Technovator

Technovator International Limited

(incorporated in Singapore with limited liability)

Stock Code: 1206

ANNUAL REPORT 2019

A LEADING SMART ENERGY SAVING SERVICES PROVIDER

CONTENTS

CORPORATE INFORMATION

BOARD OF DIRECTORS

Executive Directors
Mr. Zhao Xiaobo (趙曉波)
Mr. Qin Xuzhong (秦緒忠) *(Chairman)*

Non-executive Directors
Mr. Huang Yu (黃俞) (resigned on 9 January 2020)
Mr. Liu Tianmin (劉天民)
Mr. Wang Yinghu (王映滸)

Independent Non-executive Directors
Mr. Fan Ren Da Anthony (范仁達)
Mr. Chia Yew Boon (謝有文)
Ms. Chen Hua (陳華)

BOARD COMMITTEES

Audit Committee
Ms. Chen Hua *(Chairman)*
Mr. Chia Yew Boon
Mr. Fan Ren Da Anthony

Nomination Committee
Mr. Chia Yew Boon *(Chairman)*
Mr. Fan Ren Da Anthony
Mr. Huang Yu (resigned on 9 January 2020)
Mr. Qin Xuzhong (member since 26 March 2020)

Remuneration Committee
Mr. Fan Ren Da Anthony *(Chairman)*
Mr. Huang Yu (resigned on 9 January 2020)
Mr. Chia Yew Boon
Mr. Qin Xuzhong (member since 26 March 2020)

Risk Management Committee
Mr. Fan Ren Da Anthony *(Chairman)*
Mr. Huang Yu (resigned on 9 January 2020)
Ms. Chen Hua
Mr. Chia Yew Boon
Mr. Liu Tianmin
Mr. Wang Yinghu
Mr. Zhao Xiaobo
Mr. Qin Xuzhong

JOINT COMPANY SECRETARIES

Mr. Leung Lok Wai
Ms. Selena Leong Siew Tee
(resigned on 31 December 2019)
Ms. Cheok Hui Yee
(appointed on 23 January 2020)

AUTHORISED REPRESENTATIVES

Mr. Zhao Xiaobo
Mr. Qin Xuzhong

REGISTERED OFFICE

66 Tannery Lane
#04-10/A
Sindo Industrial Building
Singapore 347805

HEADQUARTERS AND PRINCIPAL PLACE OF BUSINESS IN SINGAPORE

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Sindo Industrial Building
Singapore 347805

PRINCIPAL PLACE OF BUSINESS IN HONG KONG

15th Floor
Allied Kajima Building
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Wanchai, Hong Kong

LEGAL ADVISER AS TO HONG KONG LAWS

Luk & Partners
in Association with
Morgan, Lewis & Bockius

AUDITORS

KPMG
Public Interest Entity Auditor registered in accordance with the Financial Reporting Council Ordinance
KPMG LLP

SINGAPORE PRINCIPAL SHARE REGISTRAR

Tricor Barbinder Share Registration Services
80 Robinson Road
#02-00
Singapore 068898

HONG KONG SHARE REGISTRAR

Tricor Investor Services Limited
Level 54, Hopewell Centre
183 Queen's Road East
Hong Kong

COMPANY WEBSITE

www.technovator.com.sg

PRINCIPAL BANKERS

Standard Chartered Bank
DBS Bank
The Hong Kong and Shanghai Banking Corporation Limited
Agriculture Bank of China
Bank of China
Huaxia Bank
China CITIC Bank
China Construction Bank
China Merchant Bank
Bank of Beijing

INVESTOR RELATIONS CONTACT

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CHAIRMAN'S STATEMENT

CHAIRMAN'S STATEMENT

Dear Honorable Shareholders,

On behalf of the board of directors and the management, I am pleased to present to the shareholders the annual report on the development and operating results of Technovator International Limited ("Technovator") and its subsidiaries (the "Group") for the year ended 31 December 2019.

NOT SHRINKING FROM CHALLENGE

At the beginning of 2020, the outbreak of severe Coronavirus (COVID-19) epidemic in China and around the world has resulted in different extent of impact on people's health and the economic development in many countries including China. The Group has been keeping an eye on the development of this epidemic and has taken a number of emergency measures to minimize the negative impact of the epidemic on the health of our staff and the development of our business. We believe that we will overcome COVID-19 and resume our normal daily life and production and operation.

2019 was relatively a tough year for Technovator. The Group's business sectors were constrained by the macroeconomic development with the income and profit declined to different extent. Meanwhile, the Group is committed to its original aspiration, and has adhered firmly to its main line of business development of "intelligence+energy saving" and insisted on the development concept of technology-oriented to seek breakthrough in crucible and explore new opportunities in difficulties. In today's new round of scientific and technological revolution and industrial transformation led by artificial intelligence, the Group cultivated and reserved new comprehensive talents timely and fully combined with its own business development, trying to explore the development path of Technovator under the new situation of AI+industry.

TECHNOLOGY AS FOUNDATION

Under the influence of the adverse global economic environment, governments of various countries have strengthened the protection of independent intellectual property rights, and the importance of enterprises in mastering their own core technologies has become prominent. With years of deep cultivation and accumulation in the field of Intelligence and Energy Saving, Technovator adheres to the tenet of "Technology as Foundation" and "Serving the Society with Science". In recent years, it has consistently strengthened its investment in research and development, strived to promote the deep integration of industry, academia, research and utilization, and upheld the principle of "combination of the development of major facilities and major projects" in the technology innovation, while doing the iterative innovation continuously of hardware and software products and technology in various businesses. The Company resists market risks with solid proprietary technologies and seeks development opportunities.

The Group held a new urbanization product launch event in Beijing in May, and grandly launched five hardware and software products independently developed by the Group. Among them, the "Rail Transportation Command Center Software Platform ezNCC2.0" was forged based on the application in three first-tier cities, namely Beijing, Guangzhou and Shenzhen, further extension to Qingdao, Xi'an and other cities, and its successfully signing in Suzhou in the second half of the year, which all reflects the two-way promotion mechanism of technological innovation driving business development and actual projects driving research and development breakthroughs. In addition, all other products have also undergone similar major engineering inspections and application processes, which ensures the perfect combination of Intelligent and Energy Saving core technologies and specific application scenarios, and drives new project signings after product launch.

In addition, the Group also launched a new generation IoT controller of Techcon Neosys at the end of the year. It is an edge computing controller based on the Internet of Things that can provide solutions for various application scenarios from local to metropolitan areas. With strong computing power, small size module, strong distribution ability, high reliability, rich extended content and many other features, it enables the industry and users to upgrade and empower, while delivering reliable national strength for users' information security.

BUSINESS ADVANCES STEADILY

Amid a downward economic environment, the Group has continuously adjusted the development mindset on its three business segments based on its own core technology and products, making full use of its technology and brandname advantages as well as strictly controlling the quality of products and projects. Underpinned by steady and solid progress, the Group has strengthened the leading market position in various fields with its own competency.

In September, Chinese government issued the Outline for Building China's Strength in Transportation (《交通強國建設綱要》), which will be the new opportunity for the Group to develop its smart transportation business. The Group can give full play to its advantages in the fields of integrated supervision and control for rail transit, command centers for urban rail transit and screen doors for rail transit and seize new opportunities to advance building China's strength in transportation. The smart building and complex business has focused on the construction of national key large-scale projects in recent years, with solid growth in segment scale. Various contracts have been signed with landmark projects under construction during 2019, including Asian Infrastructure Investment Bank, Beijing new airport and Zhuhai Hengqin port project, all of which demonstrated the strength of "national team" of the segment. The smart energy business has adjusted and cleaned up some projects during the year, while seizing the new-round opportunities for energy management (EMC) project of energy-saving reconstruction contract of urban heat network. Several new projects were signed, safeguarding the future development of the segment.

Going forward, the Group will uphold its original aspiration and adjust the pace in order to meet challenges from all sides with a positive attitude. We will continue to increase investment in research and development to promote the development of applied cross-border research and development, while inventing new business models to promote the integration and innovation of industrial chain, innovation chain and capital chain. Technovator has been committed to the development of smart, green and healthy new cities, facilitating the whole city to improve the quality and efficiency of operation. We believe that no matter how the economic environment develops, this is a goal that the whole society always pursues.

Every development of Technovator is inseparable from the unremitting contribution of all the staff, and the support and love of all our shareholders, customers and business partners. Technovator will always be grateful, and is willing to work with all parties for building the future together, in return for the trust of shareholders and working tirelessly for the future of the Group and the industry.

Qin Xuzhong
Chairman

26 March 2020

FIVE YEAR FINANCIAL SUMMARY

	2015	2016	2017	2018	**2019**
(RMB'000)					
Consolidated income statement					
Continuing operations					
Revenue	1,692,624	1,786,341	1,979,970	2,036,588	**1,752,778**
Cost of sales	(1,297,085)	(1,357,747)	(1,485,861)	(1,560,590)	**(1,401,723)**
Gross profit	395,539	428,594	494,109	475,998	**351,055**
Other revenue	58,475	40,162	38,329	46,966	**57,466**
Other net gain/(loss)	1,888	27,999	2,822	(212)	**(10,403)**
Selling and distribution costs	(70,269)	(66,183)	(81,949)	(85,049)	**(94,374)**
Administrative and other operating expenses	(144,193)	(131,647)	(133,432)	(115,792)	**(163,446)**
Financial expenses	(34,794)	(30,897)	(13,500)	(10,828)	**(11,819)**
Profit before taxation	206,646	268,028	306,379	311,083	**128,479**
Income tax	(21,351)	(36,303)	(43,488)	(49,749)	**(15,062)**
Profit for the year from continuing operations	185,295	231,725	262,891	261,334	**113,417**
Discontinued operation					
Profit for the year from a discontinued operation	599,318	–	–	–	**–**
Profit for the year	784,613	231,725	262,891	261,334	**113,417**
Equity shareholders of the Company	778,919	234,127	259,358	261,165	**112,866**
Non-controlling interests	5,694	(2,402)	3,533	169	**551**
Profit for the year	784,613	231,725	262,891	261,334	**113,417**
Basic earnings per share (RMB)	1.0680	0.2935	0.3269	0.3338	**0.1443**
Diluted earnings per share (RMB)	1.0092	0.2870	0.3269	0.3338	**0.1443**
Non-current assets	778,117	832,941	991,381	1,124,917	**1,119,939**
Current assets	3,187,256	2,996,669	3,234,312	3,486,046	**3,807,569**
Current liabilities	1,754,975	1,607,886	1,801,227	1,915,927	**2,116,512**
Net current assets	1,432,281	1,388,783	1,433,085	1,570,119	**1,691,057**
Total assets less current liabilities	2,210,398	2,221,724	2,424,466	2,695,036	**2,810,996**
Non-current liabilities	203,602	27,606	34,202	37,620	**38,534**
Total equity attributable to equity shareholders of the Company	1,998,710	2,188,427	2,372,140	2,638,052	**2,752,516**
Non-controlling interests	8,086	5,691	18,124	19,364	**19,946**
Total equity	2,006,796	2,194,118	2,390,264	2,657,416	**2,772,462**
Net assets per share (RMB)	2.52	2.74	3.05	3.40	**3.54**
Financial ratio					
Cost to income ratio	76.6%	76.0%	75.0%	76.6%	**80.0%**
Pre-tax profit margin	12.2%	15.0%	15.5%	15.3%	**7.3%**
Return on Equity	9.2%	10.6%	11.0%	9.8%	**4.1%**
Current ratio	1.8	1.9	1.8	1.8	**1.8**

MANAGEMENT DISCUSSION AND ANALYSIS

GENERAL

In 2019, the Group experienced varying degrees of slowdown in each segment as we continued to be affected by the macro-economic development constraints. The Group recorded revenue of approximately RMB1.753 billion for the full year, representing a year-on-year decrease of 13.9%. Due to the fierce competition within the industry leading to the contraction in profit margins, the Group recorded profit of RMB113 million for the full year, representing a year-on-year decrease of 56.6%.

Under the adverse economic situation, the Group remained committed to its original aspiration and has adhered to the concept of product quality and strictly controlled project quality. Meanwhile, it is expanding the development ideas and deepening technological innovation. Leveraging on the robust capability, Technovator won the “Top Ten Building Automation Control Brands Award” in China for the seventh consecutive year in 2019, and was awarded the title of “Top Ten Outstanding Influential Brand in the Chinese Intelligent Building Industry”. The Beijing Tongzhou Sub-center Intelligent Project won the “Luban Prize”, the highest honor in China’s construction industry for engineering quality. Meanwhile, the Group continues to undertake a number of national key projects, and expand diversified and in-depth cooperation with Tsinghua University and H3C (新華三集團). The Group also actively participates in the formulation of various national and industry standards and specifications in order to promote the development of the industry, fulfilling its social responsibilities.

BUSINESS REVIEW

Smart Transportation Business

Due to the current downward economic pressure, the payment capacity of the owners of a few projects in the smart transportation segment has significantly decreased. At the same time, the adverse competition of the industry has led to a deterioration of the market conditions and the contraction in profit margins, which resulted in a significant decrease in revenue and profit margin of the segment in 2019.

During the year, the Group successfully tapped into the Xuzhou market by signing the Xuzhou Subway Line 3 project. The Group also undertook Wuhan Subway Line 5 and Jinan R2 Line, the two unmanned subway lines, as well as Hangzhou Subway Line 7 and Line 10 projects. These projects involve integrated supervision and control for several subsystems, which allows energy-saving and consumption reduction while also empowering the intelligent transformation and upgrading of subways in China. The Suzhou Rail Transit Line Network Command Center (NCC) project undertaken during the year adopts the “Rail Transportation Command Center Software Platform ezNCC2.0” officially released by the Group during the year, helping to realize precise management and intelligent operation of urban subways, and consolidating the Group’s industry leading position in the field of urban rail transit line network command center.

In September, the Chinese government issued the “Program of Building National Strength in Transportation” (《交通強國建設綱要》). As of the end of September, urban rail transit systems have operated in 39 cities across the country with a mileage of more than 6,000 kilometers and a total planned mileage of more than 28,000 kilometers, leading the rail transit industry to enter into a new development phase. In 2019, with innovative products, refined technology and service enhancement, Technovator’s smart transportation business has carried out high quality construction projects in more than 10 cities, including Hangzhou, Wuhan, Tianjin, Suzhou, and Xi’an. To date, the Group has served more than 20 cities at home and abroad, covering six major line network command centers and over 80 subway projects. It has enabled the intelligent upgrade of rail transit with technology and given full play to assist China building up strength in transportation.

Smart Building and Complex Business

As the "national team" in the field of smart building in China, the Group's smart building and complex segment focused on the development of key projects in the Beijing-Tianjin-Hebei area, the Guangdong-Hong Kong-Macao Greater Bay Area and the areas along the "One Belt, One Road" Initiative. The Group also participated in a number of "13th Five-Year Plan" key projects and achieved significant results in new product development. During the year, revenue from this segment remained stable, while profit margin declined.

The new intelligent project for Zhuhai Hengqin Port and transportation hub was signed during the year, which provided technical support for the 80 million annual custom clearances, assisting in constructing the Guangdong-Hong Kong-Macao Greater Bay Area at full speed; the renovation project of National Aquatics Center Winter Olympic Curling Stadium was signed to help transform "Water Cube" into "Ice Cube"; the headquarters intelligent project of Asian Infrastructure Investment Bank was signed to help the construction of the "One Belt, One Road" Initiative; the Shaanxi Broadcasting Network Industry Base Data Center (陝西廣電網絡產業基地數據中心) project was signed to build a new generation of high-tech, informationized, energy-saving and environmentally-friendly green data center; and the intelligent project of the non-main base of Beijing new airport was signed to assist in the smart and efficient operation and maintenance of the new airport. Meanwhile, the Techcon series building control products were used in various key projects in many cities at home and abroad, including Beijing, Shanghai, Chengdu, Chongqing and Maldives. The types of projects involve schools, hospitals, hotels, airports, and other buildings, demonstrating the strength of our national brand in building control.

At the end of 2019, Technovator launched Techcon Neosys, a next-generation IoT controller. This new product has features such as strong computing power, small module size, strong distribution ability, high reliability and rich content expansion. It aims to break through the "last mile" access of intelligent interconnection and empowers upgrade for the industry and users. In addition, the "Intelligent Utility Tunnel Management Platform UTM3.0 System" released by the Group during the year was applied successfully in the newly signed Beijing new airport ancillary infrastructure construction project, marking an important step forward for the Group in the smart utility tunnel segment.

Smart Energy Business

Affected by the macro-economic environment, the settlement progress of certain preliminary EMC projects in the smart energy segment has slowed down, resulting in a decline in segment revenue and a slight decrease in profit margin in 2019. However, several new EMC projects were signed during the year, securing the revenue and profits for the segment in the future.

During the year, the Group signed projects such as the EMC project of smart-energy-saving reconstruction of the Shaanxi Shenmu Heat Network (陝西神木智慧熱網節能改造EMC項目), the Shandong Binzhou Xincheng Heating EMC project (山東濱州鑫誠熱力EMC項目) and the EMC project of Hebei Weichang Manchu Mongolian Autonomous County Heating Company (河北圍場滿族蒙古族自治縣供熱公司EMC項目), to provide long-term security for centralized heating, energy-saving and emission reduction in these areas, as well as providing strong support for the smart clean heating for central heating cities in Northern China. In addition, the Group also signed the heat supply improvement project of "Three Supplies and Estate Management" (三供一業) in Baoding and the first phase of the construction project of Liaoning Datang International Huludao Thermal Power Plant smart heating network software platform, which adopts our self-developed Smart Heating Network Software Platform to improve the efficiency of heating operation management for users and enhance the intelligent management and control level of heating networks.

The "Smart Heating Network Software Platform ezIHM3.0" launched by the Group during the year integrates data centers, exhibition centers, dispatch centers, management centers and command centers. It is the "smart brain" of urban heating network. It responds to the development needs of large-scale heating supply, diversified heating supply technology, complex management system, as well as information system improvement, which enables effective energy saving and consumption reduction, labor costs reduction and minimize complaints from residents. At present, it has served heating network management and control for various large cities such as Taiyuan.

OUTLOOK

Technovator celebrated its 8th anniversary of listing on the main board in 2019. Like human growth which comes with many challenges, the Company's development will also face difficulties and challenges from various aspects. However, we believe that with more than 20 years of experience in the industry, and capitalizing on Technovator's unwavering aspirations and strong sense of mission, we can push forward under the difficult conditions in the urban intelligence and energy-saving field.

In the future, the Group will carry on the development direction based on technology. In the new round of scientific and technological revolution and industrial reform led by artificial intelligence, we plan to cultivate a number of new comprehensive talents in the AI+ industry as soon as possible, and achieve the two-way development mechanism that drives operational development with technological innovation and drives technology development with actual projects, so as to expand project category and consolidate our market position. At the same time, we plan to promote industrial collaboration and accelerate the speed of "Intelligence + Energy Saving" products and service upgrades through diversified cooperation to expand the market, so as to ensure a long-term stable and sustainable development of the Group.

Technovator will make unremitting efforts to create a smart, green and healthy development for the city!

FINANCIAL REVIEW – CONTINUING OPERATIONS

Revenue

Owing to the increasing complexity of the international situation, the pressure on domestic economic growth has further intensified. Affected by the continued downturn in the real economy, the Group recorded net revenue of approximately RMB1,752.8 million for the year, representing a year-on-year decrease of 13.9%. The revenue of each segment varied to a large extent. Due to the increasing pressure on macroeconomic growth and the delay in the settlement progress of projects, the revenue of the smart transportation segment decreased significantly for the year. At the same time, the real economy was disrupted which resulted in the slowdown of progress of some EMC projects of the smart energy segment and revenue has decreased as compared with the corresponding period last year. In respect of the smart building and complex segment, the Company vigorously developed various types of project with innovative technology in order to lessen the negative impact of macro-economy, and the revenue of the segment recorded a slight year-on-year decrease.

Revenue by business segment

The table below sets forth the Group's revenue by business segments for the year indicated.

	2019		2018		
	Revenue (RMB'000)	**% of revenue**	Revenue (RMB'000)	% of Revenue	Comparison
Smart transportation	**523,087**	**30%**	702,766	35%	–25.6%
Smart building and complex	**776,250**	**44%**	795,722	39%	–2.4%
Smart energy	**453,441**	**26%**	538,100	26%	–15.7%
Total	**1,752,778**	**100%**	2,036,588	100%	–13.9%

Smart transportation

During the year, revenue from the smart transportation segment recorded approximately RMB523.1 million, representing a decrease of 25.6% from approximately RMB702.8 million in 2018. A number of smart transportation projects, including Hangzhou Subway Line 7, Jinan Urban Rail Transit Line R2 Phase I and Wuhan Urban Rail Transit Line 5 integrated supervision project, were signed during the year and have made progress and recorded income. However, under the market environment of continuously increasing downward pressure on the domestic and foreign economy, the project payment capacity declined significantly, resulting in a delay in settlement progress and a significant decrease in revenue. The integrated supervision project for the Hangzhou-Linan Intercity Railway, the Hohhot Urban Rail Transit Line 2 Phase I project and the Shijiazhuang Urban Rail Transit Line 1 Phase II project were underway smoothly during the period, generating revenue for the segment.

Smart building and complex

Revenue from the smart building and complex segment recorded a slight decrease of 2.4% from approximately RMB795.7 million in 2018 to approximately RMB776.3 million in 2019. During the year, various of milestone projects such as the Hengqin Port and Comprehensive Transportation Hub Development Project (橫琴口岸及綜合交通樞紐開發工程), the headquarters intelligent project of Asian Infrastructure Investment Bank and the Beijing new airport's integrated pipeline project, were signed across various sectors of the smart building and complex segment. The Group continued to promote projects, such as the urban integrated pipeline project of Yongxing Hebei Road in the Airport Economic Area of Beijing New Airport, the intelligent project of new zone of Weifang People's Hospital and the project of Huadu Center (華都中心) with revenue achieved. However, due to the impact of sluggish market environment, revenue from the smart building and complex segment still suffered a slight decline.

Smart energy

Revenue from the smart energy segment recorded a decrease of 15.7% from approximately RMB538.1 million in 2018 to approximately RMB453.4 million in 2019, which was mainly due to the negative impact of the macro market environment and the slowdown in revenue from EMC projects. During the year, the newly signed projects such as the heat supply improvement project of "Three Supplies and Estate Management" in Baoding, the EMC project of smart-energy-saving reconstruction of Shenmu Shi Heating Co., Ltd. (神木市供熱有限責任公司) and Kaiyuan heat supply units for substantial temperature differential in Taian City continued to proceed and generated certain amount of revenue. Meanwhile, the Group actively expanded intelligent projects in areas such as Taiyuan, Baoding and Xinxiang, which further contributed revenue to the segment and rode out the negative economic impact.

Cost of sales

Cost of sales decreased from approximately RMB1,560.6 million in 2018 to approximately RMB1,401.7 million, or approximately 10.2% in 2019. The decrease in cost was mainly driven by the decrease in revenue.

Gross profit

Gross profit decreased by 26.2% from approximately RMB476.0 million in 2018 to approximately RMB351.1 million in 2019. Gross profit margin decreased by 3.4 percentage points from approximately 23.4% in 2018 to approximately 20.0% in 2019. The drop in gross profit margin was due to the proportion of revenue from the segment with high gross profit has relatively decreased during the period which was affected by the change in revenue structure; On the other hand, space for profit of every segment narrowed which drove a further decline in gross profit margin.

Other revenue

Other revenue increased by approximately RMB9.0 million from approximately RMB47.5 million in 2018 to approximately RMB56.5 million in 2019. This was mainly attributable to an increase of interest income recognized for the period from the Group's EMC projects entering the sharing period and government subsidies as compared with last year.

Other net loss

Other net loss expanded from approximately RMB0.2 million in 2018 to approximately RMB10.4 million in 2019. The change in other net loss was mainly attributable to the impact of foreign exchange gains and losses, disposal of property, plant and equipment. The Group's one-off disposal of related property, plant and equipment in relation to some industrial waste heat projects during the year was the main reason for increasing other net losses during the year (the net loss of the one-off disposal was approximately RMB6.3 million).

Selling and distribution costs

Selling and distribution costs of the Group in 2019 amounted to approximately RMB94.4 million, representing an increase of approximately 11.0% as compared to that of 2018. Selling and distribution costs accounted for 5.4% (2018: 4.2%) of revenue. The increase in the selling and distribution costs and the proportion of the revenue was mainly due to the increase of relevant personnel as our talent pool in line with the improvement of project management norms by the Group, which led to an increase in the costs of sales personnel.

Administrative and other operating expenses

Administrative and other operating expenses increased by 41.2% from approximately RMB115.8 million in 2018 to approximately RMB163.4 million in 2019. During the year, the Group's impairment loss for assets such as trade receivables and contract assets increased by approximately RMB35.2 million as compared with the corresponding period last year. In the meantime, in order to respond to the negative impact of the macro-economy, the Group intensified the research and development innovation as well as increased research and development personnel. There was a further increase in administrative and other operating expenses resulted from the increase in staff costs.

Finance costs

The Group's finance costs in 2019 were approximately RMB11.8 million. Due to a decrease in the Company's self-owned funds, the increase in loans and rising lending rates, amid the macro environment of increasing downward pressure on the economy and tightening of market funds, finance costs for the year has increased by 9.2% year-on-year as compared to approximately RMB10.8 million for 2018.

Income tax

Income tax decreased by 69.7% from approximately RMB49.7 million in 2018 to approximately RMB15.1 million in 2019. The effective tax rate decreased from 16.0% in the previous year to 11.7% during the year. The current income tax expense and effective tax rate calculated were mainly affected by the Group's payment of its 2017 income tax expense of approximately RMB4.3 million in 2018 and received tax rebate of approximately RMB3.1 million during the year. In case of the adjustment was made due to such matter, the adjusted effective tax rate would be 14.2% in 2019, a decrease of approximately 0.4 percentage points as compared with the adjusted effective tax rate in 2018. In addition, the further decrease in income tax expense during the period was due to the decline in profit before tax for the period.

Profit for the year

During the year, profit for the year decreased by approximately 56.6%, from approximately RMB261.3 million in 2018 to approximately RMB113.4 million in 2019. Net profit margin declined by 6.3 percentage points from 12.8% in 2018 to approximately 6.5% in 2019. Upon the adjustment made on the profit for the year after the one-off disposal during the year, the adjusted net profit margin in 2019 was approximately 6.8%, a decrease of 6.0 percentage points as compared with the corresponding period last year.

The basic earnings per share from continuing operations of the Group dropped by 56.8 percentage points year-on-year to RMB0.1443 (2018: RMB0.3338). The diluted earnings per share decreased by 56.8 percentage points to RMB0.1443 (2018: RMB0.3338).

Working capital and financial resources

The following table sets forth the Group's current assets and liabilities as at the dates indicated:

	As at 31 December 2019 (RMB'000)	As at 31 December 2018 (RMB'000)
Inventories	**901,725**	792,027
Trade and other receivables	**1,342,333**	1,209,329
Trade and other payables	**1,723,068**	1,523,416
Average inventories turnover days	**174**	145
Average trade receivables turnover days*(Note)*	**218**	195
Average trade payables turnover days*(Note)*	**338**	279

Note: The calculation of turnover days excluded other receivables, other payables and related party amounts

The Group's inventories increased from approximately RMB792.0 million as at 31 December 2018 to approximately RMB901.7 million as at 31 December 2019. The inventory turnover days increased from approximately 145 days for 2018 to approximately 174 days for 2019. Under the sluggish market environment, the progress of projects lagged behind, which caused a year-on-year increase in inventory scale and turnover days.

The Group's trade and other receivables increased from approximately RMB1,209.3 million as at 31 December 2018 to approximately RMB1,342.3 million as at 31 December 2019. The average trade receivables turnover days increased from approximately 195 days for 2018 to 218 days for 2019. The scale and turnover days of trade and other receivables increased as compared with that of the corresponding period last year was due to the tightening market capital and the further delay in receipt of payment brought by the greater downward pressures on domestic macro-economy.

The Group's trade and other payables amounted to approximately RMB1,723.1 million as at 31 December 2019, which was increased by 13.1% as compared with approximately RMB1,523.4 million as at 31 December 2018. The Group's average trade payables turnover days increased from 279 days for 2018 to approximately 338 days for 2019. Amid the tightening of capital, the Group made good use of the preferential credit period granted by suppliers, which was the main reason for the increase in the scale and turnover days of trade and other payables.

Liquidity and financial resources

In 2019, the Group financed its operations primarily through cash flow from operations and cash balance on hand. As at 31 December 2019, the Group had approximately RMB657.8 million in cash and cash equivalents, which accounted for 23.7% of the Group's net assets (31 December 2018: cash and cash equivalents of approximately RMB689.0 million).

As at 31 December 2019, the Group's indebtedness mainly consisted of short-term bank loans of approximately RMB257.1 million (31 December 2018: short-term bank loans of approximately RMB170.3 million and a borrowing of approximately RMB69.5 million). The average annual interest rate was 5.1% (2018: 4.7%). This is a result of the Group's financial planning based on the financial costs in the market and normal working capital required.

As at 31 December 2019, the Group's debts were primarily bank loans denominated in RMB. Cash and cash equivalents were primarily bank deposits and cash on hand denominated in RMB and little amount in USD, HKD, MOP and SGD, and deposits that are readily convertible into known amounts of cash.

As at 31 December 2019, the net cash of the Group was approximately RMB400.7 million (31 December 2018: net cash of approximately RMB449.2 million). Gearing ratio, defined as loans and borrowings divided by total assets, was approximately 5.2% (2018: approximately 5.2%).

Pledge of assets
As at 31 December 2019, the Group had no pledge of assets.

Contingent liabilities
As at 31 December 2019, the Group did not have any material contingent liabilities.

Off-balance sheet arrangements
The Group did not have any special purpose entities that provided financing, liquidity, market risk or credit support to it or were engaged in leasing, hedging or research and development services with it. The Group did not enter into any derivative contracts that were indexed to the shareholders of the Group (the "**Shareholders**") and classified as Shareholders' equity, or that were not reflected in its financial statements. Moreover, the Group did not have any retained or contingent interest in such assets that were transferred to unconsolidated entities to provide credit, liquidity or market risk support for such entities.

Employee, training and development
As at 31 December 2019, the Group had a total of 905 employees compared to the 862 employees as at 31 December 2018. Total staff costs for 2019 increased from approximately RMB163.9 million for 2018 to approximately RMB196.2 million.

As a matter of policy, the Group remunerates its employees based on their performance, experience and prevailing industry practices, with all compensation policies and packages reviewed on a regular basis.

The Group provides regular training for its employees to keep them abreast of the Group's products, technology developments and the market conditions of its industry. The Group also offers additional training for frontline sales staff regarding each new product launch, so as to help them deliver more effective sales and promotion. In addition, the Group's senior management also attends conferences and exhibitions to broaden their knowledge of the industry.

Material acquisitions and disposals
For the year ended 31 December 2019, the Group had no material acquisition or disposal of subsidiaries or associates.

Significant investments
For the year ended 31 December 2019, the Group had no significant investment.

DIRECTORS AND SENIOR MANAGEMENT

Executive Directors

Mr. Zhao Xiaobo (趙曉波)

Aged 50, is an executive director of the Company (the "Director") and chief executive officer of the Company, responsible for overall strategic planning and general management of the Group. He joined the Group in May 2005 and was appointed a Director on 26 May 2005 and was re-designated as an executive Director on 12 April 2011. Mr. Zhao received his Bachelor's degree in Thermal Engineering from Tsinghua University in 1993 and Executive Master of Business Administration from Tsinghua University in 2005. Mr. Zhao was qualified as professor and researcher level senior engineer (教授研究員級高級工程師) in 2009.

Mr. Zhao joined Beijing Tsinghua Artificial Environmental Engineering Co. (清華人工環境工程公司), which was the predecessor of THTF (which is listed on the Shanghai Stock Exchange (stock code: 600100)) in 1993, and has worked in various departments within that company, responsible for R&D for product technology, software programming, solutions and sales, project management, as well as business strategies and planning. He had participated in many "intelligent building" projects, such as projects with the Beijing Hotel in the PRC and the Tehran Metro in Tehran, Iran. Mr. Zhao and such projects that he was involved in received various awards including the building low-carbon technology innovation award issued by Ministry of Science and Technology of the PRC (中華人民共和國科學技術部). Mr. Zhao was also previously an assistant to the president of THTF and a general manager of "Digital City Division" of THTF.

Mr. Qin Xuzhong (秦緒忠)

Aged 47, was appointed as an executive Director of the Company on 7 February 2018. He was appointed as the chairman of the Board of the Company on 3 April 2018.

Mr. Qin has over 19 years of experience in engineering. He joined THTF (a company listed on Shanghai Stock Exchange (stock code: 600100)) in June 2000. He is currently the vice president of THTF, the general manager of Tongfang Smart Energy Saving Division* (同方智慧節能產業本部) and the chairman of Tongfang Artificial Environment Co., Ltd* (同方人工環境有限公司). He also held several positions in THTF, including the assistant of president in THTF, the standing vice general manager and project center general manager of Tongfang Digital City Division* (同方數字城市產業本部). He obtained the doctor degree in heating, gas supply, ventilating and air conditioning engineering from Tsinghua University* (清華大學) in June 2000, the executive master degree in business administration from Tsinghua University* (清華大學) in March 2007. He was awarded as the professor senior engineer* (教授級高級工程師) in Beijing in May 2012. He is also the standing vice president of China Construction Industry Association – Intelligent Building branch* (中國建築業協會智能建築分會), the vice president of counsel of the Engineering Design Committee of Chinese Association of Automation* (中國自動化學會工程設計委員會) and a member of Technical Committee of China District Heating Association* (中國城鎮供熱協會技術委員會).

Non-Executive Directors

Mr. Liu Tianmin (劉天民)

Aged 58, was appointed as a non-executive director on 8 September 2011. Mr. Liu had over eight years of experience in strategic investments and portfolio management. In March 2003, he was appointed as the vice president of THTF and general manager of "Digital TV System" Division, one of the divisions of THTF. Such division stresses on enhancing technological products and services on digital television network and Mr. Liu was responsible for strategic investment and management of extensive portfolio of companies with business covering information technology, new media, internet, broadcasting services, telecommunication and information technologies equipment such as Beijing Tongfang Ehero Co., Ltd (北京同方易豪科技有限公司), Beijing Tsinghua Tongfang Innovative Investment Co., Ltd. (北京同方創新投資有限公司), Know China International Holdings Limited (知網國際控股有限公司), Beijing Tongfang Legend Silicon Tech. Co., Ltd (北京同方凌訊科技有限公司) and Beijing Tongfang Gigamega Tech Co., Ltd (北京同方吉兆科技有限公司).

Mr. Liu left THTF in 2009 and subsequently joined SB China Venture Capital (軟銀中國創業投資有限公司) ("SBCVC") as Managing Partner in November 2009. Established in 2000, SBCVC is a one of the top 10 venture capital firms in China as ranked by CNBWeekly in 2009. Mr. Liu's previous experience in investing in technological fields has allowed him to manage SBCVC's related funds.

Mr. Liu is also the independent non-executive director of Neo-Neon Holdings Limited (stock code: 1868). Neo-Neon Holdings Limited is listed on the main board of the Stock Exchange.

Mr. Wang Yinghu (王映滸)

Aged 46, was appointed as a non-executive director of the Company in November 2015. Mr. Wang held various positions in THTF, a company listed on the Shanghai Stock Exchange (stock code: 600100) and a controlling shareholder of the Company, including the Chief Manager of Audit Department (審計部總經理), Chief Manager of Finance Department (財務部總經理), Vice Chief Accountant (副總會計師), Chief Accountant cum Chief Manager of Financial Management Center (總會計師兼財務管理中心總經理). Mr. Wang was transferred to Tsinghua Holdings Co., Ltd. (清華控股有限公司) in February 2018, and is currently the Director of Financial Management (財務管理總監) of the funding and finance center of that company. He has over 20 years of experience in the areas of accounting, audit and financial management, where he was employed by Shine Wing Certified Public Accountants* (信永中和會計師事務所) and was a Senior Auditor (高級審計員), Senior Project Manager (高級項目經理) and Assistant Manager of Audit Department (審計部副經理). He is a Senior Accountant (高級會計師), a member of the Chinese Institute of Certified Public Accountants (CICPA) and Association of International Accountants (AAIA), and a Certified Internal Auditor (CIA). He graduated with a bachelor's degree in Transport Economics (運輸經濟) from Beijing Jiaotong University* (北方交通大學, currently known as 北京交通大學). He also obtained an EMBA degree from Tsinghua University School of Economics and Managements

Independent Non-Executive Directors

Mr. FAN Ren Da, Anthony (范仁達)

Aged 59, was appointed as an independent non-executive director of the Company in September 2011. Mr. Fan is the chairman and managing director of AsiaLink Capital Limited and also an independent non-executive director of Neo-Neon Holding Limited (Stock Code: 1868), Raymond Industrial Limited (stock code: 229), Shanghai Industrial Urban Development Group Limited (stock code: 563), China Dili Group (formerly known as Renhe Commercial Holdings Company Limited) (stock code: 1387), Tenfu (Cayman) Holdings Company Limited (stock code: 6868), Citic Resources Holdings Limited (stock code: 1205), China Development Bank International Investment Limited (stock code: 1062), Hong Kong Resources Holdings Company Limited (stock code: 2882), Neo-Neon Holdings Limited (stock code: 1868) and Semiconductor Manufacturing International Corporation (stock code: 981). Mr. Fan was an independent non-executive director of Lerthai Group Limited (formerly known as LT Commercial Real Estate Limited, stock code: 112) from March 2013 to June 2017, Guodian Technology & Environment Group Corporation Limited (stock code: 1296) from September 2011 to August 2017 and of CGN New Energy Holdings Co., Ltd. (stock code: 1811) from September 2014 to June 2018. All of the said companies are listed on the Main Board of the Stock Exchange. Mr. Fan holds a master's degree in business administration from the U.S.A..

Mr. Chia Yew Boon (謝有文)

Aged 61, was appointed as an independent non-executive director of the Company on 8 September 2011. He received his Diploma of Chemical Engineering from Ecole Nationale Supérieure de Chimie de Strasbourg, France in July 1983.

Before entering the financial sector, Mr. Chia worked for the Economic Development Board of the Singapore government in various capacities from 1985 to 1990. He then spent eight years in equity research and corporate finance with regional investment banks from 1990 to 1998. From 1999 to 2005, Mr. Chia served as the senior vice president at GIC Special Investments Pte Ltd, a subsidiary of the Government of Singapore Investment Corporation. From 2005 to 2007, he was the chief executive officer of EasyCall International Ltd, a company involved in tertiary education in China and Australia, which was previously listed on the Australian Securities Exchange (stock code: EZY) and Singapore Stock Exchange, and a director of Strategic Planning at Boustead Singapore Limited, an engineering and information technology services company whose shares are listed and traded on the Singapore Stock Exchange (stock code: SGX: F9D). Since April 2007, he has been an independent private equity and venture capital consultant.

Mr Chia is also an Independent non-executive director of EC World Asset Management Pte Ltd, which manages EC World Real Estate Investment Trust; EC World REIT is listed on the Singapore Stock Exchange (stock code: SGX: BWCU) and has a diversified portfolio of income-producing real estate used primarily for e-commerce, supply chain management and logistics purposes, with an initial geographic focus on China.

Ms. Chen Hua (陳華)

Aged 54, was appointed as an independent non-executive director on 8 September 2011. Ms. Chen received a Bachelor's degree in Science from New York University in 1988, and a Master's degree in Science with major in taxation from Fordham University in 1992. Since 2010, Ms. Chen is the operating partner and chief financial officer of SBCVC. Ms. Chen was a director in the asset management division of Credit Suisse from 25 September 2000 to 31 December 2009. From 1993 to 2000, Ms. Chen was a Tax Consulting Manager with Arthur Andersen LLP and Ernst & Young's financial service division, providing tax and structure consulting services to broker/dealers, hedge fund, private equity, venture fund and 40 Act mutual fund companies. Ms. Chen is a U.S. certified public accountant.

Senior Management

Mr. Zhao Xiaobo (趙曉波)

Please refer to the details set out above under the paragraph headed "Executive Directors".

Mr. Qin Xuzhong (秦緒忠)

Please refer to the details set out above under the paragragh headed "Executive Directors".

Mr. Leung Lok Wai (梁樂偉)

Aged 44, is the chief financial officer of the Group and a joint company secretary of the Company. He joined the Group in June 2010. Mr. Leung received his Bachelor's degree in accountancy from the Hong Kong Polytechnic University in December 1999. He is a member of Hong Kong Institute of Certified Public Accountants and a member of the Institute of Internal Auditors. He has nearly 20 years of experience in accounting, audit, due diligence and financial management, including transaction services in PricewaterhouseCoopers, group internal audit in Swire Group and audit assurance services in KPMG. Mr. Leung is also the company secretary of Neo-Neon Holdings Limited (stock code: 1868), which is listed on the main board of the Stock Exchange.

JOINT COMPANY SECRETARIES

Mr. Leung Lok Wai (梁樂偉), please refer to the details set out above under the paragraph headed "Senior Management".

Ms. Cheok Hui Yee (石慧儀), aged 34, was appointed a joint company secretary of the Company on 23 January 2020 to satisfy the requirement under the Companies Act (Cap. 50) of Singapore that the company secretary of a company incorporated in Singapore shall be residing locally in Singapore. Ms. Cheok is an associate member and a practicing chartered secretary of the Chartered Secretaries Institute of Singapore. Ms. Cheok has over 10 years of experience in corporate secretarial practice in Singapore. She is currently a senior manager of Tricor Evatthouse Corporate Services, a division of Tricor Singapore Pte. Ltd..

REPORT OF THE DIRECTORS

The directors of the Company (the “Directors”) have pleasure in presenting their report together with the audited financial statements for the year ended 31 December 2019.

PRINCIPAL ACTIVITIES

The Group is principally engaged in integrated urban energy saving services. Its business covers three major segments including smart transportation, smart building and complex and smart energy, providing the customers with smart energy management products, solutions and integrated services throughout their full life cycles.

BUSINESS REVIEW

The business review of the Group as at 31 December 2019 is set out under the section headed “Management Discussion and Analysis” of this annual report on pages 9 to 15.

ANALYSIS OF FINANCIAL KEY PERFORMANCE INDICATORS

For details of the key financial performance indica tors to the performance the Group’s business, please refer to “Five Year Financial Summary” on page 8 of this annual report.

SUBSIDIARIES

Details of the principal subsidiaries of the Group as at 31 December 2019 are set out in note 14 to the financial statements.

FINANCIAL STATEMENTS

The profit of the Group for the year ended 31 December 2019 and the state of the Company’s and the Group’s affairs as at that date are set out in the financial statements on pages 67 to 156 of this annual report.

DIVIDENDS

During 2019, the Company has not declared any dividend in respect of the financial year ended 31 December 2018. The Board does not recommend any final dividend for the year ended 31 December 2019.

RESERVES

Details of movements in reserves of the Company and the Group are set out in note 25 to the financial statements and in the consolidated statement of changes in equity, respectively.

DISTRIBUTABLE RESERVES OF THE COMPANY

As at 31 December 2019, the aggregate amount of reserves available for distribution to equity shareholders of the Company was RMB432,826,000 (2018: RMB437,261,000). Details of the reserves of the Company as at 31 December 2019 are set out in note 25 to the financial statements.

CHARITABLE DONATIONS

Charitable donations made by the Group during the year ended 31 December 2019 amounted to approximately RMB3,000 (2018: RMB50,000).

PROPERTY, PLANT AND EQUIPMENT

Movements in property, plant and equipment of the Group for the year ended 31 December 2019 are set out in note 11 to the financial statements.

SHARE CAPITAL

Details of the movements in share capital of the Company during the year ended 31 December 2019 are set out in note 25 to the financial statements.

DIRECTORS

The Directors during the year ended 31 December 2019 and as at the date of this report were:

Executive Directors
Mr. Zhao Xiaobo (趙曉波)
Mr. Qin Xuzhong (秦緒忠) *(Chairman)*

Non-executive Directors
Mr. Huang Yu (黃俞) (resigned effective on 9 January 2020)
Mr. Liu Tianmin (劉天民)
Mr. Wang Yinghu (王映滸)

Independent Non-executive Directors
Mr. Fan Ren Da Anthony (范仁達)
Mr. Chia Yew Boon (謝有文)
Ms. Chen Hua (陳華)

The Company has received annual confirmations of independence from each of the existing independent non-executive Directors in accordance with Rule 3.13 of the Rules Governing the Listing of Securities on the Stock Exchange (the "Listing Rules"). The Company considers that all the independent non-executive Directors are independent in accordance with the Listing Rules.

Each of the executive, non-executive and independent non-executive Directors on the Board other than Mr. Huang Yu, Mr. Wang Yinghu and Mr. Qin Xuzhong had entered into a service contract with the Company for an initial term of one year, commencing from 27 October 2011. Mr. Huang Yu, who resigned with effect from 9 January 2020, had entered into a service contract with the Company for an initial term of one year commencing from 15 July 2016. Mr. Wang Yinghu has entered into a service contract with the Company for an initial term of one year commencing from 16 November 2015. Mr. Qin Xuzhong has entered into a service contract with the Company for an initial term of one year commencing from 7 February 2018. Each of the service contracts are automatically renewed upon expiration and until terminated by either party upon a three-month prior written notice.

In accordance with article 104 of the Company's Constitution (the "Constitution"), Mr. Qin Xuzhong and Ms. Chen Hua will retire from the Board by rotation at the forthcoming annual general meeting and, being eligible, offer themselves for re-election.

No Director proposed for re-election at the forthcoming annual general meeting has an unexpired service contract which is not determinable by the Company or any of its subsidiaries within one year without payment of compensation, other than statutory compensation.

DIRECTORS' AND SENIOR MANAGEMENT'S BIOGRAPHIES

Biographical details of the Directors and senior management are set out on pages 16 to 21 of this annual report.

DIRECTORS' INTERESTS IN CONTRACTS

Save as disclosed below, there was no contract of significance to which the Company, its holding company, or any of its subsidiaries was a party, and in which a Director of the Company had a material interest, whether directly or indirectly, subsisted during or at the end of the year ended 31 December 2019.

DIRECTORS' AND CHIEF EXECUTIVE'S INTERESTS AND SHORT POSITIONS IN SHARES, UNDERLYING SHARES AND DEBENTURES

As at 31 December 2019, the Directors and the chief executive of the Company and their respective associates had the following interests or short positions in the Shares, underlying shares of the Company (the "Shares") and debentures of the Company and its associated corporations (within the meaning of Part XV of the Securities and Futures Ordinance (Chapter 571 of Laws of Hong Kong) (the "SFO")) which have been notified to the Company and the Stock Exchange pursuant to Division 7 and 8 of Part XV of the SFO, including interests and short positions which the Directors and the chief executive of the Company are taken and deemed to have under such provisions of the SFO, or which are required to be and are recorded in the register required to be kept under Section 352 of the SFO or as otherwise notified to the Company and the Stock Exchange pursuant to the Model Code for Securities Transactions of Directors of Listed Issuers (the "Model Code"):

Long Positions in the Company

Name of Director and chief executive	Capacity/Nature of interest	Number of Shares interested	Approximate percentage of interest in the issued share capital of the Company
Mr. Zhao Xiaobo	Beneficial owner	8,728,000	1.12%

Save as disclosed above, as at 31 December 2019, none of the Directors or the chief executive of the Company had or was deemed to have any interests or short position in the Shares, underlying Shares or debentures of the Company and its associated corporations (within the meaning of Part XV of the SFO), which had been recorded in the register maintained by the Company pursuant to section 352 of the SFO or which had been notified to the Company and the Stock Exchange pursuant to the Model Code.

At no time was the Company, its holding company, or any of its subsidiaries a party to any arrangements to enable the Directors and the chief executive of the Company (including their spouse and children under 18 years of age) to hold any interest or short positions in the Shares, underlying Shares or debentures of the Company or its associated corporations (within the meaning of Part XV of the SFO).

SHARE OPTION SCHEME

The shareholders of the Company have approved and the Company has adopted a share option scheme (the "Share Option Scheme") on 18 May 2012 to grant options to Eligible Persons.

Pursuant to an ordinary resolution adopted in general meeting by the shareholders of the Company on 14 July 2014, the maximum number of Shares which may be issued upon exercise of all options to be granted under the Share Option Scheme and any other schemes of the Group shall not in aggregate exceed 10% of the Shares in issue as at 14 July 2014, being the date of the extraordinary general meeting at which the said ordinary resolution was adopted, i.e. 52,152,000 Shares. No option may be granted to any participant of the Share Option Scheme such that the total number of Shares issued and to be issued upon exercise of the options granted and to be granted to that person in any 12-month period up to the date of the latest grant exceeds 1% of the Company's shares in issue from time to time.

The Board may, at its absolute discretion, offer options to subscribe for such number of Shares in accordance with the terms set out in the Share Option Scheme to the Eligible Persons. "Eligible Person(s)" means (a) any executive director of, manager of, or other employee holding an executive, managerial, supervisory or similar position in any member of the Group (collectively, the "Executives"), any full-time or part-time employee, or a person for the time being seconded to work full-time or part-time for any member of the Group, or of an Eligible Entity; (b) a director or proposed director (including an independent non-executive director) of any member of the Group or of an Eligible Entity; (c) direct or indirect shareholder of any member of the Group; (d) a supplier of goods or services to any member of the Group or of an Eligible Entity; (e) a customer, consultant, business or joint venture partner, franchisee, contractor, agent or representative of any member of the Group or of an Eligible Entity; (f) person or entity that provides design, research, development or other support or any advisory, consultancy, professional or other services to any member of the Group or of an Eligible Entity; and (g) an associate of any of the persons referred to in paragraphs (a) to (f) above. "Eligible Entity" means any substantial shareholders or holding companies (as defined in the Companies Ordinance) of the Company and any of their respective subsidiaries, and any entity (including associated company) in which any substantial shareholders or holding companies of the Company or any of their respective subsidiaries holds any equity interest.

An option may be exercised in accordance with the terms of the Share Option Scheme at any time during a period as determined by the Board and not exceeding 10 years from the date of the grant. There is no minimum period for which an option must be held before it can be exercised. Participants of the Share Option Scheme are required to pay the Company HK$1.0 upon acceptance of the grant on or before 28 days after the offer date. The exercise price of the options is determined by the Board in its absolute discretion and shall not be less than whichever is the highest of:

(a) the closing price of a Share as stated in the Stock Exchange's daily quotations sheets on the offer date; and

(b) the average closing price of a Share as stated in the Stock Exchange's daily quotation sheets for the five business days immediately preceding the offer date.

The Share Option Scheme shall be valid and effective for a period of 10 years from the date of adoption of the Share Option Scheme by the shareholders of the Company, 18 May 2012, after which no further options will be granted or offered. As at the date of this report, the remaining life of the Share Option Scheme is approximately 2 years and one month.

As at 31 December 2019, there are no outstanding options under the Share Option Scheme.

No option was granted under the Share Option Scheme during the year ended 31 December 2019. The following options granted under the Share Option Scheme had lapsed during the year ended 31 December 2019:

Name	Date of Grant	Exercise price per Share	Exercise period	Number of shares issuable under the share options: Outstanding as at 1 January 2019	Exercised during the year ended 31 December 2019	Forfeit during the year ended 31 December 2019	Outstanding as at 31 December 2019
Director, chief executive or substantial shareholder							
Liu Tianmin	15 August 2014	HK$3.83	15 August 2014–14 August 2019	500,000	–	(500,000)	–
Fan Ren Da Anthony	15 August 2014	HK$3.83	15 August 2014–14 August 2019	500,000	–	(500,000)	–
Chia Yew Boon	15 August 2014	HK$3.83	15 August 2014–14 August 2019	500,000	–	(500,000)	–
Chen Hua	15 August 2014	HK$3.83	15 August 2014–14 August 2019	500,000	–	(500,000)	–
Other Employees							
In aggregate	15 August 2014	HK$3.83	15 August 2016–14 August 2019	4,300,000	–	(4,300,000)	–
	17 October 2014	HK$3.444	17 October 2015–16 October 2019	5,000,000	–	(5,000,000)	–
Others							
In aggregate	15 August 2014	HK$3.83	15 August 2014–14 August 2019	1,000,000	–	(1,000,000)	–
	17 October 2014	HK$3.444	17 October 2015–16 October 2019	1,100,000	–	(1,100,000)	–
Total				13,400,000	–	(13,400,000)	–

Save as disclosed above, no options granted under the Share Option Scheme were exercised, lapsed or cancelled during the year ended 31 December 2019.

ARRANGEMENT FOR DIRECTORS TO PURCHASE SHARES OR DEBENTURES

At no time during the year were rights to acquire benefits by means of the acquisition of shares in or debentures of the Company granted to any Director of the Company or their respective spouses or minor children, or were such rights exercised by them, or was the Company, its holding company or any of its subsidiaries a party to any arrangements to enable the Directors of the Company to acquire benefits by means of the acquisition of shares in, or debt securities (including debentures) of the Company or any other body corporate.

SUBSTANTIAL SHAREHOLDERS' INTERESTS AND SHORT POSITIONS IN SHARES AND UNDERLYING SHARES

So far as is known to any Director or chief executive of the Company, as at 31 December 2019, the persons or corporations (other than Director or chief executive of the Company) who had interest or short positions in the Shares and underlying Shares of the Company which were required to be disclosed to the Company under the provisions of Division 2 and 3 of Part XV of the SFO, or which were recorded in the register required to be kept under section 336 of the SFO were as follows:

Name of Shareholders	Capacity/Nature of interest	Number of Shares interested	Approximate percentage of interest in the issued share capital of the Company
Tsinghua Tongfang Co., Ltd (同方股份有限公司)	Beneficial owner	92,000,000	11.76%
	Interest in a controlled corporation[1]	194,330,142	24.84%
Resuccess Investments Limited	Beneficial owner	194,330,142	24.84%

Note: Tsinghua Tongfang Co., Ltd (同方股份有限公司) ("THTF") is the sole shareholder of Resuccess Investments Limited and hence is deemed to be interested in all the Shares held by Resuccess Investments Limited.

Save as disclosed above, as at 31 December 2019, the Directors and the chief executive of the Company are not aware of any other person or corporation having an interest or short position in the Shares and underlying Shares of the Company which would require to be disclosed to the Company under the provisions of Division 2 and 3 of Part XV of the SFO, or which were recorded in the register required to be kept by the Company pursuant to Section 336 of the SFO.

PURCHASE, SALE OR REDEMPTION OF THE COMPANY'S LISTED SECURITIES

During the year ended 31 December 2019, neither the Company nor any of its subsidiaries has repurchased, sold or redeemed any of the Company's listed securities.

CONNECTED TRANSACTION

During the year, there was no connected transaction required to be reported.

CONTINUING CONNECTED TRANSACTIONS

Connected persons

(a) Tsinghua Tongfang Co., Ltd. (i.e. THTF): THTF is a controlling shareholder of the Company (the "Controlling Shareholder") and is therefore a connected person of the Company under Rule 14A.11(1) of the Listing Rules.

The continuing connected transactions

1. ***Sales of products to THTF from Technovator Beijing and such other parties procured by Technovator Beijing and agreed by THTF***

   On 1 November 2017, Technovator Beijing and THTF entered into a sales agreement (the "2017 Sales Agreement") to terminate the 2016 sales agreement entered into between the parties on 30 May 2016 and to enter into a new term among the parties, pursuant to which Technovator Beijing agreed to sell or procure such other parties agreed by THTF, including members of the Group, to sell building and municipal infrastructure construction related products, equipment and services, which include control security systems, and fire alarm systems to THTF, its subsidiaries and their respective associates and affiliates (the "Tongfang Group") for a term of three years from 1 January 2017 to 31 December 2019 and annual caps for the years ending 31 December 2017, 2018 and 2019, being RMB120.0 million, RMB280.0 million and RMB300.0 million, respectively. The price at which the Group sells such products to the Tongfang Group will be determined based on normal commercial terms after arm's length negotiation.

   For the year ended 31 December 2019, the Group sold products to Tongfang Group in the amount of approximately RMB142.6 million, which was within the approved cap of RMB300.0 million.

   The Group entered into the 2017 Sales Agreement to accommodate the business needs of the Group's non-core businesses. Further details of the 2017 Sales Agreement are set out in the announcement of the Company dated 1 November 2017 and the circular of the Company dated 6 December 2017.

2. ***Purchase of raw materials from THTF and such other parties procured by THTF and agreed by Technovator Beijing to Technovator Beijing***

   On 1 November 2017, Technovator Beijing and THTF entered into a purchase agreement (the "2017 Purchase Agreement") to terminate the 2016 sales agreement entered into between the parties on 30 May 2016 and to commence a new term for the transactions, pursuant to which THTF agreed to sell or procure such other parties agreed by Technovator Beijing, including members of the Tongfang Group, to sell wiring, lighting and other products, equipment and systems and services relating to the Group's business of energy management, energy saving and environmental protection to the Group for a term of three years from 1 January 2017 to 31 December 2019 and annual caps for the years ending 31 December 2017, 2018 and 2019, being RMB150.0 million, RMB280.0 million and RMB300.0 million, respectively. The price of such goods and services supplied by the Tongfang Group to the Group will be determined based on normal and commercial terms after arm's length negotiation, with reference to the prevailing market price of similar goods and services at the time of a particular transaction, and in any event no less favorable to the Group than those offered by independent third party suppliers to the Group.

   For the year ended 31 December 2019, the Group purchased such raw materials from Tongfang Group in the amount of approximately RMB131.4 million, which was within the approved cap of RMB300.0 million.

The Group entered into the 2017 Purchase Agreement to accommodate the business needs of the Group's non-core businesses. Further details of the 2017 Purchase Agreement are set out in the announcement of the Company dated 1 November 2017 and the circular of the Company dated 6 December 2017.

3. *Provide to or receive from the Tongfang Group miscellaneous products and services*

On 1 November 2017, Technovator Beijing and THTF entered into a master agreement (the "2017 Master Agreement") to terminate the 2016 master agreement entered into between the parties on 30 May 2016 and to commence a new term for the transactions, pursuant to which the Group may provide to or receive from the Tongfang Group miscellaneous products and services for a period of three years from 1 January 2017 to 31 December 2019 as may be required to satisfy the operational needs of the Group/Tongfang Group from time to time in the ordinary course of business of the Group with annual caps for the category of "provision of miscellaneous products and services by the Group to the Tongfang Group" for the years ending 31 December 2017, 2018 and 2019, being RMB30.0 million, RMB40.0 million and RMB50.0 million, respectively, and annual caps for the category of "receipt of miscellaneous products and services by the Group from the Tongfang Group" for the years ending 31 December 2017, 2018 and 2019, being RMB30.0 million, RMB40.0 million and RMB50.0 million, respectively.

Pursuant to the 2017 Master Agreement, the miscellaneous products and services provided by the Group to the Tongfang Group mainly include (i) rental services (including leasing of land and premises); (ii) research and development services and products (including technology licensing); (iii) the use of trademark license; and (iv) sharing of general administration and management support services but exclude any transactions contemplated under the Sales Agreement.

The miscellaneous products and services provided by the Tongfang Group to the Group mainly include (i) rental services (including leasing of land, premises, machinery and equipment); (ii) research and development services and products (including technology licensing); (iii) the use of trademark license; and (iv) sharing of general administration and management support services, other than the transactions contemplated under the four existing trademark license agreements all dated 28 May 2010 entered into between Technovator Beijing and THTF, as amended on 4 August 2011, and any transactions contemplated under the 2017 Purchase Agreement.

The prices at which the Group or the Tongfang Group provides such services will be based on the pricing mechanism as disclosed in the announcement of the Company dated 1 November 2017.

For the year ended 31 December 2019, there was no miscellaneous products and services provided by the Group to Tongfang Group.

For the year ended 31 December 2019, the miscellaneous products and services provided by the Tongfang Group to the Group amounted to approximately RMB18.5 million, which was within the approved cap of RMB50.0 million.

The Group entered into the Master Agreement to accommodate the business needs of the Group's non-core businesses. Further details of the Master Agreement are set out in the announcement of the Company dated 1 November 2017.

4. ***The business arrangements with THTF with respect to the intelligent rail transit, building and urban heating network businesses***

Pursuant to the business arrangement agreement dated 1 November 2017, THTF and Tongfang Technovator International (Beijing) Co., Ltd. and Tongfang Energy Saving Engineering Technology Co., Ltd., wholly-owned subsidiaries of the Company agreed to engage in certain business arrangements (the "2017 Business Arrangements' in relation to Intelligent rail transit, building and urban heating network businesses (the "Intelligent Businesses")), including (i) for the projects which THTF continues to use its name for entering into such contracts and/or projects of the Intelligent Businesses that the legal rights and obligations of which cannot be directly transferred to the Group (the "Nominee Projects"), THTF will assign, sub-contract, delegate or in any other way the parties may mutually agree so that the Group will assume these contracts. The Group will be responsible for performing the work required by the Nominee Projects and entitled to the income from the Nominee Projects. To the extent that the legal rights of THTF under the contracts in respect of any Nominee Projects have not been assigned to the Group, or for any other reasons THTF receives any payment from the customers of any Nominee Projects for any income generated, THTF is required to pay such amount to the Group no later than the balance sheet date of the month in which such amount is received without any additional compensation. THTF undertakes to assist the Group to take up the Nominee Projects without any additional compensation, including but not limited to providing any necessary information to the Group and handling the relevant project completion and settlement procedures as necessary; (ii) If debtors of the Nominee Projects settle debts by paying THTF, THTF is required to pay such amount to the Group no later than the balance sheet date of the month in which such amount is received without any additional compensation; (iii) THTF to act as the party to supply contracts to procure materials or services from third party suppliers for the Nominee Projects, THTF will procure the necessary materials and services from the relevant third party suppliers for the Group upon instruction by the Group, and the Group is required to reimburse THTF for the amount paid by THTF; (iv) THTF agrees that the debts which are part of the liabilities of the Nominee Projects that have not been assumed by the Group as the consent from the creditors has not been obtained, THTF will continue to satisfy such debts. In the event that THTF is required to settle such debt with the relevant third party creditors, the Group is required to reimburse THTF for such amount no later than the balance sheet date of the month in which such amount is paid by THTF; and (v) THTF will continue to support the Group on the continual development and expansion of the Intelligent Businesses. THTF agrees to provide support and cooperation for the Group for the Intelligent Businesses upon reasonable request from the Group including cooperating with the Group to develop new projects and business opportunities in respect of these businesses, being a party to the relevant agreements to facilitate the Group's conducting of the these businesses if necessary, and providing the required information and assistance to complete the relevant projects, in manners similar to the support to be provided by THTF as set out in paragraphs (i) to (iv) above. Such new sales, procurement or project contracts if to be signed by THTF, all of the terms shall be negotiated by the Group. By virtue of the arrangements as set out above, to the extent that any Nominee Projects are not capable to be assigned to the Group, THTF will continue to act as the party to such agreements, and will transfer any payments it receives from the relevant customers of the these businesses to the Group without any additional charges. As for new project or contracts that it is necessary or desirable for THTF to be a contracting party, THTF may cooperate with the Group in the performance of such contracts for the relevant customers, and transfer any payments it receives from the relevant customers of the Intelligent Businesses to the Group without any additional charges.

The prices for new sales contracts to which THTF will act as the party will be negotiated with third party customers based on the price range as indicated by the prices charged by the relevant Intelligent Business for at least two projects with scope of services undertaken and/or for past sale of products by the relevant Intelligent Business which most closely resembles the requirements of the new sales contract concerned within the past 12 months. The prices for the purchase of material and/or services to be procured under supply contracts subject to the 2017 Business Arrangements will be negotiated with third party suppliers based on the price range as indicated by the prices paid by the relevant Intelligent Business in at least two purchases for similar material and/or services within the past 12 months.

The annual caps of payments to be transferred by THTF to the Group pursuant to the 2017 Business Arrangements for each of the years ended 31 December 2017, 2018 and 2019 are RMB1,200.0 million, RMB1,500.0 million and RMB1,600.0 million, respectively. For the year ended 31 December 2019, the payments transferred by THTF to the Group pursuant to the 2017 Business Arrangements amounted to approximately RMB1,106.5 million, which was within the approved annual cap of RMB1,600.0 million.

The annual caps of payments to be transferred by the Group to THTF pursuant to the 2017 Business Arrangements for each of the years ending 31 December 2017, 2018 and 2019 are RMB1,000.0 million, RMB1,250.0 million and RMB1,300.0 million, respectively. For the year ended 31 December 2019, the payments transferred by the Group to THTF pursuant to the 2017 Business Arrangements amounted to approximately RMB767.8 million, which was within the approved annual cap of RMB1,300.0 million.

Please refer to the announcement of the Company dated 1 November 2017 and the circular of the Company dated 6 December 2017 for further details of the 2017 Business Arrangements.

The independent non-executive directors of the Company have reviewed these continuing connected transactions and confirmed that such transactions were:

(i) entered into in the ordinary and usual course of business of the Group;

(ii) conducted either on normal commercial terms or, if there are not sufficient comparable transactions to judge whether they are on normal commercial terms, on terms no less favourable to the Group than terms available to or from Independent Third Parties; and

(iii) in accordance with the relevant agreement governing them on terms that are fair and reasonable and in the interests of the Shareholders as a whole.

The Company's auditor, KPMG, was engaged to report on the Group's continuing connected transactions in accordance with Hong Kong Standard on Assurance Engagements 3000 (Revised) "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information" and with reference to Practice Note 740 "Auditor's Letter on Continuing Connected Transactions under the Hong Kong Listing Rules" issued by the Hong Kong Institute of Certified Public Accountants. The auditor, KPMG, has issued his unqualified letter containing his findings and conclusions in respect of the continuing connected transactions disclosed by the Group in this annual report in accordance with Rule 14A.56 of the Listing Rules. A copy of the auditor's letter has been provided by the Company to the Stock Exchange.

Details of the significant related party transactions undertaken in the normal course of business are provided under note 28 to the financial statements. None of these related party transactions constitute connected transaction or continuing connected transactions as defined under the Listing Rules that is required to be disclosed, except for those described in the sections headed "Connected Transaction" and "Continuing Connected Transactions" in this report, in respect of which the disclosure requirements in accordance with Chapter 14A of the Listing Rules have been complied with.

CONTRACTS WITH CONTROLLING SHAREHOLDERS

Other than the continuing connected transactions set out above, no contract of significance has been entered into between the Company or any of its subsidiaries and the Controlling Shareholders during the year ended 31 December 2019.

NON-COMPETE UNDERTAKINGS

Each of the Controlling Shareholders has confirmed to the Company of his/her compliance with the non-compete undertakings provided to the Company under the Non-competition Agreement (as defined in the prospectus of the Company dated 17 October 2011). The independent non-executive Directors of the Company have reviewed the status of compliance and confirmed that all the undertakings under the Non-competition Agreement have been complied with by the Controlling Shareholders.

DIRECTORS' INTEREST IN COMPETING BUSINESS

None of the Directors is or was interested in any business apart from the Group's business, that competes or competed or is or was likely to compete, either directly or indirectly, with the Group's business at any time during the year ended 31 December 2019 and up to and including the date of this annual report.

MANAGEMENT CONTRACTS

No contracts concerning the management and administration of the whole or any substantial part of the business of the Company were entered into or existed during the year.

PRE-EMPTIVE RIGHTS

There are no provisions for pre-emptive rights under the Company's constitution (the "Constitution") or the laws of Singapore where the Company is incorporated applicable to the Company.

EMOLUMENT POLICY

The Group's emolument policies are based on the merit, qualifications and competence of individual employees and are reviewed by the remuneration committee periodically.

The emoluments of the Directors are recommended by the remuneration committee of the Company and are decided by the Board, having regard to the Group's operating results, individual performance and comparable market statistics.

The Group has adopted the Share Option Scheme to motivate and reward its Directors and eligible employees. Further information on the Share Option Scheme these schemes are set out in the paragraph headed "Share Option Scheme" above and note 22 to the financial statements.

None of the Directors waived any emoluments during the year.

PENSION SCHEME

The employees of the Group's subsidiaries which operate in China are required to participate in defined contribution central pension schemes operated by the local municipal government. The subsidiaries of the Group are required to contribute certain percentages of its payroll costs to the central pension schemes. The contributions are charged to the consolidated income statements as they become payable in accordance with the rules of the central pension scheme. No forfeited contribution is available to reduce the contribution payable in future years.

For the Group's subsidiaries in countries other than the PRC, the Group pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The Group has no further payment obligations once the contributions have been paid. The contributions are recognised as employee benefit expenses when they are due. Prepaid contributions are recognised as an asset to the extent that a cash refund or a reduction in the future payments is available.

The Group has no other material obligation for the payment of pension benefits beyond the annual contributions described above.

PERMITTED INDEMNITY PROVISION

Since 1 January 2019 up to and including 31 December 2019, the Company had taken out appropriate corporate liability insurance for its Directors. As of the date of this report, such corporate liability insurance remained effective.

MAJOR CUSTOMERS AND SUPPLIERS

Aggregate sales attributable to the Group's largest and five largest customers for the year ended 31 December 2019 were 4.8% (2018: 7.9%) and 20.6% (2018: 31.8%) of the Group's total sales respectively.

Aggregate purchases attributable to the Group's largest and five largest suppliers for the year ended 31 December 2019 were 1.8% (2018: 2.1%) and 7.8% (2018: 8.6%) of the Group's total purchases respectively.

At no time during the year ended 31 December 2019, did a Director, his/her close associate(s) or a Shareholder, which to the knowledge of the Director owns more than 5% of the Company's share capital, have an interest in any of the Group's five largest customers and suppliers.

AUDITORS

KPMG was the external auditor of the Company in Hong Kong and KPMG LLP was the registered auditor of the Company in Singapore during the year ended 31 December 2019, whose term will end at the conclusion of the forthcoming annual general meeting of the Company. During the three preceding financial years, there was no change in the external auditor in Hong Kong and the auditor in Singapore of the Company.

SUFFICIENCY OF PUBLIC FLOAT

Based on information that is publicly available to the Company and within the knowledge of the Directors as at the date of this annual report, the Company has maintained the prescribed public float of not less than 25% of the Company's issued Shares as required under the Listing Rules for the year ended 31 December 2019.

BANK LOANS

Details of bank loans of the Group as at 31 December 2019 are set out in note 20 to the financial statements.

PRINCIPAL RISKS AND UNCERTAINTIES

A number of factors may affect the results and business operations of the Group, some of which are inherent to energy saving industry and some are from external sources. For further details, please refer to the section headed "Management Discussion and Analysis".

RELATIONSHIPS WITH EMPLOYEES, SUPPLIERS AND CUSTOMERS

For details of relationship with the employees, customers and suppliers, please refer to the paragraphs headed "Emolument Policy" and "Major Customers and Suppliers" in this section.

ENVIRONMENTAL POLICIES AND PERFORMANCE

Our Group is specialized in providing energy saving and environmentally-friendly products. The Group has obtained the ISO14001 Environmental Management System Certification of the China Quality Certification Centre, which is an international standard on the operation of an environmental management system. In addition, we are committed to building an environmentally-friendly corporation that pays close attention to conserving energy. We strive to operate in compliance with the relevant environmental regulations and rules. During the year ended 31 December 2019 and up to the date of this report, the Group does not have any violation of relevant environmental regulations and rules which gives rise to significant impact to the Group's development, performance and businesses.

See also the "Environmental Society and Governance Report – Environment" in this report for more information.

COMPLIANCE WITH LAWS AND REGULATIONS

Our Group shall comply with relevant laws and regulations in the jurisdictions where the Group operates. The Group's operations are mainly carried out by the Company's subsidiaries in the PRC. Accordingly, our operations shall comply with relevant laws and regulations in the PRC. During the year ended 31 December 2019 and up to the date of this report, the Group does not have any violation of relevant laws and regulations which gives rise to significant impact to the Group's development, performance and businesses.

FIVE-YEAR SUMMARY

A summary of the results and of the assets and liabilities of the Group for the last five financial years is set out on page 8 of this annual report.

On behalf of the Board

Qin Xuzhong
Chairman

26 March 2020

CORPORATE GOVERNANCE REPORT

Good corporate governance is conducive to enhancing overall performance and accountability and is essential in modern corporate administration. The Board of Directors continuously observes the principles of good corporate governance in the interests of Shareholders and devotes considerable effort to identifying and formalizing best practice.

COMPLIANCE WITH CORPORATE GOVERNANCE CODE

Throughout the year ended 31 December 2019, the Company complied with all code provisions and, where appropriate, adopted the recommended best practices as set out in the Corporate Governance Code in Appendix 14 to the Main Board Listing Rules (the "Corporate Governance Code"), except for deviation from A.1.1 of the Corporate Governance Code regarding the number of board meetings held, the details of which are set out in the paragraph headed "Meetings" below in this report.

From 9 January 2020 to 25 March 2020, due to Mr. Huang Yu's resignation as a non-executive director and a member of the remuneration committee (the "Remuneration Committee") and the nomination committee (the "Nomination Committee") of the Company, the number of members of the Remuneration Committee and Nomination Committee has fallen below the minimum number prescribed under the respective terms of reference of the Remuneration Committee and the Nomination Committee. The Company has appointed Mr. Qin Xuzhong as a member of the Remuneration Committee and the Nomination Committee with effect from 26 March 2020, following which the number of members of the Remuneration Committee and the Nomination Committee has respectively been restored to three in compliance with the relevant terms of reference.

Set out below is a detailed discussion of the corporate governance practices adopted and observed by our Company during the year.

MODEL CODE

The Company has also adopted the Model Code set out in Appendix 10 of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited ("Listing Rules") effective since its adoption by the Company from 8 September 2011 and throughout the year ended 31 December 2019 as its code of conduct regarding securities transactions by the Directors. Having made specific enquiry with all Directors, all Directors confirmed that they have complied with the required standard set out in the Model Code and its code of conduct regarding directors' securities transactions during the year ended 31 December 2019.

BOARD OF DIRECTORS

Board Composition
The directors during the year ended 31 December 2019 and as at the date of this annual report were:

Executive Directors
Mr. Zhao Xiaobo (趙曉波)
Mr. Qin Xuzhong (秦緒忠) *(Chairman)*

Non-executive Directors
Mr. Huang Yu (黃俞) (resigned effective on 9 January 2020)
Mr. Liu Tianmin (劉天民)
Mr. Wang Yinghu (王映滸)

Independent Non-executive Directors
Mr. Fan Ren Da Anthony (范仁達)
Mr. Chia Yew Boon (謝有文)
Ms. Chen Hua (陳華)

The Board takes overall responsibility to oversee all major matters of the Group, including the formulation and approval of all policy matters, overall strategic development of the Group, monitoring and controlling the Group's operation and financial performance, internal control and risk management systems. The Directors have to make decisions objectively in the interests of the Company.

The day-to-day management, administration and operation of the Group are delegated to the chief executive officer and the senior management of the Company. The delegated functions and work tasks are periodically reviewed. Approvals have to be obtained from the Board prior to any significant transactions entered into by the aforesaid officers.

The Board is well balanced with the Directors having sound industry knowledge, extensive corporate and strategic planning experience and/or expertise relevant to the business of the Group. The executive Directors and independent non-executive Directors bring a variety of experience and expertise to the Company. Biographical information of the Directors are set out in the section headed "Directors and Senior Management" of this annual report. To the best knowledge of the Company, there is no financial, business or family relationship among the members of the Board.

The Company has subscribed appropriate and sufficient insurance coverage on Directors' liabilities in respect of legal actions taken against Directors arising out of corporate activities.

Board meetings were held from time to time to discuss the business strategies of the Group; monitor financial and operational performance; approve the annual and interim results of the Group; and discuss the corporate governance functions of the Board.

CONTINUOUS PROFESSIONAL DEVELOPMENT FOR DIRECTORS

The Directors have been informed of the requirement under Code Provision A.6.5 of the Corporate Governance Code regarding continuous professional development. According to the records maintained by the Company, the current Directors received the following training by attending briefings, seminars, conferences or reading materials with an emphasis on the roles, functions and duties of a director of a listed company in compliance with the requirement of the Corporate Governance Code on continuous professional development during the year ended 31 December 2019:

	Corporate Governance/ Updates on Laws, Rules and Regulations		**Accounting/Financial/ Management or Other Professional Skills**	
Name of Director	**Read materials**	**Attended seminars briefings**	**Read materials**	**Attended seminars briefings**
Executive Directors				
Mr. Zhao Xiaobo	✓	✓	✓	✓
Mr. Qin Xuzhong	✓	✓	✓	✓
Non-executive Directors				
Mr. Huang Yu (resignation effective on 9 January 2020)	✓	✓	✓	✓
Mr. Liu Tianmin	✓	✓	✓	✓
Mr. Wang Yinghu	✓	✓	✓	✓
Independent non-executive Directors				
Mr. Fan Ren Da Anthony	✓	✓	✓	✓
Mr. Chia Yew Boon	✓	✓	✓	✓
Ms. Chen Hua	✓	✓	✓	✓

CHAIRMAN AND CHIEF EXECUTIVE OFFICER

The roles of chairman and the chief executive officer are segregated. Mr. Qin Xuzhong is the chairman of the Company and Mr. Zhao Xiaobo is the chief executive officer of the Company. The chairman is responsible in leading the Board in forming the Group's strategies and policies and for organizing the business of the Board, ensuring its effectiveness and setting its agenda. The chief executive officer is directly in charge of the daily operations of the Group and is accountable to the Board for the financial and operational performance of the Group.

INDEPENDENT NON-EXECUTIVE DIRECTORS

Independent non-executive Directors have played a significant role in the Board by bringing their independent judgment at the Board meetings and scrutinizing the Group's performance. Their views carry significant weight in the Board's decisions. In particular, they bring an impartial view to bear on issues of the Group's strategy, performance and control. All independent non-executive Directors possess extensive academic, professional and industry expertise and management experience and have provided their professional advice to the Board. The independent non-executive Directors provide independent advice on the Group's business strategy, results and management so that all interests of Shareholders can be taken into account, and the interests of the Company and its Shareholders can be protected.

The Board has three independent non-executive Directors with two of them, Mr. Fan Ren Da Anthony and Ms. Chen Hua, possessing appropriate professional qualifications or accounting or related financial management expertise in compliance with the requirements set out in Rules 3.10(1) and (2) and 3.10A of the Listing Rules.

The Company has received annual confirmations of independence from each of the existing independent non-executive Directors in accordance with Rule 3.13 of the Listing Rules. Based on the content of such confirmations, the Company considers that all the independent non-executive Directors are independent in accordance with the Listing Rules.

BOARD DIVERSITY POLICY

The Board adopted a board diversity policy (the "Board Diversity Policy") in August 2013. The Company recognises and embraces the benefits of diversity of Board members. While all Board appointments will continue to be made on a merit basis, the Company will ensure that the Board has a balance of skills, experience and diversity of perspectives appropriate to the needs of the Company's business. Selection of candidates will be based on a range of diversity perspectives, including but not limited to gender, age, cultural and educational background, experience (professional or otherwise), skills and knowledge.

MEETINGS

The Board meets regularly either in person or through electronic means of communications. The number of the Board meetings and general meetings held and the attendance of each Director at these meetings for the year ended 31 December 2019 are set out as follows:

	Board Meeting	General Meeting
No. of meetings held	2	1
No. of meetings attended		
Executive Directors		
Mr. Zhao Xiaobo	2	1
Mr. Qin Xuzhong	2	0
Non-executive Directors		
Mr. Huang Yu (resignation effective on 9 January 2020)	1	0
Mr. Liu Tianmin	2	0
Mr. Wang Yinghu	0	0
Independent non-executive Directors		
Mr. Fan Ren Da Anthony	2	1
Mr. Chia Yew Boon	2	0
Ms. Chen Hua	2	1

The Company has continued its best effort to fulfill the Code Provision, including but not limit to A.1.1 of the Corporate Governance Code which provides that the Board should meet regularly and board meetings should be held at least four times a year at approximately quarterly intervals. During the year, two Board meetings were held for approving the Group's interim financial performance, annual financial performance and another regulatory matters advised by the Group's legal advisor which required the Board decision. In addition to the two Board meetings held by the Company, the Directors met regularly during the year to discuss the overall operation and strategy of the Group. However, there are neither regulatory matters nor other important decisions which was advised and the Board consider to resolve by way of Board meeting.

All Directors are provided with relevant materials relating to the matters brought before the meetings. They have separate and independent access to the senior management and the joint company secretaries of the Company at all times and may seek independent professional advice at the Company's expense. All Directors have the opportunity to include matters in the agenda for Board meetings. Notices of at least 14 days of Board meetings are given to the Directors and Board procedures complied with the Constitution, as well as relevant rules and regulations.

JOINT COMPANY SECRETARIES

At the beginning of the year, Mr. Leung Lok Wai ("Mr. Leung") and Ms. Selena Leong Siew Tee ("Ms. Leong") were the joint company secretaries of the Company. Ms. Leong tendered her resignation as joint company secretary with effect from 31 December 2019 and Mr. Leung continued to act as the remaining joint company secretary. On 23 January 2020, Ms. Cheok Hui Yee was appointed to fill the casual vacancy from the resignation of Ms. Leong as a joint company secretary of the Company to satisfy the requirement under the Companies Act (Cap. 50) of Singapore. Mr. Leung Lok Wai and Ms. Cheok Hui Yee are the current joint company secretaries of the Company.

Details of the biography of Mr. Leung and Ms. Cheok Hui Yee are set out in the section headed "Directors and Senior Management" of the annual report of which this corporate governance report forms part. The joint company secretaries have been informed of the requirements under Rule 3.29 of the Listing Rules. Both Mr. Leung and Ms. Leong had attained no less than 15 hours of relevant professional training during the year ended 31 December 2019.

APPOINTMENTS, RE-ELECTION AND REMOVAL OF DIRECTORS

Each of the executive Directors, non-executive Directors and independent non-executive Directors of the Company has entered into a service contract with the Company for a specific term, and is subject to retirement by rotation and re-election at an annual general meeting at least once every three years in accordance with the Constitution. The Constitution provide that any Director appointed by the Board to fill a casual vacancy in the Board or as an addition to the existing Board shall hold office only until the next following annual general meeting of the Company and shall then be eligible for re-election. For more details of the service contract of each of the Directors, please refer to the section headed "Report of the Directors" of this annual report.

TERM OF APPOINTMENT OF NON-EXECUTIVE DIRECTORS

Each of the non-executive Directors and independent non-executive Directors other than Mr. Huang Yu and Mr. Wang Yinghu had entered into a service contract with the Company for an initial term of one year commencing from 27 October 2011. Mr. Huang Yu, who resigned with effect from 9 January 2020, had entered into a service contract with the Company for an initial term of one year commencing from 15 July 2016. Mr. Wang Yinghu has entered into a service contract with the Company for an initial term of one year commencing from 16 November 2015.

All the service contracts of non-executive Directors and independent non-executive Directors are automatically renewed upon expiration and may be terminated by either party upon a three-month prior written notice.

BOARD COMMITTEES

The Board has established (i) audit committee, (ii) remuneration committee; (iii) nomination committee; and (iv) risk management committee, with defined terms of reference. The terms of reference of the board committees which explain their respective roles and the authority delegated to them by the Board are available on the websites of the Company and the Stock Exchange. The Board committees are provided with sufficient resources to discharge their duties and, upon reasonable request, are able to seek independent professional advice and other assistance in appropriate circumstances, at the Company's expenses.

AUDIT COMMITTEE

The Company established an audit committee pursuant to a resolution of the Directors passed on 8 September 2011 in compliance with Rule 3.21 and Rule 3.22 of the Listing Rules. The primary duties of the audit committee are to make recommendation to the Board on the appointment and removal of external auditors, review the financial statements and material advice in respect of financial reporting, and oversee the internal control procedures of the Company. The audit committee currently consists of three members, namely, Ms. Chen Hua, Mr. Fan Ren Da Anthony and Mr. Chia Yew Boon, all of whom are independent non-executive Directors. Ms. Chen Hua, who has appropriate professional qualifications and experience in accounting matters, is the chairman of the audit committee. None of the members of the Audit Committee is a former partner of the existing external auditors of the Company.

During the year ended 31 December 2019, the Audit Committee mainly performed following duties:

- reviewed the Group's unaudited interim results for the six months ended 30 June 2019 and the audited annual results for the year ended 31 December 2019, met with the external auditors to discuss such interim results and annual results (without the Company's management being present), and was of the opinion that the preparation of the relevant financial statements complied with the applicable accounting standards and requirements and that adequate disclosure has been made;

- reviewed the accounting principles and practices adopted by the Group, and recommended the appointment of the external auditors;

- reviewed the effectiveness of the Group's internal audit function;

- reviewed the effectiveness of the Group's internal control systems on all major operations of the Group, which was considered effective and adequate; and

- assisted the Board in meeting its responsibilities for maintaining an effective system of internal control.

During the year ended 31 December 2019, two meetings were held by the Audit Committee. The attendance record of each member of the Audit Committee at the meetings of the Audit Committee is set out below:

Name of Director	**Attendance of Audit Committee Meetings**
Ms. Chen Hua *(Chairman)*	2
Mr. Fan Ren Da Anthony	2
Mr. Chia Yew Boon	2

There had been no disagreement between the Board and the Audit Committee during the financial year ended 31 December 2019.

REMUNERATION COMMITTEE

The Company established a remuneration committee on 8 September 2011 with written terms of reference. The primary duties of the remuneration committee are to make recommendation to the Board on the overall remuneration policy and structure relating to all Directors and senior management of the Company, review remuneration, and ensure none of the Directors determine their own remuneration. During the year ended 31 December 2019, the remuneration committee consisted of three members, namely, Mr. Chia Yew Boon and Mr. Fan Ren Da Anthony (both are independent non-executive Directors) and Mr. Huang Yu (a non-executive Director). Mr. Huang Yu subsequently resigned and his resignation was effective from 9 January 2020. Mr. Qin Xuzhong was appointed as a member of the remuneration committee on 26 March 2020, and the remuneration committee restored to a minimum of three members as prescribed under its terms of reference. The remuneration committee currently consists of three members, namely, Mr. Chia Yew Boon and Mr. Fan Ren Da Anthony (both are independent non-executive Directors) and Mr. Qin Xuzhong (an executive Director). Mr. Fan Ren Da Anthony is the chairman of the remuneration committee.

During the year ended 31 December 2019, the Remuneration Committee mainly performed following duties:

– reviewed the Group's remuneration policy and reviewed the remuneration package of the executive Directors and senior management for the year of 2019.

During the year ended 31 December 2019, one meeting was held by the Remuneration Committee. The attendance record of each member of the Remuneration Committee at the meetings of the Remuneration Committee is set out below:

Name of Director	**Attendance of Remuneration Committee Meeting**
Mr. Fan Ren Da Anthony *(Chairman)*	1
Mr. Huang Yu	1
Mr. Chia Yew Boon	1

The remuneration of the members of the senior management by band for the year ended 31 December 2019 is set out below:

Remuneration bands (HKD'000)	**Number of persons**
1,000–1,500	1
1,500–2,000	1

Further particulars regarding Directors' remuneration and the five highest paid employees as required to be disclosed pursuant to Appendix 16 to the Listing Rules are set out in notes 8 and 9 to the financial statements.

NOMINATION COMMITTEE

The Company established a nomination committee on 8 September 2011 with written terms of reference. The primary duties of the nomination committee are to review the structure, size and composition of the Board on a regular basis and to recommend to the Board the suitable candidates for directors after consideration of the nominees' independence and quality in order to ensure the fairness and transparency of all nominations. The nomination committee will also give consideration to the Board Diversity Policy when identifying suitably qualified candidates to become members of the Board, and the Board will review the Board Diversity Policy, so as to develop and review measurable objectives for the implementing the Board Diversity Policy and to monitor the progress on achieving these objectives. During the year ended 31 December 2019, the nomination committee consisted of three members, namely, Mr. Fan Ren Da Anthony, and Mr. Chia Yew Boon (both are independent non-executive Directors) and Mr. Huang Yu (a non-executive Director). Subsequently, Mr. Huang Yu resigned and his resignation was effective from 9 January 2020. Mr. Qin Xuzhong was appointed as a member of the nomination committee on 26 March 2020, and the nomination committee restored to a minimum of three members as prescribed under its terms of reference. Mr. Chia Yew Boon is the chairman of the nomination committee.

During the year ended 31 December 2019, the Nomination Committee mainly performed following duties:

– reviewed the annual confirmation of independence submitted by the independent non-executive Directors and assessing their independence;

– reviewed the structure, size and composition of the Board during the year; and

– selected and recommended candidates for directorship during the year.

During the year ended 31 December 2019, one meeting was held by the Nomination Committee. The attendance record of each member of the Nomination Committee at the meetings of the Nomination Committee is set out below:

Name of Director	Attendance of Nomination Committee Meeting
Mr. Chia Yew Boon *(Chairman)*	1
Mr. Fan Ren Da Anthony	1
Mr. Huang Yu	1

RISK MANAGEMENT COMMITTEE

The Company established a risk management committee on 29 March 2016 with written terms of reference. The primary duties of the risk management committee are to consider the risk management strategies of the Company, review the risk management system of the Group, assess the risks from major decisions and to consider solutions for significant risks, have periodic assessment on the Group's risk profile and risk management capabilities, make recommendations on the improvement of the Group's risk management systems, consider major investigations findings on risk management matters and management's response to these findings, oversee the Group's risk management systems on an ongoing basis, ensure that a review of the effectiveness of the risk management systems of the Group has been conducted at least annually and report to shareholders that it has done so in its Corporate Governance Report. During the year ended 31 December 2019 and as of the date of this annual report, the risk management committee consists of all the Directors of the Board, namely, Mr. Zhao Xiaobo and Mr. Qin Xuzhong (both are executive Directors), Mr. Huang Yu, who resigned with effect from 9 January 2020, Mr. Liu Tianmin and Mr. Wang Yinghu (all are non-executive Directors), Mr. Fan Ren Da Anthony, Mr. Chia Yew Boon and Ms. Chen Hua (all are independent non-executive Directors). Mr. Fan Ren Da Anthony is the chairman of the risk management committee.

During the year ended 31 December 2019, the Risk Management Committee mainly performed following duties:

– assess and review the effectiveness of the risk management system of the Group which was considered effective and adequate; and

– assisted the Board in meeting its responsibilities for maintaining an effective system of risk management.

During the year ended 31 December 2019, one meeting was held by the Risk Management Committee. The attendance record of each member of the Risk Management Committee at the meetings of the Risk Management Committee is set out below:

Name of Director	Attendance of Risk Management Committee Meeting
Mr. Zhao Xiaobo	1
Mr. Qin Xuzhong	1
Mr. Huang Yu (resignation effective on 9 January 2020)	1
Mr. Liu Tianmin	1
Mr. Wang Yinghu	0
Mr. Fan Ren Da Anthony	1
Mr. Chia Yew Boon	1
Ms. Chen Hua	1

CORPORATE GOVERNANCE FUNCTION

The Company's corporate governance function is carried out by the Board pursuant to a set of written terms of reference adopted by the Board in compliance with Code Provision D.3.1 of the Corporate Governance Code, which include (a) to develop and review the Company's policies and practices on corporate governance and make recommendations to the board; (b) to review and monitor the training and continuous professional development of the Directors and senior management of the Group; (c) to review and monitor the Company's policies and practices on compliance with legal and regulatory requirements; (d) to develop, review and monitor the code of conduct and compliance manual (if any) applicable to employees of the Group and the Directors; and (e) to review the Company's compliance with the Corporate Governance Code and disclosure in the corporate governance report. The Board has held meetings from time to time to: (a) review the Company's policies and practices on corporate governance; (b) to review and monitor the training and continuous professional development of the Directors; and (c) to review the Company's compliance with the Corporate Governance Code and disclosure in the corporate governance report.

CONSTITUTION

There has been no significant change in the Company's constitutional documents during the year ended 31 December 2019.

FINANCIAL REPORTING

The Board, supported by the chief financial officer and the finance department, is responsible for the preparation of the financial statements of the Company and the Group for each financial year which shall give a true and fair view of the financial position, performance and cash flow of the Group for that period. The directors acknowledge their responsibilities for preparing the accounts of the Company. The Board is not aware of any material uncertainties relating to events or conditions that may cast significant doubt upon the Group's ability to continue as a going concern.

The responsibilities of KPMG, the Company's external auditors in Hong Kong, on the financial statements are set out in the section headed "Independent Auditor's Report" in this annual report.

EXTERNAL AUDITORS' REMUNERATION

The Company has re-appointed KPMG as the external auditor in Hong Kong and appointed KPMG LLP as the Company's registered auditor in Singapore during the year ended 31 December 2019. The external auditors are refrained from engaging in non-audit services except for specific approved items. The Audit Committee reviews the external auditor's statutory audit scope and non-audit services and approves its fees. For the year ended 31 December 2019, the total fee paid/payable in respect of audit and non-audit services provided by the Company's external auditors (including any entity that is under common control, ownership or management with the external auditors or any entity that a reasonable and informed third party having knowledge of all relevant information would reasonably conclude as part of the external auditors nationally or internationally) is set out below:

	RMB'000
Audit and audit-related services	2,900
Non-audit services	–
	2,900

INTERNAL CONTROLS AND RISK MANAGEMENT

The Board is responsible for ensuring the reliability and effectiveness of the Group's internal control systems on, among other things, financial, operational and compliance controls (including handing and dissemination of inside information), and the risk management system. In particular, regarding the controls for handling and dissemination of inside information, the employees, senior management and the Directors of the Company who possesses or handles inside information are reminded of the inside information requirements under the Listing Rules and the Securities and Futures Ordinance (Chapter 571 of the laws of Hong Kong). The Directors, with the assistance of Mr. Leung Lok Wai, a joint company secretary of the Company, and the internal audit department of the Company, are responsible to ensure the inside information, if any, is kept confidential and disseminated to the public to avoid a false market in the listed shares of the Company as and when necessary. The Company may also seek professional advice to consider the dissemination of inside information to be public as and when necessary to ensure the Company will comply with the requirements under Listing Rules and the Securities and Futures Ordinance (Chapter 571 of the laws of Hong Kong). The internal control and risk management systems are designed to provide reasonable, but not absolute assurance against misstatement or loss, and to manage risks of failure in the Group's operational systems. The Group's internal control systems and risk management systems are reviewed at least annually. The Board together with the audit committee and the risk management committee have reviewed the effectiveness of the Group's internal control systems and on the risk management systems, respectively, on all major operations of the Group during the year under review.

The Group has an internal audit function carried out by the Group's internal audit department. The Group's internal control department has reported internal control fact findings to the Board and no major issues but areas for improvement have been identified. All of the recommendations from the Group's internal control department will be properly followed up by the Group to ensure that they are implemented within a reasonable period of time. Similar process has been carried out for the risk management systems. The Board and the audit committee considered that the key areas of the Group's internal control systems, including the adequacy of resources, qualifications and experience of our accounting and financial reporting staff, are reasonably implemented and effective and adequate. The Board and the risk management committee considered that the key areas of the risk management, including the identification, measuring and evaluation new risks, and the ongoing monitoring of existing business and operation risks identified to be effective and adequate. As such, the Board is of the view that the Group has fully complied with provisions of the Corporate Governance Code regarding internal control and risk management systems in general for the year ended 31 December 2019.

SHAREHOLDERS RIGHTS

How Shareholders can convene an extraordinary general meeting and put forward proposals at Shareholders' meetings

Under the Constitution, Directors may in general, whenever they think fit, convene extraordinary general meetings. Under Section 176 of the Companies Act (Cap. 50) of Singapore (the "Singapore Companies Act"), however, directors of the Company must notwithstanding anything in its Constitution, on the requisition of shareholders holding not less than 10% of the total number of paid-up shares of a company at the date of the deposit of the requisition, immediately proceed to convene an extraordinary general meeting to be held as soon as practicable but in any case not later than 2 months after receipt by the company of the requisition. In addition to the said right of requisition, two or more shareholders holding not less than 10% of the total number of issued shares of a company (excluding treasury shares) may also call a meeting of the company.

Procedures by which enquiries may be put to the Board

Shareholders may send their enquiries and concerns to the Board by addressing them to Mr. Leung Lok Wai, a Joint Company Secretary by mail at the Company's principal place of business in Hong Kong or by email at paddy_leung@thtf.com.cn. Mr. Leung Lok Wai will forward communications relating to matters within the Board's direct responsibilities to the Board and communications relating to ordinary business matters, such as suggestions, inquiries and customer complaints, to the chief executive officer of the Company.

COMMUNICATIONS WITH SHAREHOLDERS

The management endeavours to maintain effective communications with the Shareholders and potential investors.

The Company meets the Shareholders at the annual general meeting, publish interim and annual reports on the websites of the Company and the Stock Exchange, and release press releases on the Company's website to keep the Shareholders and potential investors abreast of the Group's business and development.

DIVIDEND POLICY

The Company has adopted a dividend policy (the "Dividend Policy"). According to the Dividend Policy, in deciding whether to declare or recommend dividends, the Board shall consider the Company's ability to pay dividends, which will depend upon, among other things:

- the actual and expected financial results of the Group;
- cashflow of the Group;
- financial conditions of the Group;
- Shareholders' interests;
- general business conditions and strategies;
- the current and future operations of the Group;
- future business plans of the Group;
- liquidity and capital requirements of the Group;
- taxation considerations;
- amount of distributable profits;
- contractual restrictions;
- statutory and regulatory restrictions under Singapore laws, any applicable laws, rules and regulations and the Company's articles of association; and
- any other factors the Board may deem relevant.

The Board will review and reassess the Dividend Policy and its effectiveness in its sole and absolute discretion on a regular basis or as required.

1 ABOUT THE REPORT

This report is the fourth Environmental, Social and Governance Report (the "Report") published by Technovator International Limited. The Report focuses on the Group's efforts and contributions to the environmental, social and governance. We hope that through the publication of the Report, we will strengthen communication and liaison with our stakeholders.

The board of directors and all the directors of the Group hereby warrant that the contents of the Report do not contain any false representations, misleading statements or material omissions and take joint and several liabilities for the truthfulness, accuracy and completeness of the contents.

Designation and Interpretation
For the purposes of expression and readability, the expressions "Technovator", the "Group" or the "group" mentioned herein refer to "Technovator International Limited".

Scope of the Report
Unless otherwise stated, the qualitative and quantitative information disclosed herein cover all subsidiaries and branches of Technovator.

Reporting Period
The Environmental, Social and Governance Report of the Group falls within the Annual Report, with the reporting period from 1 January 2019 to 31 December 2019.

Basis of Preparation
The Report has been prepared in accordance with Appendix 27 of the Environmental, Social and Governance Reporting Guide (the "ESG Reporting Guide") as set out in the Stock Exchange of Hong Kong Limited (the "Stock Exchange").

Access to the Report
The Chinese and English version of the Report can be downloaded from the website of the Stock Exchange (http://www.hkexnews.hk). The Report is published in both Chinese and English; should there be discrepancies between the two versions, the Chinese version shall prevail.

2 CONCEPTS AND MANAGEMENT ON ENVIRONMENTAL AND SOCIAL RESPONSIBILITY

We root our operations in Tsinghua and stem our businesses from THTF. As the leading smart energy-saving service provider of urban energy in China, Technovator focuses on urban energy management and smart energy-saving service. Our business comprises three major fields, including smart building and complex, smart transportation and smart energy, becoming a pioneer of promoting urban development in energy saving. Technovator adheres to the urban comprehensive energy-saving service and technological innovation by combining the technique of "Internet + Energy" with cloud platform and through resource integration and collaboration to speed up the building of smart cities, so as to achieve sustainable development. The Group attaches great importance to issues related to the environmental, social and governance (ESG), performs positive enterprise's social duties and commits to become an outstanding corporate citizen of China.

The Group has established an ESG information management system covering the whole group, which is organized by the office of the board of directors of the Group, including relevant functional departments such as human resources department, integrated management department, corporate management and administration department, corporate planning department, purchasing department, production and manufacturing department, quality management department, and technology institutions. A working group for ESG information collection cooperated jointly by all departments will gradually improve ESG governance structure in the future; the working group has established statistical processes of relevant information for the core ESG management areas of the Group to accurately and completely disclose information of the environmental, social and governance report.

3 STAKEHOLDERS ENGAGEMENT AND RESPONSE TO THE ESG REPORTING PRINCIPLES OF THE STOCK EXCHANGE

3.1 Stakeholders Engagement

Keeping in mind the business model as well as internal and external communication, the Group has identified material types of stakeholders which have mutual influence with corporate operations to determine the focus of environment, society and governance for the Group through analyzing the demands of the stakeholders and combining the environmental, social and governance impact caused by the Group's operation.

The major types of stakeholders of the Group include:

Stakeholders	Demands and Expectations	Communication and Response	Corporate Response
Government and Supervision Authorities	– Comply with the laws and regulations – Promote technology advancement – Serve for the national economy and the people's livelihood	– Visit reception – Report submission – Company website – Negotiation and cooperation	Strict observance of relevant laws and regulations; promote technology advancement; vigorously advocate energy conservation and emission reduction
Shareholders	– Maintain good business performance – Compliance operation – Information disclosure	– Company announcement – Project report – Visit reception	Endeavor to improve performance and generate profits; improve environmental and social responsibility management; truthful and thorough disclosure of information
Customers	– Provide high quality products and services – Satisfy various customers' demands	– Regular communication with customers – Customers' satisfaction survey – Customers' complaint handling and feedback	Provide sufficient, reliable and eco-friendly energy-saving products and services to fully meet customer needs
Employees	– Protect employees' rights and interest – Guarantee occupational health – Focus on training and development – A work-life balance	– Employees' meeting – Employees' advice platform	Strict observance of the terms of the Labor Contract; improve the system of the congress of employees; improve the salary and employee security system; provide avenues for vocational advancement and training
Suppliers and partners	– Open, fair and impartial purchasing – Honor the contract – Mutual benefit and win-win result	– Signing the contract pursuant to laws – Open bidding – Project cooperation	Adhere to open and transparent business principles and processes; active fulfilment of contracts and agreements; promotion of mutual visits
Community	– Participate community's development – Support public activities – Assist educational business	– Community activities involvement – Interview and communication	Extensive organization of and active participation in public welfare; cultivation of harmonious and civilized communities; assist in the development of education

3.2 RESPONSE TO THE ESG REPORTING PRINCIPLES OF THE STOCK EXCHANGE

Materiality: In order to further identify the key areas of practices and information disclosure for corporate environmental, social and governance, enhance the pertinence and responsiveness of the report, the Group has initiated the identification procedures of material issues and has decided the important level of each issue with materiality as a result of issue disclosure extent and boundary to ensure a more accurate and complete disclosure information related to the operation management of the Group.

Identification Procedures of Issues on Environmental, Social and Governance

Sources of Issues

- Analysis of multi-media information
- Benchmarking research of international and domestic peers
- Internationally-recognized sustainable development guidelines
- Suggestions from Company management
- Analysis and suggestions from internal and external experts

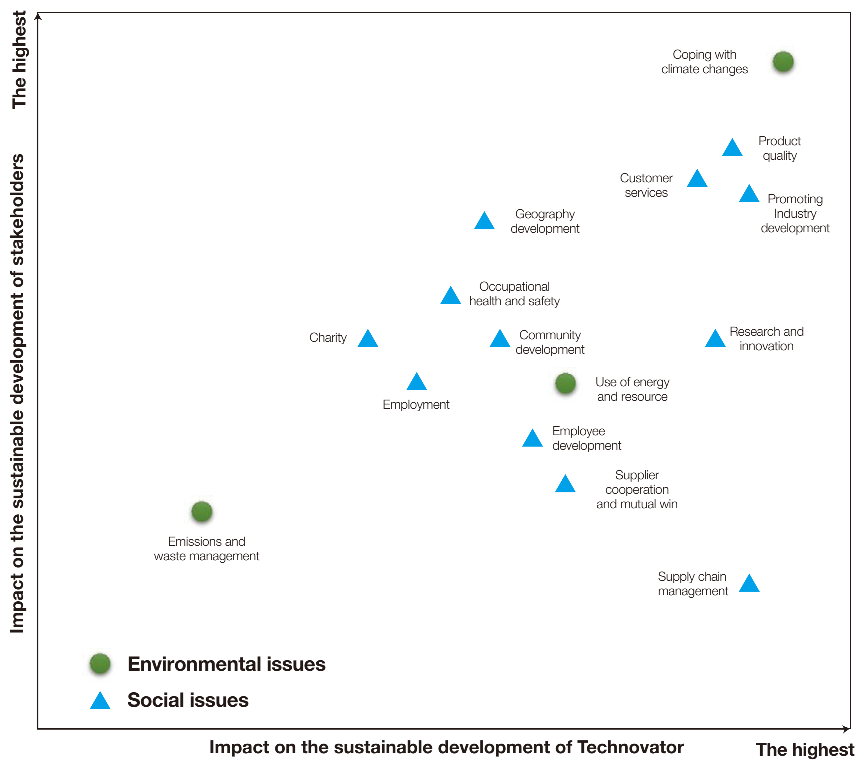
Screening Criteria

- The Company's values, policies, strategies and long-term and short-term goals
- Relevant laws, regulations, international treaties or voluntary agreements
- Benchmarking results of peers
- Demands and expectations explicitly expressed by stakeholders
- Suggestions from the Company's management and social responsibility management team

Results of Materiality Assessment

Through the identification process, the Group has identified the environmental, social and governance issues that are most relevant to its sustainable development, and made judgments on the degree of significance of each issue. The results are as follows:

2019 Material Issues Matrix of Technovator



Quantitative: In accordance with "Key Performance Indicator" requirements in the Environmental, Social and Governance Reporting Guide set out in Appendix 27 to the Rules Governing the Listing of Securities on the Stock Exchange, the Group discloses quantitative indicators related to the "environmental" category and interprets for immaterial indicators, discloses quantitative indicators related to the "social" category to the maximum extent and will gradually achieve comprehensive disclosure in the future.

Balance: The Report discloses efforts to achieve objectivity and impartiality that truly reflect the effectiveness and practice of the Group's 2019 ESG work, and to disclose issues encountered and improvement measures in a responsible manner.

Consistency: The Report follows a consistent method of information statistics, and the scope of the information statistics organization in 2019 is consistent with 2018, and certain indicators have been disclosed for two consecutive years since 2018.

4 COPING WITH CLIMATE CHANGES

As a leading urban smart energy-saving service provider in the PRC, the Group provides "Intelligence + Energy Saving" solutions for urban development in fields such as smart building and complex and smart energy. We combine the technique of "Internet + Energy" with cloud platform to build smart and low-carbon cities that is safe, efficient and green, accelerating regional low-carbon development to provide people with a safe, comfortable, energy-saving and sustainable smart environment to cope with the challenges posed by climate change.

In the field of smart building and complex, the Group promotes the urbanization of building energy-saving business, and pays attention to representative high energy consuming buildings, including shopping centers, hospitals, universities, offices and cultural venues. We adopt contract energy management model to carry out the overall energy-saving solutions in aspects of public areas' LED lighting, air conditioning system smart control and elevator system.

In the field of smart energy, the Group has intensively explored central heating and heat pump heating, serving over hundreds of urban heating networks. We initiated the clean energy transformation of "coal to electricity" in Northern China, forming an overall industrial chain layout from energy production, energy transmission and distribution to energy consumption. In 2019, the Group released three series of energy-saving equipment relating to clean energy, including the "absorption heat pumps for substantial temperature differentials with full operating conditions (全工況大溫差吸收式熱泵)", the "air source heat pump with full variable frequency modular (全變頻模塊式空氣源熱泵)" and the "flue gas full heat recovery absorption heat pump (煙氣全熱回收吸收式熱泵)", which focuses on different application scenarios and is a new generation energy-saving equipment for clean heating that supports the efficient development and utilization of various waste heat resources and clean energy. Among which, by making use of long-distance pipelines, the absorption heat pumps for substantial temperature differentials with full operating conditions can effectively utilize waste heat from thermal power plants for urban heating and greatly reduce the number of urban large-scale coal-fired boiler rooms. In addition, it could reduce temperature of the heating network to 20 centigrade under the existing urban heating network with comprehensive energy efficiency improved by 35% and investment saved by 15%. The flue gas full heat recovery absorption heat pump focuses on "white smoke" pollution and water wastage from gas-fired and coal-fired boilers, comprehensively recovering the waste heat of flue gas, lowering the temperature of emissions and saving energy and water, resulting in the elimination of the visual pollution of the white sky over the city in winter. It can reduce water vapor emissions by 86% and lower energy consumption by more than 10%.

Technovator assisted The Seventh People's Hospital of Chengdu in building a smart and green new district

In 2019, Technovator's solution for energy-efficient smart buildings was applied in the Tianfu District of The Seventh People's Hospital of Chengdu. By utilizing the Techcon09 control management system and Techcon EMS (Energy Management System), it has provided patients and healthcare staff with a safe, comfortable and efficient smart environment. In addition, by means of the unique energy-saving control algorithm, it has achieved visualized monitoring, analysis and management of energy consumption data such as water, electricity, natural gas, cooling and heating in the same platform, which provides reliable data support for managers' energy-conserving strategy and effectively save operation and maintenance costs. The solution significantly lowers energy consumption of the hospital and at the same time controls the temperature and humidity of indoor areas and carbon dioxide concentrations within a reasonable range that is physically comfortable.

Technovator undertook Smart Group-Controlling Optimization Project of SAIC Volkswagen Energy Center

Through an in-depth analysis of the operational characteristics of the automobile plant's energy system and the Group's self-developed application of the "smart energy management and controlling platform", the Smart Group-Controlling Optimization Project of SAIC Volkswagen in A2 Energy Center of Anting Plant II undertaken by the Group has achieved a sound energy-saving effect. The total COP (Coefficient of Performance) of the cold water system for the year has improved by 10%, achieving a rating of "excellent" in the energy station at 5.0, and the efficiency of the hot water distribution system enhanced by more than 40%.

Technovator's heat pump products assisted in waste heat recovery and flue gas recovery
In 2019, the Group undertook the construction of the flue gas recovery transformation project of Wang Chuanchang heating station of Tianjin Real Estate Trust Group. Before the transformation, flue gas contained large amount of water vapor which carried an abundant of waste heat that was discharged into the atmosphere and condensed into "white smoke" in the atmosphere, affecting the lives of residents. The Group adopts the flue gas type absorption heat pumps for substantial temperature differentials with full operating conditions to carry out the flue gas condensation heat recovery and purification transformation of the existing gas-fired hot water boiler, reducing the flue gas temperature from 80℃ to below 30℃, which can recover a large amount of flue gas waste heat, achieving the goal of heat supply, energy conservation, environmental governance and flue gas recovery.

5 LEADING INDUSTRY INNOVATION

5.1 Innovation on Research and Development

Focusing on the frontier of energy conservation technologies, the Group realizes technological innovation by taking the lead. With technological innovation as the core and oriented towards knowledge and innovation, the Group performs the corporate responsibility of "saving energy for the country and saving resources for the people", which highly meets the industry development trend of "Internet + Energy", helping the industry to carry out research and development for technological innovation.

The Group has established a Building Energy-Saving Research Institute, which consists of a Building Data Application Research Institute, Building Smart Control Research Institute and a Building Energy Planning Institute. In the application of building big data, the implementation of energy-saving algorithm, safety control algorithm and the corresponding products, the energy efficiency improvement technology for heating and cooling sources, the energy audit for building energy system, the energy-saving transformation and the accounting method for energy-saving, the Group invested significant scientific research in these areas and yielded various scientific research achievements, including the IBS4.0 intelligent building integrated system, the intelligent utility tunnel management platform and edge computing unit, the automatic dispatching control for long distance heat distribution to multiple pumping stations, the self-developed and application of absorption heat exchange units for substantial temperature differentials as well as the Techcon Neosys edge computing device + operation and maintenance platform.

In 2019, the Group launched three software platform products in relation to "Intelligence + Infrastructure", namely the "Rail Transportation Command Center Software Platform ezNCC2.0, Smart Heating Network Software Platform ezIHM3.0, Intelligent Utility Tunnel Management Platform ezUTM3.0", which are large-scale software platforms on the level of "urban brain" in rail transportation, central heating supply and integrated tunnel. Software platform provided intelligent solutions for infrastructures in cities by enormous date processing, machine learning capability and AI control to ensure that infrastructures run intelligently and efficiently.

Cultivating talents and exploiting their value is the key to technological innovation. As of 31 December 2019, employees with postgraduate or above qualifications in the Building Energy-Saving Research Institute accounts for 47%, and many are experts from Tsinghua University. In order to motivate staff to conduct better innovative R&D, the institute cooperated with the human resource department in formulating and implementing the "Superior Talents" scheme at the end of 2019, which rewards those with fruitful innovative achievements through evaluation.

In light of the business features of the Group, the Group has adopted a series of measures to encourage technological innovation. For instance, we encourage staff to write, publish and gather articles, where 21 articles have been published in 2019, among which, several have won awards. We also organized team selection events for innovative R&D projects and rewarded, commended and promoted R&D teams across the whole Group who noticeably promoted business innovation of the Group.

While encouraging technological innovation, the Group attaches great importance to the transformation of scientific research achievements to realize the maximum value of technological innovation. In 2019, the Group and Tsinghua University Building Energy Conservation Research Center jointly completed the sub-project of "R&D of IO module for room type CPN of the Swarm Intelligent System (群智能系統房間型CPN的IO模塊研發)", a key research project of the National Science and Technology Support Program of the "13th Five-Year Plan (十三五)", where the R&D of the module hardware platform has been completed and the demonstration of engineering projects is now underway. The Group and the China Academy of Building Research cooperated in the "13th Five-Year Plan (十三五)" sub-project of the "Engineering Demonstration Research on Energy Efficiency Evaluation System of Building Operation based on Data Mining (基於數據挖掘的建築運行能效評價體系工程示範研究)", where the demonstration project design has been completed and site deployment and commissioning has commenced.

In the future, the Group take "AI + Industrial Intelligence" as the goal of innovative R&D, focusing on the general device for managing edge AI equipment, and applying intelligent platforms and service stack for big data in building, energy, environment and transportation.

In 2019, the Group has a total of 120 R&D personnel in all relevant R&D departments and invested an aggregate of RMB7.2294 million in R&D activities.

5.2 Protection of Intellectual Property

Protection of intellectual property is indispensable for innovative R&D and the management of intellectual property is beneficial to protecting technological innovative achievements and strengthening the competiveness of enterprises.

The Group fully respects the intellectual property of others, while firmly committed to protect our own intellectual property rights from being infringed. The Group complies with the *Patent Law of the People's Republic of China* (《中華人民共和國專利法》) and the *Trademark Law of the People's Republic of China* (《中華人民共和國商標法》). It formulated *Intellectual Property Management System* (《知識產權管理制度》), which clearly standardizes the working procedures of patent application, patent maintenance, patent protection, patent licensing and transfer. In 2019, the Group issued an intellectual property program which plans to organize intellectual property protection in the next three years, with each business unit proactively carrying out transformation of technological achievements. The Group has set up an intellectual property specialist position at the Technology Research Institute, and intellectual property applications of each business unit will all be handled by the Technology Institute.

In 2019, the Group obtained 7 patents during the year, totalling 35 patents, and obtained 22 software copyrights during the year, totalling 109 software copyrights.

5.3 Leading Industry Development

As an important promoter of domestic energy-saving service and a leading company in science and technology service industry, the Group actively cooperates with scientific research institutions and invests in the research and development of national scientific research projects to promote the development of the industry. The Group also participates in industrial communication and research established by various organizations to promote the construction of an industrial standard system, making a commitment to drive industry development and progress.

The Group cooperated with scientific research institutions and intensely participated in many national scientific research projects to jointly promote the development of energy-saving technology in the field of intelligent buildings and rail transit. In the key project, namely the "Research and Demonstration on Key Technologies in Building Energy Conservation (建築節能關鍵技術研究與示範)", under the national technology support program of the "11th Five-Year Plan (十一五)", the Group cooperated with the Chinese Academy of Engineering to conduct "China Smart City Construction and Promotion of Research on Strategy (中國智能城市建設與推進戰略研究)". In terms of research and development and application of group intelligence technology, the Group jointly established the Group Intelligence Energy-saving Building Professional Committee of China Energy Conservation Association with Tsinghua University Building Energy Conservation Research Center. Since 2016, it has participated in the "R&D of Intelligent Controllers for Building Space Units (建築空間單元智能控制器的研發)" in the national level key R&D support project research, namely Intelligent System Platform Technology for New Building (新型建築智能化系統平台技術), of the "13th Five-Year Plan (十三五)", and carried out demonstration projects. The Group intensively participated in the "Key Technologies and Demonstration on Energy-saving Building of Public Transportation Hubs (公共交通樞紐建築節能關鍵技術與示範)" project in the national key R&D program of the "13th Five-Year Plan (十三五)" as a backbone unit of the issue to preside over its sub-issue of "R&D of High-efficiency and Energy-saving Equipment for Subway Environmental Control System (地鐵環控系統高效節能設備研發)" efforts, and participated in the research on sub-issue of "Energy-saving Effect Evaluation and Technology Promotion and Application Strategy for Subway Station Building Demonstration Project (地鐵車站建築示範工程節能效果測評與技術推廣應用策略)".

While cooperating with scientific research institutions, the Group also cooperated with other institutions to conduct research on energy-saving. The Group shared the responsibility for the issue of "Urban Multi-building Energy-saving Operation Service Market Mechanism and Realization Path Research (城市級多建築節能運營服務市場機制及實現路徑研究)" with the Energy Foundation of the United States, conducting in-depth researches on urban energy management and building energy conservation transformation and promoting their industrial transformation.

In terms of formulating industry standards, the Group cooperated with Intelligent Building Branch of China Construction Industry Association to participate in the construction of the intelligent building industry standard system, including the establishment of more than 10 national standards and specifications in the field of intelligent buildings and electrical, heating and air conditioning and building energy conservation as well as urban fire-fighting monitoring. In 2019, the Group and China Academy of Building Research jointly prepared the Technical Standard for Buildings with Near Zero Energy Consumption (《近零能耗建築技術標準》), and the standard was implemented in September. The Group and the Institute of Building Environment and Energy participated in the group standard of China Association for Engineering Construction Standardization, namely the Technical standard for Buildings with Ultra-low Energy Consumption of Public Institutions (《公共機構超低能耗建築技術標準》), to jointly promote the development of the industry.

6 ENVIRONMENTAL PROTECTION

Environment protection and energy conservation serves as the foundation for enterprises to achieve green development and operation, and it is also an obligatory society responsibility. The Group's production and operation involves products related to smart sensor, rail platform screen doors and smart heating system. As an unconventional high energy consuming company, we are always strictly in compliance with relevant laws and regulations such as the *Environmental Protection Law of the People's Republic of China* (《中華人民共和國環境保護法》), the *Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste* (《中華人民共和國固體廢棄物污染環境防治法》) and the *Law of the People's Republic of China on Conserving Energy* (《中華人民共和國節約能源法》). During our production and operation process, we insist on focusing on energy conservation and emission reduction as well as environment protection to minimize our impact on environment.

In 2019, the Group continues to strengthen environmental management and control and continues to improve its environmental management system. In terms of production and operation, the Group formulated environmental management systems for processing and manufacturing business (such as PCB), which includes the *Rules Governing Identification of Environmental Factors and Determination of Important Factors* (《環境因素識別、重要因素確定管理制度》), the *Rules Governing Environmental Targets, Indicators and Programs* (《環境目標、指標和方案管理制度》), the *Rules Governing Environmental Monitoring and Conformance Evaluation* (《環境監測與合規性評價管理制度》), the *Rules Governing Noncompliance and Rectification Measures on Environment* (《環境不符合、糾正措施管理制度》), which enables the Group to dynamically assess our business impact on environment and resources. The Group has obtained the ISO 14001 Environmental Management System Certification and improved the environmental compliance risk management in its operation, as well as promoted innovating measures for environmentally-friendly and sustainable development.

In 2019, there were no breaches of relevant environmental laws and regulations that had a material impact on the Group.

6.1 Emission Management

The Group strictly monitors emissions in compliance with laws and regulations. The Group's emissions mainly consist of solid wastes as well as some exhaust gas and no waste liquid.

Exhaust gases emitted by the Group includes: greenhouse gas, sulphur dioxide, nitrogen oxides and particulate matter. Greenhouse gas emissions mainly come from direct emissions from gasoline consumed by our official vehicles and indirect emissions from production and power consumption in offices. Emissions of sulphur dioxide, nitrogen oxides and particulate matter mainly derive from the use of official vehicles. In 2019, The Group reduced direct greenhouse gas emissions through reducing the number of vehicles and frequency of use.

Types of exhaust gas	2019	2018
Sulphur dioxide (kg)	0.56	–
Nitrogen oxides (kg)	7.23	–
Particulate matter (kg)	0.53	–
Direct greenhouse gas (ton carbon dioxide equivalence)	84.74	97.37
Indirect greenhouse gas (ton carbon dioxide equivalence)	3,689.57	3,236.79
Total greenhouse gases[1] (ton carbon dioxide equivalence)	3,774.31	3,334.16
Greenhouse gas emission intensity (ton carbon dioxide equivalence/RMB10,000 revenue)	0.022	0.016

[1] The amount is calculated based on the "Baseline Emission Factors for Regional Power Grids in China" for the 2017 Emission Reduction Project released by the Department of Climate Change of the Ministry of Ecology and Environment.

The Group attaches particular importance to waste management. In the process of product development and production, we identify hazardous waste from the source, and endeavor to reduce the impact of wastes on the environment as much as possible. Hazardous wastes discharged by the Group include dross spot generated during production and operation, used toner cartridges and used ink cartridges generated from office operations. Non-hazardous wastes are mainly metal packages, wires and waste cardboard boxes generated during production as well as used papers generated from office operations. Hazardous wastes are disposed by qualified third party, while non-hazardous wastes are classified and collectively disposed by the environmental hygiene department so as to minimize the harm.

Types of waste[2]		2019	2018
Hazardous Waste	Dross spot (ton)	0.42	0.39
	Used toner cartridges (kg)	9.6	–
	Used ink cartridges (kg)	1.65	–
Total hazardous waste (kg)		431.25	390
Discharge density of hazardous waste (kg/RMB10,000 revenue)		0.002	–
Non-hazardous Waste	Metal packages (ton)	0.2	0.17
	Wires (ton)	0.13	0.1
	Cardboard boxes (ton)	0.7	0.66
	Papers (ton)	88.09	–
Total non-hazardous waste (kg)		89,123.84	930
Discharge density of non-hazardous waste (kg/RMB10,000 revenue)		0.508	–

[2] In 2019, the Group improved the statistics process of waste and disclosed the emissions of used toner cartridges, used ink cartridges and papers from the end of 2019.

6.2 Consumption of Resource

The main energy and resources consumed by the Group during its operation include: electric energy, gasoline, water resources and paper. Gasoline is mainly used for driving motor vehicles, and electric energy is mainly used for the Group's office and operating facilities. For production and manufacture and office operation, the Group's water resources all came from the municipal pipeline network, thus we did not need to worry about the water sourcing. In addition, office supplies such as paper are consumed during the Group's office operations.

Types of resources[3]		2019	2018
Power consumption (kWh)	Electricity consumption in production	5,100,418	4,209,514[4]
	Electricity consumption in office area	325,988	387,911[4]
Total power consumption (kWh)		5,426,406	4,597,425
Total gasoline consumption (l)		37,653	44,838
Comprehensive energy consumption (1000 kWh)		5,757.74	4,986.66
Comprehensive energy consumption intensity (1000 kWh/RMB10,000 revenue)		0.033	0.024[4]
Water consumption (m^3)	Water consumption in production	88,884	56,220
	Water consumption in office area	1,317	639
Total water consumption (m^3)		90,201	56,859
Water consumption intensity (m^3/RMB10,000 revenue)		0.515	0.28

[3] Due to the trial operation of the new plants and environmental protection equipment of subsidiaries, the electricity consumption and water consumption in production in 2019 increased significantly compared with 2018; in 2019, the Group further improved its data statistics system, hence the water consumption in office area in 2019 increased significantly compared with previous years.

[4] Data restatement

In 2019, the Group continued to promote green office by actively adopting online office system, promoting paperless office to reduce unnecessary printing. The Group advocated double-sided printing and use paper twice to save resources and also improve efficiency in the office. To address the issue of overtime work over the weekend in summer, the Group installed mobile air conditioners in some offices and meeting rooms to avoid turning on the air conditioning on the whole floor. This solved the air conditioning issue for overtime work and ad-hoc meetings over the weekend, and at the same time avoid energy consumption. The Group uses intelligent light control on certain floors of the office area. After work, lights in the office area and meeting rooms will automatically turn off. Meeting rooms use sensor lights and as such, lights will automatically turn off when there is no one in the meeting room, avoiding energy consumption. The Group posted water-saving signs in the office area and strengthened the inspection of water equipment in the office area.

The packaging materials of the Group's products mainly include cardboard boxes, plastics, fillers and so on. We strictly followed relevant national requirements and recycled certain packaging materials, so as to reduce the use of product packaging materials in the production process and reduce pollutant emissions. In 2019, the Group's use of plastics and fillers decreased compared to the previous year.

Types of packaging materials	2019	2018
Cardboard boxes (ton)	3.6	3.3
Plastics (ton)	0.01	0.022
Fillers (ton)	0.02	0.02
Consumption of recycled packaging materials (ton)	0.1	0.11
Consumption density of packaging materials (kg/RMB10,000 revenue)	0.021	0.016

7 CARING FOR EMPLOYEES

Employees are one of vital core competitiveness for enterprises and the people-oriented development and operation philosophy serves as the important premise of sustainable development for enterprises. Well-established employment system, harmonious staff relationship, excellent working environment, reasonable incentives as well as protection of employees' interest are all essential factors for enterprises to form strong cohesion.

7.1 Equal Employment

The Group strictly complies with laws and regulations such as the *Labor Law of the PRC* (《中華人民共和國勞動法》), the *Labor Contract Law of the PRC* (《中華人民共和國勞動合同法》) and the *Regulations on Prohibiting Use of Child Labor* (《禁止使用童工規定》). With reference to its own conditions, the Group formulates and improves systems and measures, including the *Management Measures for Staff Recruitment* (《招聘管理制度》), the *Welfare Management System* (《福利管理制度》), the *Enterprise Annuity Management System* (《企業年金管理制度》), the *Employee Complaint Management System* (《員工申訴管理制度》), *Employee Care and Subsidy Management* (《員工關懷與補助管理》) as well as the *Internship Student Management System* (《實習學生管理制度》) to accommodate the sustainable development demands of the enterprise, establish a sound inventive mechanism, devise a scientifically reasonable distribution system, protect legal rights of the staff, mobilize the enthusiasm and creativity of the staff, boost their efficiency and improve business benefits of the Group.

Upholding the principles of fairness, impartiality and openness, the Group recruits law-abiding talents who are suitable for the position by means of internal or society recruitment. The Group conducts exit interview with each staff before their resignation in order to ascertain the reasons for resignation and seeks advice for improvement. For employees in severe violations of labor discipline or the regulations of the Company, with gross negligence and malpractice, causing significant damages to the Company, or held criminally liable, the Group will take measures to dismiss them. There was no dismissal of employees by the Group for the above-mentioned behaviors in 2019.

The Group adheres to the principles of gender equality and equal pay for equal work, enters labor contract with all employees according to law, and strictly executes various labor protection policies. It treats all employees equally regardless of the differences in ethnicity, race, gender and religion. In 2019, the Group did not have any material non-compliance issues in respect of the laws and regulations on employment, recruitment and dismissal, promotion, equal opportunity and anti-discrimination.

During the reporting period, the Group has a total workforce of 905, among which 891 employees entered into labor contract and 14 employees signed labor agreements. The contracting rate for employees with labor contract and labor agreement was 100%. In 2019, resigned employee of the Group amounted to 78 and turnover for employees was 8.6%.

Set out below is the staff employment by type and their turnover:

Age	Number of employees	Proportion of total employees	Turnover rate
Under 30 years old (30 years old exclusive)	228	25.2%	14.0%
30-50 years old (50 years old exclusive)	604	66.7%	6.8%
50 years old and above	73	8.1%	6.8%

Gender	Number of employees	Proportion of total employees	Turnover rate
Male	605	66.9%	10.2%
Female	300	33.1%	5.3%

Region	Number of employees	Proportion of total employees	Turnover rate
China Mainland	895	98.9%	8.7%
Hong Kong, Macao and Taiwan	2	0.2%	0
Overseas	8	0.9%	0

Level	Number of employees	Proportion of total employees
Senior management[5]	23	2.5%
Middle-level management	93	10.3%
Basic-level management	789	87.2%

5 "Senior management" in the report refers to the Group's management and/or employees at general manager level.

The Group insists on the principles of making distribution according to performance, responsibility and contribution, and setting position-based remuneration that is subject to adjustment according to position change and the same standard for the same position. According to the regulations of the system of the Group, salaries of the employee expect growth annually. In 2019, the Group has not committed any irregularities in remuneration packages. The Group strictly implements the laws and regulations in relation to employees' working hours and leaves formulated by government at each level, reasonably arranges employees' work and rest time. Employees can enjoy paid annual leave, paternity leave, marriage leave and funeral leave according to laws, while female employees can also enjoy a half-day leave in the International Working Women's Day on 8 March, breastfeeding leave and maternity leave. In 2019, the Group has not committed any irregularities on working hours and leaves. The Group strictly complies with relevant laws and regulations of the PRC, and there was no child labor or forced labor nor any violence of relevant laws.

The Group complies with the requirements in national and local laws and regulations, and pays basic pension insurance, basic medical insurance, unemployment insurance, work-related injury insurance, maternity insurance and housing provident fund as well as additional medical insurance in full and on schedule each month for all employees. In 2019, the social insurance coverage rate of the Group's employees was 100%. While providing competitive compensations, the Group also offers subsidy for working meals and heating and employees who meet certain requirements can participate in the corporate annuity plan.

Upholding "people centrism", the Group cares for every staff member, providing institutional guarantee for the basic needs of employees who have difficulties in livelihood, or suffered from sickness. In addition to helping the staff to solve substantive issues, the Group also organized love and care activities to console employees in need. By establishing a corporate culture of mutual support and care, the Group boosts the corporate cohesion and enhances employees' sense of well-being.

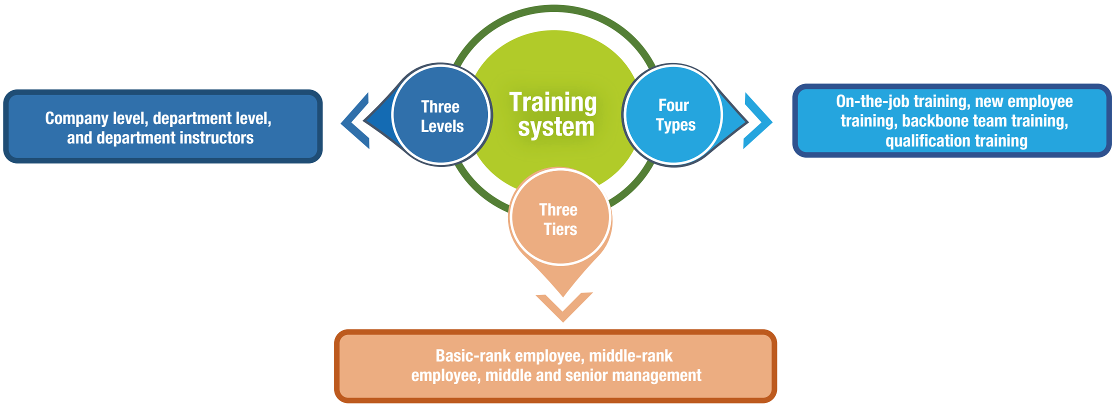
In the future, the Group will step up its efforts on selecting, nurturing, promoting and retaining its employees, strengthen the cultivation of talents and cadres at different tiers to reserve talents for future development.

7.2 STAFF DEVELOPMENT AND TRAINING

The talent is the core competitiveness for enterprises. Adhering to the principle of mutual development for the enterprise and employees, the Group made efforts to provide broad career platform and development space for its employees by training system for talent development and smoothing career path for employees' promotion.

The Group established the *Performance Appraisal Management System* (《績效考核管理制度》), which takes the business performance as the core, comprehensively considers employees' potential capability and developmental needs, and specifies the promotion process for employees to ensure that all employees enjoy a fair and smooth promotion opportunities. The Company classified the job positions into five categories, namely management, management services, technical, marketing and operation based on the requirements of business development, and determined their functional department and development system according to employees' work experience and knowledge.

The Group formulated and implemented the *Training Management System* (《培訓管理制度》) and developed a training system featuring "Three Levels", "Four Types" and "Three Tiers". Trainings purposely cover aspects of corporate management, leadership, qualification certification, skills training and corporate culture, so as to improve the knowledge and skill level of employees, highlight key talents cultivation and provide a sound basis for the improvement of the Company's operation. Furthermore, the *Training Management System* (《培訓管理制度》) also provides training mechanism and training information feedback in a bid to improve the training efficiency and refine employees' training work.



Training Management System of the Group

In accordance with the *Training Management System* (《培訓管理制度》), the Group takes the development goal and employees' actual needs as the starting point while the Human Resources Department designs targeted training development plan for different ranks and types of employees according to the annual strategy, operation plan and coordinated resources of the Group. It conducts a centralized induction training for new employees once a month, while instructors are appointed to offer one-to-one induction training for new employees. As to the whole staff, the "micro classroom" live broadcast in the "Ding Talk" office group is launched once a month in order to improve their professional quality. For senior leaders and key talents reserve, the Group cooperates with a number of external training institutions to provide employees with external training courses in accordance with their positions. For newly-promoted managers and key talent reserve, the Group carried out basic management training courses to support the talent echelon construction of the Group. In terms of the professional qualification and occupational title, the Group organizes and provides training to its employees on a regular basis to encourage them to participate in the qualification examination and obtain the qualification certificate. In 2019, employee training hours of the Group were 19,849 hours.

The percentage of the employees trained and training hours per capita by gender are as follows:

	Percentage of the employees trained	Training hours per capita (hour)
Male employee	96.9%	24.48
Female employee	94.5%	21.10

The percentage of the employees trained and training hours per capita by the class of employee are as follows:

	Percentage of the employees trained	Training hours per capita (hour)
Senior Management	65.2%	18.65
Middle-level management	88.9%	17.75
Basic level management	96.6%	21.44

7.3 Occupational Health and Safety

Safety production and employee's health are powerful guarantee for stable operation of enterprise. The Group pays high attention to employee's health, puts safety production and occupational disease prevention in a prominent position, and strives to provide a healthy and safe production environment and working space for employees. It strictly abides by the relevant laws and regulations, such as the *Safety Production Law of the People's Republic of China* (《中華人民共和國安全生產法》) and the *Occupational Disease Prevention Law of the People's Republic of China* (《中華人民共和國職業病防治法》), implements the safety management policy of safety-led, prevention-oriented and comprehensive management, and carries out the responsibility system for production safety. In the meantime, the Group has established the occupational health and safety management system which has passed the third party certification of OHSAS18001.

In respect of safety production of the Group, including the standardization of the safety production on operation by the employees and prevention on any safety production accident, the Group strictly implements internal policies such as the *Management System for Safe Use of Electricity* (《安全用電管理制度》), the *Protection Measures for Electricity Leakage of Equipment and Circuit* (《設備、電路中的漏電保護措施》), and *Special Equipment and Operator Management System* (《特種設備及操作人員管理制度》) and *Management System for Hazard Identification*, *Risk Assessment and Measure Implement* (《危險源辨識、風險評價、確定措施管理制度》). It conducted risk management and hazard investigation in an orderly manner, formed a target-monitoring-evaluation-improved occupational health management model and carried out detailed and process-based safety management for all aspects of production and operation. The Group also formulated and issued the *Provision and Management System for Labor Protection Articles* (《勞動防護用品配備和管理制度》) and *Administrative Measures for Industrial Accidents* (《工傷事故管理辦法》) to regulate the types and periods of labor protection equipment for all positions and specify the work-related accident response process and support arrangements. In addition, it incorporates safety production into the employee training system and boosts the safety awareness and safe operation skills of the staff through proper training. In 2019, the safety production training hours of the Group for the operation staff were 25 hours per person.

Safety prevention and emergency work are the fundamental guarantees for achieving safe production. The Group has formulated the *Fire Facilities Management System* (《消防設施管理制度》), which organizes employees to carry out fire emergency drills on a regular basis, and do a good job in daily production and operation safety supervision and major holiday fire inspections. For the emergency preparation, the Group formulated the *QES Emergency Preparedness and Corresponding System* (《QES應急準備和相應制度》), *Production Safety Accident Emergency Rescue Plan* (《生產安全事故應急救援預案》) and other methods to clarify emergency response measures, improve employees' emergency response and rescue capabilities, and ensure life safety and property safety.

In the aspect of the occupational hazards prevention and control, the Group formulated a series of systems, including the *Management System for Objectives and Solutions of Occupational Health and Safety* (《職業健康安全目標和方案管理制度》) and the *Management System for Occupational Health and Safety Performance Monitoring and Compliance Evaluation* (《職業健康安全績效監測與合規性評價管理制度》) in accordance with the requirements of the system. The Group clearly defines the responsibilities of safe production and occupational disease prevention and control of various departments and positions, strengthens occupational disease prevention and management, and creates a safety, healthy and pleasant working environment for employees. The occupational hazards faced by our staff are mainly dust, waste gas and steam in the production department. The Group regularly provides employees with gloves, masks and other protective equipment. In addition, the Group organizes physical examination for all employees every year and in 2019, it entered a strategic cooperation agreement with a health check institution, which has improved the location and process for health check.

In 2019, there was no instance of material non-compliance in providing safe working environment and protecting employees from occupational hazards. No fatal or serious production accident occurred and the hours of work injury loss was 0.

8 PRODUCT RESPONSIBILITY

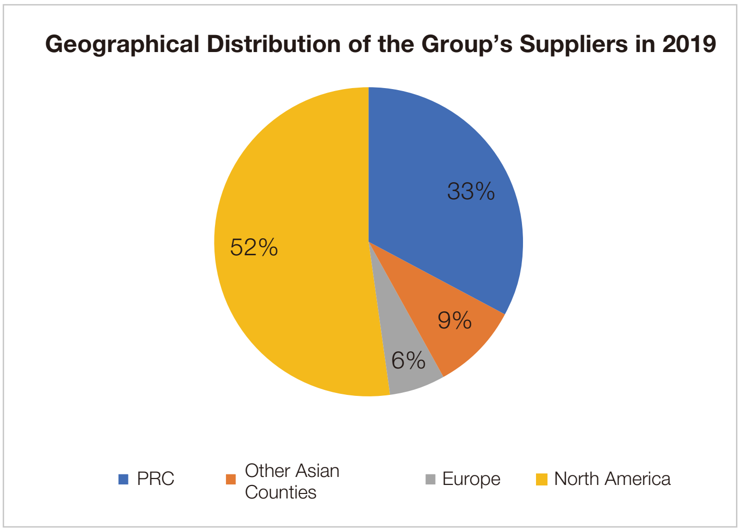
8.1 Supply Chain Management

The sincere cooperation of our suppliers has been an important guarantee for our on-going operation. The Group upholds an open, fair and impartial principal and attaches importance to the communication with our suppliers in a bid to establish a long-term, win-win relationship with them, jointly undertake product responsibility and strengthen quality assurance.

The Group has formulated the *Supplier Management and Control Procedure* (《供貨商管理控制程序》). It specifies the obligations of procurement related departments such as procurement department, quality management department, and provides the basic requirements and workflow for the selection, assessment and management of suppliers. The Group has also instituted the *Table of Data and Comments on Suppliers* (《供應商資料及評價表》). From the aspects of enterprise qualification, performance capability, product quality and after-sales service, we will carry out supplier evaluation. According to the evaluation results, supplier access and exit will be implemented according to the regulations so as to control the quality of the source. If necessary, site examination will be conducted on the manufacturers who are admitted to the suppliers list of the Group for the first time in order to exercise stringent risks control.

The Group has passed ISO14001:2004 environmental management system certification and strictly abides by QC080000 electronic and electrical originals and products hazardous substances process management system. The Group has formulated the *Procedures for Control on Product Procurement Process* (《產品採購過程控制程序》) in accordance with environmental protection, quality standards and requirements to standardize the procurement process, reduce operational risks, and achieve standardized management of global multi-channel supply in terms of procurement of raw materials, ancillary materials, suppliers, as well as logistics, trade and other service providers. For instance, the Group's products are exported to Europe and need to comply with RoHS standards and WEEE (Waste Electrical and Electronic Equipment) directives. Therefore, the Group strengthens the evaluation and management of RoHS raw materials and auxiliary materials suppliers, and the suppliers with good and high reputation, quality management and environmental management system certification will be given priority to reduce environmental and social risks in the supply chain and strengthen quality assurance. For finished product suppliers, the Group prioritizes suppliers that have passed the *Environmental Management System (ISO14001)* and *Occupational Health and Safety Management System (OHSAS18001)* certification.

During the current reporting period, the Group has 112 suppliers of which 3 suppliers being reviewed on site.



8.2 Product Quality

Product quality is a lifeline of an enterprise's development and thus, the Group promotes the idea of "Quality Comes First" in all workplaces. The Group strictly complies with the *Product Quality Law of the People's Republic of China* (《中華人民共和國產品質量法》). It established quality management system and electrical appliance harmful substances management system based on the Group's actual situations and in accordance with ISO 9001:2015 *Quality Management System Requirements* (《質量管理體系要求》), QC080000 (IECQ-HSPM) *Process Management System for Electronic* and *Electrical Originals and Products Hazardous Substances* (《電子與電器原件和產品有害物質過程管理體系》) *and* other requirements, and passed the third-party system certification. At the same time, the Group instituted an effective quality management structure according to the requirements of quality management system, set up relevant departments in the management and quality control position in projects implementation to fully implement product quality assurance work.

In order to avoid the delivery of unqualified products and services to customers, the Group strictly implements quality control measures, including formulating the *Management System for Consistency of Certified Products* (《認證產品一致性管理制度》), the *QES Rectification Measures Management System* (《QES糾正措施管理制度》), the *Management System for Unqualified Products Output* (《產品不合格輸出管理制度》) and *Management System for Unqualified Projects Output* (《工程不合格輸出管理制度》), so as to clarify product and engineering eligibility criteria in the aspects of design, purchasing, producing process and delivery, and standardize treatment of potentially unqualified products and unqualified projects. In terms of software research and development, the Group passed the CMMI International Certification and obtained the qualification certificate evaluated by the Carnegie Mellon Software Engineering Institute (SEI), which marks that the Group's software development, quality management and process improvement has been at the forefront of the world.

Benefited from the comprehensive product quality management process, no product was recalled by the Group by reasons of safety and health in 2019. No material non-compliance incidents occurred on health and safety matters relating to products and services provided. There was no violation of relevant laws and regulations relating to advertisements and trademarks that have material impact on the Group.

8.3 Customer Service

Customer are the foundation in the survival and development of companies. The customers of the Group are mainly enterprises. Therefore, the Group insists on customer-oriented, takes effective feedbacks of customers as driving force of its continual progress and development. The Group formulated *Customer Service Management System* (《客服管理制度》) and provided the product after-sales service hotline and mailbox to our customers. In integrated management department, customer service officer is in place to answer enquiries from customers. Upon receiving customers' complaint, the integrated management department will coordinate, liaise with the manufacturing department on a timely basis and follow up the handling progress. In order to make sure that every complaint will be handled properly, the customer needs to fill in the quality feedback form after the handling process is completed. In 2019, the Group has received 88 customer complaints in total, all of which have been resolved and we timely improved our working process according to customers' advice. Due to the nature of our business, the Group does not directly provide products and services to individual customers, so it does not involve customer personal data or privacy.

9 ANTI-CORRUPTION

An honest and upright working environment is an essential guarantee for an enterprise to achieve a long-term development. The Group is devoted to fighting against any kind of corruptions. It strictly abides by the relevant laws and regulations, including the *Supervision Law of the People's Republic of China* (《中華人民共和國監察法》), the *Rules on Supervision and Enforcement for Discipline Inspection Authority* (《紀律檢查機關監督執紀工作規則》) and the *Rules on Supervision and Enforcement for Regulation Authorities* (《監察機關監督執法工作規定》). In the Group's management system compilation and staff manual, we have clearly required all staff to be fair and integrity. The Group also signed an integrity agreement with each employee to further standardize their conduct.

In cooperation with our suppliers, the Group expressly prescribes the anti-corruption clauses through relevant contracts and annexes and provides our external reporting hotline to handle the relevant reports on a timely basis. The Group also set up internal reporting channels, including anonymous mailbox, telephone hotline and e-mail, all of which are supervised and managed by the internal control department of the Group. If there is case of improper act reported, we will carry out investigation stringently and thoroughly and at the same time, the case will be timely reported to the responsible person of the department or the management of the Group in accordance with the procedures. During the year, the Group did not receive any such report.

The Group concentrates on the integrity and anti-corruption exercises in the Party organization meetings, annual meetings and the Group's internal control management training and publicity column and requires the staff to be clean and uprightness. In 2019, our accumulated training time for anti-corruption was 718 hours with 359 employees participated. For anti-corruption, there were no cases of violation occurred that have material impact on the Company and no cases of anti-corruption or corruption litigation occurred.

10 COMMUNITY PARTICIPATION

As a responsible enterprise citizen, the Group actively responds to the call of the state to fulfill its social responsibilities and contributes a harmonious and win-win momentum to the society. On one hand, with our own technical advantage, we provide solutions for intelligent city. On the other hand, we care for the underprivileged groups and give support to the development of educational undertaking.

10.1 Solutions for Intelligent City

Recently, with the constant development of information technology, the advantages of intelligent city become increasingly prominent in cutting down resource consumption, reducing environmental impact, which is significant to the realization of urban sustainable development. The central heat supply networks are important infrastructures in cities in Northern China. With the expansion of the urban area and the need of energy conservation and emission reduction, the coverage of urban heating network is getting larger, the multi-heating source network, “one city one network” and so on are widely used, and the system is becoming more and more complicated. In 2019, the Group has developed the ezIHM3.0 “intelligent heat network software platform”, which is aiming for the urban heating network and thermal companies to achieve centralized control, data perspective, lean production and quantitative management, and to realize artificial intelligence diagnosis and inspection.

In 2019, the Group undertook the centralized heating system upgrading project in Shenmu city, which was listed as one of the Top 10 Livelihood Events in 2019. The project included the construction of one monitoring centre for heat supply deployment, the construction of “intelligent heat network software platform” and the operation and management of the overall heat supply network. Upon the completion of this project, Shenmu city will realize full coverage of central heating in thermal power plant, ultra-clean discharge of heat source, intelligent monitoring of the whole heat network and provide unmanned operation and smart control of the regional heating station.

10.2 Community Welfare

The Group continue to fulfill its social responsibility while focusing on its own development. In 2019, the Group donated a batch of water heaters to schools in Nanjian Yizu Autonomous County, Yunnan Province through organizing charity donation activities. The charity act has improved students’ living conditions and effectively promoted the development of local education.

Independent auditor's report
to the shareholders of Technovator International Limited
(Incorporated in Singapore with limited liability)

OPINION

We have audited the consolidated financial statements of Technovator International Limited ("the Company") and its subsidiaries ("the Group") set out on pages 75 to 156 which comprise the consolidated statement of financial position as at 31 December 2019, the consolidated income statement, the consolidated income statement and other comprehensive income, the consolidated statement of changes in equity and the consolidated cash flow statement for the year then ended and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2019 and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Hong Kong Financial Reporting Standards ("HKFRSs") issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA") and have been properly prepared in compliance with the disclosure requirements of the Hong Kong Companies Ordinance.

BASIS FOR OPINION

We conducted our audit in accordance with Hong Kong Standards on Auditing ("HKSAs") issued by the HKICPA. Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report. We are independent of the Group in accordance with the HKICPA's Code of Ethics for Professional Accountants ("the Code") together with any ethical requirements that are relevant to our audit of the consolidated financial statements in Singapore, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

KEY AUDIT MATTERS

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

KEY AUDIT MATTERS *(Continued)*

Accounting for construction projects

Refer to note 3 to the consolidated financial statements and the accounting policies on page 107.

The Key Audit Matter	How the matter was addressed in our audit
The Group's revenue for the year ended 31 December 2019 from construction projects totalled RMB1,354 million, which accounted for 77% of the total revenue for the year. The construction projects entered into by the Group are primarily energy saving projects relating to transportation, building and industrial businesses. Revenue from construction projects is recognised in proportion to the stage of completion of the project, measured by comparing the costs incurred up to the reporting date to the total forecast costs at completion of the project when the control of the goods is regarded as being transferred over time under HKFRS 15. Based on the nature of construction activities, revenue and profit or loss recognised on a project in progress at the reporting date is highly dependent on management's estimation of the total costs required to complete the project and the percentage of work completed at the reporting date.	Our audit procedures to assess accounting for construction projects included the following: • obtaining an understanding of and assessing the design, implementation and operating effectiveness of management's key internal controls in relation to accounting for construction projects; • reading contracts on a sample basis to obtain an understanding of the key terms and risks associated with individual projects and the accounting implications thereof; • recalculating management's calculations of the percentage of completion for each project at the reporting date by comparing the key inputs in the calculations, including total project revenue, costs incurred to date and amounts invoiced to date, with project terms, invoices issued and vendor invoices, on a sample basis; • examining written documentation from customers indicating their acceptance of the work performed to date on projects, with reference to related third party engineers' certification of work completed, if any, on a sample basis;

KEY AUDIT MATTERS *(Continued)*

Accounting for construction projects *(Continued)*
Refer to note 3 to the consolidated financial statements and the accounting policies on page 107.

The Key Audit Matter	How the matter was addressed in our audit
We identified accounting for construction projects as a key audit matter because a significant degree of management judgement is required to be exercised, based on the latest progress of each project, particularly in estimating the future costs to complete a project which could be subject to management bias.	• challenging management's estimations of the expected future costs required to complete individual projects by comparing costs to be incurred with signed subcontractor projects and by benchmarking with similar estimations for comparable projects, on a sample basis, and assessing if there was any indication of management bias in the estimations; • assessing the accuracy of management's historical forecasts by comparing the actual costs for projects completed during the current year to forecasts made at the prior year end and enquiring of management for reasons for any material differences between the estimations and the actual outcome; • identifying possible onerous projects by comparing the latest budgeted costs, taking into consideration the actual costs incurred up to 31 December 2019, with the project revenue for individual projects, on a sample basis, and assessing if any provision for foreseeable losses was required when the budgeted costs exceeded the project revenue; and • assessing the related disclosures in the consolidated financial statements with reference to the requirements of the prevailing accounting standards.

KEY AUDIT MATTERS *(Continued)*

Valuation of contract assets and trade receivables

Refer to notes 16 and 17 to the consolidated financial statements and the accounting policies on page 102.

The Key Audit Matter	How the matter was addressed in our audit
The Group's contract assets and trade receivables arise from the Group's construction projects. As at 31 December 2019, the aggregate amount of contract assets and trade receivables totalled RMB2,019 million. The Group measures loss allowances on contract assets and trade receivables at amounts equal to lifetime expected credit losses (the "ECL") using a provision matrix which involves significant management judgement in estimating loss rate and adjusting factors that are specific to the debtors and an assessment of both the current and forecast industries in which they operate at the reporting date. At 31 December 2019, the Group recognised loss allowances for contract assets and trade receivables of RMB109 million. We identified the valuation of contract assets and trade receivables as a key audit matter because of the significance of the contract assets and trade receivables balance and because the recognition of ECL is inherently subjective and involves a significant degree of management judgement.	Our audit procedures to assess the valuation of contract assets and trade receivables included the following: • obtaining an understanding of and assessing the design, implementation and operating effectiveness of management's key internal controls relating to credit control and the estimation of the ECL; • obtaining an understanding on the key data and assumptions of the ECL model adopted by management, including the basis of the historical loss rates, historical transition rates and recalculating the historical loss rates and historical transition rates in the ECL model; • assessing the classification of individual balances in the ageing report by comparing the details in the ageing report with relevant underlying documents, including goods delivery notes, completion reports for construction services and payment terms as set out in the contracts with customers, on a sample basis; and • assessing the related disclosures in the consolidated financial statements with reference to the requirements of the prevailing accounting standards.

KEY AUDIT MATTERS *(Continued)*

Assessment of the potential impairment of Property, Plant and Equipment and Intangible assets
Refer to notes 11 and 12 to the consolidated financial statements and the accounting policies on page 100.

The Key Audit Matter	How the matter was addressed in our audit
As at 31 December 2019, the carrying values of the Group's Property, Plant and Equipment ("PP&E") and intangible assets amounted to RMB257 million and RMB311 million, respectively. The Group's PP&E and intangible assets are allocated to relevant cash generating units ("CGUs") for the purpose of assessing if there is any impairment as at 31 December 2019. When it is determined that indicators of potential impairment of PP&E and intangible assets exist, management compares the carrying amount of the CGU with its recoverable amount, which is estimated by discounted cash flow forecast, to determine the amount of impairment, if any. The preparation of discounted cash flow forecasts involves the exercise of significant management judgement, particularly in estimating forecast revenue, forecast cost of sales, forecast expenses and the discount rates applied.	Our audit procedures to assess the potential impairment of PP&E and intangible assets included the following: • assessing management's identification of indicators of potential impairment of the PP&E and intangible assets; • assessing the methodology adopted by management in the preparation of the discounted cash flow forecasts, including the key estimates and assumptions adopted and management's identification of CGUs and the allocation of assets and liabilities to each CGU with reference to our understanding of the Group's business and the requirements of the prevailing accounting standards; • comparing key financial data, including revenue, cost of sales and expenses, in the discounted cash flow forecasts with the budgets approved by the board of directors; • challenging the key assumptions adopted in the discounted cash flow forecasts, including forecast revenue, forecast cost of sales, forecast expense by comparing these inputs with the historical results of each CGU and economic and industry forecasts;

KEY AUDIT MATTERS *(Continued)*

Assessment of the potential impairment of Property, Plant and Equipment and Intangible assets *(Continued)*
Refer to notes 11 and 12 to the consolidated financial statements and the accounting policies on page 100.

The Key Audit Matter	How the matter was addressed in our audit
We identified assessment of the potential impairment of PP&E and intangible assets as a key audit matter because of the impairment assessments involve the exercise of significant judgement in estimating the inputs in the impairment assessment model, which can be inherently uncertain and could be subject to management bias in their selection.	• involving our internal valuation specialists on a sample basis to assess whether the discount rates applied in the discounted cash flow forecast were within the range adopted by other companies in the same industry and/or comparable to external market data; • performing sensitivity analyses of the key assumptions adopted by management to assess what changes thereto, either individually or collectively, would result in a different conclusion being reached and assessing whether there were any indicators of management bias in the selection of key assumptions; and • assessing the disclosures in the consolidated financial statements in respect of the impairment assessment of PP&E and intangible assets with reference to the requirements of the prevailing accounting standards.

INFORMATION OTHER THAN THE CONSOLIDATED FINANCIAL STATEMENTS AND AUDITOR'S REPORT THEREON

The directors are responsible for the other information. The other information comprises all the information included in the annual report, other than the consolidated financial statements and our auditor's report thereon.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

RESPONSIBILITIES OF THE DIRECTORS FOR THE CONSOLIDATED FINANCIAL STATEMENTS

The directors are responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with HKFRSs issued by the HKICPA and the disclosure requirements of the Hong Kong Companies Ordinance and for such internal control as the directors determine is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

The directors are assisted by the Audit Committee in discharging their responsibilities for overseeing the Group's financial reporting process.

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. This report is made solely to you, as a body, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report.

Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with HKSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with HKSAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

– Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or the override of internal control.

– Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

– Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS *(Continued)*

– Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

– Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

– Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the Audit Committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Audit Committee with a statement that we have complied with relevant ethical requirements regarding independence and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence and, where applicable, related safeguards.

From the matters communicated with the Audit Committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is Ho Ying Man.

KPMG
Certified Public Accountants
8th Floor, Prince's Building
10 Chater Road
Central, Hong Kong

26 March 2020

CONSOLIDATED INCOME STATEMENT

For the year ended 31 December 2019
(Expressed in Renminbi ("RMB"))

	Note	2019 RMB'000	2018 (Note) RMB'000
Revenue	3,4	**1,752,778**	2,036,588
Cost of sales		**(1,401,723)**	(1,560,590)
Gross profit		**351,055**	475,998
Other revenue	5(a)	**56,521**	47,527
Other net loss	5(b)	**(10,403)**	(212)
Selling and distribution costs		**(94,374)**	(85,049)
Administrative and other operating expenses		**(163,446)**	(115,792)
Share of profits/(losses) of associates		**945**	(561)
Profit from operations		**140,298**	321,911
Finance costs	6(a)	**(11,819)**	(10,828)
Profit before taxation		**128,479**	311,083
Income tax	7(a)	**(15,062)**	(49,749)
Profit for the year		**113,417**	261,334
Profit attributable to:			
Equity shareholders of the Company		**112,866**	261,165
Non-controlling interests		**551**	169
Profit for the year		**113,417**	261,334
Earnings per share	10		
– Basic (RMB)		**0.1443**	0.3338
– Diluted (RMB)		**0.1443**	0.3338

Note: The Group has initially applied HKFRS 16 at 1 January 2019 using the modified retrospective approach. Under this approach, the comparative information is not restated. See note 2(c).

The accompanying notes form part of these financial statements.

CONSOLIDATED INCOME STATEMENT AND OTHER COMPREHENSIVE INCOME

For the year ended 31 December 2019
(Expressed in Renminbi ("RMB"))

	2019 RMB'000	2018 (Note) RMB'000
Profit for the year	**113,417**	261,334
Other comprehensive income for the year		
Item that may be reclassified subsequently to profit or loss:		
Exchange differences on translation of financial statements of overseas subsidiaries, net of nil tax	**1,629**	5,566
Total comprehensive income for the year	**115,046**	266,900
Attributable to:		
Equity shareholders of the Company	**114,464**	266,660
Non-controlling interests	**582**	240
Total comprehensive income for the year	**115,046**	266,900

Note: The Group has initially applied HKFRS 16 at 1 January 2019 using the modified retrospective approach. Under this approach, the comparative information is not restated. See note 2(c).

The accompanying notes form part of these financial statements.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

At 31 December 2019
(Expressed in Renminbi ("RMB"))

	Note	31 December 2019 RMB'000	31 December 2018 (Note) RMB'000
Non-current assets			
Property, plant and equipment	11	**256,954**	273,284
Interests in associates		**3,384**	7,939
Lease prepayment	2(c)	**–**	2,737
Intangible assets	12	**311,321**	290,639
Other financial assets	13	**524,146**	531,813
Deferred tax assets	23	**24,134**	18,505
		1,119,939	1,124,917
Current assets			
Inventories	15	**901,725**	792,027
Contract assets	16	**905,752**	795,672
Trade and other receivables	17	**1,342,333**	1,209,329
Cash and cash equivalents	18	**657,759**	689,018
		3,807,569	3,486,046
Current liabilities			
Trade and other payables	19	**1,723,068**	1,523,416
Contract liabilities	16	**88,905**	111,655
Loans and borrowings	20	**257,098**	239,820
Lease liabilities	21	**2,610**	–
Income tax payable		**44,831**	41,036
		2,116,512	1,915,927
Net current assets		**1,691,057**	1,570,119
Total assets less current liabilities		**2,810,996**	2,695,036

The accompanying notes form part of these financial statements.

	Note	31 December 2019 RMB'000	31 December 2018 (Note) RMB'000
Non-current liabilities			
Deferred tax liabilities	23	**28,474**	26,281
Deferred income	24	**10,003**	11,339
Other non-current liabilities		**57**	–
		38,534	37,620
NET ASSETS		**2,772,462**	2,657,416
CAPITAL AND RESERVES			
Share capital	25	**1,189,968**	1,189,968
Reserves		**1,562,548**	1,448,084
Total equity attributable to equity shareholders of the Company		**2,752,516**	2,638,052
Non-controlling interests		**19,946**	19,364
TOTAL EQUITY		**2,772,462**	2,657,416

Note: The Group has initially applied HKFRS 16 at 1 January 2019 using the modified retrospective approach. Under this approach, the comparative information is not restated. See note 2(c).

Approved and authorised for issue by the board of directors on 26 March 2020.

Zhao Xiaobo
Qin Xuzhong
) *Directors*

The accompanying notes form part of these financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 31 December 2019
(Expressed in Renminbi ("RMB"))

	Attributable to equity shareholders of the Company									
	Share capital RMB'000 Note 25 (c)	Treasury shares RMB'000 Note 25 (d)	Statutory reserves RMB'000 Note 25 (e)(i)	Translation reserve RMB'000 Note 25 (e)(ii)	Share-based compensation reserve RMB'000 Note 25 (e)(iii)	Other reserves RMB'000 Note 25 (e)(iv)	Retained profits (Note) RMB'000	Total RMB'000	Non-controlling interests RMB'000	Total equity RMB'000
Balance at 1 January 2018	1,191,209	(493)	120,665	40,283	21,068	(537,048)	1,536,456	2,372,140	18,124	2,390,264
Changes in equity for 2018:										
Profit for the year	–	–	–	–	–	–	261,165	261,165	169	261,334
Other comprehensive income	–	–	–	5,495	–	–	–	5,495	71	5,566
Total comprehensive income for the year	–	–	–	5,495	–	–	261,165	266,660	240	266,900
Purchase of own shares	–	(748)	–	–	–	–	–	(748)	–	(748)
Cancellation of treasury shares	(1,241)	1,241	–	–	–	–	–	–	–	–
Appropriation to reserves	–	–	25,632	–	–	–	(25,632)	–	–	–
Capital contribution from non-controlling shareholders	–	–	–	–	–	–	–	–	1,000	1,000
Forfeiture of share options	–	–	–	–	(11,989)	–	11,989	–	–	–
Balance at 31 December 2018 and 1 January 2019	1,189,968	–	146,297	45,778	9,079	(537,048)	1,783,978	2,638,052	19,364	2,657,416

	Attributable to equity shareholders of the Company									
	Share capital RMB'000 Note 25 (c)	**Treasury shares RMB'000 Note 25 (d)**	**Statutory reserves RMB'000 Note 25 (e)(i)**	**Translation reserve RMB'000 Note 25 (e)(ii)**	**Share-based compensation reserve RMB'000 Note 25 (e)(iii)**	**Other reserves RMB'000 Note 25 (e)(iv)**	**Retained profits (Note) RMB'000**	**Total RMB'000**	**Non-controlling interests RMB'000**	**Total equity RMB'000**
Balance at 1 January 2019	**1,189,968**	**-**	**146,297**	**45,778**	**9,079**	**(537,048)**	**1,783,978**	**2,638,052**	**19,364**	**2,657,416**
Changes in equity for 2019:										
Profit for the year	**-**	**-**	**-**	**-**	**-**	**-**	**112,866**	**112,866**	**551**	**113,417**
Other comprehensive income	**-**	**-**	**-**	**1,598**	**-**	**-**	**-**	**1,598**	**31**	**1,629**
Total comprehensive income for the year	**-**	**-**	**-**	**1,598**	**-**	**-**	**112,866**	**114,464**	**582**	**115,046**
Appropriation to reserves	**-**	**-**	**12,592**	**-**	**-**	**-**	**(12,592)**	**-**	**-**	**-**
Forfeiture of share options	**-**	**-**	**-**	**-**	**(9,079)**	**-**	**9,079**	**-**	**-**	**-**
Balance at 31 December 2019	**1,189,968**	**-**	**158,889**	**47,376**	**-**	**(537,048)**	**1,893,331**	**2,752,516**	**19,946**	**2,772,462**

Note: The Group has initially applied HKFRS 16 at 1 January 2019 using the modified retrospective approach. Under this approach, the comparative information is not restated. See note 2(c).

The accompanying notes form part of these financial statements.

CONSOLIDATED CASH FLOW STATEMENT

For the year ended 31 December 2019
(Expressed in Renminbi ("RMB"))

	Note	2019 RMB'000	2018 (Note) RMB'000
Operating activities			
Profit for the year		**113,417**	261,334
Adjustments for:			
Income tax		**15,062**	49,749
Depreciation	6(c)	**41,933**	46,586
Amortisation of intangible assets and lease prepayment	6(c)	**61,683**	65,602
Impairment losses on trade and other receivables and contract assets	6(c)	**38,014**	2,840
Finance costs	6(a)	**11,819**	10,828
Interest income	5(a)	**(41,247)**	(35,198)
Share of (profits)/losses of associates		**(945)**	561
Net loss/(gain) on disposal of property, plant and equipment		**6,500**	(692)
Foreign exchange (gain)/loss, net		**(797)**	2,458
		245,439	404,068
(Increase)/Decrease in inventories		**(108,621)**	55,307
(Increase)/Decrease in trade and other receivables		**(157,010)**	58,625
Increase in contract assets		**(110,634)**	(368,157)
Increase in trade and other payables		**213,152**	65,844
(Decrease)/Increase in contract liabilities		**(22,750)**	12,293
Decrease in deferred income		**(1,336)**	–
Cash generated from operations		**58,240**	227,980
Income tax paid		**(14,477)**	(36,088)
Net cash generated from operating activities		**43,763**	191,892

The accompanying notes form part of these financial statements.

	Note	2019 RMB'000	2018 (Note) RMB'000
Investing activities			
Payments for the purchase of property, plant and equipment		**(28,868)**	(27,084)
Expenditure on purchase of intangible assets		**(84,265)**	(62,784)
Interest received		**36,736**	30,687
Proceeds from disposal of investing on associates		**1,000**	–
Proceeds from disposal of subsidiary		**–**	53,790
Payment for investing on associates		**–**	(8,500)
Proceeds from disposal of property, plant and equipment		**22**	–
Net cash used in investing activities		**(75,375)**	(13,891)
Financing activities			
Capital element of lease rentals paid	18(b)	**(6,662)**	–
Interest element of lease rentals paid	18(b)	**(331)**	–
Purchase of own shares		**–**	(748)
Proceeds from loans and borrowings	18(b)	**278,081**	190,397
Repayment of loans and borrowings	18(b)	**(260,803)**	(195,826)
Other borrowing costs paid	18(b)	**(11,236)**	(8,054)
Increase in restricted deposit		**(30,003)**	(17,205)
Contribution from non-controlling shareholders		**–**	1,000
Net cash used in financing activities		**(30,954)**	(30,436)
Net (decrease)/increase in cash and cash equivalents		**(62,566)**	147,565
Cash and cash equivalents at the beginning of the year		**671,405**	520,854
Effect of foreign exchange rate changes		**1,304**	2,986
Cash and cash equivalents at the end of the year	18	**610,143**	671,405

Note: The Group has initially applied HKFRS 16 at 1 January 2019 using the modified retrospective approach. Under this approach, the comparative information is not restated. See note 2(c).

The accompanying notes form part of these financial statements.

1 GENERAL INFORMATION

Technovator International Limited (the "Company") was incorporated in Singapore on 25 May 2005 under the name of "Technovator Int Private Ltd." as an exempted company with limited liability under the Singapore Companies Act (Chapter 50). The name of the Company was changed to Technovator International Limited on 8 September 2011. The Company and its subsidiaries hereinafter are collectively referred to as the "Group". Technovator is principally engaged in integrated and comprehensive urban smart energy saving services. Its business covers three major segments including smart transportation, smart buildings and complex and smart energy, providing the customers with smart energy management products, solutions and integrated services throughout their full life cycles. The details of the subsidiaries directly or indirectly owned by the Company are set out in note 14.

The controlling shareholder of the Company is Tsinghua Tongfang Co., Ltd ("THTF"). On 30 December 2019, upon the approval from State-owned Assets Supervision and Administration Commission of the State Council ("SASAC"), Tsinghua Holding Co., Ltd ("Tsinghua Holding"), the single largest shareholder of THTF, transferred its directing holding shares of THTF to China Nuclear Engineering Capital Holdings Limited ("CNEC"). After the transfer, the controller of THTF has changed from the Ministry of Education of the PRC to SASAC.

2 SIGNIFICANT ACCOUNTING POLICIES

(a) Statement of compliance

These financial statements have been prepared in accordance with all applicable Hong Kong Financial Reporting Standards (HKFRSs), which collective term includes all applicable individual Hong Kong Financial Reporting Standards, Hong Kong Accounting Standards (HKASs) and Interpretations issued by the Hong Kong Institute of Certified Public Accountants (HKICPA), accounting principles generally accepted in Hong Kong and the disclosure requirements of the Hong Kong Companies Ordinance. These financial statements also comply with the applicable disclosure provisions of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited. Significant accounting policies adopted by the Group are disclosed below.

The HKICPA has issued certain new and revised HKFRSs that are first effective or available for early adoption for the current accounting period of the Group and the Company. Note 2(c) provides information on any changes in accounting policies resulting from initial application of these developments to the extent that they are relevant to the Group for the current and prior accounting periods reflected in these financial statements.

(b) Basis of preparation of the financial statements

The consolidated financial statements for the year ended 31 December 2019 comprise the Group and the Group's interests in associates.

The measurement basis used in the preparation of the financial statements is the historical cost basis.

The preparation of financial statements in conformity with HKFRSs requires management to make judgements, estimates and assumptions that affect the application of policies and reported amounts of assets, liabilities, income and expenses. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis of making the judgements about carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

Judgements made by management in the application of HKFRSs that have significant effect on the financial statements and major sources of estimation uncertainty are discussed in note 30.

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(c) Changes in accounting policies

The HKICPA has issued a new HKFRS, HKFRS 16, *Leases*, and a number of amendments to HKFRSs that are first effective for the current accounting period of the Group.

Except for HKFRS 16, *Leases*, none of the developments have had a material effect on how the Group's results and financial position for the current or prior periods have been prepared or presented. The Group has not applied any new standard or interpretation that is not yet effective for the current accounting period.

HKFRS 16, Leases

HKFRS 16 replaces HKAS 17, *Leases*, and the related interpretations, HK(IFRIC) 4, Determining whether an arrangement contains a lease, HK(SIC) 15, *Operating leases – incentives*, and HK(SIC) 27, *Evaluating the substance of transactions involving the legal form of a lease*. It introduces a single accounting model for lessees, which requires a lessee to recognise a right-of-use asset and a lease liability for all leases, except for leases that have a lease term of 12 months or less ("short-term leases") and leases of low-value assets. The lessor accounting requirements are brought forward from HKAS 17 substantially unchanged.

HKFRS 16 also introduces additional qualitative and quantitative disclosure requirements which aim to enable users of the financial statements to assess the effect that leases have on the financial position, financial performance and cash flows of an entity.

The Group has initially applied HKFRS 16 as from 1 January 2019. The Group has elected to use the modified retrospective approach and has therefore recognised the cumulative effect of initial application as an adjustment to the opening balance of equity at 1 January 2019. Comparative information has not been restated and continues to be reported under HKAS 17.

Further details of the nature and effect of the changes to previous accounting policies and the transition options applied are set out below:

a. New definition of a lease

The change in the definition of a lease mainly relates to the concept of control. HKFRS 16 defines a lease on the basis of whether a customer controls the use of an identified asset for a period of time, which may be determined by a defined amount of use. Control is conveyed where the customer has both the right to direct the use of the identified asset and to obtain substantially all of the economic benefits from that use.

The Group applies the new definition of a lease in HKFRS 16 only to contracts that were entered into or changed on or after 1 January 2019. For contracts entered into before 1 January 2019, the Group has used the transitional practical expedient to grandfather the previous assessment of which existing arrangements are or contain leases. Accordingly, contracts that were previously assessed as leases under HKAS 17 continue to be accounted for as leases under HKFRS 16 and contracts previously assessed as non-lease service arrangements continue to be accounted for as executory contracts.

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(c) Changes in accounting policies *(Continued)*

HKFRS 16, Leases *(Continued)*

b. Lessee accounting and transitional impact

HKFRS 16 eliminates the requirement for a lessee to classify leases as either operating leases or finance leases, as was previously required by HKAS 17. Instead, the Group is required to capitalise all leases when it is the lessee, including leases previously classified as operating leases under HKAS 17, other than those short-term leases and leases of low-value assets which are exempt. As far as the Group is concerned, these newly capitalised leases are primarily in relation to property, plant and equipment as disclosed in note 27(b). For an explanation of how the Group applies lessee accounting, see note 2(i)(i).

At the date of transition to HKFRS 16 (i.e. 1 January 2019), the Group determined the length of the remaining lease terms and measured the lease liabilities for the leases previously classified as operating leases at the present value of the remaining lease payments, discounted using the relevant incremental borrowing rates at 1 January 2019. The weighted average of the incremental borrowing rates used for determination of the present value of the remaining lease payments was 5.00%.

To ease the transition to HKFRS 16, the Group applied the following recognition exemption and practical expedients at the date of initial application of HKFRS 16:

(i) the Group elected not to apply the requirements of HKFRS 16 in respect of the recognition of lease liabilities and right-of-use assets to leases for which the remaining lease term ends within 12 months from the date of initial application of HKFRS 16, i.e. where the lease term ends on or before 31 December 2019;

(ii) when measuring the lease liabilities at the date of initial application of HKFRS 16, the Group applied a single discount rate to a portfolio of leases with reasonably similar characteristics (such as leases with a similar remaining lease term for a similar class of underlying asset in a similar economic environment); and

(iii) when measuring the right-of-use assets at the date of initial application of HKFRS 16, the Group relied on the previous assessment for onerous contract provisions as at 31 December 2018 as an alternative to performing an impairment review.

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(c) Changes in accounting policies *(Continued)*

HKFRS 16, Leases *(Continued)*

b. Lessee accounting and transitional impact *(Continued)*

The following table reconciles the operating lease commitments as disclosed in note 27(b) as at 31 December 2018 to the opening balance for lease liabilities recognised as at 1 January 2019:

	1 January 2019 RMB'000
Operating lease commitments at 31 December 2018	19,084
Less: commitments relating to leases exempt from capitalisation:	
– short-term leases and other leases with remaining lease term ending on or before 31 December 2019	(11,753)
	7,331
Less: total future interest expenses	(268)
Present value of remaining lease payments, discounted using the incremental borrowing rate at 1 January 2019	7,063
Add: finance lease liabilities recognised as at 31 December 2018	–
Total lease liabilities recognised at 1 January 2019	7,063

The right-of-use assets in relation to leases previously classified as operating leases have been recognised at an amount equal to the amount recognised for the remaining lease liabilities, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognised in the statement of financial position at 31 December 2018.

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(c) Changes in accounting policies *(Continued)*

HKFRS 16, Leases *(Continued)*

b. Lessee accounting and transitional impact *(Continued)*

The following table summarises the impacts of the adoption of HKFRS 16 on the Group's consolidated statement of financial position:

	Carrying amount at 31 December 2018 RMB'000	Capitalisation of operating lease contracts RMB'000	Re-classification of lease prepayment RMB'000	**Carrying amount at 1 January 2019 RMB'000**
Line items in the consolidated statement of financial position impacted by the adoption of HKFRS 16:				
Property, plant and equipment	273,284	7,063	2,737	**283,084**
Lease prepayment	2,737	–	(2,737)	**–**
Total non-current assets	1,124,917	7,063	–	**1,131,980**
Lease liabilities (current)	–	5,415	–	**5,415**
Current liabilities	1,915,927	5,415	–	**1,921,342**
Net current assets	1,570,119	(5,415)	–	**1,564,704**
Total assets less current liabilities	2,695,036	1,648	–	**2,696,684**
Lease liabilities (non-current)	–	1,648	–	**1,648**
Total non-current liabilities	37,620	1,648	–	**39,268**
Net assets	2,657,416	–	–	**2,657,416**

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(c) Changes in accounting policies *(Continued)*

HKFRS 16, Leases *(Continued)*

c. Impact on the financial result, segment results and cash flows of the Group

After the initial recognition of right-of-use assets and lease liabilities as at 1 January 2019, the Group as a lessee is required to recognise interest expense accrued on the outstanding balance of the lease liability, and the depreciation of the right-of-use asset, instead of the previous policy of recognising rental expenses incurred under operating leases on a straight-line basis over the lease term. This results in a negative impact on the reported profit from operations in the Group's consolidated income statement, as compared to the results if HKAS 17 had been applied during the year.

In the cash flow statement, the Group as a lessee is required to split rentals paid under capitalised leases into their capital element and interest element (see note 18(b)). These elements are classified as financing cash outflows, similar to how leases previously classified as finance leases under HKAS 17 were treated, rather than as operating cash outflows, as was the case for operating leases under HKAS 17. Although total cash flows are unaffected, the adoption of HKFRS 16 therefore results in a significant change in presentation of cash flows within the cash flow statement (see note 18(c)).

The following tables give an indication of the estimated impact of the adoption of HKFRS 16 on the Group's financial result, segment results and cash flows for the year ended 31 December 2019, by adjusting the amounts reported under HKFRS 16 in these consolidated financial statements to compute estimates of the hypothetical amounts that would have been recognised under HKAS 17 if this superseded standard had continued to apply in 2019 instead of HKFRS 16, and by comparing these hypothetical amounts for 2019 with the actual 2018 corresponding amounts which were prepared under HKAS 17.

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(c) Changes in accounting policies *(Continued)*

HKFRS 16, Leases *(Continued)*

c. Impact on the financial result, segment results and cash flows of the Group *(Continued)*

	2019				2018
	Amounts reported under HKFRS 16 (A) RMB'000	Add back: HKFRS 16 depreciation and interest expense (B) RMB'000	Deduct: Estimated amounts related to operating leases as if under HKAS 17 (Note 2) (C) RMB'000	Hypothetical amounts for 2019 as if under HKAS 17 (D=A+B+C) RMB'000	Compared to amounts reported for 2018 under HKAS 17 RMB'000
Financial result for year ended 31 December 2019 impacted by the adoption of HKFRS 16:					
Profit from operations	140,298	5,344	(5,575)	140,067	321,911
Finance costs	(11,819)	331	–	(11,488)	(10,828)
Profit before taxation	128,479	5,675	(5,575)	128,579	311,083
Profit for the year	113,417	5,675	(5,575)	113,517	261,334
Reportable segment profit for year ended 31 December 2019 (Note 4(a)) impacted by the adoption of HKFRS 16:					
– Smart transportation business	79,460	930	(877)	79,513	170,864
– Smart building and complex business	43,749	4,709	(4,664)	43,794	97,486
– Smart energy business	126,446	36	(34)	126,448	174,914
– Total	249,655	5,675	(5,575)	249,755	443,264

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(c) Changes in accounting policies *(Continued)*

***HKFRS 16, Leases** (Continued)*

c. Impact on the financial result, segment results and cash flows of the Group *(Continued)*

	2019			2018
	Amounts reported under HKFRS 16 (A) RMB'000	Estimated amounts related to operating leases as if under HKAS 17 (Notes 1 & 2) (B) RMB'000	Hypothetical amounts for 2019 as if under HKAS 17 (C=A+B) RMB'000	Compared to amounts reported for 2018 under HKAS 17 RMB'000
Line items in the consolidated cash flow statement for year ended 31 December 2019 impacted by the adoption of HKFRS 16:				
Cash generated from operations	58,240	(6,993)	51,247	227,980
Net cash generated from operating activities	43,763	(6,993)	36,770	191,892
Capital element of lease rentals paid	(6,662)	6,662	–	–
Interest element of lease rentals paid	(331)	331	–	–
Net cash used in financing activities	(30,954)	6,993	(23,961)	(30,436)

Note 1: The "estimated amounts related to operating leases" is an estimate of the amounts of the cash flows in 2019 that relate to leases which would have been classified as operating leases, if HKAS 17 had still applied in 2019. This estimate assumes that there were no differences between rentals and cash flows and that all of the new leases entered into in 2019 would have been classified as operating leases under HKAS 17, if HKAS 17 had still applied in 2019. Any potential net tax effect is ignored.

Note 2: In this impact table these cash outflows are reclassified from financing to operating in order to compute hypothetical amounts of net cash generated from operating activities and net cash used in financing activities as if HKAS 17 still applied.

d. Lessor accounting

The Group leases out a building as the lessor of an operating lease. The accounting policies applicable to the Group as a lessor remain substantially unchanged from those under HKAS 17.

Under HKFRS 16, when the Group acts as an intermediate lessor in a sublease arrangement, the Group is required to classify the sublease as a finance lease or an operating lease by reference to the right-of-use asset arising from the head lease, instead of by reference to the underlying asset. The adoption of HKFRS 16 does not have a significant impact on the Group's financial statements in this regard.

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(d) Subsidiaries and non-controlling interests

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. When assessing whether the Group has power, only substantive rights (held by the Group and other parties) are considered.

An investment in a subsidiary is consolidated into the consolidated financial statements from the date that control commences until the date that control ceases. Intra-group balances and transactions and cash flows and any unrealised profits arising from intra-group transactions are eliminated in full in preparing the consolidated financial statements. Unrealised losses resulting from intra-group transactions are eliminated in the same way as unrealised gains but only to the extent that there is no evidence of impairment.

Non-controlling interests represent the equity in a subsidiary not attributable directly or indirectly to the Company, and in respect of which the Group has not agreed any additional terms with the holders of those interests which would result in the Group as a whole having a contractual obligation in respect of those interests that meets the definition of a financial liability. For each business combination, the Group can elect to measure any non-controlling interests either at fair value or at the non-controlling interests' proportionate share of the subsidiary's net identifiable assets.

Non-controlling interests are presented in the consolidated statement of financial position within equity, separately from equity attributable to the equity shareholders of the Company. Non-controlling interests in the results of the Group are presented on the face of the consolidated income statement and the consolidated income statement and other comprehensive income as an allocation of the total profit or loss and total comprehensive income for the year between non-controlling interests and the equity shareholders of the Company. Loans from holders of non-controlling interests and other contractual obligations towards these holders are presented as financial liabilities in the consolidated statement of financial position in accordance with notes 2(n) and 2(o), depending on the nature of liability.

Changes in the Group's interests in a subsidiary that do not result in a loss of control are accounted for as equity transactions, whereby adjustments are made to the amounts of controlling and non-controlling interests within consolidated equity to reflect the change in relative interests, but no adjustments are made to goodwill and no gain or loss is recognised.

When the Group loses control of a subsidiary, it is accounted for as a disposal of the entire interest in that subsidiary, with a resulting gain or loss being recognised in the income statement. Any interest retained in that former subsidiary at the date when control is lost is recognised at fair value and this amount is regarded as the fair value on initial recognition of a financial asset (see note 2(f)) or, when appropriate, the cost on initial recognition of an investment in an associate or joint venture (see note 2(e)).

In the Company's statement of financial position, an investment in a subsidiary is stated at cost less impairment losses (see note 2(j)(ii)).

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(e) Associates

An associate is an entity in which the Group or Company has significant influence, but not control or joint control, over its management, including participation in the financial and operating policy decisions.

An investment in an associate is accounted for in the consolidated financial statements under the equity method. Under the equity method, the investment is initially recorded at cost, adjusted for any excess of the Group's share of the acquisition-date fair values of the investee's identifiable net assets over the cost of the investment (if any). The cost of the investment includes purchase price, other costs directly attributable to the acquisition of the investment, and any direct investment into the associate that forms part of the Group's equity investment. Thereafter, the investment is adjusted for the post acquisition change in the Group's share of the investee's net assets and any impairment loss relating to the investment (see note 2(j)(ii)). Any acquisition-date excess over cost, the Group's share of the post-acquisition, post-tax results of the investees and any impairment losses for the year are recognised in the consolidated income statement, whereas the Group's share of the post-acquisition post-tax items of the investees' other comprehensive income is recognised in the consolidated income statement and other comprehensive income.

When the Group's share of losses exceeds its interest in the associate, the Group's interest is reduced to nil and recognition of further losses is discontinued except to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the investee. For this purpose, the Group's interest is the carrying amount of the investment under the equity method together with any other long-term interests that in substance form part of the Group's net investment in the associate (after applying the ECL model to such other long-term interests where applicable).

Unrealised profits and losses resulting from transactions between the Group and its associates are eliminated to the extent of the Group's interest in the investee, except where unrealised losses provide evidence of an impairment of the asset transferred, in which case they are recognised immediately in the consolidated income statement.

In the Company's statement of financial position, investment in associates is stated at cost less impairment losses (see note 2(j)(ii)).

(f) Other investments in debt and equity securities

The Group's and the Company's policies for investments in debt and equity securities, other than investments in subsidiaries, associates and joint ventures, are set out below:

Investments in debt and equity securities are recognised/derecognised on the date the Group commits to purchase/sell the investment. The investments are initially stated at fair value plus directly attributable transaction costs, except for those investments measured at fair value through profit or loss (FVPL) for which transaction costs are recognised directly in the income statement. These investments are subsequently accounted for as follows, depending on their classification. Currently, the Group does not have financial assets classified as FVPL or financial assets measured at fair value through other comprehensive income (FVOCI).

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(f) Other investments in debt and equity securities *(Continued)*

(i) Investments other than equity investments

Non-equity investments held by the Group are classified into one of the following measurement categories:

– amortised cost, if the investment is held for the collection of contractual cash flows which represent solely payments of principal and interest. Interest income from the investment is calculated using the effective interest method (see note 2(t)(vi)).

– FVOCI – recycling, if the contractual cash flows of the investment comprise solely payments of principal and interest and the investment is held within a business model whose objective is achieved by both the collection of contractual cash flows and sale. Changes in fair value are recognised in other comprehensive income, except for the recognition in the income statement of expected credit losses, interest income (calculated using the effective interest method) and foreign exchange gains and losses. When the investment is derecognised, the amount accumulated in other comprehensive income is recycled from equity to profit or loss.

– FVPL if the investment does not meet the criteria for being measured at amortised cost or FVOCI (recycling). Changes in the fair value of the investment (including interest) are recognised in the income statement.

(ii) Equity investments

An investment in equity securities is classified as FVPL unless the equity investment is not held for trading purposes and on initial recognition of the investment the Group makes an election to designate the investment at FVOCI (non-recycling) such that subsequent changes in fair value are recognised in other comprehensive income. Such elections are made on an instrument-by-instrument basis, but may only be made if the investment meets the definition of equity from the issuer's perspective. Where such an election is made, the amount accumulated in other comprehensive income remains in the fair value reserve (non-recycling) until the investment is disposed of. At the time of disposal, the amount accumulated in the fair value reserve (non-recycling) is transferred to retained earnings. It is not recycled through the income statement. Dividends from an investment in equity securities, irrespective of whether classified as at FVPL or FVOCI, are recognised in the income statement as other income in accordance with the policy set out in note 2(t)(v).

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(g) Property, plant and equipment

Items of property, plant and equipment are stated at cost less accumulated depreciation and impairment losses (see note 2(j)).

The cost of self-constructed items of property, plant and equipment includes the cost of materials, direct labour, the initial estimate, where relevant, of the costs of dismantling and removing the items and restoring the site on which they are located, and an appropriate proportion of production overheads and borrowing costs (see note 2(v)).

Gains or losses arising from the retirement or disposal of an item of property, plant and equipment are determined as the difference between the net disposal proceeds and the carrying amount of the item and are recognised in the income statement on the date of retirement or disposal.

Depreciation is calculated to write off the cost or valuation of items of property, plant and equipment, less their estimated residual value, if any, using the straight line method over their estimated useful lives as follows:

– Leasehold improvements	The shorter of the remaining term of the lease or 5 years
– Furniture and fittings	5 to 10 years
– Computers and office equipment	3 to 10 years
– Plant and machinery	5 to 12 years
– Motor vehicles	5 to 10 years
– Leasehold land and buildings	Remaining lease term

When parts of an item of property, plant and equipment have different useful lives, the cost of the item is allocated on a reasonable basis between the parts and each part is depreciated separately. Both the useful life of an asset and its residual value, if any, are reviewed annually.

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(h) Intangible assets (other than goodwill)

Expenditure on an internal research and development projects is distinguished between the expenditures during the research phase and expenditures during the development phase. Research activities involve original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding. Development activities involve a plan or design for the production of new or substantially improved materials, devices, products or processes before the start of commercial production or use.

Expenditure on research activities is recognised as an expense in the period in which it is incurred. Expenditure on development activities is capitalised if the product or process is technically and commercially feasible and the Group has sufficient resources and the intention to complete development. The expenditure capitalised includes the costs of materials, direct labour, and an appropriate proportion of overheads and borrowing costs, where applicable (see note 2(v)). Capitalised development costs are stated at cost less accumulated amortisation and impairment losses (see note 2(j)). Other development expenditure is recognised as an expense in the period in which it is incurred.

Other intangible assets that are acquired by the Group are stated at cost less accumulated amortisation (where the estimated useful life is finite) and impairment losses (see note 2(j)). Expenditure on internally generated goodwill and brands is recognised as an expense in the period in which it is incurred.

Amortisation of intangible assets with finite useful lives is charged to the income statement on a straight-line basis over the assets' estimated useful lives. Other than certain trade name which has indefinite useful life, the following intangible assets with finite useful lives are amortised from the date they are available for use and their estimated useful lives are as follows:

– Patents and technology know-how	5 years

Both the period and method of amortisation are reviewed annually.

Intangible assets are not amortised while their useful lives are assessed to be indefinite. Any conclusion that the useful life of an intangible asset is indefinite is reviewed annually to determine whether events and circumstances continue to support the indefinite useful life assessment for that asset. If they do not, the change in the useful life assessment from indefinite to finite is accounted for prospectively from the date of change and in accordance with the policy for amortisation of intangible assets with finite lives as set out above.

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(i) Leased assets

At inception of a contract, the Group assesses whether the contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. Control is conveyed where the customer has both the right to direct the use of the identified asset and to obtain substantially all of the economic benefits from that use.

(i) As a lessee

(A) Policy applicable from 1 January 2019

Where the contract contains lease component(s) and non-lease component(s), the Group has elected not to separate non-lease components and accounts for each lease component and any associated non-lease components as a single lease component for all leases.

At the lease commencement date, the Group recognises a right-of-use asset and a lease liability, except for short-term leases that have a lease term of 12 months or less and leases of low-value assets which, for the Group are primarily laptops and office furniture. When the Group enters into a lease in respect of a low-value asset, the Group decides whether to capitalise the lease on a lease-by-lease basis. The lease payments associated with those leases which are not capitalised are recognised as an expense on a systematic basis over the lease term.

Where the lease is capitalised, the lease liability is initially recognised at the present value of the lease payments payable over the lease term, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, using a relevant incremental borrowing rate. After initial recognition, the lease liability is measured at amortised cost and interest expense is calculated using the effective interest method. Variable lease payments that do not depend on an index or rate are not included in the measurement of the lease liability and hence are charged to the income statement in the accounting period in which they are incurred.

The right-of-use asset recognised when a lease is capitalised is initially measured at cost, which comprises the initial amount of the lease liability plus any lease payments made at or before the commencement date, and any initial direct costs incurred. Where applicable, the cost of the right-of-use assets also includes an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, discounted to their present value, less any lease incentives received. The right-of-use asset is subsequently stated at cost less accumulated depreciation and impairment losses (see notes 2(g) and 2(j)(ii)).

The lease liability is remeasured when there is a change in future lease payments arising from a change in an index or rate, or there is a change in the Group's estimate of the amount expected to be payable under a residual value guarantee, or there is a change arising from the reassessment of whether the Group will be reasonably certain to exercise a purchase, extension or termination option. When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in the income statement if the carrying amount of the right-of-use asset has been reduced to zero.

The Group presents right-of-use assets that do not meet the definition of investment property in 'Property, plant and equipment' and presents lease liabilities separately in the statement of financial position.

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(i) Leased assets *(Continued)*

(i) As a lessee (Continued)

(B) Policy applicable prior to 1 January 2019

In the comparative period, as a lessee the Group classified leases as finance leases if the leases transferred substantially all the risks and rewards of ownership to the Group. Leases which did not transfer substantially all the risks and rewards of ownership to the Group were classified as operating leases.

Where the Group acquired the use of assets under finance leases, the amounts representing the fair value of the leased asset, or, if lower, the present value of the minimum lease payments, of such assets were recognised as property, plant and equipment and the corresponding liabilities, net of finance charges, were recorded as obligations under finance leases. Depreciation was provided at rates which wrote off the cost or valuation of the assets over the term of the relevant lease or, where it was likely the Group would obtain ownership of the asset, the life of the asset, as set out in note 2(g). Impairment losses were accounted for in accordance with the accounting policy as set out in note 2(j). Finance charges implicit in the lease payments were charged to the income statement over the period of the leases so as to produce an approximately constant periodic rate of charge on the remaining balance of the obligations for each accounting period. Contingent rentals were charged to the income statement in the accounting period in which they were incurred.

Where the Group had the use of assets held under operating leases, payments made under the leases were charged to the income statement in equal instalments over the accounting periods covered by the lease term, except where an alternative basis was more representative of the pattern of benefits to be derived from the leased asset. Lease incentives received were recognised in the income statement as an integral part of the aggregate net lease payments made. Contingent rentals were charged to the income statement in the accounting period in which they were incurred.

(ii) As a lessor

When the Group acts as a lessor, it determines at lease inception whether each lease is a finance lease or an operating lease. A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to the ownership of an underlying assets to the lessee. If this is not the case, the lease is classified as an operating lease.

When a contract contains lease and non-lease components, the Group allocates the consideration in the contract to each component on a relative stand-alone selling price basis. The rental income from operating leases is recognised in accordance with note 2(t)(iv).

When the Group is an intermediate lessor, the sub-leases are classified as a finance lease or as an operating lease with reference to the right-of-use asset arising from the head lease. If the head lease is a short-term lease to which the Group applies the exemption described in note 2(i)(i), then the Group classifies the sub-lease as an operating lease.

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(j) Credit losses and impairment of assets

(i) Credit losses from financial instruments and contract assets

The Group recognises a loss allowance for expected credit losses (ECLs) on the following items:

– financial assets measured at amortised cost (including cash and cash equivalents, trade and other receivables, and long-term receivables); and

– contract assets as defined in HKFRS 15 (see note 2(l));

Measurement of ECLs

ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all expected cash shortfalls (i.e. the difference between the cash flows due to the Group in accordance with the contract and the cash flows that the Group expects to receive).

The expected cash shortfalls are discounted using the following discount rates where the effect of discounting is material:

– fixed-rate financial assets, trade and other receivables, contract assets and long-term receivables: effective interest rate determined at initial recognition or an approximation thereof; and

– variable-rate financial assets: current effective interest rate.

The maximum period considered when estimating ECLs is the maximum contractual period over which the Group is exposed to credit risk.

In measuring ECLs, the Group takes into account reasonable and supportable information that is available without undue cost or effort. This includes information about past events, current conditions and forecasts of future economic conditions.

ECLs are measured on either of the following bases:

– 12-month ECLs: these are losses that are expected to result from possible default events within the 12 months after the reporting date; and

– lifetime ECLs: these are losses that are expected to result from all possible default events over the expected lives of the items to which the ECL model applies.

Loss allowances for trade receivables, lease receivables and contract assets are always measured at an amount equal to lifetime ECLs. ECLs on these financial assets are estimated using a provision matrix based on the Group's historical credit loss experience, adjusted for factors that are specific to the debtors and an assessment of both the current and forecast general economic conditions at the reporting date.

For all other financial instruments (including loan commitments issued), the Group recognises a loss allowance equal to 12-month ECLs unless there has been a significant increase in credit risk of the financial instrument since initial recognition, in which case the loss allowance is measured at an amount equal to lifetime ECLs.

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(j) Credit losses and impairment of assets *(Continued)*

(i) Credit losses from financial instruments and contract assets *(Continued)*

Significant increases in credit risk

In assessing whether the credit risk of a financial instrument has increased significantly since initial recognition, the Group compares the risk of default occurring on the financial instrument assessed at the reporting date with that assessed at the date of initial recognition. The Group considers both quantitative and qualitative information that is reasonable and supportable, including historical experience and forward-looking information that is available without undue cost or effort.

In particular, the following information is taken into account when assessing whether credit risk has increased significantly since initial recognition:

– failure to make payments of principal or interest on their contractually due dates;

– an actual or expected significant deterioration in a financial instrument's external or internal credit rating (if available);

– an actual or expected significant deterioration in the operating results of the debtor; and

– existing or forecast changes in the technological, market, economic or legal environment that have a significant adverse effect on the debtor's ability to meet its obligation to the Group.

Depending on the nature of the financial instruments, the assessment of a significant increase in credit risk is performed on either an individual basis or a collective basis. When the assessment is performed on a collective basis, the financial instruments are grouped based on shared credit risk characteristics, such as past due status and credit risk ratings.

ECLs are remeasured at each reporting date to reflect changes in the financial instrument's credit risk since initial recognition. Any change in the ECL amount is recognised as an impairment gain or loss in the income statement. The Group recognises an impairment gain or loss for all financial instruments with a corresponding adjustment to their carrying amount through a loss allowance account, except for investments in debt securities that are measured at FVOCI (recycling), for which the loss allowance is recognised in other comprehensive income and accumulated in the fair value reserve (recycling).

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(j) Credit losses and impairment of assets *(Continued)*

(i) Credit losses from financial instruments and contract assets *(Continued)*

Basis of calculation of interest income

Interest income recognised in accordance with note 2(t)(vi) is calculated based on the gross carrying amount of the financial asset unless the financial asset is credit-impaired, in which case interest income is calculated based on the amortised cost (i.e. the gross carrying amount less loss allowance) of the financial asset.

At each reporting date, the Group assesses whether a financial asset is credit-impaired. A financial asset is credit-impaired when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

Evidence that a financial asset is credit-impaired includes the following observable events:

– significant financial difficulties of the debtor;

– a breach of contract, such as a default or past due event;

– it becoming probable that the borrower will enter into bankruptcy or other financial reorganisation;

– significant changes in the technological, market, economic or legal environment that have an adverse effect on the debtor; or

– the disappearance of an active market for a security because of financial difficulties of the issuer.

Write-off policy

The gross carrying amount of a financial asset or contract asset is written off (either partially or in full) to the extent that there is no realistic prospect of recovery. This is generally the case when the Group determines that the debtor does not have assets or sources of income that could generate sufficient cash flows to repay the amounts subject to the write-off.

Subsequent recoveries of an asset that was previously written off are recognised as a reversal of impairment in the income statement in the period in which the recovery occurs.

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(j) Credit losses and impairment of assets *(Continued)*

(ii) Impairment of other non-current assets

Internal and external sources of information are reviewed at the end of each reporting period to identify indications that the following assets may be impaired or, except in the case of goodwill, an impairment loss previously recognised no longer exists or may have decreased:

– property, plant and equipment, including right-of-use assets;

– intangible assets; and

– investments in subsidiaries and associates in the Company's statement of financial position.

If any such indication exists, the asset's recoverable amount is estimated. In addition, for goodwill, intangible assets that are not yet available for use and intangible assets that have indefinite useful lives, the recoverable amount is estimated annually whether or not there is any indication of impairment.

– Calculation of recoverable amount
The recoverable amount of an asset is the greater of its fair value less costs of disposal and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. Where an asset does not generate cash inflows largely independent of those from other assets, the recoverable amount is determined for the smallest group of assets that generates cash inflows independently (i.e. a cash-generating unit).

– Recognition of impairment losses
An impairment loss is recognised in the income statement if the carrying amount of an asset, or the cash-generating unit to which it belongs, exceeds its recoverable amount. Impairment losses recognised in respect of cash-generating units are allocated, to reduce the carrying amount of the other assets in the unit (or group of units) on a pro rata basis, except that the carrying value of an asset will not be reduced below its individual fair value less costs of disposal (if measurable) or value in use (if determinable).

– Reversals of impairment losses
An impairment loss is reversed if there has been a favourable change in the estimates used to determine the recoverable amount.

A reversal of an impairment loss is limited to the asset's carrying amount that would have been determined had no impairment loss been recognised in prior years. Reversals of impairment losses are credited to the income statement in the year in which the reversals are recognised.

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(k) Inventories and other contract costs

(i) Inventories

Inventories are carried at the lower of cost and net realisable value.

Cost is calculated using the weighted average cost formula and comprises all cost of purchase and other costs incurred in bringing the inventories to their present location and condition.

Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

When inventories are sold, the carrying amount of those inventories is recognised as an expense in the period in which the related revenue is recognised.

The amount of any write-down of inventories to net realisable value and all losses of inventories are recognised as an expense in the period the write-down or loss occurs. The amount of any reversal of any write-down of inventories is recognised as a reduction in the amount of inventories recognised as an expense in the period in which the reversal occurs.

(ii) Other contract costs

Other contract costs are either the incremental costs of obtaining a contract with a customer or the costs to fulfil a contract with a customer which are not capitalised as inventory (see note 2(k)(i)), property, plant and equipment (see note 2(g)) or intangible assets (see note 2(h)).

Incremental costs of obtaining a contract are those costs that the Group incurs to obtain a contract with a customer that it would not have incurred if the contract had not been obtained e.g. an incremental sales commission. Incremental costs of obtaining a contract are capitalised when incurred if the costs relate to revenue which will be recognised in a future reporting period and the costs are expected to be recovered. Other costs of obtaining a contract are expensed when incurred.

Costs to fulfil a contract are capitalised if the costs relate directly to an existing contract or to a specifically identifiable anticipated contract; generate or enhance resources that will be used to provide goods or services in the future; and are expected to be recovered. Costs that relate directly to an existing contract or to a specifically identifiable anticipated contract may include direct labour, direct materials, allocations of costs, costs that are explicitly chargeable to the customer and other costs that are incurred only because the Group entered into the contract (for example, payments to sub-contractors). Other costs of fulfilling a contract, which are not capitalised as inventory, property, plant and equipment or intangible assets, are expensed as incurred.

Capitalised contract costs are stated at cost less accumulated amortisation and impairment losses. Impairment losses are recognised to the extent that the carrying amount of the contract cost asset exceeds the net of (i) remaining amount of consideration that the Group expects to receive in exchange for the goods or services to which the asset relates, less (ii) any costs that relate directly to providing those goods or services that have not yet been recognised as expenses.

Amortisation of capitalised contract costs is charged to the income statement when the revenue to which the asset relates is recognised. The accounting policy for revenue recognition is set out in note 2(t).

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(l) Contract assets and contract liabilities

A contract asset is recognised when the Group recognises revenue (see note 2(t)) before being unconditionally entitled to the consideration under the payment terms set out in the contract. Contract assets are assessed for expected credit losses (ECL) in accordance with the policy set out in note 2(j)(i) and are reclassified to receivables when the right to the consideration has become unconditional (see note 2(m)).

A contract liability is recognised when the customer pays consideration before the Group recognises the related revenue (see note 2(t)). A contract liability would also be recognised if the Group has an unconditional right to receive consideration before the Group recognises the related revenue. In such cases, a corresponding receivable would also be recognised (see note 2(m)).

For a single contract with the customer, either a net contract asset or a net contract liability is presented. For multiple contracts, contract assets and contract liabilities of unrelated contracts are not presented on a net basis.

When the contract includes a significant financing component, the contract balance includes interest accrued under the effective interest method (see note 2(t)).

(m) Trade and other receivables

A receivable is recognised when the Group has an unconditional right to receive consideration. A right to receive consideration is unconditional if only the passage of time is required before payment of that consideration is due. If revenue has been recognised before the Group has an unconditional right to receive consideration, the amount is presented as a contract asset (see note 2(l)).

Receivables are stated at amortised cost using the effective interest method less allowance for credit losses (see note 2(j)(i)).

(n) Interest-bearing borrowings

Interest-bearing borrowings are recognised initially at fair value less transaction costs. Subsequent to initial recognition, interest-bearing borrowings are stated at amortised cost using the effective interest method. Interest expense is recognised in accordance with the Group's accounting policy for borrowing costs (see note 2(v)).

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(o) Trade and other payables

Trade and other payables are initially recognised at fair value. Trade and other payables are subsequently stated at amortised costs unless the effect of discounting would be immaterial, in which case they are stated at cost.

(p) Cash and cash equivalents

Cash and cash equivalents comprise cash at bank and on hand, demand deposits with banks and other financial institutions, and short-term, highly liquid investments that are readily convertible into known amounts of cash and which are subject to an insignificant risk of changes in value, having been within three months of maturity at acquisition. Bank overdrafts that are repayable on demand and form an integral part of the Group's cash management are also included as a component of cash and cash equivalents for the purpose of the consolidated cash flow statement. Cash and cash equivalents are assessed for expected credit losses (ECL) in accordance with the policy set out in note 2(j)(i).

(q) Employee benefits

(i) Short-term employee benefits and contributions to defined contribution retirement plans

Salaries, annual bonuses, paid annual leave, contributions to defined contribution retirement plans and the cost of non-monetary benefits are accrued in the year in which the associated services are rendered by employees. Where payment or settlement is deferred and the effect would be material, these amounts are stated at their present values.

(ii) Share-based payments

The fair value of share options granted to employees is recognised as an employee cost with a corresponding increase in the share-based compensation reserve within equity. The fair value is measured at grant date using the binomial option pricing model and/or Black-Scholes option pricing model, taking into account the terms and conditions upon which the options were granted. Where the employees have to meet vesting conditions before becoming unconditionally entitled to the options, the total estimated fair value of the options is spread over the vesting period, taking into account the probability that the options will vest.

During the vesting period, the number of share options that is expected to vest is reviewed. Any resulting adjustment to the cumulative fair value recognised in prior years is charged/credited to the income statement for the year of the review, unless the original employee expenses qualify for recognition as an asset, with a corresponding adjustment to the share-based compensation reserve. On vesting date, the amount recognised as an expense is adjusted to reflect the actual number of options that vest (with a corresponding adjustment to the share-based compensation reserve) except where forfeiture is only due to not achieving vesting conditions that relate to the market price of the Company's shares. The equity amount is recognised in the share-based compensation reserve until either the option is exercised (when it is transferred to the share capital) or the option expires (when it is released directly to retained profits).

(iii) Termination benefits

Termination benefits are recognised at the earlier of when the Group can no longer withdraw the offer of those benefits and when it recognises restructuring costs involving the payment of termination benefits.

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(r) Income tax

Income tax for the year comprises current tax and movements in deferred tax assets and liabilities. Current tax and movements in deferred tax assets and liabilities are recognised in the income statement except to the extent that they relate to a business combination or items recognised in other comprehensive income or directly in equity, in which case the relevant amounts of tax are recognised in other comprehensive income or directly in equity, respectively.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantially enacted at the end of the reporting period, and any adjustment to tax payable in respect of previous years.

Deferred tax assets and liabilities arise from deductible and taxable temporary differences respectively, being the differences between the carrying amounts of assets and liabilities for financial reporting purposes and their tax bases. Deferred tax assets also arise from unused tax losses and unused tax credits.

Apart from certain limited exceptions, all deferred tax liabilities, and all deferred tax assets to the extent that it is probable that future taxable profits will be available against which the asset can be utilised, are recognised. Future taxable profits that may support the recognition of deferred tax assets arising from deductible temporary differences include those that will arise from the reversal of existing taxable temporary differences, provided those differences relate to the same taxation authority and the same taxable entity, and are expected to reverse either in the same period as the expected reversal of the deductible temporary difference or in periods into which a tax loss arising from the deferred tax asset can be carried back or forward. The same criteria are adopted when determining whether existing taxable temporary differences support the recognition of deferred tax assets arising from unused tax losses and credits, that is, those differences are taken into account if they relate to the same taxation authority and the same taxable entity, and are expected to reverse in a period, or periods, in which the tax loss or credit can be utilised.

The limited exceptions to recognition of deferred tax assets and liabilities are those temporary differences arising from goodwill not deductible for tax purposes, the initial recognition of assets or liabilities that affect neither accounting nor taxable profit (provided that they are not part of a business combination), and temporary differences relating to investments in subsidiaries to the extent that, in the case of taxable differences, the Group controls the timing of reversal and it is probable that the differences will not reverse in the foreseeable future, or in the case of deductible differences, unless it is probable that they will reverse in the future.

The amount of deferred tax recognised is measured based on the expected manner of realisation or settlement of the carrying amount of the assets and liabilities, using tax rates enacted or substantively enacted at the end of the reporting period. Deferred tax assets and liabilities are not discounted.

The carrying amount of a deferred tax asset is reviewed at the end of each reporting period and is reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow the related tax benefit to be utilised. Any such reduction is reversed to the extent that it becomes probable that sufficient taxable profits will be available.

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(r) Income tax *(Continued)*

Current tax balances and deferred tax balances, and movements therein, are presented separately from each other and are not offset. Current tax assets are offset against current tax liabilities, and deferred tax assets against deferred tax liabilities, if the Company or the Group has the legally enforceable right to set off current tax assets against current tax liabilities and the following additional conditions are met:

- in the case of current tax assets and liabilities, the Company or the Group intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously; or
- in the case of deferred tax assets and liabilities, if they relate to income taxes levied by the same taxation authority on either:
  - the same taxable entity; or
  - different taxable entities, which, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered, intend to realise the current tax assets and settle the current tax liabilities on a net basis or realise and settle simultaneously.

(s) Provisions, contingent liabilities and onerous contracts

(i) Provisions and contingent liabilities

Provisions are recognised when the Group has a legal or constructive obligation arising as a result of a past event, it is probable that an outflow of economic benefits will be required to settle the obligation and a reliable estimate can be made. Where the time value of money is material, provisions are stated at the present value of the expenditure expected to settle the obligation.

Where it is not probable that an outflow of economic benefits will be required, or the amount cannot be estimated reliably, the obligation is disclosed as a contingent liability, unless the probability of outflow of economic benefits is remote. Possible obligations, whose existence will only be confirmed by the occurrence or non-occurrence of one or more future events are also disclosed as contingent liabilities unless the probability of outflow of economic benefits is remote.

(ii) Onerous contracts

An onerous contract exists when the Group has a contract under which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received from the contract. Provisions for onerous contracts are measured at the present value of the lower of the expected cost of terminating the contract and the net cost of continuing with the contract.

(iii) Contingent liabilities assumed in business combinations

Contingent liabilities assumed in a business combination which are present obligations at the date of acquisition are initially recognised at fair value, provided the fair value can be reliably measured. After their initial recognition at fair value, such contingent liabilities are recognised at the higher of the amount initially recognised, less accumulated amortisation where appropriate, and the amount that would be determined in accordance with note 2(s)(i). Contingent liabilities assumed in a business combination that cannot be reliably fair valued or were not present obligations at the date of acquisition are disclosed in accordance with note 2(s)(i).

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(t) Revenue and other income

Income is classified by the Group as revenue when it arises from the sale of goods or the provision of services.

Revenue is recognised when control over a product or service is transferred to the customer, at the amount of promised consideration to which the Group is expected to be entitled, excluding those amounts collected on behalf of third parties. Revenue excludes value added tax or other sales taxes and is after deduction of any trade discounts.

Where the contract contains a financing component which provides a significant financing benefit to the customer for more than 12 months, revenue is measured at the present value of the amount receivable, discounted using the discount rate that would be reflected in a separate financing transaction with the customer, and interest income is accrued separately under the effective interest method. Where the contract contains a financing component which provides a significant financing benefit to the Group, revenue recognised under that contract includes the interest expense accreted on the contract liability under the effective interest method. The Group takes advantage of the practical expedient in paragraph 63 of HKFRS 15 and does not adjust the consideration for any effects of a significant financing component if the period of financing is 12 months or less.

Further details of the Group's revenue and other income recognition policies are as follows:

(i) Sale of goods

Revenue from the sale of goods is measured at the fair value of the consideration received or receivable, net of returns and allowances, trade discounts and volume rebates and excluding value added tax or other sales taxes. Revenue is recognised when the customer takes possession of and accepts the products which is taken to be the point in time when the final testing of goods is completed at the customers' premises and there is no continuing management involvement with the goods.

(ii) Service fee income

Service fee income is recognised when services are rendered to customers. For consulting service, the service fee income is recognised on a straight-line basis over the service period. For after-sales services, service fee income is deferred over the warranty period or when services are rendered to customers if the after-sales services are not covered by the warranty period.

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(t) Revenue and other income *(Continued)*

(iii) Construction projects

A contract with a customer is classified by the Group as a construction project when the contract relates to work on assets under the control of the customer and therefore the Group's construction activities create or enhance an asset under the customer's control.

When the outcome of a construction project can be reasonably measured, revenue from the contract is recognised progressively over time using the cost-to-cost method, i.e. based on the proportion of the actual costs incurred relative to the estimated total costs.

The likelihood of the Group earning contractual bonuses for early completion or suffering contractual penalties for late completion are taken into account in making these estimates, such that revenue is only recognised to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur.

When the outcome of the project cannot be reasonably measured, revenue is recognised only to the extent of contract costs incurred that are expected to be recovered.

If at any time the costs to complete the project are estimated to exceed the remaining amount of the consideration under the project, then a provision is recognised in accordance with the policy set out in note 2(s)(ii).

(iv) Rental income from operating leases

Rental income receivable under operating leases is recognised in the income statement in equal instalments over the periods covered by the lease term.

(v) Dividends

Dividend income from unlisted investments is recognised when the shareholder's right to receive payment is established.

(vi) Interest income

Interest income from bank deposits is recognised as it accrues using the effective interest method. For financial assets measured at amortised cost or FVOCI (recycling) that are not credit-impaired, the effective interest rate is applied to the gross carrying amount of the asset. For credit-impaired financial assets, the effective interest rate is applied to the amortised cost (i.e. gross carrying amount net of loss allowance) of the asset (see note 2(j)(i)).

(vii) Government grants

Government grants are recognised in the statement of financial position initially when there is reasonable assurance that they will be received and that the Group will comply with the conditions attaching to them. Grants that compensate the Group for expenses incurred are recognised as income in the income statement on a systematic basis in the same periods in which the expenses are incurred. Grants that compensate the Group for the cost of an asset are deducted from the carrying amount of the asset and consequently are effectively recognised in the income statement over the useful life of the asset by way of reduced depreciation expense.

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(u) Translation of foreign currency transactions

Foreign currency transactions during the year are translated at the foreign exchange rates ruling at the transaction dates. Monetary assets and liabilities denominated in foreign currencies are translated at the foreign exchange rates ruling at the end of the reporting period. Exchange gains and losses are recognised in the income statement.

Non-monetary assets and liabilities that are measured in terms of historical cost in a foreign currency are translated using the foreign exchange rates ruling at the transaction dates. The transaction date is the date on which the Company initially recognises such non-monetary assets and liabilities. Non-monetary assets and liabilities denominated in foreign currencies that are stated at fair value are translated using the foreign exchange rates ruling at the dates the fair value was measured.

The results of foreign operations are translated into RMB at the exchange rates approximating the foreign exchange rates ruling at the dates of transactions. Statement of financial position items are translated into RMB at the closing foreign exchange rates at the end of the reporting period. The resulting exchange differences are recognised in other comprehensive income and presented separately in equity in the exchange reserves.

On disposal of a foreign operation, the cumulative amount of the exchange differences relating to that foreign operation is reclassified from equity to the income statement when the profit or loss on disposal is recognised.

(v) Borrowing costs

Borrowing costs that are directly attributable to the acquisition, construction or production of an asset which necessarily takes a substantial period of time to get ready for its intended use or sale are capitalised as part of the cost of that asset. Other borrowing costs are expensed in the period in which they are incurred.

The capitalisation of borrowing costs as part of the cost of a qualifying asset commences when expenditure for the asset is being incurred, borrowing costs are being incurred and activities that are necessary to prepare the asset for its intended use or sale are in progress. Capitalisation of borrowing costs is suspended or ceases when substantially all the activities necessary to prepare the qualifying asset for its intended use or sale are interrupted or complete.

(w) Related parties

(i) A person, or a close member of that person's family, is related to the Group if that person:

(a) has control or joint control over the Group;

(b) has significant influence over the Group; or

(c) is a member of the key management personnel of the Group or of a parent of the Group.

2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

(w) Related parties *(Continued)*

(ii) An entity is related to the Group if any of the following conditions applies:

(a) the entity and the Group are members of the same group (which means that each parent, subsidiary and fellow subsidiary is related to the others).

(b) one entity is an associate or joint venture of the other entity (or an associate or joint venture of a member of a group of which the other entity is a member).

(c) both entities are joint ventures of the same third party.

(d) one entity is a joint venture of a third entity and the other entity is an associate of the third entity.

(e) the entity is a post-employment plan for the benefit of employees of either the Group or an entity related to the Group.

(f) the entity is controlled or jointly-controlled by a person identified in (i).

(g) a person identified in (i)(a) has significant influence over the entity or is a member of the key management personnel of the entity (or of a parent of the entity).

(h) the entity, or any member of a group of which it is a part, provides key management personnel services to the Group or to the Group's parent.

Close members of the family of a person are those family members who may be expected to influence, or be influenced by, that individual in their dealings with the entity.

(x) Segment reporting

Operating segments, and the amounts of each segment item reported in the financial statements, are identified from the financial information provided regularly to the Group's most senior executive management for the purposes of allocating resources to, and assessing the performance of, the Group's various lines of business and geographical locations.

Individually material operating segments are not aggregated for financial reporting purposes unless the segments have similar economic characteristics and are similar in respect of the nature of products and services, the nature of production processes, the type or class of customers, the methods used to distribute the products or provide the services, and the nature of the regulatory environment. Operating segments which are not individually material may be aggregated if they share a majority of these criteria.

3 REVENUE

The Group are principally engaged in integrated and comprehensive urban smart energy saving services. Its business covers three major segments including smart transportation, smart building and complex and smart energy, providing the customers with smart energy management products, solutions and integrated services throughout their full life cycles.

(a) Disaggregation of revenue

Disaggregation of revenue from contracts with customers by service lines is as follows:

	2019 RMB'000	2018 RMB'000
Revenue from smart transportation business	**523,087**	702,766
Revenue from smart building and complex business	**776,250**	795,722
Revenue from smart energy business	**453,441**	538,100
	1,752,778	2,036,588

Disaggregation of revenue from contracts with customers by the timing of revenue recognition and by geographic markets is disclosed in notes 4(a) and 4(c) respectively.

(b) Revenue expected to be recognised in the future arising from contracts with customers in existence at the reporting date

As at 31 December 2019, the aggregated nominal contract amount allocated to the remaining performance obligations under the Group's existing contracts is approximately RMB3,811,129,000 (2018: RMB3,093,767,000). This amount represents revenue expected to be recognised in the future from construction projects entered into by the customers with the Group. The Group will recognise the expected revenue in future when or as the work is completed.

The above amount also does not include any amounts of additional consideration that the Group may earn in the future by meeting the conditions set out in the Group's construction projects with the customers, unless at the reporting date it is highly probable that the Group will satisfy the conditions for earning the additional consideration.

4 SEGMENT REPORTING

The Group manages its businesses by divisions. In a manner consistent with the way in which information is reported internally to the Group's most senior executive management for the purposes of resource allocation and performance assessment, the Group has presented the following three reportable segments. No operating segments have been aggregated to form the following reportable segments:

Smart transportation business ("STB"): It comprises a series of proprietary software and hardware products and systems for rail transit such as Integrated Supervision and Control System ("ISCS"), Building Automation System ("BAS") for rail transit and safety door system, providing integrated solutions with full life cycles ranging from planning, procurement, installation and commissioning to aftersales service.

Smart building and complex business ("SBB"): It provides integrated intelligence solutions and efficiency management services, namely integrated energy consumption monitoring, energy-saving consultation and reformation services and integration and product supply of intelligence system for buildings, aimed at different building and complex and rendering full life-cycle services of which reduces energy consumption and operating costs of buildings.

Smart energy business ("SEB"): It comprises a series of leading technologies such as regional energy planning, integrated utilisation of industrial waste heat recovery technology, heat pump technology, independent temperature and humidity control technology and variable air rate technology applied in the energy cascade utilisation as well as optimisation and transformation of energy system. The Group possess self-owned core leading technologies (in the field of urban heating network) such as heating network & heating source monitoring and optimal regulation, distributed variable frequency heating technology, cooling and heating network balancing technology, combined multi-heat sources heating technology.

(a) Information about reportable segments

For the purposes of assessing segment performance and allocating resources between segments, the Group's senior executive management monitors the results attributable to each reportable segment on the following bases:

Revenue and expenses are allocated to the reportable segments with reference to sales generated by those segments and the expenses incurred by those segments or which otherwise arise from the depreciation or amortisation of assets attributable to those segments. However, other than reporting inter-segment sales of products, assistance provided by one segment to another, including sharing of assets and technical know-how, is not measured.

The measure used for reporting segment results is profit or loss before income tax adjusted for items not specifically attributed to individual segments, such as finance cost, depreciation and amortisation, and certain allocated head office and corporate expenses/(gains). Segment profit or loss is used to measure performance as management believes that such information is the most relevant in evaluating the results of certain segments relative to other entities that operate within these industries.

In addition to receiving segment information concerning segment results, management is provided with segment information concerning revenue (including inter-segment sales), interest income and impairment losses. Inter-segment pricing is determined on a consistent basis using market benchmarks.

4 SEGMENT REPORTING *(Continued)*

(a) Information about reportable segments *(Continued)*

Segment assets and liabilities are not regularly reported to the Group's senior executive management and therefore information of reportable segment assets and liabilities are not presented in the consolidated financial statements.

Disaggregation of revenue from contracts with customers by timing of revenue recognition, as well as information regarding the Group's reportable segments as provided to the Group's most senior executive management for the purposes of resource allocation and assessment of segment performance for the years ended 31 December 2019 and 2018 is set out below:

	STB		SBB		SEB		Total	
	2019	2018 (Note)	**2019**	2018 (Note)	**2019**	2018 (Note)	**2019**	2018 (Note)
	RMB'000	RMB'000	**RMB'000**	RMB'000	**RMB'000**	RMB'000	**RMB'000**	RMB'000
Disaggregated by timing of revenue recognition								
Point in time	**10,384**	4,756	**219,732**	115,750	**89,583**	58,817	**319,699**	179,323
Over time	**512,703**	698,010	**556,518**	679,972	**363,858**	479,283	**1,433,079**	1,857,265
Revenue from external customers	**523,087**	702,766	**776,250**	795,722	**453,441**	538,100	**1,752,778**	2,036,588
Inter-segment revenue	**–**	–	**–**	–	**–**	–	**–**	–
Reportable segment revenue	**523,087**	702,766	**776,250**	795,722	**453,441**	538,100	**1,752,778**	2,036,588
Reportable segment profit	**79,460**	170,864	**43,749**	97,486	**126,446**	174,914	**249,655**	443,264
Interest income	**7,478**	3,438	**10,606**	8,958	**23,163**	22,802	**41,247**	35,198
Impairment losses	**(11,345)**	(980)	**(16,833)**	(1,110)	**(9,836)**	(750)	**(38,014)**	(2,840)

Note: The Group has initially applied HKFRS 16 using the modified retrospective approach. Under this approach, the comparative information is not restated. See note 2(c).

4 SEGMENT REPORTING *(Continued)*

(b) Reconciliations of reportable segment profit or loss

	2019 RMB'000	2018 (Note) RMB'000
Profit		
Reportable segment profit	**249,655**	443,264
Depreciation and amortisation	**(103,616)**	(112,188)
Finance costs	**(11,819)**	(10,828)
Unallocated head office and corporate expenses	**(5,741)**	(9,165)
Consolidated profit before taxation	**128,479**	311,083

Note: The Group has initially applied HKFRS 16 using the modified retrospective approach. Under this approach, the comparative information is not restated. See note 2(c).

(c) Geographic information

For the year ended 31 December 2019, as the Group does not have material operations outside the People's Republic of China ("PRC"), no geographic segment information is presented.

5 OTHER REVENUE AND OTHER NET LOSS

(a) Other revenue

	2019 RMB'000	2018 RMB'000
Government grants	**13,806**	10,969
Interest income	**41,247**	35,198
Others	**1,468**	1,360
	56,521	47,527

(b) Other net loss

	2019 RMB'000	2018 RMB'000
Net foreign exchange (loss)/gain	**(1,105)**	620
Net (loss)/gain on disposal of property, plant and equipment	**(6,500)**	692
Others	**(2,798)**	(1,524)
	(10,403)	(212)

6 PROFIT BEFORE TAXATION

Profit before taxation is arrived at after charging:

(a) Finance costs

	2019 RMB'000	2018 (Note) RMB'000
Interest on loans and borrowings	**11,488**	10,828
Interest on lease liabilities (Note 18(b))	**331**	–
	11,819	10,828

Note: The Group has initially applied HKFRS 16 using the modified retrospective approach. Under this approach, the comparative information is not restated. See note 2(c).

(b) Staff costs

	2019 RMB'000	2018 RMB'000
Salaries and other benefits	**178,460**	147,981
Contributions to defined contribution retirement schemes	**17,718**	15,924
	196,178	163,905

Staff costs include directors' and senior management's remuneration (notes 8 and 28(d)).

Pursuant to the relevant labour rules and regulations in the PRC, the Group's PRC subsidiaries participate in a defined contribution retirement scheme (the "Scheme") organised by the local authorities whereby the subsidiaries are required to make contributions to the Scheme at 16% of the eligible employees' salaries from 1 May 2019 (2018: 19%). Contributions to the Scheme vest immediately.

For the Group's subsidiaries in countries other than the PRC, the Group pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The Group has no further payment obligations once the contributions have been paid. The contributions are recognised as employee benefit expenses when they are due. Prepaid contributions are recognised as an asset to the extent that a cash refund or a reduction in the future payments is available.

Save for the above, the Group has no other material obligation for payment of retirement benefits beyond the contributions described above.

6 PROFIT BEFORE TAXATION *(Continued)*

(c) Other items

	2019 RMB'000	2018 RMB'000
Cost of inventories (Note 15(b))	**1,248,040**	1,426,675
Research and development expenses	**7,229**	5,730
Amortisation of intangible assets (Note 12)	**61,683**	65,492
Depreciation (Note 11)		
– owned property, plant and equipment*	**36,589**	46,586
– right-of-use assets*	**5,344**	–
Impairment losses		
– trade and other receivables and contract assets (Notes 17 and 16)	**38,014**	2,840
Total minimum lease payments for leases previously classified as operating leases under HKAS 17*	**–**	12,297
Auditors' remuneration		
– audit services	**2,900**	2,295

* The Group has initially applied HKFRS 16 using the modified retrospective approach and adjusted the opening balances at 1 January 2019 to recognise right-of-use assets relating to leases which were previously classified as operating leases under HKAS 17. After initial recognition of right-of-use assets at 1 January 2019, the Group as a lessee is required to recognise the depreciation of right-of-use assets, instead of the previous policy of recognising rental expenses incurred under operating leases on a straight-line basis over the lease term. Under this approach, the comparative information is not restated. See note 2(c).

7 INCOME TAX

(a) Income tax in the consolidated income statement represents:

	2019 RMB'000	2018 RMB'000
Current tax		
Provision for the year	**21,635**	42,947
(Over)/under-provision in respect of prior years	**(3,137)**	4,285
	18,498	47,232
Deferred tax		
Origination and reversal of temporary differences (Note 23(a))	**(3,436)**	2,517
	15,062	49,749

7 INCOME TAX *(Continued)*

(b) Reconciliation between income tax expense and profit before taxation at applicable tax rates:

	Note	2019 RMB'000	2018 RMB'000
Profit before taxation		**128,479**	311,083
Expected tax calculated at the respective tax rates	(i)/(ii)	**33,130**	79,121
Tax effect on non-deductible expenses		**667**	731
Effect of tax concession	(iii)	**(18,155)**	(37,464)
Tax effect of non-taxable income		**(221)**	(28)
Tax effect of unused tax losses not recognised		**3,115**	3,241
Tax effect of utilisation of tax losses not recognised in prior years		**(337)**	(137)
(Over)/under-provision in prior years		**(3,137)**	4,285
Actual income tax expense		**15,062**	49,749

Notes:

(i) The Company is subject to Singapore corporate income tax at 17% for the years ended 31 December 2019 and 2018. No provision for Singapore income tax was made because the Company sustained tax losses for the years ended 31 December 2019 and 2018.

(ii) The subsidiaries of the Group established in the PRC are subject to PRC corporate income tax ("CIT") rate of 25% for the years ended 31 December 2019 and 2018.

The subsidiary of the Group established in the Cayman Islands is not subject to any income tax pursuant to the rules and regulations of the Cayman Islands.

The subsidiary of the Group established in Hong Kong is subject to Hong Kong profits tax rate of 16.5% for the years ended 31 December 2019 and 2018.

(iii) Tongfang Technovator Int (Beijing) Co., Ltd. ("Technovator Beijing") is recognised as a high and new technology enterprise and is eligible to enjoy a preferential tax rate of 15% until December 2020.

Tongfang Energy Saving Engineering Technology Co., Ltd.("Tongfang Energy Saving") is recognised as a high and new technology enterprise and is eligible to enjoy a preferential tax rate of 15% until December 2022.

8 DIRECTORS' REMUNERATION

Directors' remuneration disclosed pursuant to section 383(1) of the new Hong Kong Companies Ordinance and Part 2 of the Companies (Disclosure of Information about Benefits of Directors) Regulation are as follows:

	Year ended 31 December 2018						
	Directors' fees RMB'000	Salaries, allowances and benefits in-kind RMB'000	Discretionary bonuses RMB'000	Retirement scheme contributions RMB'000	Sub-total RMB'000	Share-based payments (Note) RMB'000	Total RMB'000
Executive directors							
Zhao Xiaobo	–	600	800	–	1,400	–	1,400
Qin Xuzhong	–	–	–	–	–	–	–
Non-executive directors							
Huang Yu	–	–	–	–	–	–	–
Liu Tianmin	183	–	–	–	183	–	183
Wang Yinghu	183	–	–	–	183	–	183
Independent non-executive directors							
Fan Ren Da Anthony	300	–	–	–	300	–	300
Chia Yew Boon	303	–	–	–	303	–	303
Chen Hua	233	–	–	–	233	–	233
	1,202	600	800	–	2,602	–	2,602

8 DIRECTORS' REMUNERATION *(Continued)*

	Year ended 31 December 2019						
	Directors' fees RMB'000	Salaries, allowances and benefits in-kind RMB'000	Discretionary bonuses RMB'000	Retirement scheme contributions RMB'000	Sub-total RMB'000	Share-based payments (Note) RMB'000	Total RMB'000
Executive directors							
Zhao Xiaobo	–	600	1,000	–	1,600	–	1,600
Qin Xuzhong	–	–	–	–	–	–	–
Non-executive directors							
Huang Yu	–	–	–	–	–	–	–
Liu Tianmin	195	–	–	–	195	–	195
Wang Yinghu	195	–	–	–	195	–	195
Independent non-executive directors							
Fan Ren Da Anthony	319	–	–	–	319	–	319
Chia Yew Boon	319	–	–	–	319	–	319
Chen Hua	248	–	–	–	248	–	248
	1,276	600	1,000	–	2,876	–	2,876

Note: These represent the estimated value of share options granted to the directors under the Company's share option scheme. The value of these share options is measured according to the Group's accounting policies for share-based payment transactions as set out in note 2(q)(ii) and, in accordance with that policy, includes adjustments to reverse amounts accrued in previous years where grants of equity instruments are forfeited prior to vesting. The details of these benefits in kind, including the principal terms and number of options granted, are disclosed under the paragraph "Share option scheme" in the directors' report and note 22.

During 2018 and 2019, there were no amounts paid or payable by the Group to the directors or any of the highest paid individuals set out in note 9 below as an inducement to join or upon joining the Group or as compensation for loss of office.

9 INDIVIDUALS WITH HIGHEST EMOLUMENTS

Of the five individuals with the highest emoluments, one (2018: one) is a director whose emoluments are disclosed in note 8. The aggregate of the emoluments in respect of the other individuals are as follows:

	2019 RMB'000	2018 RMB'000
Salaries and other benefits	**3,402**	2,568
Discretionary bonuses	**2,160**	1,373
	5,562	3,941

The emoluments of the four (2018: four) individuals with the highest emoluments are within the following bands:

	2019 Number of Individuals	2018 Number of Individuals
HK$500,001 – HK$1,000,000	**–**	2
HK$1,000,001 – HK$1,500,000	**1**	2
HK$1,500,001 – HK$2,000,000	**3**	–

(Expressed in RMB unless otherwise indicated)

10 EARNINGS PER SHARE

The calculation of the basic and diluted earnings per share is based on the following data:

(a) Basic earnings per share

The calculation of basic earnings per share is based on the profit attributable to ordinary equity shareholders of the Company of RMB112,866,000 (2018: RMB261,165,000) and the weighted average number of ordinary shares of 782,192,189 (2018: 782,447,668) in issue during the year, calculated as follows:

Weighted average number of ordinary shares:

	2019 Number of shares	2018 Number of shares
Issued ordinary shares at 1 January	**782,192,189**	782,842,189
Effect of purchase of own shares	**–**	(394,521)
Weighted average number of ordinary shares at 31 December	**782,192,189**	782,447,668

(b) Diluted earnings per share

The calculation of diluted earnings per share is based on the profit attributable to equity shareholders of the Company of RMB112,866,000 (2018: RMB261,165,000) and the weighted average number of ordinary shares of 782,192,189 (2018: 782,447,668) in issue during the year, calculated as follows:

Weighted average number of ordinary shares (diluted):

The computation of diluted earnings per share does not assume the exercise of certain share options because they are antidilutive for the years ended 31 December 2019 and 2018.

	2019 Number of shares	2018 Number of shares
Weighted average number of ordinary shares at 31 December	**782,192,189**	782,447,668
Effect of deemed issue of ordinary shares under the Company's option scheme for nil consideration (Note 22)	**–**	–
Weighted average number of ordinary shares (diluted) at 31 December	**782,192,189**	782,447,668

11 PROPERTY, PLANT AND EQUIPMENT

(a) Reconciliation of carrying amount

	Leasehold improvements RMB'000	Furniture and fittings RMB'000	Computers and office equipment RMB'000	Plant and machinery RMB'000	Motor vehicles RMB'000	Leasehold land and buildings RMB'000	Construction in progress ("CIP") RMB'000	Total RMB'000
Cost:								
At 1 January 2018	19,638	1,630	8,922	319,720	6,976	–	109,334	466,220
Additions	3,977	619	866	9	–	–	32,832	38,303
Transfer out	–	–	–	74,897	–	–	(74,897)	–
Disposals	(4,278)	(5)	(12)	–	–	–	–	(4,295)
Exchange adjustments	61	29	35	–	63	–	–	188
At 31 December 2018	19,398	2,273	9,811	394,626	7,039	–	67,269	500,416
Impact on initial application of HKFRS 16 (Note)	–	–	–	–	–	9,800	–	9,800
At 1 January 2019	19,398	2,273	9,811	394,626	7,039	9,800	67,269	510,216
Additions	–	214	1,369	232	724	2,540	23,329	28,408
Disposals	–	(24)	(2,621)	(20,651)	(440)	–	–	(23,736)
Exchange adjustments	21	10	10	–	22	–	–	63
At 31 December 2019	19,419	2,473	8,569	374,207	7,345	12,340	90,598	514,951
Accumulated depreciation and impairment:								
At 1 January 2018	5,245	606	5,827	165,212	4,686	–	–	181,576
Charge for the year	1,922	204	823	42,977	660	–	–	46,586
Written back on disposals	(1,156)	(5)	(12)	–	–	–	–	(1,173)
Exchange adjustments	31	19	26	–	67	–	–	143
At 31 December 2018	6,042	824	6,664	208,189	5,413	–	–	227,132
At 1 January 2019	6,042	824	6,664	208,189	5,413	–	–	227,132
Charge for the year	1,270	248	827	33,700	544	7,164	–	43,753
Written back on disposals	–	(24)	(2,433)	(10,096)	(381)	–	–	(12,934)
Exchange adjustments	11	6	7	–	22	–	–	46
At 31 December 2019	7,323	1,054	5,065	231,793	5,598	7,164	–	257,997
Net book value:								
At 31 December 2018	13,356	1,449	3,147	186,437	1,626	–	67,269	273,284
At 31 December 2019	12,096	1,419	3,504	142,414	1,747	5,176	90,598	256,954

Note: The Group has initially applied HKFRS 16 using the modified retrospective method and adjusted the opening balances at 1 January 2019 to recognise right-of-use assets relating to leases which were previously classified as operating leases under HKAS 17. See note 2(c).

11 PROPERTY, PLANT AND EQUIPMENT *(Continued)*

(b) Right-of-use assets

The analysis of the net book value of right-of-use assets by class of underlying asset is as follows:

	31 December 2019 RMB'000	1 January 2019 RMB'000
Leasehold land and buildings, carried at depreciated cost	**5,176**	9,800

The analysis of expense items in relation to leases recognised in the income statement is as follows:

	2019 RMB'000	2018 (Note) RMB'000
Depreciation charge of right-of-use assets by class of underlying asset:		
– Leasehold land and buildings	**5,344**	–
Interest on lease liabilities (Note 6(a))	**331**	–
Expense relating to short-term leases and other leases with remaining lease term ending on or before 31 December 2019	**8,947**	–
Total minimum lease payments for leases previously classified as operating leases under HKAS 17	**–**	12,297

Note: The Group has initially applied HKFRS 16 using the modified retrospective approach and adjusted the opening balances at 1 January 2019 to recognise right-of-use assets relating to leases which were previously classified as operating leases under HKAS 17. The depreciated carrying amount of the finance lease assets which were previously included in property, plant and equipment is also identified as a right-of-use asset. After initial recognition of right-of-use assets at 1 January 2019, the Group as a lessee is required to recognise the depreciation of right-of-use assets, instead of the previous policy of recognising rental expenses incurred under operating leases on a straight-line basis over the lease term. Under this approach, the comparative information is not restated. See note 2(c).

During the year, additions to right-of-use assets were RMB2,540,000, which is comprised of leasehold land and buildings.

Details of total cash outflow for leases and the maturity analysis of lease liabilities are set out in notes 18(c) and 21, respectively.

12 INTANGIBLE ASSETS

	Trade name RMB'000	Patents and technology know-how RMB'000	Total RMB'000
Cost:			
At 1 January 2018	4	397,929	397,933
Additions through internal development	–	84,174	84,174
Disposals	–	(14,405)	(14,405)
At 31 December 2018	4	467,698	467,702
At 1 January 2019	4	467,698	467,702
Additions through internal development	–	82,365	82,365
Disposals	–	(84,644)	(84,644)
At 31 December 2019	4	465,419	465,423
Accumulated amortisation:			
At 1 January 2018	–	125,976	125,976
Charge for the year	–	65,492	65,492
Written back on disposals	–	(14,405)	(14,405)
At 31 December 2018	–	177,063	177,063
At 1 January 2019	–	177,063	177,063
Charge for the year	–	61,683	61,683
Written back on disposals	–	(84,644)	(84,644)
At 31 December 2019	–	154,102	154,102
Net book value:			
At 31 December 2018	4	290,635	290,639
At 31 December 2019	4	311,317	311,321

The amortisation charge for the year is included in "Administrative and other operating expenses" in the consolidated income statement.

13 OTHER FINANCIAL ASSETS

	2019 RMB'000	2018 RMB'000
Long-term receivables	**765,347**	708,221
Less: current portion of long-term receivables	**(241,201)**	(176,408)
	524,146	531,813

At 31 December 2019, long-term receivables included receivables of Karamay construction project of RMB65,611,000 (2018: RMB65,611,000). Karamay construction project ("Karamay project") is a construction project entered into among Karamay Construction Management Co., Ltd. ("Karamay Construction"), THTF and Technovator Beijing in 2013. Pursuant to Karamay contract, Karamay Construction engaged THTF as the contractor to carry out the construction project with the finance and major equipment supply provided by Technovator Beijing. The estimated total financing provided by Technovator Beijing is approximately RMB180 million. Karamay Construction should repay Technovator Beijing by five annual instalments, with an investment return charged at 140% of the then prevailing lending interest rate in respect of loans for the same term as quoted by the People's Bank of China. Karamay Construction didn't grant any security to Technovator Beijing.

The remaining balance of long-term receivables represent trade receivables of certain construction projects which are repayable by instalments over a 2 to 9 years period.

14 INVESTMENTS IN SUBSIDIARIES

The following list contains the particulars of the Company's principal subsidiaries at 31 December 2019.

			Proportion of ownership interest			
Name of company	Place and date of incorporation/ establishment	Particulars of issued and fully paid up share/ registered capital	Group's effective interest	Held by the Company	Held by a subsidiary	Principal activity
Technovator Beijing	Beijing, PRC 7 August 2006	USD 83,000,000	100%	100%	–	Design, manufacturing and marketing of building automation solutions
Tongfang Energy Saving	Beijing, PRC 21 June 2002	RMB231,812,167	100%	–	100%	Energy management services, marketing of heating power equipment
Tongfang Technovator Software (Beijing) Co., Ltd. ("Software Beijing")	Beijing, PRC 22 November 2013	RMB10,000,000	100%	–	100%	Software development, technology development, marketing, service and consulting

All the above subsidiaries were established as limited liability companies in the PRC.

15 INVENTORIES

(a) Inventories in the statement of financial position comprise:

	31 December 2019 RMB'000	31 December 2018 RMB'000
Raw materials	**255,130**	306,989
Work in progress	**9,996**	7,556
Finished goods	**636,599**	477,482
	901,725	792,027

(b) The analysis of the amount of inventories recognised as an expense and included in the consolidated income statement is as follows:

	2019 RMB'000	2018 RMB'000
Carrying amount of inventories sold	**1,248,040**	1,426,675

16 CONTRACT ASSETS AND CONTRACT LIABILITIES

(a) Contract assets

	31 December 2019 RMB'000	31 December 2018 RMB'000
Contract assets		
Arising from performance under construction projects	**905,752**	795,672
Receivables from contracts with customers within the scope of HKFRS 15, which are included in "Trade and other receivables" (Note 17)	**1,070,496**	945,520

Typical payment terms which impact on the amount of contract assets recognised are as follows:

– Construction projects
The Group's construction projects include payment schedules which require stage payments over the construction period once milestones are reached. These payment schedules prevent the build-up of significant contract assets.

16 CONTRACT ASSETS AND CONTRACT LIABILITIES *(Continued)*

(b) Contract liabilities

	31 December 2019 RMB'000	31 December 2018 RMB'000
Contract liabilities		
Construction projects		
– Billings in advance of performance	**88,905**	111,655

Typical payment terms which impact on the amount of contract liabilities recognised are as follows:

– Construction projects
When the Group receives a deposit before the production activity commences this will give rise to contract liabilities at the start of a contract, until the revenue recognised on the project exceeds the amount of the deposit. The amount of deposit, if any, was negotiated on a case by case basis with customers.

Movements in contract liabilities

	2019 RMB'000	2018 RMB'000
Balance at 1 January	**111,655**	99,362
Decrease in contract liabilities as a result of recognising revenue during the year that was included in the contract liabilities at the beginning of the period	**(85,218)**	(70,788)
Increase in contract liabilities as a result of billing in advance of construction activities	**62,468**	83,081
Balance at 31 December	**88,905**	111,655

The amount of billings in advance of performance received expected to be recognised as income after more than one year is RMB21,984,000 (2018: RMB28,196,000).

17 TRADE AND OTHER RECEIVABLES

	2019 RMB'000	2018 RMB'000
Trade debtors due from related parties	**86,256**	48,852
Other trade debtors	**1,024,168**	974,920
Bills receivable	**66,547**	31,030
Less: Allowance for doubtful debts	**(106,475)**	(78,252)
	1,070,496	976,550
Other receivables		
– amounts due from related parties	**50,398**	16,395
– amounts due from third parties	**96,567**	83,904
Less: Allowance for doubtful debts	**(6,350)**	(5,180)
	1,211,111	1,071,669
Deposits and prepayments	**131,222**	137,660
	1,342,333	1,209,329

All of the trade and other receivables are expected to be recovered or recognised as expense within one year.

Ageing analysis

Included in trade and other receivables are trade debtors and bills receivable (net of allowance for doubtful debts) with the following ageing analysis as of the end of the reporting period:

	2019 RMB'000	2018 RMB'000
Current	**993,640**	646,054
Less than 1 month past due	**28**	530
More than 1 month but less than 3 months past due	**4,219**	5,217
More than 3 months but less than 12 months past due	**25,682**	120,622
More than 12 months past due	**46,927**	204,127
	76,856	330,496
	1,070,496	976,550

Trade debtors and bills receivable are due within 1–180 days from the date of billing. Further details of the Group's credit policy are set out in note 26(a).

18 CASH AND CASH EQUIVALENTS

(a) Cash and cash equivalents comprise:

	2019 RMB'000	2018 RMB'000
Deposit with banks and other financial institutions	47,616	17,613
Cash at bank and in hand	610,143	671,405
Cash and cash equivalents in the consolidated statement of financial position	657,759	689,018
Restricted deposit	(47,616)	(17,613)
Cash and cash equivalents in the consolidated cash flow statement	610,143	671,405

(b) Reconciliation of liabilities arising from financing activities

	Loans and borrowings RMB'000 (Note 20)	Lease liabilities RMB'000 (Note 21)	Total RMB'000
At 31 December 2018	239,820	–	239,820
Impact on initial application of HKFRS 16 (Note)	–	7,063	7,063
At 1 January 2019	239,820	7,063	246,883
Changes from financing cash flows:			
Proceeds from loans and borrowings	278,081	–	278,081
Repayment of loans and borrowings	(260,803)	–	(260,803)
Capital element of lease rentals paid	–	(6,662)	(6,662)
Interest element of lease rentals paid	–	(331)	(331)
Other borrowing costs paid	(11,236)	–	(11,236)
Total changes from financing cash flows	6,042	(6,993)	(951)
Other changes:			
Increase in lease liabilities from entering into new leases during the year	–	2,540	2,540
Interest expenses	11,236	–	11,236
Total other changes	11,236	2,540	13,776
At 31 December 2019	257,098	2,610	259,708

18 CASH AND CASH EQUIVALENTS *(Continued)*

(b) Reconciliation of liabilities arising from financing activities *(Continued)*

	Loans and borrowings RMB'000 (Note 20)	Finance leases RMB'000	Total RMB'000
At 1 January 2018	242,306	169	242,475
Changes from financing cash flows:			
Proceeds from loans and borrowings	190,397	–	190,397
Repayment of loans and borrowings	(195,826)	–	(195,826)
Other borrowing costs paid	(7,865)	(189)	(8,054)
Total changes from financing cash flows	(13,294)	(189)	(13,483)
Other changes:			
Finance charges on obligations under finance leases	–	20	20
Interest expenses	10,808	–	10,808
Total other changes	10,808	20	10,828
At 31 December 2018	239,820	–	239,820

Note: The Group has initially applied HKFRS 16 using the modified retrospective method and adjusted the opening balances at 1 January 2019 to recognise lease liabilities relating to leases which were previously classified as operating leases under HKAS 17. See notes 2(c).

(c) Total cash outflow for leases

Amounts included in the cash flow statement for leases comprise the following:

	2019 **RMB'000**	2018 (Note) RMB'000
Within operating cash flows	**8,947**	12,297
Within financing cash flows	**6,993**	189
	15,940	12,486

Note: The adoption of HKFRS 16 introduces a change in classification of cash flows of certain rentals paid on leases. The comparative amounts have not been restated.

18 CASH AND CASH EQUIVALENTS *(Continued)*

(c) Total cash outflow for leases *(Continued)*

These amounts relate to the following:

	2019 RMB'000	2018 RMB'000
Leasehold land and buildings	**15,940**	12,297
Motor vehicles	**–**	189
	15,940	12,486

19 TRADE AND OTHER PAYABLES

	2019 RMB'000	2018 RMB'000
Trade payables due to related parties	**143,596**	125,757
Other trade and bills payables	**1,378,169**	1,216,129
	1,521,765	1,341,886
Other payables and accruals		
– amounts due to related parties	**53,356**	19,905
– amounts due to third parties	**147,947**	161,625
Financial liabilities measured at amortised cost	**1,723,068**	1,523,416

All of the above balances are expected to be settled within one year. Included in trade and other payables are trade and bills payables with the following ageing analysis as of the end of reporting period:

	2019 RMB'000	2018 RMB'000
By date of invoice:		
Within 3 months	**1,080,668**	943,864
More than 3 months but within 6 months	**61,982**	43,500
More than 6 months but within 12 months	**78,997**	73,866
More than 12 months	**300,118**	280,656
	1,521,765	1,341,886

20 LOANS AND BORROWINGS

(a) The analysis of carrying amount of loans and borrowings is as follows:

	2019 RMB'000	2018 RMB'000
Bank loans		
– Unsecured and unguaranteed	257,098	170,300
	257,098	170,300
Loans from related parties (Note 28(c))	–	69,520
	257,098	239,820

(b) At the end of reporting period, loans and borrowings were repayable as follows:

	2019 RMB'000	2018 RMB'000
Within 1 year or on demand	257,098	239,820

(c) The amounts of banking facilities and the utilisation at the end of reporting period are set out as follows:

	2019 RMB'000	2018 RMB'000
Unsecured banking facilities	660,000	600,000

At 31 December 2019, the facilities were utilised to the extent of RMB257,098,000 (2018: RMB170,300,000).

At 31 December 2019, none of the Group's banking facilities are subject to the fulfilment of covenants.

21 LEASE LIABILITIES

The following table shows the remaining contractual maturities of the Group's lease liabilities at the end of the current and previous reporting periods and at the date of transition to HKFRS 16:

	31 December 2019		1 January 2019 (Note)		31 December 2018 (Note)	
	Present value of the minimum lease payments RMB'000	**Total minimum lease payments RMB'000**	Present value of the minimum lease payments RMB'000	Total minimum lease payments RMB'000	Present value of the minimum lease payments RMB'000	Total minimum lease payments RMB'000
Within 1 year	**2,610**	**2,660**	5,415	5,567	–	–
After 1 year but within 2 years	**–**	**–**	1,648	1,764	–	–
	2,610	**2,660**	7,063	7,331	–	–
Less: total future interest expenses		**(50)**		(268)		–
Present value of lease liabilities		**2,610**		7,063		–

Note: The Group has initially applied HKFRS 16 using the modified retrospective approach and adjusted the opening balances at 1 January 2019 to recognise lease liabilities relating to leases which were previously classified as operating leases under HKAS 17. These liabilities have been aggregated with the brought forward balances relating to leases previously classified as finance leases. Comparative information as at 31 December 2018 has not been restated. Further details on the impact of the transition to HKFRS 16 are set out in note 2(c).

22 EQUITY SETTLED SHARE-BASED TRANSACTIONS

(a) Share Option Scheme 2012

The Company has a share option scheme ("Share Option Scheme 2012") which was adopted on 23 July 2012 ("the date of grant") whereby the directors of the Company are authorised, at their discretion, to invite employees of the Group, including directors of the Company, to take up options to subscribe for a total of 48,500,000 ordinary shares in the share capital of the Company, upon exercise of such option at an exercise price of HK$1.15 per share, which represents (1) the closing price of HK$1.15 per share as stated in the daily quotation sheets issued by the Stock Exchange on the date of grant; and (2) the average closing price of HK$1.15 per share as stated in the daily quotation sheet issued by the Stock Exchange for the five business days immediately preceding the date of grant. Under Share Option Scheme 2012, the options granted shall have an exercisable period of 5 years from the date of grant and 50% of the total number of options granted will be vested after the second anniversary of the date of grant conditional upon the Company meeting its profit target for the year 2012 and the remaining 50% will be vested after the third anniversary of the date of grant conditional upon the Company meeting its profit target for the year 2013.

(Expressed in RMB unless otherwise indicated)

22 EQUITY SETTLED SHARE-BASED TRANSACTIONS *(Continued)*

(a) Share Option Scheme 2012 *(Continued)*

(i) The terms and conditions of the grants are as follows:

	Number of options	Vesting conditions	Contractual life of options
Options granted to directors and chief executives:			
– on 23 July 2012	8,700,000	2 years service and meeting 2012 profit target	5 years
– on 23 July 2012	8,700,000	3 years service and meeting 2013 profit target	5 years
Options granted to employees:			
– on 23 July 2012	15,550,000	2 years service and meeting 2012 profit target	5 years
– on 23 July 2012	15,550,000	3 years service and meeting 2013 profit target	5 years
Total share options granted	48,500,000		

The options exercised during 2017 had a weighted average exercise price of HK$1.15. All options have been exercised during 2017.

(Expressed in RMB unless otherwise indicated)

22 EQUITY SETTLED SHARE-BASED TRANSACTIONS *(Continued)*

(a) Share Option Scheme 2012 *(Continued)*

(ii) Fair value of share options and assumptions

The fair value of services received in return for share options granted is measured by reference to the fair value of share options granted. The estimate of the fair value of the share options granted is measured based on a Black-Scholes model. The contractual life of the share option is used as an input into this model. Expectations of early exercise are incorporated into the Black-Scholes model.

Fair value of share options and assumptions	
Fair value at measurement date	HK$0.21
Share price	HK$1.15
Exercise price	HK$1.15
Expected volatility	42.54%
Option life	5 years
Expected dividends	0%
Risk-free interest rate	0.53%

The expected volatility is based on the historical volatility of the share prices of the Company. Expected dividends are based on historical dividends. Changes in the subjective input assumptions could materially affect the fair value estimate.

Share options were granted under a service and non-market performance condition. The condition has not been taken into account in the grant date fair value measurement of the services received. There was no market conditions associated with the share option grants.

(b) Share Option Scheme 2013

The Company has a share option scheme ("Share Option Scheme 2013") which was adopted on 5 September 2013 ("the date of grant") whereby the directors of the Company are authorised, at their discretion, to invite directors and employees of the Group, suppliers and other individuals, to take up options to subscribe for a total of 52,100,000 ordinary shares in the share capital of the Company, upon exercise of such option at an exercise price of HK$3.06 per share, which represents the higher of (1) the closing price of HK$3.06 per share as stated in the daily quotation sheets issued by the Stock Exchange on the date of grant; and (2) the average closing price of HK$2.91 per share as stated in the daily quotation sheet issued by the Stock Exchange for the five business days immediately preceding the date of grant.

Under Share Option Scheme 2013, the options granted to directors, employees and other individuals shall have an exercisable period of 5 years from the date of grant and 50% of the total number of options granted will be vested after the second anniversary of the date of grant conditional upon the Company meeting its profit target for the year 2014 and the remaining 50% will be vested after the third anniversary of the date of grant conditional upon the Company meeting its profit target for the year 2015. The options granted to the suppliers of goods or services shall have an exercisable period of 5 years from the date of grant and 100% of the total number of options granted will be vested after the second anniversary of the date of grant conditional upon the price per share equal to or exceeding 150% of the exercise price.

(Expressed in RMB unless otherwise indicated)

22 EQUITY SETTLED SHARE-BASED TRANSACTIONS *(Continued)*

(b) Share Option Scheme 2013 *(Continued)*

(i) The terms and conditions of the grants are as follows:

	Number of options	Vesting conditions	Contractual life of options
Options granted to directors			
– on 5 September 2013	3,500,000	2 years service and meeting 2014 profit target	5 years
– on 5 September 2013	3,500,000	3 years service and meeting 2015 profit target	5 years
Options granted to management and employees			
– on 5 September 2013	5,200,000	2 years service and meeting 2014 profit target	5 years
– on 5 September 2013	5,200,000	3 years service and meeting 2015 profit target	5 years
Options granted to suppliers of goods or services			
– on 5 September 2013	1,800,000	2 years and meeting the price per share equal to or exceeding 150% of the exercise price	5 years
Options granted to other individuals			
– on 5 September 2013	16,450,000	2 years service and meeting 2014 profit target	5 years
– on 5 September 2013	16,450,000	3 years service and meeting 2015 profit target	5 years
Total share options granted	52,100,000		

(Expressed in RMB unless otherwise indicated)

22 EQUITY SETTLED SHARE-BASED TRANSACTIONS *(Continued)*

(b) Share Option Scheme 2013 *(Continued)*

(ii) The number and weighted average exercise prices of share options are as follows:

	2019		2018	
	Weighted average exercise price	**Number of options**	Weighted average exercise price	Number of options
Outstanding at the beginning of the year	–	–	HK$3.06	44,400,000
Forfeited during the year	–	–	HK$3.06	(44,400,000)
Outstanding at the end of the year	–	–	HK$3.06	–
Exercisable at the end of the year		–		–

All outstanding options have been forfeited during 2018.

(iii) Fair value of share options and assumptions

The fair value of services received in return for share options granted is measured by reference to the fair value of share options granted. The estimate of the fair value of the share options granted is measured based on a Black-Scholes model. The contractual life of the share option is used as an input into this model. Expectations of early exercise are incorporated into the Black-Scholes model.

Fair value of share options and assumptions	
Fair value at measurement date	
– Options granted to directors, employees and other individuals	HK$0.32
– Options granted to suppliers of goods or services	HK$1.04
Share price	HK$3.06
Exercise price	HK$3.06
Expected volatility	45.30%
Option life	5 years
Expected dividends	0%
Risk-free interest rate	1.043%

The expected volatility is based on the historical volatility of the share prices of the Company. Expected dividends are based on historical dividends. Changes in the subjective input assumptions could materially affect the fair value estimate.

Share options granted to directors, employees and other individuals were under a service and non-market performance condition. The condition has not been taken into account in the grant date fair value measurement of the services received. Share options granted to suppliers of goods or services were under market condition. The condition has been taken into account in the grant date fair value measurement of the services received.

22 EQUITY SETTLED SHARE-BASED TRANSACTIONS *(Continued)*

(c) Share Option Scheme 2014

The Company has a share option scheme ("Share Option Scheme 2014") which was adopted during 2014, including options granted in August 2014 and options granted in October 2014, respectively.

Options granted in August 2014

Under Share Option Scheme 2014, on 15 August 2014 ("the date of grant") the directors of the Company are authorised, at their discretion, to invite directors and employees of the Group, to take up options to subscribe for a total of 7,300,000 ordinary shares in the share capital of the Company, upon exercise of such option at an exercise price of HK$3.83 per share, which represents the higher of (1) the closing price of HK$3.83 per share as stated in the daily quotation sheets issued by the Stock Exchange on the date of grant; and (2) the average closing price of HK$3.73 per share as stated in the daily quotation sheets issued by the Stock Exchange for the five business days immediately preceding the date of grant.

In August 2014, the options granted shall have an exercisable period of 5 years from the date of grant. The total number of options granted to directors will be vested immediately. And the total number of options granted to management and employees will be vested after the second anniversary of the date of grant.

Options granted in October 2014

Under Share Option Scheme 2014, on 17 October 2014 ("the date of grant") the directors of the Company are authorised, at their discretion, to invite certain management and employees of the Group, suppliers and other individuals, to take up options to subscribe for a total of 7,000,000 ordinary shares in the share capital of the Company, upon exercise of such option at an exercise price of HK$3.444 per share, which represents the higher of (1) the closing price of HK$3.34 per share as stated in the daily quotation sheets issued by the Stock Exchange on the date of grant; and (2) the average price of HK$3.444 per share as stated in the daily quotation sheets issued by the Stock Exchange for the five business days immediately preceding the date of grant.

In October 2014, the options granted shall have an exercisable period of 5 years from the date of grant and 50% of the total number of options granted will be vested after the first anniversary of the date of grant conditional upon the Company meeting its profit target for the year 2014 and the remaining 50% will be vested after the second anniversary of the date of grant conditional upon the Company meeting its profit target for the year 2015.

(Expressed in RMB unless otherwise indicated)

22 EQUITY SETTLED SHARE-BASED TRANSACTIONS *(Continued)*

(c) Share Option Scheme 2014 *(Continued)*

(i) The terms and conditions of the grants are as follows:

	Number of options	Vesting conditions	Contractual life of options
Options granted to directors			
– on 15 August 2014	3,000,000	At grant	5 years
Options granted to management and employees			
– on 15 August 2014	4,300,000	2 years service	5 years
– on 17 October 2014	3,500,000	1 years service and meeting 2014 profit target	5 years
– on 17 October 2014	3,500,000	2 years service and meeting 2015 profit target	5 years
Total share options granted	14,300,000		

(ii) The number and weighted average exercise prices of share options are as follows:

	2019 Weighted average exercise price	**2019** Number of options	2018 Weighted average exercise price	2018 Number of options
Outstanding at the beginning and the end of the year	**HK$3.64**	**13,400,000**	HK$3.64	13,800,000
Forfeited during the year	**HK$3.64**	**(13,400,000)**	HK$3.64	(400,000)
Outstanding at the end of the year	**HK$3.64**	**–**	HK$3.64	13,400,000
Exercisable at the end of the year		**–**		13,400,000

The options granted in 2014 outstanding at 31 December 2018 had a weighted average exercise price of HK$3.64 and weighted average remaining contractual life of 0.71 years. All outstanding options have been forfeited during 2019.

(Expressed in RMB unless otherwise indicated)

22 EQUITY SETTLED SHARE-BASED TRANSACTIONS *(Continued)*

(c) Share Option Scheme 2014 *(Continued)*

(iii) Fair value of share options and assumptions

The fair value of services received in return for share options granted is measured by reference to the fair value of share options granted. The estimate of the fair value of the share options granted is measured based on a Black-Scholes model. The contractual life of the share option is used as an input into this model. Expectations of early exercise are incorporated into the Black-Scholes model.

	Granted in August 2014	Granted in October 2014
Fair value of share options and assumptions		
Fair value at measurement date		
– Options granted to directors	HK$0.97	NIL
– Options granted to management and employees with 1 year service	NIL	HK$0.92
– Options granted to management and employees with 2 year service	HK$1.18	HK$1.00
Share price	HK$3.83	HK$3.444
Exercise price	HK$3.83	HK$3.444
Expected volatility	38.60% – 40.09%	40.44%
Option life	5 years	5 years
Expected dividends	0%	0%
Risk-free interest rate	1.288%	1.050% – 1.198%

The expected volatility is based on the historical volatility of the share prices of the Company. Expected dividends are based on historical dividends. Changes in the subjective input assumptions could materially affect the fair value estimate.

Share options were granted under a service and non-market performance condition. The condition has not been taken into account in the grant date fair value measurement of the services received. There was no market conditions associated with the share option grants.

23 INCOME TAX IN THE STATEMENT OF FINANCIAL POSITION

(a) Deferred tax assets and liabilities recognised

The components of deferred tax (assets)/liabilities recognised in the consolidated statement of financial position and movements during the year are as follows:

	Credit loss allowance RMB'000	Receipts by instalment RMB'000	Total RMB'000
At 1 January 2018	(17,604)	22,863	5,259
(Credited)/Charged to the consolidated income statement (Note 7(a))	(901)	3,418	2,517
At 31 December 2018	(18,505)	26,281	7,776
At 1 January 2019	(18,505)	26,281	7,776
(Credited)/Charged to the consolidated income statement (Note 7(a))	(5,629)	2,193	(3,436)
At 31 December 2019	(24,134)	28,474	4,340

	2019 RMB'000	2018 RMB'000
Represented by:		
Deferred tax assets	**(24,134)**	(18,505)
Deferred tax liabilities	**28,474**	26,281
	4,340	7,776

(b) Deferred tax assets not recognised

At 31 December 2019, in accordance with the accounting policy set out in note 2(r), the Company did not recognise deferred tax assets in respect of unused tax losses of RMB169,737,000 (2018: RMB157,684,000) and the Group did not recognise deferred tax assets in respect of unused tax losses of RMB190,969,000 (2018: RMB175,565,000), as it is not probable that future taxable profits against which the losses can be utilised will be available to the relevant tax entities. The tax losses of the Company do not expire under tax legislation. The remaining unrecognised tax losses of RMB21,232,000 will not expire until after 2020.

(c) Deferred tax liabilities not recognised

At 31 December 2019, no deferred tax liability was recognised on the taxable temporary differences in respect of the tax that would be payable on the distribution of the undistributed profits of certain subsidiaries of the Company amounting RMB1,487,462,000 (2018: RMB1,370,786,000), as the Group controls the dividend policy of these subsidiaries and it has been determined that it is probable that such profits will not be distributed in the foreseeable future.

According to the CIT Law and its implementation rules, non-PRC-resident enterprises are levied withholding tax at 10%, subject to any double tax treaty relief, on dividends from their PRC-resident investees for earnings accumulated beginning on 1 January 2008. According to the double tax treaty between the PRC and Singapore, the dividend withholding tax rate could be reduced to 5% provided that a Singapore parent company is the "beneficial owner" and holds directly at least 25% of the equity interest of a PRC company. Distributions of earnings generated prior to 1 January 2008 are exempt from such withholding tax.

24 DEFERRED INCOME

Deferred income of the Group mainly represents subsidies relating to the construction of property, plant and equipment, which would be recognised in other income on a straight-line basis over the expected useful life of the relevant assets.

25 CAPITAL, RESERVES AND DIVIDENDS

(a) Movements in components of equity

The reconciliation between the opening and closing balances of each component of the Group's consolidated equity is set out in the consolidated statement of changes in equity.

Details of the changes in the Company's individual components of equity between the beginning and the end of the year are set out below:

	Share capital RMB'000 Note 25(c)	Treasury shares RMB'000 Note 25(d)	Share-based compensation reserve RMB'000 Note 25(e)(iii)	Translation reserve RMB'000 Note 25(e)(ii)	Retained profits RMB'000	Total equity RMB'000
At 1 January 2018	1,191,209	(493)	21,068	69,784	441,050	1,722,618
Purchase of own shares	–	(748)	–	–	–	(748)
Cancellation of treasury shares	(1,241)	1,241	–	–	–	–
Forfeiture of share option	–	–	(11,989)	–	11,989	–
Loss for the year	–	–	–	–	(15,778)	(15,778)
Other comprehensive income	–	–	–	86,271	–	86,271
At 31 December 2018	1,189,968	–	9,079	156,055	437,261	1,792,363

	Share capital RMB'000 Note 25(c)	**Share-based compensation reserve RMB'000 Note 25e)(iii)**	**Translation reserve RMB'000 Note 25(e)(ii)**	**Retained profits (Note) RMB'000**	**Total equity RMB'000**
At 1 January 2019	**1,189,968**	**9,079**	**156,055**	**437,261**	**1,792,363**
Forfeiture of share option	**–**	**(9,079)**	**–**	**9,079**	**–**
Loss for the year	**–**	**–**	**–**	**(13,514)**	**(13,514)**
Other comprehensive income	**–**	**–**	**29,401**	**–**	**29,401**
At 31 December 2019	**1,189,968**	**–**	**185,456**	**432,826**	**1,808,250**

Note: The Group, including the Company, has initially applied HKFRS 16 at 1 January 2019 using the modified retrospective approach. Under this approach, comparative information is not restated and there is no net effect on the opening balance of the company's equity as at 1 January 2019. See note 2(c) and note 29.

25 CAPITAL, RESERVES AND DIVIDENDS *(Continued)*

(b) Dividends

There were no dividends payable to equity shareholders attributable to the previous financial year, and no dividends were approved and paid during 2019 and 2018.

(c) Share capital

	2019 Number of shares	**2019** Amounts RMB'000	2018 Number of shares	2018 Amounts RMB'000
Ordinary shares issued and fully paid:				
At 1 January	**782,192,189**	**1,189,968**	782,842,189	1,191,209
Shares repurchased and cancelled	**–**	**–**	(650,000)	(1,241)
At 31 December	**782,192,189**	**1,189,968**	782,192,189	1,189,968

The holders of ordinary shares are entitled to receive dividends as declared from time to time and are entitled to one vote per share at meetings of the Company. All ordinary shares rank equally with regard to the Company's residual assets.

(i) There were no shares issued by the Company during 2019 and 2018.

(ii) Terms of unexpired and unexercised share options under the Share Option Scheme 2013 and 2014 at the end of reporting periods are as follows:

Exercise period	**2019** Exercise price	**2019** Number of options	2018 Exercise price	2018 Number of Options
15 August 2014 to 14 August 2019	–	–	HK$3.83	3,000,000
15 August 2016 to 14 August 2019	–	–	HK$3.83	4,300,000
17 October 2015 to 16 October 2019	–	–	HK$3.444	2,600,000
17 October 2016 to 16 October 2019	–	–	HK$3.444	3,500,000
		–		13,400,000

Each option entitles the holder to subscribe for one ordinary share in the Company. Further details of these options are set out in note 22.

25 CAPITAL, RESERVES AND DIVIDENDS *(Continued)*

(d) Treasury shares

	2019 Number of shares	2019 Amounts RMB'000	2018 Number of shares	2018 Amounts RMB'000
Treasury shares				
At 1 January	–	–	250,000	493
Shares repurchased to be cancelled	–	–	400,000	748
Cancellation of treasury shares	–	–	(650,000)	(1,241)
At 31 December	–	–	–	–

During 2019, the Company did not repurchase its own ordinary shares on The Stock Exchange of Hong Kong Limited.

(e) Nature and purpose of reserves

(i) Statutory reserves

Transfers from retained profits to statutory reserves are made in accordance with the relevant PRC rules and regulations and the articles of association of the Company's PRC subsidiaries and were approved by the respective board of directors.

The subsidiaries in the PRC are required to appropriate 10% of its after-tax profit, as determined in accordance with the PRC accounting rules and regulations, to the general reserve fund until the statutory reserve balance reaches 50% of the registered capital. The transfer to this reserve must be made before distribution of a dividend to equity owners.

The statutory reserve can be utilised to offset prior year's losses or converted into capital of the subsidiary.

(ii) Translation reserve

The translation reserve comprises all foreign exchange differences arising from the translation of the financial statements of foreign operations. The reserve is dealt with in accordance with the accounting policies set out in note 2(u).

(iii) Share-based compensation reserve

Share-based compensation reserve represents the fair value of the share options granted to employees of the Group in accordance with the accounting policy adopted for share-based payments in note 2(q)(ii).

(iv) Other reserves

Other reserves are resulted from transactions with equity holders in their capacity as equity holders. The balance comprises capital reserve movements arising from difference between fair value of consideration paid and the net assets acquired in a business combination under common control or the amount by which the non-controlling interests are adjusted to reflect the changes in its interests in the subsidiary.

(v) Distributable reserves

At 31 December 2019, the aggregate amount of reserves available for distribution to equity shareholders of the Company was RMB432,826,000 (2018: RMB437,261,000).

26 FINANCIAL RISK MANAGEMENT AND FAIR VALUES

Exposure to credit, liquidity, interest rate and currency risks arises in the normal course of the Group's business. The Group's exposure to these risks and the financial risk management policies and practices used by the Group to manage these risks are described below.

(a) Credit risk

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in a financial loss to the Group. The Group's credit risk is primarily attributable to trade and other receivables and contract assets. Management has a credit policy in place and the exposure to credit risk is monitored on an ongoing basis. Credit evaluations are performed on all customers requiring credit over a certain amount. The Group does not require collateral in respect of financial assets.

In respect of trade and other receivables and contract assets, individual credit evaluations are performed on all customers requiring credit over a certain amount. These evaluations focus on the customer's past history of making payments when due and current ability to pay, and may take into account information specific to the customer as well as pertaining to the economic environment in which the customer operates. The Group requires certain customers to pay deposits upfront and the remaining trade receivables are due within 1-180 days from the date of billing. Normally, the Group does not obtain collateral from customers.

The Group's exposure to credit risk is influenced mainly by the individual characteristics of each customer rather than the industry or country in which the customers operate and therefore significant concentrations of credit risk primarily arise when the Group has significant exposure to individual customers. At 31 December 2019, 4.2% (2018: 4.7%) and 16.7% (2018: 15.3%) of the total trade and other receivables and contract assets was due from the Group's largest customer and the five largest customers respectively.

The Group measures loss allowances for trade receivables and contract assets at an amount equal to lifetime ECLs, which is calculated using a provision matrix. As the Group's historical credit loss experience does not indicate significantly different loss patterns for different customer segments, the loss allowance based on past due status is not further distinguished between the Group's different customer bases.

The following table provides information about the Group's exposure to credit risk and ECLs for trade receivables and contract assets:

	2019		
	Expected loss rate %	Gross carrying amount RMB'000	Loss allowance RMB'000
Current (not past due)	0.64%	1,844,661	(11,816)
Less than 1 year past due	5.00%	31,503	(1,574)
More than 1 year but less than 2 years past due	15.00%	21,153	(3,173)
More than 2 years but less than 3 years past due	30.00%	21,262	(6,379)
More than 3 years past due	85.94%	100,000	(85,936)
		2,018,579	(108,878)

26 FINANCIAL RISK MANAGEMENT AND FAIR VALUES *(Continued)*

(a) Credit risk *(Continued)*

	2018		
	Expected loss rate %	Gross carrying amount RMB'000	Loss allowance RMB'000
Current (not past due)	0.53%	1,418,264	(7,568)
Less than 1 year past due	1.00%	127,645	(1,276)
More than 1 year but less than 2 years past due	5.00%	113,421	(5,671)
More than 2 years but less than 3 years past due	15.00%	81,810	(12,272)
More than 3 years past due	66.52%	80,153	(53,314)
		1,821,293	(80,101)

Movement in the loss allowance account in respect of trade receivables and contract assets during the year is as follows:

	2019 RMB'000	2018 RMB'000
Balance at 1 January	**80,101**	78,860
Amounts written off during the year	**(2,263)**	–
Impairment losses recognised during the year	**31,040**	1,241
Balance at 31 December	**108,878**	80,101

The following significant changes in the gross carrying amounts of trade receivables and contract assets contributed to the increase in the loss allowance:

– increase in the gross carrying amounts of trade receivables and contract assets past due over 3 years, resulted in an increase in loss allowance of RMB32,622,000;

– a write-off of trade receivables with a gross carrying amount of RMB4,581,000 resulted in a decrease in loss allowance of RMB2,263,000.

26 FINANCIAL RISK MANAGEMENT AND FAIR VALUES *(Continued)*

(b) Liquidity risk

The Group's policy is to regularly monitor its liquidity requirements and its compliance with lending covenants of each company, to ensure that it maintains sufficient reserves of cash and adequate committed lines of funding from major financial institutions to meet its liquidity requirements in the short and longer term.

The following table details the remaining contractual maturities at the end of reporting periods of the Group's non-derivative financial liabilities, which are based on contractual undiscounted cash flows (including interest payments computed using contractual rates or, if floating, based on rates current at the end of reporting period) and the earliest date the Group can be required to pay:

	2019 Contractual undiscounted cash flow		
	Within 1 year or on demand RMB'000	**Total RMB'000**	**Balance sheet carrying amount RMB'000**
Trade and other payables measured at amortised costs	**1,723,068**	**1,723,068**	**1,723,068**
Loans and borrowings	**263,798**	**263,798**	**257,098**
Lease liabilities (Note)	**2,660**	**2,660**	**2,610**
	1,989,527	**1,989,527**	**1,982,777**

	2018 Contractual undiscounted cash flow		
	Within 1 year or on demand RMB'000	Total RMB'000	Balance sheet carrying amount RMB'000
Trade and other payables measured at amortised costs	1,523,416	1,523,416	1,523,416
Loans and borrowings	244,058	244,058	239,820
	1,767,474	1,767,474	1,763,236

Note: The Group has initially applied HKFRS 16 using the modified retrospective approach and adjusted the opening balances at 1 January 2019 to recognise lease liabilities relating to leases which were previously classified as operating leases under HKAS 17. Lease liabilities include amounts recognised at the date of transition to HKFRS 16 in respect of leases previously classified as operating leases under HKAS 17 and amounts relating to new leases entered into during the year. Under this approach, the comparative information is not restated. See note 2(c).

26 FINANCIAL RISK MANAGEMENT AND FAIR VALUES *(Continued)*

(c) Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Group's interest rate risk arises primarily from interest bearing long-term receivables, obligations under finance leases, loans and borrowings and other payables at variable rates that expose the Group to cash flow interest rate risk and fixed rates that expose the Group to fair value interest rate risk. The Group's interest rate profile as monitored by management is set out in (i) below.

(i) Interest rate profile

The following table details the interest rate profile of the Group's total borrowings at the end of reporting period:

	2019 Effective interest rate %	2019 Amounts RMB'000	2018 Effective interest rate %	2018 Amounts RMB'000
Fixed rate instruments:				
Lease liabilities (Note)	**5.00**	**2,610**	–	–
Loans and borrowings	**5.03**	**257,098**	5.18	91,760
		259,708		91,760
Variable rate instruments:				
Loans and borrowings	**–**	**–**	4.78	148,060
Less: interest bearing long-term receivables	**6.86**	**65,751**	6.86	65,751
		(65,751)		82,309
Total net borrowings		**193,957**		174,069
Fixed rate borrowings as a percentage of total net borrowings		**133.9%**		52.7%

Note: The Group has initially applied HKFRS 16 using the modified retrospective approach and adjusted the opening balances at 1 January 2019 to recognise lease liabilities relating to leases which were previously classified as operating leases under HKAS 17. Under this approach, the comparative information is not restated. See note 2(c).

(ii) Sensitivity analysis

At 31 December 2019, it is estimated that a general increase/decrease of 100 basis points in interest rates, with all other variables held constant, would have increased/decreased the Group's profit after taxation and retained profits by approximately RMB559,000 (2018: decreased/increased RMB700,000).

The sensitivity analysis above relates to the exposure to cash flow interest rate risk arising from floating rate non-derivative instruments held by the Group at the end of the reporting period, and the impact on the Group's profit after tax (and retained profits) is estimated as an annualised impact on interest exposure or income of such a change in interest rates. The analysis is performed on the same basis for 2018.

26 FINANCIAL RISK MANAGEMENT AND FAIR VALUES *(Continued)*

(d) Currency risk

The Group is exposed to currency risk primarily through sales and purchases which give rise to receivables, payables and cash balances that are denominated in a foreign currency, i.e. a currency other than the functional currency of the operations to which the transactions related. The currencies giving rise to this risk are primarily Canadian Dollars, United States Dollars, Singapore Dollars, Pataca de Macau and Hong Kong Dollars.

(i) Exposure to currency risk

The following table details the Group's exposure at the end of the reporting period to currency risk arising from recognised assets or liabilities denominated in a currency other than the functional currency of the entity to which they relate. For presentation purposes, the amounts of the exposure are shown in RMB translated using the spot rate at the year end date. Differences resulting from the translation of the financial statements of foreign operations into the Group's presentation currency are excluded.

	2019 Exposure to foreign currencies (expressed in RMB)				
	Singapore Dollars RMB'000	**Canadian Dollars RMB'000**	**United States Dollars RMB'000**	**Hong Kong Dollars RMB'000**	**Pataca de Macau RMB'000**
Trade and other receivables	**342**	**28,093**	**7,475**	**–**	**108**
Cash and cash equivalents	**3,397**	**1**	**3,878**	**1,928**	**–**
Trade and other payables	**(101)**	**–**	**–**	**(1,871)**	**–**
Net exposure arising from recognised assets and liabilities	**3,638**	**28,094**	**11,353**	**57**	**108**

	2018 Exposure to foreign currencies (expressed in RMB)			
	Singapore Dollars RMB'000	Canadian Dollars RMB'000	United States Dollars RMB'000	Hong Kong Dollars RMB'000
Trade and other receivables	344	25,251	2,983	–
Cash and cash equivalents	2,581	1	3,869	1,886
Trade and other payables	(395)	–	–	(1,830)
Net exposure arising from recognised assets and liabilities	2,530	25,252	6,852	56

26 FINANCIAL RISK MANAGEMENT AND FAIR VALUES *(Continued)*

(d) Currency risk *(Continued)*

(ii) Sensitivity analysis

The following table indicates the instantaneous change in the Group's profit after taxation (and retained profits) that would arise if foreign exchange rates to which the Group has significant exposure at the end of reporting period had changed at that date, assuming all other risk variables remained constant.

	2019		2018	
	Increase/ (decrease) in foreign exchange rates	**Effect on profit after tax and retained profits RMB'000**	Increase/ (decrease) in foreign exchange rates	Effect on profit after tax and retained profits RMB'000
Singapore Dollars	**5%**	**151**	5%	105
	(5)%	**(151)**	(5)%	(105)
Canadian Dollars	**5%**	**1,166**	5%	1,048
	(5)%	**(1,166)**	(5)%	(1,048)
United States Dollars	**5%**	**499**	5%	308
	(5)%	**(499)**	(5)%	(308)
Hong Kong Dollars	**5%**	**3**	5%	3
	(5)%	**(3)**	(5)%	(3)
Pataca de Macau	**5%**	**5**	5%	–
	(5)%	**(5)**	(5)%	–

Results of the analysis as presented in the above table represent an aggregation of the instantaneous effects on each of the Group's entities' profit after tax and retained profits measured in the respective functional currencies, translated into RMB at the exchange rate ruling at the end of reporting period for presentation purposes.

The sensitivity analysis assumes that the change in foreign exchange rates had been applied to re-measure those financial instruments held by the Group which expose the Group to foreign currency risk at the end of reporting period, including inter-company payables and receivables within the Group which are denominated in a currency other than the functional currencies of the lender or the borrower. The analysis excludes differences that would result from the translation of the financial statements of foreign operations into the Group's presentation currency. The analysis is performed on the same basis for 2018.

26 FINANCIAL RISK MANAGEMENT AND FAIR VALUES *(Continued)*

(e) Fair values

(i) Financial assets and liabilities measured at fair value

There were no financial instruments measured at fair value at the end of the reporting periods.

(ii) Fair values of financial instruments carried at other than fair value

The carrying amounts of the Group's financial instruments carried at cost or amortised cost are not materially different from their fair value at 31 December 2019.

27 COMMITMENTS

(a) Capital commitments

Capital commitments outstanding at 31 December 2019 not provided for in the financial statements were as follows:

	2019 RMB'000	2018 RMB'000
Contracted for	**112,700**	114,592

(b) At 31 December 2018, the total future minimum lease payments under non-cancellable operating leases were payable as follows:

	Property RMB'000
Within 1 year	14,916
After 1 year but within 5 years	4,168
	19,084

The Group is the lessee in respect of items of land and buildings held under leases which were previously classified as operating leases under HKAS 17. The Group has initially applied HKFRS 16 using the modified retrospective approach. Under this approach, the Group adjusted the opening balances at 1 January 2019 to recognise lease liabilities relating to these leases (see note 2(c)). From 1 January 2019 onwards, future lease payments are recognised as lease liabilities in the consolidated income statement in accordance with the policies set out in note 2(i) and the details regarding the Group's future lease payments are disclosed in note 21.

28 MATERIAL RELATED PARTY TRANSACTIONS

(a) Name and relationship with related parties

During the years ended 31 December 2019 and 2018, transactions with the following parties are considered as related party transactions:

Name of parties
THTF* (同方股份有限公司)
Tsinghua Tongfang Artificial Environment Co., Ltd. * ("Tongfang Artificial") (同方人工環境有限公司)
Liaoning Tongfang Security Technology Co., Ltd.* (遼寧同方安全技術有限公司)
Beijing Tongfang Property Management Co., Ltd.* (北京同方物業管理有限公司)
NUCTECH Co., Ltd.* (同方威視技術股份有限公司)
Tongfang Kawasaki Advanced Energy-saving Machine Co., Ltd.* (同方節能裝備有限公司)
Tongfang Technology Park Co., Ltd.* (同方科技園有限公司)
Guangdong Tongfang Lighting Co., Ltd.* (廣東同方照明有限公司)
Wuxi Tongfang Artificial Environment Co., Ltd.* (無錫同方人工環境有限公司)
Tongfang Energy Technology Development Co., Ltd.* (同方能源科技發展有限公司)

* The official name of these entities is in Chinese. The English translation of the name is for reference only.

THTF is the controlling shareholder of the Company, incorporated in the PRC and produces financial statements available for public use. Other related parties listed above are subsidiaries of THTF.

(b) Significant related party transactions

Particulars of significant related party transactions during the years ended 31 December 2019 and 2018 are as follows:

	2019 RMB'000	2018 RMB'000
Sales to THTF and its subsidiaries	142,629	65,742
Purchases from THTF and its subsidiaries	131,448	99,342
Payment for miscellaneous products and services from THTF and its subsidiaries	18,518	25,927
Interest expenses on loans from Tongfang Artificial	983	2,936
Repayment of loans to Tongfang Artificial	69,512	–
Payments transferred by THTF to the Group	1,106,519	1,378,789
Payments transferred by the Group to THTF	767,841	953,991

Other than the above related party transactions, certain trademarks are used by the Group in the PRC licensed by THTF at nil consideration.

28 MATERIAL RELATED PARTY TRANSACTIONS *(Continued)*

(c) Amounts due from/(to) related parties

At 31 December 2019 and 2018, the Group had the following balances with THTF and its subsidiaries:

	2019 RMB'000	2018 RMB'000
Trade and other receivables	**136,654**	65,247
Trade and other payables	**(196,952)**	(145,662)
Loans from related parties	**–**	(69,520)

The loans from related parties bear interest at loan interest rate stipulated by People's bank of China for the corresponding period, and are unsecured.

(d) Key management personnel remuneration

Remuneration for key management personnel of the Group, including amounts paid to the Company's executive directors as disclosed in note 8 and certain of the highest paid employees as disclosed in note 9, is as follows:

	2019 RMB'000	2018 RMB'000
Short term employee benefits	**2,565**	2,356

Total remuneration was included in "staff costs" (see note 6(b)).

(e) The related party transactions in respect of sales, purchases, payments transferred by THTF to the Group, payments transferred by the Group to THTF, and receipts of miscellaneous products and services above constitute continuing connected transactions as defined in Chapter 14A of the Listing Rules. The disclosures required by Chapter 14A of the Listing Rules are provided in the reports of the directors. The related party transaction in respect of financial assistance received from THTF constitutes a continuing connected transaction as defined in Chapter 14A of the Listing Rules, however, they are exempt from the disclosure requirements in Chapter 14A of the Listing Rules.

(f) Transactions with other state-controlled entities in the PRC

The controlling shareholder of the Company, THTF, is a state-controlled enterprise controlled by the PRC government. Apart from transactions with THTF and its subsidiaries and associate which were disclosed in note 28(a) above, the Group also has transactions with other state-controlled entities, included but not limited to the following:

- sales of products and provision of services;
- purchase of materials; and
- bank deposits and borrowings.

29 COMPANY-LEVEL STATEMENT OF FINANCIAL POSITION

	Note	**31 December 2019 RMB'000**	1 January 2019 (Note) RMB'000	31 December 2018 (Note) RMB'000
Non-current assets				
Property, plant and equipment		**1,429**	3,528	1,156
Intangible assets		**4**	4	4
Investments in subsidiaries		**1,733,937**	1,705,851	1,705,851
		1,735,370	1,709,383	1,707,011
Current assets				
Trade and other receivables		**31,140**	32,454	32,454
Cash and cash equivalents		**54,064**	67,827	67,827
		85,204	100,281	100,281
Current liabilities				
Trade and other payables		**11,713**	14,929	14,929
Lease liabilities		**611**	1,800	–
		12,324	16,729	14,929
Net current assets		**72,880**	83,552	85,352
Total assets less current liabilities		**1,808,250**	1,792,935	1,792,363
Non-current liabilities				
Lease liabilities		**–**	572	–
		–	572	–
NET ASSETS		**1,808,250**	1,792,363	1,792,363
CAPITAL AND RESERVES	25			
Share capital		**1,189,968**	1,189,968	1,189,968
Reserves		**618,282**	602,395	602,395
TOTAL EQUITY		**1,808,250**	1,792,363	1,792,363

Note: The Company has initially applied HKFRS 16 at 1 January 2019 using the modified retrospective approach. Under this approach, comparative information is not restated. See note 2(c).

Approved and authorised for issue by the board of directors on 26 March 2020.

Zhao Xiaobo	)	
	)	*Directors*
Qin Xuzhong	)	

30 ACCOUNTING ESTIMATES AND JUDGEMENTS

Key sources of estimation uncertainty

The Group believes the following critical accounting policies involve the significant judgements and estimates used in the preparation of the financial statements.

Information about assumptions and estimation uncertainties that may have a significant risk of resulting in a material adjustment in the year ending 31 December 2019 are included in the following notes:

(i) Construction projects

As explained in policy note 2(t), revenue from construction projects are recognised over time. Such revenue and profit recognition on uncompleted projects is dependent on estimating the total outcome of the project, as well as the work done to date. Based on the Group's recent experience and the nature of the manufacturing and construction activities undertaken by the Group, the Group has made estimates of the point at which it considered the work was sufficiently advanced such that the outcome of the contract can be reasonably measured. Until this point is reached the related contract assets disclosed in note 16 do not include profit which the Group might eventually realise from the work done to date. In addition, actual outcomes in terms of total cost or revenue may be higher or lower than estimated at the end of the reporting period, which would affect the revenue and profit recognised in future years as an adjustment to the amounts recorded to date.

(ii) Valuation of contract assets and trade receivables

The management measures loss allowances on contract assets and trade receivables at amounts equal to lifetime ECL using a provision matrix which involved significant management judgement in estimating loss rate and adjusting factors that are specific to the debtors and an assessment of both the current and forecast industries in which they operate at the reporting date.

(iii) Impairment losses of non-current assets

In considering the impairment losses that may be required for certain of the Group's assets which include property, plant and equipment, lease prepayments and intangible assets, recoverable amount of the asset needs to be determined. The recoverable amount is the greater of the fair value less costs to sell and the value in use. It is difficult to precisely estimate selling price because quoted market prices for these assets may not be readily available. In determining the value in use, expected cash flow generated by the asset are discounted to their present value, which requires significant judgment relating to items such as level of revenue and amount of operating costs. The Group uses all readily available information in determining an amount that is reasonable approximation of recoverable amount, including estimates based on reasonable and supportable assumptions and projections of items such as revenue and amount of operating costs.

30 ACCOUNTING ESTIMATES AND JUDGEMENTS *(Continued)*

Key sources of estimation uncertainty *(Continued)*
Information about other judgements made and estimates applied are included in the following notes:

(i) Net realisable value of inventories

Net realisable value of inventories is the estimated selling price in the ordinary course of business, less estimated costs of completion and distribution expenses. These estimates are based on the current market condition and historical experience of selling products of similar nature. It could change significantly as a result of competitor actions in response to changes in market conditions. Management reassesses these estimations at the end of the reporting period to ensure inventory is shown at the lower of cost and net realisable value.

(ii) Depreciation

Items of property, plant and equipment are depreciated on a straight-line basis over the estimated useful lives of the assets, after taking into account the estimated residual value. The management reviews the estimated useful lives of the assets regularly in order to determine the amount of depreciation expense to be recorded during any reporting period. The useful lives are based on the Group's historical experience with similar assets and taking into account anticipated technological changes. The depreciation expense for future periods is adjusted if there are significant changes from previous estimates.

(iii) Income tax

Determining income tax provisions involves judgement on the future tax treatment of certain transactions. The management carefully evaluates tax implications of transactions and tax provisions are set up accordingly. The tax treatment of these transactions is reconsidered periodically to take into account all changes in tax legislations. Deferred tax assets are recognised for deductible temporary differences and unused tax losses. As those deferred tax assets can only be recognised to the extent that it is probable that future taxable profit will be available against which they can be utilised, management's judgement is required to assess the probability of future taxable profits. Management's assessment is constantly reviewed and additional deferred tax assets are recognised if it becomes probable that future taxable profits will allow the deferred tax assets to be recovered.

Deferred tax liability was not recognised in respect of the withholding income tax that would be payable on the distribution of retained profits of the Company's subsidiaries as the Company considers that it is probable that such profits will not be distributed in the foreseeable future. Any changes in dividend policy may result in the recognition of the related deferred tax liabilities.

(iv) Development costs

Critical judgement by the Group's management is applied when deciding whether the recognition requirements for development costs have been met. This is necessary as the economic success of any product development is uncertain and may be subject to future technical problems at the time of recognition. Judgements are based on the best information available at the end of the reporting period. In addition, all internal activities related to the research and development of new products is continuously monitored by the Group management.

31 COMPARATIVE FIGURES

The Group has initially applied HKFRS 16 at 1 January 2019 using the modified retrospective approach. Under this approach, comparative information is not restated. Further details of the changes in accounting policies are disclosed in note 2(c).

(Expressed in RMB unless otherwise indicated)

32 POSSIBLE IMPACT OF AMENDMENTS, NEW STANDARDS AND INTERPRETATIONS ISSUED BUT NOT YET EFFECTIVE DURING THE YEAR ENDED 31 DECEMBER 2019

Up to the date of issue of these financial statements, the HKICPA has issued a number of amendments and a new standard, HKFRS 17, *Insurance contracts*, which are not yet effective for the year ended 31 December 2019 and which have not been adopted in these financial statements. These developments include the following which may be relevant to the Group.

	Effective for accounting periods beginning on or after
Revised Conceptual Framework for Financial Reporting 2018	1 January 2020
Amendments to IFRS 9, *Financial instruments*, IAS 39, *Financial instruments: recognition and measurement*, and IFRS 7, *Financial instruments: disclosures, Interest rate benchmark reform*	1 January 2020
Amendments to IFRS 3, *Business Combination, Definition of a business*	1 January 2020
Amendments to IAS 1, *Presentation of financial statements*, and IAS 8, *Accounting policies, changes in accounting estimates and errors, Definition of a material*	1 January 2020
HKFRS 17, *Insurance contracts*	1 January 2021
Amendments to IAS 1, *Presentation of financial statements, Classification of liabilities as current or non-current*	1 January 2022
Amendments to HKFRS 10 and HKAS 28, *Sale or contribution of assets between an investor and its associate or joint venture*	To be determined

The Group is in the process of making an assessment of what the impact of these developments is expected to be in the period of initial application. So far it has concluded that the adoption of them is unlikely to have a significant impact on the consolidated financial statements.

33 NON-ADJUSTING EVENTS AFTER THE REPORTING PERIOD

Impacts from Coronavirus outbreak

The Coronavirus outbreak ("COVID-19") since early 2020 has brought additional uncertainties to the global business environment as well as to the Group. The Group has been closely monitoring the impact from the COVID-19 and has commenced to put in place various contingency measures including but not limited to increasing monitoring of the business environment of the Group's customers and suppliers.

Up to the date on which these consolidated financial statements are issued, the directors of the Company were not aware of any material adverse effects on the financial statements as a result of the COVID-19 outbreak. The Group will keep the contingency measures under review as the COVID-19 situation evolves.