hence improve overall return on investment across the entire operational lifetime.

With the expansion of line access and the diversification of cloud platform application scenarios, a generic cloud platform for daily production and operation that only relies on a cloud technology stack does not manage to meet the future development needs. Developing a set of comprehensive cloud management platforms tailored for the urban rail industry will greatly enhance the management capability of the cloud platform and lower the threshold of the cloud applications.

The Group has completed the development of the cloud platform for Beijing Subway Line 11, and the access integration for Line 17 and 19. At the same time, the Group launched a cloud simulation inspection and testing platform for Beijing Road Network, providing technical and environmental support for future subway lines. This platform will enhance access efficiency and reduce access risks.



Intelligent Operation and Maintenance

The Group's platform of asset operation and maintenance is an intelligent platform tailored for asset management of the rail transit sector. It is based on big data technology and 3D visualisation, connecting information on assets, operation and maintenance as well as resource consumption, and showing the status of asset operation and maintenance accurately and efficiently. The platform elevates the capability of industry players in managing planning, procurement and materials, and support them in their endeavours to reduce cost and increase efficiency.

In 2022, we provided intelligent operation and maintenance services through projects such as the asset management system of the road network company and the intelligent park of a rail transit company.







Intelligent Passenger Service

The intelligent passenger service system aims to provide safe, on-time, comfortable, convenient and green travel services for passengers, while assisting operators to manage the services centrally and efficiently. The system provides immersion-based and integrated services, covering intelligent travel planning, intelligent station passenger entry, intelligent ticketing, intelligent security check, waiting room information, intelligent rides and customer service.

The Intelligent Mobility Travel Application allows passengers to check the station and interchange routes for route planning, and achieve station navigation, train schedule, carriage crowd level, carriage temperature information through the passenger station navigation system and intelligent passenger service terminal. The integration of security check and ticketing provides passengers with safe, efficient and convenient security check and ticketing services, and the platform screen door display offers more intuitive and comprehensive passenger travel guidance, including train arrival, carriage crowd level, station facilities, entrance and exit layout maps, etc. The intelligent train passenger service system allows passengers to enjoy integrated services such as intelligent safety officer service, interactive screen, visual emergency alarm, carriage environment monitoring and dynamic adjustments. The intelligent customer service centre offers a series of self-service options, including voice enquiry, ticket processing, biological registration and remote assistance, which greatly enhances service efficiency and lower work intensity to elevate the overall level of customer satisfaction.





The intelligent passenger service terminal

Part 5: Identify Latent Needs and Enable Service Upgrade (continued)

Empowering Energy Saving and Emission Reduction: Helping reduce the operational energy consumption of rail transit subsystems, contributing to the overall reduction of electricity, and integrating energy consumption analysis in efficiency management.

The main energy consumed during metro operations is electricity provided by the power grid, of which train traction accounts for approximately 50% of the total energy consumption. Lighting, ventilation and air conditioning, and escalator systems account for about 40% of the total energy consumption. In the face of rising pressure of energy saving and emission reduction, we develop energy consumption management platforms for rail transit operators with enhanced data granularity in tracking, analysing and control of energy consumption in a systematic approach. We also promote and adopt advanced energy saving technologies in new projects to improve the overall performance of energy management.



Energy Consumption Management Platform

The Group participated in a project of Beijing Subway in 2016 to help design and build the Energy Consumption Statistics and Monitoring Platform, which was the first network-wide energy management system of intelligent urban rail transit based on big data platform in China. The platform facilitates high-quality decision-making through tracking and analysis of energy consumption data.

The platform achieves automated data collection and incorporates data from equipment, meters, passenger flow, train operation, weather and other sources that form a database for comprehensive modeling and feature in-depth analyses of important indicators particularly the traction energy consumption and the lighting and ventilation system energy consumption. The platform is a multi-dimensional energy consumption evaluation system encompassing subway lines, networks, stations and depots with early warning capabilities of identifying potential issues.

Through monitoring and analysis of energy consumption data, the system identifies trends and norms of energy usage in a timely manner, helping metro operators to gain comprehensive energy consumption information and develop targeted solutions on energy saving. For example, energy saving slopes are used when integrating new subway routes, so that trains can leverage natural acceleration and deceleration when entering and departing stations to achieve energy saving results. The slopes in these designs are gentle, therefore passengers would hardly notice the uphill and downhill movements during the ride.

We are responsible for the maintenance of the Energy Consumption Statistics and Monitoring Platform for Beijing Subway, and provide technical support for the integration of four newly-developed subway lines

Part 5: Identify Latent Needs and Enable Service Upgrade (continued)



Intelligent Lighting

The long working hours of the metro lighting system result in a substantial amount of continuous power consumption, accounting for 10% of total power consumption of all subway operations. Therefore, energy efficient lighting helps with both cost reduction and environmental protection.

We have adopted intelligent lighting control systems in a number of key projects to establish distributed wireless telemetry, remote control, and communication control systems through the application of technologies such as sensing, wireless communication data transmission, intelligent computer information processing, and energy saving electrical control, with functions such as intensity adjustment of brightness, soft start of lighting, timing control, and scene setting, which cut down idle lighting and energy consumption greatly. We have also incorporated intelligent lighting systems into intelligent community projects by making use of community light poles and other lighting equipment as carriers to adjust lights with scene and time changes, thereby saving public lighting costs.

Empowering Intelligent Community: Leveraging technologies such as artificial intelligence, big data and Internet of Things to serve communities and manage construction sites for improved safety and convenience.



By understanding the needs of communities and construction sites, the Group offers tailored solutions for operators to enhance management efficiency and service quality, supporting people's modern and convenient lifestyle.



Intelligent Community

Transformation to a digital technology-enabled community is an innovative service model forming an integral part of smart city development. The Group leverages the latest cutting-edge technologies such as the Internet of Things, cloud computing and mobile Internet to develop user management and mobile software that complement the offline community service capabilities to build a connected microecosystem.

The Beijing Dongba Intelligent Community, which we participated in the design and development of, adopts facial recognition access control to offer barrier-free and safe community access. Automatic identification of tactile pavements has been set up in the community, and residents can make appointments for community medical services through a mobile application. Through automatic monitoring, the equipment failure alarm system prompts property management maintenance personnel to arrive on the site to solve problems in a timely manner. The project is ongoing and the abovementioned scenarios will become a part of daily life in these communities.





Intelligent Construction Site

Based on the concept of Intelligent Construction Site, the Group relies on BIM, 3D GIS and Internet of Things device positioning to achieve real-time positioning and uninterrupted supervision of personnel, equipment and materials at construction sites by means of data collection, wireless network technology and video monitoring. These functions allow the construction company to gain an overview of the project, eliminate operational irregularities, ensure safety production and project quality, and enhance management efficiency.

Upon taking on the intelligent site project of the integrated transportation hub of Beijing Sub-centre Station, the Group actively responds to environmental protection-related requirements, and adheres to the ideas of innovation, going green, openness and sharing. The Group continues to improve the safety production control platform and implements the integrated solutions for the intelligent site.





Construction site of Beijing sub-centre station

Part 6: Focus on R&D to Spur Innovation

Innovation is the key driver of sustainable development for corporations. As a technology-based enterprise, the Group seizes the opportunity of industry iteration and upgrade by continuing to invest in technological innovation to accelerate the development of products and solutions with independent intellectual property rights, which further strengthen its core competitiveness, and contribute to the technological uplifting of the rail transport industry.

IMPROVE THE MANAGEMENT SYSTEM FOR CONTINUED INNOVATION

The Group continues to maintain an annual investment of approximately 10% of revenue in R&D. In 2022, the total investment was approximately HK\$160 million, representing 9.7% of the total revenue. The R&D investment is used for the standardisation and upgrading of products in the intelligent rail transit and infrastructure business on the one hand, and R&D in other emerging areas, including intelligent operation and control, intelligent technology and devices, and intelligent parks on the other. During the year, we completed and launched the Yangtze River Delta Intelligent Rail Transit Exhibition Centre, and invited customers, government officials and industry experts to experience our solutions such as intelligent stations on the spot, intelligent trains and urban rail cloud platform that showcase major improvements in management efficiency and energy control supported by intelligent technologies.

The Group's product R&D is led by its Research Institute, following the Measures for the Administration of Scientific Research Projects and the Incentive Measures for Scientific Research Projects (For Trial Implementation). With the principle of "one-generation reserve, one-generation research and one-generation application", we ensure that the technologies in key areas are developed and accumulated, research results are pilot-tested and market applications are deployed. During the year, the Research Institute solicited proposals for R&D directions for strategic products within the company, mobilising the participation and creativity of relevant employees. In addition, we also set up a Product Management Committee to coordinate and manage the company's product strategy planning, determine product development priorities, and balance resource needs of multiple product projects.

ACCELERATE R&D COMMERCIALISATION TO CREATE A PRODUCT SPECTRUM

The newly-added patents and software copyrights are important components of research. The Group continued to improve the management system of intellectual property rights and revised the *Measures for the Management of Intellectual Property Rights* during the year to guide the team to protect our own intellectual property rights mechanism, while building up the awareness of respecting the intellectual property rights of others and preventing any potential risk of infringement. As at 31 December 2022, the Group had been granted 114 patents and 507 software copyrights, of which 7 patents and 71 software copyrights were granted during the year, and 68 patents were under review. The Group had no legal disputes related to intellectual property rights during the year.

In 2022, the Group entered the list of national "science and technology reform demonstration enterprises" issued by the State-owned Assets Supervision and Administration Commission of the State Council. The list aims to create a group of state-owned science and technology enterprises as role models of reform and innovation. This honour is a recognition of the Group's strength and hopefully a springboard for broader opportunities ahead, to bolster our core competence by research and innovation.

Part 6: Focus on R&D to Spur Innovation (continued)



Edge Cloud Technology

The on-board edge cloud technology developed by the Group has been applied for the first time in the industry on Beijing Subway Line 11 (also known as the "Winter Olympics Branch Line"). As an important part of the passenger service platform, the on-board edge cloud adds cloud node modules to the original on-board integration cabinet for building the basic cloud services of the platform, realising the decoupling and cloud deployment of on-board PIS, PA, CCTV and others, and playing a leading role across the sector in China.

The Group's on-board edge cloud platform has been applied to Beijing Subway Line 19 and Suzhou Metro Line 7.





Unified Data Access Platform

The unified data access platform uDAP 3.0 has been incorporated into the Beijing Subway's train equipment and facilities intelligent operation and maintenance platform and Beijing Road Network's big data centre projects. It is a new generation rail transit data collection product based on big data, including data collection and router forwarding support of multiple protocols, addressing the problems of complex rail transit data collection, data flow difficulties and operational control with the purpose of improving efficiency and reducing implementation costs.



Ticket Processing Unit (TPU)

The new generation TPU products have been applied in Xi'an Airport Bus project and Zhengzhou Metro Line 17. New ID card reading function has been added to further improve the operational efficiency of the systems.

Part 7: Enhance Operational Quality to Underpin Future Growth

Satisfying customer needs and ensuring product and service quality are the basis for the Group to secure its foothold in the market. We value the importance of customer service, pay close attention to the quality of products and services, make every effort to build high-quality projects and strictly ensure data security. All these efforts are made to reinforce customer service management and improve supply chain system so as to boost the overall quality of operations.

UNDERSTAND CUSTOMER NEEDS AND ENSURE QUALITY CONTROL

The Group's quality management starts with continuously improving and obtaining professional certification, and rigorous practices and technical skills are applied to all stages of software development, solution integration, production, product deployment, engineering implementation and acceptance delivery. We listen to customers' feedback on our product and service quality in daily work through multiple channels.

Once the solutions are confirmed by the customer, we would complete the necessary hardware installation, system connection, commissioning and testing at the designated site, and assist the customer in inspection and acceptance. A dedicated quality manager and project quality engineer are assigned to follow through the project, in accordance with the *Project Quality Assurance Plan*.

Group Quality Assessment Framework for Products and Services Group Software Project

- 1 Accuracy and consistency of project scope
- 2 Comprehension of project requirement document and its details
- 3 Customer feedback and timely communication
- 4 Conformity and efficiency of our processes
- 5 Working attitude and sense of responsibility of our project team
- 6 Level of expertise of project team
- 7 Responsiveness in problem solving
- 8 Quality of problem solving
- 9 Evaluation results of training provided
- 10 Training skills of training instructors
- 11 Functional completeness
- 12 System reliability
- 13 Convenience and ease of use
- 14 Software accuracy and functional stability
- 15 Appearance design

Obtaining third-party certifications for the Group's various quality systems and technical capabilities have been a priority in driving its operational standards and capacity building. The Group's qualification structure and certification management system has become increasingly comprehensive with years of continuous endeavours. In 2022, the Group obtained 68 certifications, covering business qualification, quality management, environmental management, occupational health, software development capability, engineering professional level and data security. Three of the certifications are new applications based on the Group's business development and capacity building needs, such as quality management system, information security certification and information system capability.

Part 7: Enhance Operational Quality to Underpin Future Growth (continued)

The embedded hardware and software products developed by the Group have delivered high level of reliability, maintainability and safety. Throughout the entire life cycle from product planning to end-of-life, we assess reliability expectations, reliability allocation, reliability modeling and testing, conduct analyses on maintenance occurrence, failure modes, impacts and hazards, and root causes and provide failure reports and corrective actions to optimise product reliability. The Group's assembly and production activities involve a laboratory that fully meet various international and national industry standards, and has been granted certifications for both the Chinese and German laboratory standards.

ELEVATE PROJECT MANAGEMENT TO ENSURE PROJECT DELIVERY

Our business is primarily project-based. The project management team is formed at the early stage of scoping potential customer needs, and follows through from bidding document preparation, solutions development and deployment to final testing, delivery and acceptance. The overall capability of project management is in essence the best guarantee of timely and quality service to our customers.

The Group's project management capabilities were further tested with additional proven track record in 2022. The weak power system procurement and installation project of Shaoxing Rail Transit Line 1 Project ("Shaoxing Weak Power Project") is the largest and most complex system integration project undertaken by the Group. Shaoxing Rail Transit Line 1 is over 30 kilometres in length with 24 stations. We were responsible for the procurement, supply, installation and commissioning of more than 10 types of system and equipment, including control centre, backup control centre, integrated operation and management platform, and automatic fare collection system. In addition to providing self-owned high-performance solutions, we also directly managed three sub-integrators and over 40 sub-contractors in delivering the project. To ensure project schedule, the Group mobilised coordinated efforts from professional teams covering eight business modules and three systems. In response to the complex nature of the project, we assigned dedicated project manager for each system and developed a team structure such that effective communication and seamless coordination were achieved among the teams as and when needed. The successful completion of this project sets a model of seamless cooperation in project management.





Shaoxing Rail Transit Line 1

REINFORCE DISCIPLINE TO ENSURE DATA SECURITY

One of our main products is the AFC/ACC system that serves metro billing and carries a large amount of personal and payment information of passengers. It interfaces with different routes and equipment from different manufacturers, and requires accurate and instantaneous transmission, aggregation and processing of various types of data, as a result system security and stability are crucial. We design the security level of the system in strict conformity with relevant national laws and regulations, industry standards and attributes required for specific information, to ensure protection at the desired security level and clarity on corresponding principles and procedures. In this way, we help the rail transit operators delivering systemic security performance to safeguard the personal information processed when serving the passengers.

In addition, we pay due attention to the security of personal data during the course of our business activities. In 2022, our parent company Beijing Infrastructure Investment Company Limited ("BII"), issued its first *Measures for the Management of Data Asset and Data Security*, proposing the principle of "Minimum Frequency, Minimum Cycle, Minimum Scope and Minimum Impact on Rights and Interests of Individuals" for the collection of personal information, and the requirement to make public the purpose of any information collection. Prior consent must be obtained from the person concerned for the collection and processing of sensitive information. The Group has fully implemented these measures in its operations and plans to issue a policy update following the trial run.

In 2022, we made revisions to the *Measures for the Management of Network and Information System Security*, adding emergency response plan for network security incidents to standardise the management of operating procedures, reinforce emergency response capabilities and elevate the protection of network security.

OPTIMISE SERVICE AND MANAGEMENT TO ELEVATE CUSTOMER EXPERIENCE

The Group mainly serves rail transit operators and train manufacturers, while expanding into high-speed rail, municipal rail and tram markets. With over a decade of business practices, we have accumulated a wealth of industry experience in metro operation, and developed unique approaches in tackling potential issues in the operation of the system and fulfilling the needs of customers across different stages of their business. Over the last decade, our business has evolved with the needs of customers, and we have formed a deep bond with rail transit operators and train manufacturers in the course of delivering a safe and comfortable travel experience for the general public.

In 2022, we seized the opportunity to provide customised solutions for corporate clients in property development, civil construction and premises management.

Our long-term strategic partnership with clients relies on our commitment to dedicated management and the continuous improvement of our service system over the years. With the principle of creating value for our clients, the Group has dedicated project managers to follow through the projects, listens to clients' feedback, mobilises resources to solve problems proactively, and ensures they are on schedule and of high-quality. The Business Management Department, as an independent function, takes the lead in the biannual customer satisfaction survey for projects under development and projects delivered during the year. Based on a representative sample of service customers and users, it analyses the survey results and comes up with improvement measures to form the *Customer Satisfaction Survey Analysis Report*. At the same time, the Group's Commercial Department works closely with the project management team to review and improve the content of the questionnaire, making sure that the characteristics and pain points of different projects are reflected in the questionnaire to obtain effective feedback, therefore pushing forward the Group's continuous innovation and improvement in product and service quality.

The customer satisfaction questionnaire is designed in three categories: operation and maintenance projects, software development projects and engineering projects. In 2022, the Group conducted two customer satisfaction surveys. The survey in the first half of the year covered 136 projects, including 69 operation and maintenance projects and 5 software projects, with an overall project satisfaction score of 98.38. 151 projects were surveyed in the second half, including 68 operation and maintenance projects, 67 engineering and 16 software projects, with a satisfaction score of 99.27. Overall, customers and users gave positive recognition to the Group's project delivery and services, especially in safety management. Several projects were affected by the pandemic and experienced delay in schedule and material delivery. Corresponding project managers had responded and addressed relevant concerns in a timely manner. The Group continued to improve the after-sales services of its operation and maintenance projects, followed up and handled the issues reflected by customers efficiently. No customer complaints were recorded during the Reporting Period.

STRENGTHEN SUPPLY CHAIN MANAGEMENT FOR A SHARED ECOSYSTEM

The Group procures network systems, electronic equipment and engineering services, and the amount of such procurement is often large in value. Our system and network equipment suppliers include multinational corporations as well as high-tech companies with integration and development capabilities. We hold a long-term view when offering and delivering our products and services, and prioritise quality assurance capability and product delivery reliability at the heart consistently of our procurement process.

The Group selects, evaluates and eliminates project suppliers following the *Measures for Supplier Management*, the *Measures for Procurement Management* and the *Measures for Procurement Compliance Management*, and operates a digital procurement platform for tender activities, to ensure transparency and fairness of the process. We manage parts suppliers and procurement based on the *Supplier Management Manual*, the *Measures for Procurement Tender Management* and other policies concerned. We further improved procedures relating to tenders, price enquiries and evaluation. We carry out supplier evaluation once a year, and manage the suppliers in four categories, namely qualified, candidate, provisional and unqualified based on their respective qualifications, financial status and collaboration performance.

The Group values suppliers' performance and achievement in sustainable development. In 2022, we made amendments to the *Detailed Rules of Supplier Management*, adding new requirements related to suppliers' environmental impact, labour protection and occupational health and management, with more specific and clear guidelines on sustainable development practices. We require operation and maintenance service providers to provide safety protective gears for dispatched workers, enter into standardised labour contracts and guarantee complete and timely payment of their employees' social security. In addition, engineering suppliers are required to implement green construction practices, reduce dust pollution and waste during construction. We also revised the *Measures for Procurement Management* to explicitly request bidding companies to make integrity commitments in the bidding documents.

In 2022, the re-evaluation of suppliers of year 2021 took place where 480 suppliers were reviewed and all were granted with continued business relations. 219 new qualified suppliers were added during the year.



Part 8: Set Emission Reduction Targets and Improve Energy Efficiency

Climate change is a major global challenge today. With China's 30.60 goals as guidance, the Group is preparing itself against climate change by referencing TCFD's climate-related disclosure recommendations, identifying relevant risks and opportunities in daily operations by developing initial GHG inventory and formulating measures for each impact. Based on these actions, we set appropriate and actionable targets to harness sustainable business development and contribute to the mitigation of climate change.

IDENTIFY ENVIRONMENTAL RISKS AND DEVELOP CORRESPONDING INITIATIVES

The Group's business activities revolve around software development, solution integration, system deployment and project implementation, with the exception of PIS products which involve assembly in our production facilities whereas all other business activities are carried out in an office environment. Both domestic and overseas travels were limited due to restrictions during the pandemic in 2022. The Group's main resource consumption and emissions were from electricity consumption in office and production facilities, and water consumption for domestic use which is provided by the municipal water supply network.

The Group has three production sites, all of which are focused on the production and assembly of PIS solution, including a laboratory in the campus in Suzhou, where fully integrated product testing and other key industry testing can be performed. Production activities at the three sites are mainly assembly of structural parts and components, software programming and testing for finished products. Energy used for these activities are purchased electricity and fuel for forklifts.

The Group's overall energy consumption is low, and the corresponding GHG emissions are mainly Scope 2 emissions from purchased electricity, while waste is mainly office waste with a small amount of hazardous waste. During the year, we engaged an ESG consulting firm to conduct a preliminary GHG emission inventory exercise. By sorting out the business nature and locations of the Group and its 13 subsidiaries, we identified Scope 1 and Scope 2 GHG emission sources that help us better manage consumption and information disclosure. Based on the results, the Group has established a routine data collection and review mechanism which serves as a groundwork for emission management going forward.

The rooftop of the industrial park where the Group's Suzhou production base is located is equipped with a distributed solar photovoltaic system, giving priority to companies in the park to use the solar power generated, hence reducing electricity costs and GHG emissions.



Solar photovoltaic system distributed on the rooftop of the Group's Suzhou production base

With regard to waste management, the Group's product bases have formulated the *Regulations on the Management of Scrap and Waste* to strengthen the management of solid and hazardous waste as well as general waste to better manage the disposal of scrap and waste materials. In addition, we also engaged a professional environmental assessment agency to prepare a *Report on Change of Solid Waste Types* based on the *National List of Hazardous Waste (2021 Edition)* for the disposal of printed circuit boards ("PCB"), which is filed with the solid waste management centre of the local government as hazardous waste upon review. The PCB-related waste is stored separately in the warehouse and collected by a qualified company for disposal. These processes have been incorporated into the company's routine management measures.

The Group continues to implement the *Notice on Energy Saving Initiative* at its production sites to reduce energy consumption through specific measures such as turning off the computers, lights and electricity when people leave and air conditioning management. In the offices, the Group has put up posters to call on the employees to save water and electricity, reinforcing the maintenance and management of water and electricity equipment, and promoted paperless office to save energy consumption.



Build Green Supply Chain with Suppliers

CRRC Qingdao Sifang Co., Ltd. kicked off its green supplier assessment to facilitate the development of green supply chain and enhance the green competitiveness of corporations. Suppliers who pass the green supplier assessment will be given extra points in the annual evaluation and tender assessment process.

The Group participated in the self-assessment that contains 69 items under six major categories. This assessment helped the Group identify areas of improvement in reducing negative environmental impacts. We expect to work with more clients to drive forward the sustainable development of the industry.

FOCUS ON TARGETS TO DELIVER ENVIRONMENTAL PERFORMANCE

In 2022, the Group announced its ESG targets, including plans to reduce electricity emissions intensity by 10% by 2025 and 15% by 2030, using 2021 as the baseline year.



During the reporting year, the Group's energy and water consumptions and GHG and waste emissions are listed in the table as follows.

Energy Consumption	Unit	2022	2021
Petrol	kWh	20,253	26,525
Diesel	kWh	5,245	_
Electricity	kWh	1,311,749	1,956,611
Total Energy Consumption	kWh	1,337,246	1,983,136
Energy Consumption Intensity	kWh/Revenue (HK\$ million)	815.92	1,133.74

Part 8: Set Emission Reduction Targets and Improve Energy Efficiency (continued)

GHG Emissions	Unit	2022	2021
Direct GHG Emissions (Scope 1)	tCO₂e	6.94	21
Indirect GHG Emissions (Scope 2)	tCO₂e	762	1,194
Total GHG Emissions (Scope 1&2)	tCO₂e	769	1,215
GHG Emissions Intensity	tCO₂e/Revenue (HK\$ million)	0.47	0.69
Air Pollutants	Unit	2022	2021
Nitrogen Oxides (NO _x)	Gram	1,375	1,574
Sulfur Oxides (SO _x)	Gram	39	40
Particulate Matter (PM)	Gram	101	116
Water Consumption	Unit	2022	2021
Water Consumption	Tonne	4,640	5,418
Water Consumption Intensity	Tonne/Revenue (HK\$ million)	2.83	3.10
Hazardous Waste ¹	Unit	2022	2021
PCB	Tonne	0.35	_
Hazardous Waste Intensity	Tonne/Revenue (HK\$ million)	0.0002	_
Non-hazardous Waste	Unit	2022	2021
Office Waste	Tonne	48	57
Packaging Materials ²	Tonne	69	31
Non-hazardous Waste Intensity	Tonne/Revenue (HK\$ million)	0.07	0.05

Notes:

^{1.} Due to the adjustment of relevant national policies, we added this new item this year.

The breakdown categories of packaging materials identified this year are paper cartons, EPE foam and others.

Part 9: Uphold Production Safety and Safeguard Employee Benefits

Upholding the principles of "Safety First, Prevention as Priority, Comprehensive Rectification", BIITT has firmly observed the production safety red line and lived up to the primary responsibility of an enterprise in this respect. We treasure our human capital by all means. Taking into account the characteristics of the industry and the attributes of technology-based enterprises, we care for our employees on multiple fronts involving their work, living and growth throughout the process of talent selection, cultivation, management and deployment. We make corporate culture a critical component in our business plan to attract, retain and motivate people within the organisation.

HEIGHTEN PRIMARY RESPONSIBILITY AND IMPLEMENT SAFETY MANAGEMENT

The Group strictly abides by the Work Safety Law of the People's Republic of China, the Law of the People's Republic of China on the Prevention and Control of Occupational Diseases, the Trade Union Law of the People's Republic of China, as well as other relevant laws and regulations including the fifteen measures rolled out by the Office of the Work Safety Commission under the State Council in April 2022. During the year, the Group heightened its

management policies and organisational systems of labour safety, fire prevention, environmental protection, public security and sanitation. Tallied with the internal policies updated in the previous year, the supervisory and management structure was further promoted, which facilitated the implementation of production safety responsibility system and prevention of major incidents in an effective manner.

In 2022, the Group remained steadfast in achieving its annual production safety targets. Under the supervision of the Production Safety Committee, the main business units of the Group are ISO 45001 or OHSAS 18001 (Occupational Health and Safety Management System Certifications) certified. Zero production safety incidents or fatal accidents was recorded during the year.



- More sizeable productionfocused subsidiaries get ISO 45001 certified by 2025.
- Committed to zero safety incidents within the Group and inclusive of direct project contractors (including suppliers).

Our health and safety framework is founded on the following principles:

Sound System: The Production Safety Committee takes the helm of establishing the production safety responsibility system and production safety rules and regulations, building the production safety standards, and fostering production safety management.

Orderly Implementation: Upholding the principles of "Defining Responsibilities According to Rules, Holding Accountability Through Multi-level Management, and Establishing Responsibilities at All Levels", we have in place systematic and hierarchical production safety responsibility system and production safety supervision system based on the characteristics of the subdivided industries and management models of each of our business units.

Effective Supervision: We lay emphasis on performance measurement and regularly carry out production safety supervision and inspection, identify hidden safety hazards, and prevent and correct behaviours such as commands against rules, forced risky operations and violations of operating procedures, etc.

Emergency Preparedness: We set down comprehensive emergency management plans and emergency mechanisms for production safety incidents, and strategise our emergency guidelines, policies, plan initiation procedures, hierarchical response and command processes as well as related emergency responsibilities.

Solid Training: We organise production safety education and training to ensure that our employees are equipped with the skills needed to perform their work safely and efficiently.

Eyeing on Overall Situation: We make all efforts to coordinate and manage production safety work of our contracted services or leased entities, with the aim of protecting members of the general public.

During the reporting period, the Group insisted on investing its resources, intensified its efforts to develop fundamental and critical systems for safety production management, promoted its building of dual prevention mechanism, strengthened its safety risk management and control, and enhanced its safety risk control list and related measures to ensure that relevant risks are kept under strict control. Concurrently, on the basis of risk identification and control measure formulation, the Group strived hard to further optimise its list of hidden safety hazards for complete screening, identification and control.

Measures for Production Safe Management



Production Safety Responsibility System

Emergency Response Plan for Production Safety Incidents

We heightened our supervision and inspection of key projects and critical components, carried out all-round production safety

supervision and inspection by levels and categories, and directed the implementation of various production safety measures with a move to identify and eliminate potential hazards without delay. By drawing strength from what we have done all along, we solidified and standardised the building of emergency management and capabilities of various projects.

Among the key tasks were:

We updated the Group's production safety management system to incorporate new management policies on production safety supervision and inspection, and policies on safety management for related parties. These help to elucidate production safety responsibilities and standardise production safety procedures and behaviours.

We worked in line with the requirements of building a "master emergency system" to optimise our emergency response and collaboration mechanism. We fortified our handling of multiple types of emergencies and heightened our emergency preparedness and response capabilities.

We held an exclusive meeting on production safety to carry through the "BIITT Work Plan for Production Safety Inspection" and COVID-19 pandemic prevention and control requirements for individual projects. We coordinated with various business units to sort out high-risk projects under development and implemented self-inspection work on production safety.

We carried out self-inspection of 52 key projects led by the person-in-charge of each unit during the "May Day" period, and completed rectification of all potential safety hazards found in the investigation.

We kicked off a special supervision and monitoring programme to scrutinise self-inspection projects and prevent violations of rules and regulations. We sought to incorporate subcontracted and dispatched workers into our system for central management and required our outsourcing agencies to unify their allocation of anti-pandemic supplies and collection of health data. We attached importance to safety knowledge trainings with the aim of enhancing the safety level of all personnel.



Self-inspection work on production safety

In 2022, the Production Safety Committee conducted 39 onsite safety inspections, followed with an issuance of 12 safety hazard rectification notices and safety risk reminders, and ensured that all the rectifications requested were properly completed. Moreover, for the sake of advancing our capabilities to respond at different levels and improve the emergency response abilities of frontline employees, we actively arranged various forms of emergency drills to familiarise ourselves with emergency procedures, test the operability and effectiveness of emergency plans and optimise such plans in an appropriate manner. During the year, 61 emergency drills were conducted by the Group.

Furthermore, the Group organised an array of production safety education and training activities in varied formats through both online and offline methods for employees of different job levels. A total of 86 person counts partook in these trainings, further elevating the safety awareness and safety quality of all employees. The specific training contents are as follows:

Part 9: Uphold Production Safety and Safeguard Employee Benefits (continued)

Time	Production Safety Trainings	Training Mode
March	Annual review of forklift operators	Onsite
April/July/October	Safety officer training	Onsite
June	Special training: production safety month	Online
August	Annual review of safety administrators for special equipment	Onsite
September	Forklift operation training	Onsite
Third Quarter	Safety education, production safety and fire safety trainings	Online & Onsite
October	Publicity and implementation of the Group's Provisions on Onli	
	Production Safety Management as well as Regulations of	
	Beijing Municipality on Work Safety	
November	Firefighting basics and workplace emergency evacuation training	Onsite
December	Fire training and fire drill	Online & Onsite



Online training for production safety

In 2022, the various production safety targets set by the Group, namely safety liability accidents, fatal/major injury accidents, fire accidents, safety liability accidents of related parties, occupational health hazards, environmental pollution incidents and hidden safety risk rectifications, were fully achieved. However, an employee of the Group encountered a traffic accident on his way to work for which he was not primarily responsible. The number of lost working days logged due to work-related injuries was 21 days.

Part 9: Uphold Production Safety and Safeguard Employee Benefits (continued)

During the three years ended 31 December 2022, the Group recorded zero case of work-related fatalities.

Health and Safety Indicators	Unit	2022	2021	2020
Number of Work-related Fatalities	Person	0	0	0
Rate of Work-related Fatalities	%	0	0	0

Case study: Weak power system project of Shaoxing Rail Transit Line 1 showcases further improvement in safety management capabilities



Coming directly under the principal contractor in the procurement and installation project of the weak power system for Shaoxing Rail Transit Line 1, the Group plays an indispensable intermediary role in managing all equipment supply units that encompass an assortment of downstream sub-integrated equipment units and subcontractors. Being the master integrator for all equipment, we form a vital part of the project, be it in project management or safety management. We assume overall responsibility by concluding safety agreement with the top and deploy division of responsibilities via the formulation of management systems for the sub-units. Comprehensive consideration is taken into account and thorough planning is required when we organise and carry out each project management work so that the construction and implementation of the whole weak power system can maintain a unified pace. On the subject of safety, we take a top-down management approach and seek bottom-up confirmation and horizontal collaboration to ensure the safety of personnel and property of the entire project.

	Risk Identification	>	Establish risk management and control accounts according to the particularity of each discipline, and continuously improve safety awareness by referencing regulations and industry experience.
	Hierarchical Management	>	Sign safety responsibility letter with each sub-integrated unit and lay down safety management rules.
Safety Management		>	Regularly hold production safety meetings, carry out safety drills and regularly update the safety accounts.
	Safety Transparency	>	Inform construction safety risks and organise safety education for onsite work of each discipline to ensure personal safety of personnel.
	Regular Inspection	>	Designate personnel to conduct regular onsite safety inspections and generate hidden safety hazard screening and identification accounts.

ADHERE TO PEOPLE-CENTRIC PHILOSOPHY AND PROTECT EMPLOYEES' RIGHTS AND INTERESTS

The Group is well aware that an excellent corporate culture can help enhance employees' sense of belonging, attract and retain talents amid an equal, transparent and cordial corporate atmosphere, and convey a good employer brand image. The Group follows open, impartial, fair, rational and merit-based principles in its recruitment practices. Special care is taken to ensure no occurrence of any discrimination on the ground of an individual's gender, race, belief, religion, marital status or age. The Group strictly observes all applicable laws and regulations of mainland China and Hong Kong SAR in respect of employment and reported no non-compliance case during the year.

On the front of recruitment management, the Group encourages employee referrals and internal applications. This helps facilitate internal mobility while replenishing talents, providing employees with promotion or job transfer ladders and bringing opportunities to expand professional experience and strengthen organisational collaboration as a whole. As regards pay management, the Group has established its remuneration system based on job responsibilities, work performance and operational risks. In addition, the Group adheres to equal pay for equal work and emphasises individuals' capabilities and skills. Remunerations are performance-oriented and linked to responsibilities and risks of the position. The Group also deals out corresponding rewards to employees who have obtained different kinds of qualification certificates, such as economics, accounting, engineering, mechatronics, communication and network, etc., which not only supports employees' personal advancement, but also enhances the soft power of the company.

In Mainland China, on top of pension scheme, medical insurance, unemployment insurance, work-related injury insurance, maternity insurance and housing provident fund, the Group also provides employees with supplementary commercial medical insurance and takes steps to set up enterprise annuity plans for some of its subsidiaries at a gradual pace to fully create a comprehensive employee rights and interests protection system of "six insurances and two pensions", which has been widely recognised by our employees. Additionally, the Group offers competitive arrangements for various types of leave and paid annual leave for employees. In particular, male employees are entitled to 15 days of paternity leave; employees with children aged three or under are entitled to 5 days of parental leave per calendar year; and employees with no siblings have 10 days' leave to attend to aging parents per annum.

The Group's mainland operations have the setup of trade unions and have initiated related work along with the *Regulations on the Work of Enterprise Trade Union*. The Group enters into collective contracts with the trade unions in accordance with relevant laws and regulations to establish labour standards and conditions such as remuneration, work and leave, workplace safety, training and insurance benefits. In line with the *Regulations of Beijing Municipality on Population and Family Planning* revised by the Beijing municipal government at end-2021 and the *Implementation Plan of Jiangsu Province on Improving Birth Policies to Promote the Long-Term and Balanced Population Development* issued by the Jiangsu provincial government in February 2022, we have also updated our policies and added maternity, childcare, and nursing leave for employees.

In 2022, the Group held its first Employees' Representatives Conference, further optimising the mechanism for employee rights protection. A number of policies and work reports were reviewed and approved at the meeting, including the 2021 production safety report, the 2021 human resources management report, the *BIITT 2022-2024 Collective Contract (Draft)*, the *Measures for the Administration of Compensation and Welfare* and the *Detailed Implementation Rules of Enterprise Annuity*, etc.

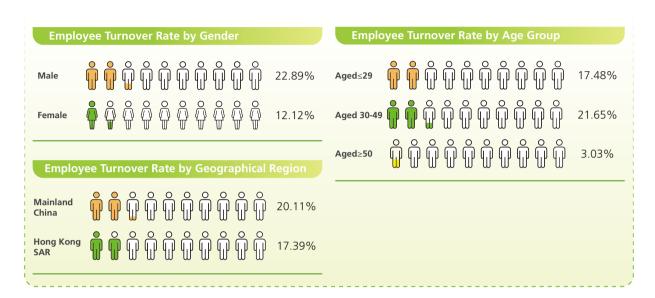


Employees' Representatives Conference of the Group

The ebbs and flows of the COVID-19 pandemic presented great challenges to society as a whole in 2022. Nevertheless, we strived to take the maximum protection of employees' health as an important factor in decision making and allowed our employees to adopt flexible working options, so that they could complete the services provided to customers under the premise of their own safety. During the reporting period, in accordance with the territorial management requirements, the Group on the one hand carried out anti-pandemic preparation and made adjustments to its attendance policy implementing flexible home work arrangements. On the other hand, some employees were arranged to stay on the project sites in "shift mode" to safeguard the smooth operation of the rail transit in the capital city. Trade unions at all levels took their initiative to understand the situation of the projects under development. On the basis of ensuring the strict implementation of relevant pandemic prevention and control measures, they furnished frontline colleagues on duty in the closed areas with material supplies including daily necessities and food, and set up special consolation funds in this respect to make certain the said supply.

As at 31 December 2022, the Group had a total of 744 full-time employees. In addition to this, there were 3 part-time employees, 1 intern and 158 dispatched personnel. The Group's overall turnover rate for permanent staff establishment stood at a reasonable level of 20.03%.





In 2022, the Group's employee turnover rates by category were as follows:

FOCUS ON EMPLOYEE DEVELOPMENT AND ENABLE TALENT GROWTH

The industry we are in is characterised by light assets and heavy talents. A comprehensive development of employees' skills and their continuous learning ability are the main directions for the Group to guide and cultivate talents. By providing opportunities for professional development to encourage self-growth and by organically integrating corporate capabilities with personal advancement, these not only create stronger cohesion within the organisation but lay a solid foundation for the building of the management echelon.

We strive to create a positive, open and inclusive work environment where employees grow and develop. Despite that the weak economic and business environment impacted by the COVID-19 pandemic has bottomed out, we are committed to having a firm grip on the principles of lowering costs and increasing efficiency. In the process of promoting management and system innovation, we lay our emphasis on uplifting operational efficiency, achieving cost reduction and optimising job settings so that our organisational structure is more supportive of further development strategies and business goals. In the midst of this, we remain steadfast in our resource investment in talent cultivation.

The Group has in place the Measures for the Administration of Training, the Measures for the Administration of Employee Performance, the Measures for the Administration of Appointment, Removal and Assessment of Middle-Level Cadres and the Measures for the Administration of Employee Rewards and Punishments and other relevant policies and rules. Based on the characteristics, conditions and requirements of individual positions, the Group has established a training system and a corresponding promotion mechanism, and made training plans and budgets every year to create a dynamic team with solid skills and strong business proficiency.

Part 9: Uphold Production Safety and Safeguard Employee Benefits (continued)

As a technology-based enterprise in the rail transit and infrastructure industry, BIITT regards the upgrading of existing products and the promotion of new products based on R&D as the driving force for future growth. The Group adheres to the belief of "Respect for Hard Work, Knowledge, Talents and Creativity", and has laid down rules and policies such as the Measures for the Management of Scientific Research Projects and the Incentive Measures for Scientific Research Projects (For Trial Implementation) to fully mobilise the enthusiasm and creativity of scientific research personnel as well as promoting innovation and progress in scientific research. In recent years, the Group has maintained a relatively high R&D investment, and the proportion of R&D personnel has continued to stay at a high level. The R&D talent system covers a three-level talent echelon of high-tech talent team, innovative talent pool and scientific research youth backbone talent pool, with the Group's Research Institute playing a vital role in coordinating scientific research training resources.

On top of professional R&D training, the Group's training plan for 2022 comprised two parts: large-scale thematic training and departmental level training. By gradually establishing three major talent systems of middle-level cadres, supernova talents and management trainees, large-scale thematic training activities were customised and launched revolving around the characteristics and growth and development needs of each group. The Group also utilised business development and professional enhancement as guidance and gave each business unit autonomy to organise training programmes that best fit its actual work requirements.

During the year, the Group arranged for more than 70 professional training sessions through a combination of online **Human Resources – Staff Training Targets**

- Create a fair and equal work environment for employees, safeguard their needs and care for their health and safety.
- Carry out a variety of staff training and talent cultivation programmes.

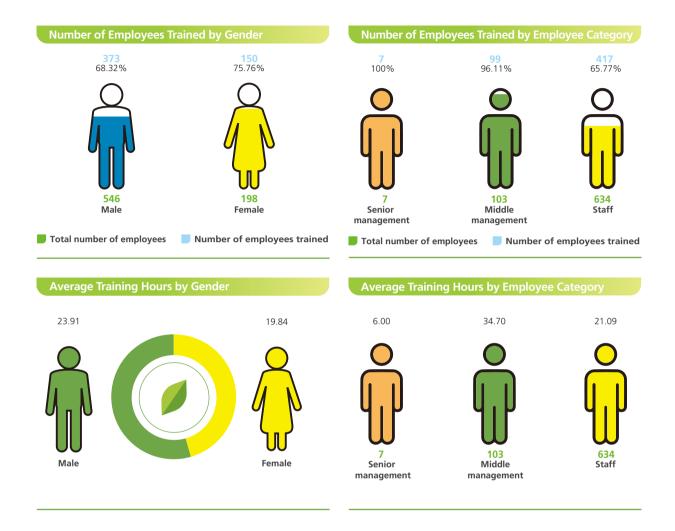
and offline methods, including but not limited to topics such as law, accounting, finance, taxation, bidding and tender, project management, information and data security, intelligent technology and big data technology practices, construction operations, product development skills, supplier management, and compliance training. The Group's overall training ratio for 2022 reached 70.30%, with average training hours per employee standing at 22.83 hours. Training investments exceeded RMB1 million.





Site visit

Part 9: Uphold Production Safety and Safeguard Employee Benefits (continued)



Part 10: Fulfil Corporate Responsibility and Build Harmonious Society Together

Enabling the safety and convenience of public travel with the provision of professional solutions for the construction of public facilities by empowering rail transit operators and infrastructure construction and operation, BIITT also actively fulfils its corporate responsibility and takes a part in public welfare activities to effectively implement to the United Nations' Sustainable Development Goal 11 of building "Sustainable Cities and Communities".

PARTICIPATE IN MAJOR EVENTS AND FIRMLY SERVE CITY OPERATIONS

In 2022, the Group served the operation of the Winter Olympics line during the Beijing Winter Olympics. Gaining our expertise from servicing projects in Beijing, the Group has developed a model of "Beijing Products" + "Beijing Services" that drives it to continue to facilitate the new development of the rail transit in the capital city. During the Beijing Winter Olympics, we specially formed an onsite support team for the Olympic EMU trains operating on the Beijing-Zhangjiakou high-speed railway line. In line with the actual situation on the spot, we were ready to mobilise personnel in real time and dispatch additional personnel and materials without delay. Our technical personnel stood by round the clock to ensure safe and efficient operation of the 4 CR400BF Winter Olympic special trains supplied by us.







Round-the-clock technical standby for CR400BF Winter Olympics special trains

Furthermore, the western section of Beijing Subway Line 11, known as the Winter Olympics Branch Line, adopted the Group's PIS solutions. When the Winter Olympics took place, we also arranged engineering personnel to be stationed at the site 24/7 to safeguard high-quality operation of the special line.



24/7 engineering standby for Winter Olympics Branch Line

Part 10: Fulfil Corporate Responsibility and Build Harmonious Society Together (continued)

During the COVID-19 pandemic in 2022, the Group spared no effort to assist the government in completing Beijing Subway's ticket upgrade and launching related service upgrade applet online. With the realisation of the real-name authentication of Beijing One-Card physical card, Beijing Subway's ticketing system upgrade has come to a full fruition, which significantly helps promote the health information verification of rail transit in Beijing. This gives the general public added peace of mind when traveling by rail and provides data support for government decision-making.

CONTRIBUTE TO PUBLIC WELFARE AND PROMOTE RURAL REVITALISATION

Advancing rural revitalisation across the board is a core component of China's national policies. In keeping with the corporate spirit of poverty alleviation, the Group is dedicated to fulfilling its social responsibility and helping in rural revitalisation work to achieve tangible results by combining consumption with public welfare assistance. During the year, we donated RMB1 million to Beijing's support and cooperation counterpart area, Hetian prefecture in Xinjiang, for the local purchase of educational and teaching equipment. We also procured about RMB203,500 of agricultural products under the rural revitalisation assistance scheme from Xinjiang, Inner Mongolia and other assistance areas. Likewise, we encouraged our employees to partake in it and aid the underprivileged through small purchases with the application of personal poverty relief cards.

2022 also marked the fifth consecutive year the Group worked hand in hand with the teachers and students of Zhenningbao Central Primary School in Chicheng county, Zhangjiakou city, under the rural revitalisation charity campaign. Having supported the development of the school for a long time, the Group started to coordinate its donations right after the school moved to the new location last year. Taking into consideration the damage seen on the internal walls of the teaching building and the dormitory, we funded the school with RMB50,000 to facilitate the repair work. In the last five years, the Group has made cumulative donations, including teaching aids, clothing, food and other materials as well as cash contributions, to the school with an aggregate value of more than RMB300,000.



Part 10: Fulfil Corporate Responsibility and Build Harmonious Society Together (continued)



During the COVID-19 pandemic where local communities were in need of support, the Group issued an open letter to all employees, mobilising party members to participate in special actions such as pandemic prevention and control, and hygiene- and garbage sorting-related on-duty services. Employees of the Group actively took part in the anti-pandemic volunteer work in their neighbourhoods, including rendering assistance in crowd control and management at the nucleic acid testing sites, and moving materials and delivering goods to households, living up to the spirit of caring for society to the fullest. Letter of appreciation was received from the Heping Street Sub-district Office in Chaoyang District.



Appendix I: List of Applicable Policies, Laws and Regulations

Scope	Applicable Policies, Laws and Regulations
Environment	Mainland China: Environmental Protection Law of the People's Republic of China Law of the People's Republic of China on Environmental Impact Assessment Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution Water Pollution Prevention and Control Law of the People's Republic of China Measures for Pollutant Discharge Permitting Administration (For Trial Implementation) Law of the People's Republic of China on the Prevention and Control of Environment Pollution Caused by Solid Wastes Regulation on the Administration of Permitting of Pollutant Discharges Measures for the Administration of Transfer of Hazardous Wastes Measures for the Administration of Permit for Operation of Dangerous Wastes Law of the People's Republic of China on Energy Conservation Cleaner Production Promotion Law of the People's Republic of China Electric Power Law of the People's Republic of China Measures for the Administration of Electricity Conservation (《節約用電管理辦法》) Water Law of the People's Republic of China GB/T 2589 General Rules for Calculation of Comprehensive Energy Consumption Law of the People's Republic of China on Prevention and Control of Pollution from Environmental Noise
Employment	Mainland China: Labor Law of the People's Republic of China Regulation on the Implementation of the Employment Contract Law of the People's Republic of China Provisions of the State Council on Working Hours of Employees (《國務院關於職工工作時間的規定》) Regulation on Paid Annual Leave for Employees Implementation Measures for Paid Annual Leave for Employees of Enterprises Implementation Plan of Jiangsu Province on Improving Birth Policies to Promote the Long-Term and Balanced Population Development Provisions on Minimum Wages Payment of Wages Tentative Provisions (《工資支付暫行規定》) Trade Union Law of the People's Republic of China Social Insurance Law of the People's Republic of China Interim Regulation on the Collection and Payment of Social Insurance Premiums Regulation on the Administration of Housing Accumulation Funds Regulations on Unemployment Insurance Interim Provisions on Labor Dispatch Insurance for Labor Dispatching Entities (Henan Province) (《關於進一步規範勞務 派遣單位工傷保險有關問題的通知》(河南省)) Special Rules on the Labor Protection of Female Employees Provisions on the Administration of the Employment of Foreigners in China Interim Measures for the Participation in Social Insurance of Foreigners Employed in China Provisions on Medical Treatment Period for Employees of Enterprises for Illness or Non-Work-Related Injuries (《企業職工患病或非因工負傷醫療期規定》)

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Employment Ordinance Minimum Wage Ordinance

Employees' Compensation Ordinance

Hong Kong SAR, China:

Scope	Applicable Policies, Laws and Regulations		
Workplace Environment and Occupational Health Management	Mainland China: Work Safety Law of the People's Republic of China Labor Law of the People's Republic of China Fire Protection Law of the People's Republic of China Regulation on Work Safety Permits Regulation on Work Safety Permits Regulation on the Reporting, Investigation and Handling of Work Safety Accidents Regulations of Beijing Municipality on Work Safety Provisions of Beijing Municipality on the Main Responsibility for Production Safety of Production and Business Entities Provisions on the Five Implementations and Five Confirmations of the Enterprise Work Safety Responsibility System (《企業安全生產責任體系五落實五到位規定》)Provisions on the Five Implementations and Five Confirmations of the Enterprise Work Safety Responsibility System (《企業安全生產責任體系五落實五到位規定》)Provisions on the Safety Training of Production and Operation Entities Measures for the Administration of Contingency Plans for Work Safety Incidents Interim Provisions on the Screening, Identification and Control of Hidden Risks of Work Safety Accidents (《安全生產事故隱患排查治理暫行規定》) The Administrative Regulations on the Work Safety of Construction Projects Interim Measures for the Supervision and Administration of "Three Simultaneities" for Safety Facilities of Construction Projects Law of the People's Republic of China on the Prevention and Control of Occupational Diseases Measures for the Supervision and Administration of "Three Simultaneities" of Facilities for the Prevention and Control of Occupational Diseases of Construction Projects Rules for the Administration of Regular Inspection of Occupational Hazard Factors of Employers (《用人單位職業病危害因素定期檢測管理規範》) Management Rules for Labor Protection Supplies of Employers Provisions on the Administration of Occupational Health at Workplaces (Order No. 5 of the National Health Commission of the People's Republic of China, 2021) Guidelines for Enterprises to Develop Emergency Response Plan for Work Place Accidents (GB/T29639-2020) (《生產經營單位安全生產安全事故應為預察管理辦法編製等則》) Safety Precaution Engineering Procedures and Requirements (GA/T 75-1994)		

Scope	Applicable Policies, Laws and Regulations
Prevention of Child and Forced Labour	 Mainland China: Labor Contract Law of the People's Republic of China Law of the People's Republic of China on the Protection of Minors Civil Code of the People's Republic of China Provisions on the Prohibition of Using Child Labor Criminal Law of the People's Republic of China Measures for Lump-Sum Compensation to the Disabled or Deceased Employees of Entities Involving Illegal Employment
Product Responsibilities	Mainland China: Patent Law of the People's Republic of China Trademark Law of the People's Republic of China Copyright Law of the People's Republic of China Copyright Law of the People's Republic of China Cybersecurity Law of the People's Republic of China Regulations of the People's Republic of China on Protecting the Safety of Computer Information Systems Administrative Measures for the Graded Protection of Information Security Regulation on Protecting the Security of Critical Information Infrastructure (Order No. 745 of the State Council) Opinions of the General Office of the State Council on Further Strengthening the Management of Urban Rail Transit Planning and Construction (No. 52 [2018] of the General Office of the State Council) Outline for Digital Transportation Development Planning(《數字交通發展規劃綱要》) Program of Building National Strength in Transportation Outline for National Comprehensive Three-Dimensional Transportation Network Planning《國家綜合立體交通網規劃綱要》 Opinions on Accelerating the Building of National Strength in Transportation with Technological Innovations(《科技創新驅動加快建設交通強國的意見》) Assessment and Evaluation Standards for Green Travel Projects(《綠色出行創建行動考核評價標準》) Action Plans for Building New Infrastructure in the Field of Transportation (2021-2025)(《炎通建輪領域新型基礎設施建設行動方案(2021-2025年)》) Working Guidance for Carbon Dioxide Peaking and Carbon Neutrality in Full and Faithful Implementation of the New Development Philosophy Guideline for Promoting Green Development in Urban and Rural Areas Action Plan for Carbon Dioxide Peaking Before 2030 White Paper on Responding to Climate Change: China's Policies and Actions Implementation Plan for Promoting the Actions of "Migrating to Cloud, Using Digital Tools and Enabling Intelligence" and Fostering the Development of New Economy Three-Year Action Plan for the Development of New Types of Data Centers (《新型数读体中心發展三年行動計劃》) Three-Year Action Plan (2021-2023) for the Construction of New Types of Inf

Appendix I: List of Applicable Policies, Laws and Regulations (continued)

Scope	Applicable Policies, Laws and Regulations		
Anti-Bribery and Corruption	 Mainland China: Anti-Unfair Competition Law of the People's Republic of China Anti-Money Laundering Law of the People's Republic of China Interim Provisions on Banning Commercial Bribery (Order No.60 of the State Administration for Industry and Commerce of the People's Republic of China) 		
	Hong Kong SAR, China: • Prevention of Bribery Ordinance		
Intellectual Property Rights	 Mainland China: Patent Law of the People's Republic of China Trademark Law of the People's Republic of China Copyright Law of the People's Republic of China Regulation on National Science and Technology Awards Measures of Beijing Municipality for Science and Technology Awards Measures of China Patent Award Measures of Beijing Municipality for Invention Patent Awards 		

Appendix II: HKEX ESG Reporting Guide Content Index

Subject Areas, Aspects, Disclosures and KPIs	Description	Sections/Declaration
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to exhaust gas and GHG emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	Appendix I Part 8 > Identify Environmental Risks and Develop Corresponding Initiatives
KPI A1.1	The types of emissions and respective emissions data.	Part 8 > Focus on Targets to Deliver Environmental Performance
KPI A1.2	Direct (Scope 1) and energy indirect (Scope 2) GHG emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Part 8 > Focus on Targets to Deliver Environmental Performance
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Part 8 > Focus on Targets to Deliver Environmental Performance
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Part 8 > Focus on Targets to Deliver Environmental Performance
KPI A1.5	Description of emission target(s) set and steps taken to achieve them.	Part 3 > Board Statement Part 8
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken.	Part 8 > Identify Environmental Risks and Develop Corresponding Initiatives

Subject Areas, Aspects, Disclosures and KPIs	Description	Sections/Declaration
	rces	
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	Appendix I Part 8 > Identify Environmental Risks and Develop Corresponding Initiatives
KPI A2.1	Direct and/or indirect energy consumption by type in total (kWh in'000s) and intensity (e.g. per unit of production volume, per facility).	Part 8 > Focus on Targets to Deliver Environmental Performance
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	Part 8 > Focus on Targets to Deliver Environmental Performance
KPI A2.3	Description of energy use efficiency target(s) and steps taken to achieve them.	Part 8
KPI 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.	Part 8 > Identify Environmental Risks and Develop Corresponding Initiatives
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	Part 8 > Focus on Targets to Deliver Environmental Performance
General Disclosure	Policies on minimising the issuer's significant impact on the environment and natural resources.	Appendix I Part 8 > Identify Environmental Risks and Develop Corresponding Initiatives
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Part 8 > Identify Environmental Risks and Develop Corresponding Initiatives

Subject Areas, Aspects, Disclosures and KPIs	Description	Sections/Declaration
	ge	
General Disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	Part 3 > Board Statement
KPI 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.	Part 3 > Board Statement
General Disclosure	Information on: (a) the policies; and (b) 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.	Appendix I Part 9 > Adhere to People- Centric Philosophy and Protect Employees' Rights and Interests
KPI B1.1	Total workforce by gender, employment type (e.g. full – or part-time), age group and geographical region.	Part 9 > Adhere to People- Centric Philosophy and Protect Employees' Rights and Interests
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	Part 9 > Adhere to People- Centric Philosophy and Protect Employees' Rights and Interests

Subject Areas, Aspects, Disclosures and KPIs	Description	Sections/Declaration
General Disclosure	Information on: (a) the policies; and (b) 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.	Appendix I Part 9 > Heighten Primary Responsibility and Implement Safety Management
KPI B2.1	Number and rate of work-related fatalities occurred in each of the past three years, including the reporting year.	Part 9 > Heighten Primary Responsibility and Implement Safety Management
KPI B2.2	Lost days due to work injury.	Part 9 > Heighten Primary Responsibility and Implement Safety Management
KPI B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	Part 9 > Heighten Primary Responsibility and Implement Safety Management
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	Part 9 > Focus on Employee Development and Enable Talent Growth
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	Part 9 > Focus on Employee Development and Enable Talent Growth
KPI B3.2	The average training hours completed per employee by gender and employee category.	Part 9 > Focus on Employee Development and Enable Talent Growth

Subject Areas, Aspects, Disclosures and KPIs	Description	Sections/Declaration
	ards	
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	Appendix I Part 9 > Adhere to People- Centric Philosophy and Protect Employees' Rights and Interests
KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	Part 9 > Adhere to People- Centric Philosophy and Protect Employees' Rights and Interests
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	Part 9 > Adhere to People- Centric Philosophy and Protect Employees' Rights and Interests
General Disclosure	Policies on managing environmental and social risks of the supply chain.	Appendix I Part 7 > Strengthen Supply Chain Management for a Shared Ecosystem
KPI B5.1	Number of suppliers by geographical region.	Part 7 > Strengthen Supply Chain Management for a Shared Ecosystem
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	Part 7 > Strengthen Supply Chain Management for a Shared Ecosystem
KPI B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	Part 7 > Strengthen Supply Chain Management for a Shared Ecosystem
KPI B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	Part 7 > Strengthen Supply Chain Management for a Shared Ecosystem

Subject Areas, Aspects, Disclosures and KPIs	Description	Sections/Declaration
General Disclosure	Information on: (a) the policies; and (b) 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.	Appendix I Part 7 > Reinforce Discipline to Ensure Data Security
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Not Applicable
KPI B6.2	Number of products and service-related complaints received and how they are dealt with.	Part 7 > Optimise Service and Management to Elevate Customer Experience
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	Part 6
KPI B6.4	Description of quality assurance process and recall procedures.	Not Applicable
KPI B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	Part 7 > Reinforce Discipline to Ensure Data Security
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	Appendix I Part 4
KPI 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.	Part 4
KPI B7.2	Description of preventive measures and whistle- blowing procedures, how they are implemented and monitored.	Part 3 > Board Statement
KPI B7.3	Description of anti-corruption training provided to directors and staff.	Part 4

Subject Areas, Aspects, Disclosures and KPIs	Description	Sections/Declaration
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.	Part 10 > Fulfil Corporate Responsibility and Build Harmonious Society Together
KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	Part 10 > Fulfil Corporate Responsibility and Build Harmonious Society Together
KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	Part 10 > Fulfil Corporate Responsibility and Build Harmonious Society Together