



**Technovator International Limited**  
(incorporated in Singapore with limited liability)

**Stock Code: 1206**

# **A LEADING SMART ENERGY SAVING SERVICES PROVIDER**

**Annual Report 2020**



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# CORPORATE INFORMATION

## BOARD OF DIRECTORS

### Executive Directors

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

### Non-executive Directors

Mr. Liu Tianmin (劉天民)  
Mr. Wang Yinghu (王映濤)  
Mr. Huang Yu (黃俞) (resigned on 9 January 2020)

### Independent Non-executive Directors

Ms. Chen Hua (陳華)  
Mr. Chia Yew Boon (謝有文)  
Mr. Fan Ren Da Anthony (范仁達)

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

### Risk Management Committee

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

## JOINT COMPANY SECRETARIES

Mr. Leung Lok Wai  
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

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

## PRINCIPAL PLACE OF BUSINESS IN HONG KONG

15th Floor  
Allied Kajima Building  
138 Gloucester Road  
Wanchai, Hong Kong

## LEGAL ADVISER AS TO HONG KONG LAWS

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](http://www.technovator.com.sg)

## **PRINCIPAL BANKERS**

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

## **INVESTOR RELATIONS CONTACT**

Beijing office  
Ms. Hannah Zhang  
Tel: +86 10 8239 9391  
Email: [zhanghan@thtf.com.cn](mailto:zhanghan@thtf.com.cn)

Hong Kong and Singapore office  
Tel: +852 2736 8180  
+65 6841 1788  
Email: [info@technovator.com.sg](mailto:info@technovator.com.sg)





# 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 2020.

## Commitment amidst Pandemic Challenges

2020 has been an extraordinary year. Facing the aggressive coronavirus pandemic ("COVID-19"), healthcare workers headed for the "silent battle" to safeguard the lives of hundreds of millions of people at home. Technovator also had its own "front line". We strictly implemented the pandemic prevention and control measures and stayed perseverance. We took our responsibility and commitment into actions to guarantee the safe and efficient operation of the cities under the pandemic with the aid of cutting-edge technology.

Facing the pandemic, we fight together. The Group set up a pandemic emergency response team immediately, formulated relevant plans, and helped employees prevent and control the pandemic effectively through a series of measures such as online office support, daily precaution information push, and regular disinfection of office premises. In the meantime, Technovator's "craftsmanship" assures the production of its own products and the implementation of the existing projects. As for the national key projects such as Zhuhai Hengqin Port Project and the renovation of the Curling Stadium of Water Cube, the project department overcame many difficulties, adopted closed construction and other means, early resumed work in February and made every effort to guarantee the process of the projects, resulting in a number of projects successfully passing the acceptance during the year. As for the product production base, in response to the impact of the pandemic that more than half of workers could not resume work, the management arranged workers to take double shifts, and allowed machines running non-stop when employees were off work. While protecting the staff and ensuring that they were given rest time, we have tried our best to push the work and guarantee schedule. As such, all the production orders at home and abroad were delivered on time during the pandemic.

## Leading New Development to Support New Infrastructure Projects

In 2020, China was under the challenges of pandemic outbreak and also embraced an important stage of advancing "New Infrastructure" and building "Dual Circulation". Technovator has been working for various new infrastructure construction projects including urban utility tunnel, data centre, metro, centralized heating network for recent years in respect of urban rail transit, building and energy sectors. By taking advantage of the new generation of information technology, such as 5G, artificial intelligence, industrial Internet, big data and cloud computing, the Group developed integrated solutions from project design, product manufacturing, mechanical and electrical installation, technical service to entrusted operation and maintenance through its integral and new infrastructure service capabilities from terminal to the cloud and digital integration, providing the users with "new infrastructure" experiences of smart, safe and green.

During the year, Technovator has participated in key intelligent building projects consisting of Beijing new airport's integrated pipeline project (北京新機場綜合管廊項目), the Renovation Project of Curling Stadium of the Water Cube (水立方冰壺場館改造項目), Zhuhai Hengqin Port Project (珠海橫琴口岸項目), the Silk Road Economic Belt in XiXian New District (西咸新區絲綢經濟帶), promoting the national and regional development construction. Multiple types of business operation have constantly been developed, which comprises winning the bid for projects such as the Energy Management Contract ("EMC") project of energy-saving reconstruction of Beijing Subway Line 15 (北京地鐵15號線節能改造EMC項目), the Energy Trust Operation and Maintenance Project of Peking University Resource Innovation and Entrepreneurship Part (北大資源雙創園能源託管運維項目), and several "Three Supplies and Estate Management (三供一業)" centralized heating renovation projects. Two sets of new products development have been completed rapidly on the Techcon Neosys platform, successfully realizing the cross-segment R&D application of proprietary building control products.

During the year, Technovator won the “Top Ten Building Automation Control Brand Award” (十大樓宇自控品牌獎) in China for the eighth consecutive year, continuing to be the leader in the national brands of building automation. The Taigu Heating Project with Substantial Temperature Differentials and Long-distance won the “National Quality Engineering Award-Golden Award” (國家優質工程金獎), the Wuhan Metro Line 7 Project won the “Wuhan Municipal Engineering Award-Golden Award” (武漢市政工程金獎), and the Smart Utility Tunnel Management Platform V3.0 System (智慧管廊軟件平台V3.0) won the “Smart City Pioneer List Excellent Software Award of 2020” (2020 智慧城市先鋒榜優秀軟件獎). We exercise the power of independent innovation with our actual strength, shoulder the social responsibility of a high-tech enterprise, and spearhead the high-quality development of the industry.

During the year, all our colleagues in Technovator worked unanimously and unwaveringly in their respective positions, using technology, service and responsibility to contribute our wisdom and strength in this tough battle against the pandemic. We believe that with the joint effort of everyone, we will create a more wonderful homeland after the pandemic!

Last but not least, on behalf of the board of directors and management of the Group, I would like to express my heartfelt gratitude to all the staff for their unremitting dedication and to all our customers and business partners for their perseverance and support. Technovator believes that goals can only be reached with persistence. We are willing to make every effort for the trust of shareholders, and strive unremittingly for the future of the Group and the industry!



**Qin Xuzhong**  
*Chairman*

29 March 2021

# FIVE YEAR FINANCIAL SUMMARY

	2016	2017	2018	2019	2020
<b>(RMB'000)</b>					
<b>Consolidated income statement</b>					
<b>Continuing operations</b>					
Revenue	1,786,341	1,979,970	2,036,588	1,752,778	<b>1,736,664</b>
Cost of sales	(1,357,747)	(1,485,861)	(1,560,590)	(1,401,723)	<b>(1,374,010)</b>
Gross profit	428,594	494,109	475,998	351,055	<b>362,654</b>
Other revenue	40,162	38,329	46,966	57,466	<b>48,385</b>
Other net gain/(loss)	27,999	2,822	(212)	(10,403)	<b>(1,203)</b>
Selling and distribution costs	(66,183)	(81,949)	(85,049)	(94,374)	<b>(89,981)</b>
Administrative and other operating expenses	(131,647)	(133,432)	(115,792)	(163,446)	<b>(153,237)</b>
Financial expenses	(30,897)	(13,500)	(10,828)	(11,819)	<b>(12,178)</b>
Profit before taxation	268,028	306,379	311,083	128,479	<b>154,440</b>
Income tax	(36,303)	(43,488)	(49,749)	(15,062)	<b>(21,892)</b>
<b>Profit for the year</b>	<b>231,725</b>	<b>262,891</b>	<b>261,334</b>	<b>113,417</b>	<b>132,548</b>
Equity shareholders of the Company	234,127	259,358	261,165	112,866	<b>130,601</b>
Non-controlling interests	(2,402)	3,533	169	551	<b>1,947</b>
Profit for the year	231,725	262,891	261,334	113,417	<b>132,548</b>
<b>Basic earnings per share (RMB)</b>	<b>0.2935</b>	<b>0.3269</b>	<b>0.3338</b>	<b>0.1443</b>	<b>0.1670</b>
<b>Diluted earnings per share (RMB)</b>	<b>0.2870</b>	<b>0.3269</b>	<b>0.3338</b>	<b>0.1443</b>	<b>0.1670</b>
Non-current assets	832,941	991,381	1,124,917	1,119,939	<b>1,207,595</b>
Current assets	2,996,669	3,234,312	3,486,046	3,807,569	<b>3,672,330</b>
Current liabilities	1,607,886	1,801,227	1,915,927	2,116,512	<b>1,944,637</b>
Net current assets	1,388,783	1,433,085	1,570,119	1,691,057	<b>1,727,693</b>
Total assets less current liabilities	2,221,724	2,424,466	2,695,036	2,810,996	<b>2,935,288</b>
Non-current liabilities	27,606	34,202	37,620	38,534	<b>40,170</b>
Total equity attributable to equity shareholders of the Company	2,188,427	2,372,140	2,638,052	2,752,516	<b>2,877,491</b>
Non-controlling interests	5,691	18,124	19,364	19,946	<b>17,627</b>
Total equity	2,194,118	2,390,264	2,657,416	2,772,462	<b>2,895,118</b>
<b>Net assets per share (RMB)</b>	<b>2.74</b>	<b>3.05</b>	<b>3.40</b>	<b>3.54</b>	<b>3.70</b>
<b>Financial ratio</b>					
Cost to income ratio	76.0%	75.0%	76.6%	80.0%	<b>79.1%</b>
Pre-tax profit margin	15.0%	15.5%	15.3%	7.3%	<b>8.9%</b>
Return on Equity	10.6%	11.0%	9.8%	4.1%	<b>4.6%</b>
Current ratio	1.9	1.8	1.8	1.8	<b>1.9</b>

# MANAGEMENT DISCUSSION AND ANALYSIS

## GENERAL

2020 has been a tough year around the globe. China and international economic development was severely affected due to the fierce challenge from COVID-19. The Group recorded revenue of approximately RMB1,736.7 million for the full year, representing a year-on-year decrease of 0.9%. Nevertheless, the Group's profit margin has been improved to a certain extent resulted from strong application of proprietary products and cost control, and recorded a profit of approximately RMB132.5 million for the full year, representing a year-on-year increase of 16.8%.

Under the dual challenges of COVID-19 and adverse economic situation, the Group remained committed to its original aspiration and has strictly controlled its product and project quality, while persistently deepening technological innovation. In 2020, Technovator won the "Top Ten Building Automation Control Brands Award" in China for the eighth consecutive year, continuing to be the leader in the national brands of building control. At the same time, the Group continued to actively participate in the formulation of various national and industry standards and specifications in order to make contribution to the industry norm development.

## BUSINESS REVIEW

### Smart Transportation Business

In 2020, China is at a critical stage of building up its strength in transport, moving towards "a country with strong transportation network" from "a country with large transportation network". Facing the adverse impact caused by COVID-19, the smart transportation business seized the opportunity and overcame difficulties, strove to pay equal attention to project construction and services assurance as well as allocated resources reasonably. Meanwhile, it also proactively gave play to its technology innovation capability and vigorously promoted the project application of its own core technology and products. In 2020, revenue and profit margins of the segment for the full year were bucked up.

During the period, the segment launched smart station integrated operation and management platform (ezISCS-SOM), which built up three-dimensional station model with BIM and 3D GIS technology, and on the basis of Integrated Supervision and Control System, carried out comprehensive perception, extensive interconnection and coordinated operation on human being, equipment, environment and various factors to establish a smart station management system with intelligent operation, smart operation and maintenance as well as smart services. During the year, smart station integrated operation and management platform has been successfully applied to Xi'an Subway Line 5, branch line of Chongqing Subway Line 6 and other projects.

In the meantime, projects such as Hangzhou Subway Line 5 and 7, Jinan R2 Line, Xi'an Subway Line 5 Phase I and II, Wuhan Line 11 Phase III and Orange Line in Lahore, Pakistan have overcome unfavorable factors caused by the pandemic and were completed and put into operation as scheduled during the year. In addition, the newly-signed integrated supervision project for Jinhua Jinyidong Urban Rail Transit (金华市金义东市域轨道交通) in Zhejiang Province continued to strengthen the Group's leading position in the field of subway integrated supervision. The newly-signed oversized platform screen doors project for Zhengzhou Urban Rail Transit Line 6 Phase I was the first to introduce self-developed smart operation and maintenance platform into the platform screen doors system. The newly-signed EMC project of energy-saving reconstruction for the ventilation and air conditioning system of Beijing Subway Line 15 made another breakthrough in energy-saving reconstruction business in subway stations, empowering profit margin growth for the segment.

### Smart Building and Complex Business

Owing to its good project accumulation in previous periods, the smart building and complex business of the Group has strived to employ people and promote production to safeguard the smooth implementation of existing projects, and at the same time tightly grasped the opportunities brought about by the trend of “New Infrastructure” to expand new market during the pandemic. In 2020, revenue from this segment grew steadily. With the further promotion and application of its self-owned core products and accelerated development of various business pattern, profit margin for the segment during the period increased significantly.

In order to follow the developing direction of “New Infrastructure”, the segment strengthened the technology research and development as well as innovation efforts on urban smart utility tunnel during the period, significantly upgrading the proprietary smart utility tunnel software platform, introducing big data, artificial intelligent technology and unified three-dimensional modelling technology. Several projects using this software platform have gained appreciation from users. In the meantime, the segment rapidly developed and completed two groups of new products which were applicable to platform screen doors of urban transit, urban heating network of IoT based on the self-owned Techcon Neosys hardware platform during the period, and applied them in key projects, realizing cross-segment application of proprietary building control products. Furthermore, two national scientific research projects in the 13th Five-Year Plan the segment engaged in during the period have successfully completed the R&D and demonstration tasks, entering into the stage of conclusion and acceptance.

During the period, each division of national key projects such as Hengqin Port Project in Zhuhai, the NUO hotel ancillary facilities of Universal Studio Beijing and Shaanxi Broadcasting Network Industry Base Data Center (陝西廣電網絡產業基地數據中心) had overcome adverse impact caused by the pandemic and realized early resumption of work by adopting closed construction and other means to fully guarantee the process of projects, resulting in a number of projects successfully passing the acceptance during the year. Self-owned Techcon series software and hardware products continued to be applied in various projects in different regions. Meanwhile, the segment also signed additional projects including EMC Projects of Energy-saving Renovation for Public Buildings of Hebei Agricultural University, Entrusted Energy Operation and Maintenance Project of PKU Resources Pioneer Park, etc., and continued to expand its diversified business model to drive the enhancement of segment profit margin and sustainability.

### Smart Energy Business

Owing to negative effects caused by COVID-19, a number of engineering projects of smart energy segment have been postponed while tender of new projects was delayed. The implementation of operation and maintenance projects were hindered, and the process of overall project settlement was slowed down, resulting in a significant decline in revenue and profit margin of the segment in 2020. However, with the development of energy revolution, and reducing consumption and improving efficiency in urban centralized heating has a huge potential demand, the Group remained optimistic about the long-term development of the segment.

The R&D team of the smart energy segment has been deeply penetrating in the development of urban centralized heating over 30 years and its core technologies keep iterating and innovating. During the period, the team successfully developed and completed the “Qihui” (啟慧) smart heating software platform, which could solve the “big waste” problems caused by “small problems” in energy system. The platform fits for large energy system and is a tailor-made three-level index system. Picture of energy consumption and planned energy-saving pattern of comprehensive analysis system became the benchmarking products of smart heating and have been successfully applied in real projects.

During the period, the Taiyuan Absorption Heat Exchange Unit Project (太原熱力吸收式換熱機組項目), the Shaanxi Shenmu Smart Heat Network Project and the heat supply improvement project of “Three Supplies and Estate Management” (三供一業) in Taiyuan and Baoding have been orderly carried forward. Meanwhile, the Smart Heating Project of Ningxia Power Investment Corporation (寧夏電投智慧供熱項目) was newly signed. The project is based on the self-developed “Qihui IHM3.0 – Intelligent Heating Network Management Platform”, building an integrated platform of smart heating control for Ningxia Power Investment Corporation to achieve network-wide balance and smart control, and to ensure that the heating network is safe, environmental friendly, stable, and economic operated. We also signed the projects such as the “Three Supplies and Estate Management” (三供一業) Project of PetroChina Xi’an Changqing Xinglongyuan Community, and the heating project of Dezhou Heating Group (德州市熱力集團) to reduce heating energy consumption and improve heating management for users.

## OUTLOOK

The unprecedented outbreak of COVID-19 in 2020 has brought unexpected challenges to the world. It was also a tough year for Technovator. Nevertheless, as the situation of prevention and control of COVID-19 continues to improve in China, the overall operation and project implementation of the Group have been resumed basically. The management believes that the Group's own technology and innovation capability are always the best guarantee for future development.

In the future, the Group will continue to adhere to the technology-based development direction, seize the development opportunities of various sectors under the background of "New Infrastructure", conform market demand, give full play to its innovation capability, and make full use of the new generation of information technology such as 5G, artificial intelligence, industrial Internet, big data and cloud computing to provide users with smart, safe and green new technology products and solutions. At the same time, we will continue to expand diversified business areas and cooperation models, strive to promote technological and industrial coordination, improve the Group's own profitability and sustainable development capabilities, and promote the healthy development of the entire industry.

## FINANCIAL REVIEW – CONTINUING OPERATIONS

### Revenue

As the global economy was severely hit by the outbreak of COVID-19 in 2020, domestic economic growth was still under huge pressure. During the year, Technovator has overcome the difficulties by making every effort to promote business development. The Group recorded net revenue of RMB1,736.7 million for the full year, representing a slight decline by 0.9% year-on-year. Thanks to the efforts made by the Group to accelerate the implementation of the projects after the resumption of work and production, the revenue for the year in the smart transportation segment achieved trend-bucking growth. In the meantime, the Group allocated its resources in a reasonable manner to ensure the key national large-scale infrastructure projects under the smart building and complex segment will be completed as scheduled, so as to empower revenue increase for the segment. As the smart energy segment has been affected by the pandemic more seriously, the implementation of operation and maintenance projects was hindered, resulting in a decline in segment revenue during the year.

### Revenue by business segments

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

	2020		2019		Comparison
	Revenue (RMB'000)	% of revenue	Revenue (RMB'000)	% of revenue	
Smart transportation	574,417	33%	523,087	30%	9.8%
Smart building and complex	788,591	45%	776,250	44%	1.6%
Smart energy	373,656	22%	453,441	26%	-17.6%
Total	1,736,664	100%	1,752,778	100%	-0.9%

### Smart Transportation

Revenue from the smart transportation business increased by 9.8% from approximately RMB523.1 million in 2019 to approximately RMB574.4 million. During the year, the Group has newly signed the EPC projects such as Gedian Section of Wuhan Metro Line 11 and the EMC project of ventilation and air-conditioning energy-saving improvement of Beijing Subway Line 15, as well as accelerated the implementation of projects and ensured the settlement progress after resumption of work and production, making those projects the main drivers to generating revenue for smart transportation segment. During the period, historical existing projects such as the Xi'an Urban Subway Line 5 Phases I and II, Hangzhou Subway Line 7 and Pakistan Lahore Orange Line (巴基斯坦拉哈爾橙綫) were completed as scheduled and put into operation, which helped the segment to achieve trend-bucking growth in revenue.

### Smart building and complex

Revenue from the smart building and complex segment recorded a slight increase of 1.6% from approximately RMB776.3 million in 2019 to approximately RMB788.6 million in 2020. During the year, the Group has newly signed intelligent projects such as the construction project of Shenzhen University Xili Campus (深圳大學西麗校區建設工程) and Energy Information Technology Industry Base in Taihang Mountains around the capital (環首都太行山能源信息技術產業基地) and the EMC project of public buildings lighting and air-conditioning system of Hebei Agricultural University (河北農業大學公共建築照明及空調系統EMC項目), which made steady progress and generated revenue during the year. Furthermore, due to the fixed delivery schedule, the key national projects signed in previous periods such as the construction project of the NUO resort hotel ancillary facilities of Universal Studios Beijing, Shaanxi Broadcasting Network Industry Base Data Center (陝西廣電網絡產業基地數據中心) experienced limited impacts from the pandemic, thus safeguarding smooth progress and revenue generation of business sector after the pandemic.

### Smart energy

Revenue from the smart energy segment for the year amounted to approximately RMB373.6 million, representing a decrease of approximately 17.6% from approximately RMB453.4 million in 2019. The decrease in revenue from the smart energy segment for the year was due to strong seasonality of smart energy projects which experienced more impact by the pandemic, while the limitation of movement resulted in hinderance in the implementation of operation and maintenance projects as well as slowdown in settlement. As the pandemic in the nation has been gradually under control, the Group is well prepared to drive project progress in order to cover the loss caused by the pandemic while actively signing contracts. In 2020, the Group has newly signed Taiyuan Absorption Heat Exchange Unit Project (太原熱力吸收式換熱機組項目), the heat supply improvement project of "Three Supplies and Estate Management" (三供一業) in Taiyuan and Baoding and coal to electricity projects in Jize, Yongji and Pinglu, and has made certain progress during the year, which facilitated the sustainable and steady development of and contributed revenue to the segment.

### Cost of sales

Cost of sales decreased by approximately 2.0% from approximately RMB1,401.7 million in 2019 to approximately RMB1,374.0 million in 2020. The decrease in cost was the combined effect of the decrease in revenue and cost control.

### Gross profit

Gross profit increased by 3.3% from approximately RMB351.1 million in 2019 to approximately RMB362.7 million in 2020. Gross profit margin for the year was approximately 20.9%, representing an increase of 0.9 percentage points from 20.0% in previous year. The increase in gross profit margin from the segment was driven by the increase in gross profit for newly signed projects in the smart building and complex segment and partial settlement of related projects during the year, thus boosting the Group's overall gross profit margin.

**Other revenue**

Other revenue decreased by approximately 14.7% from approximately RMB56.5 million in 2019 to approximately RMB48.2 million in 2020, which was mainly due to the decrease in government subsidies received by the Group during the year.

**Other net loss**

Other net loss decreased from approximately RMB10.4 million in 2019 to the net loss of approximately RMB1.2 million in 2020. The one-off disposal of related assets of approximately RMB6.3 million by the Group for legal proceedings last year was in non-recurring nature. Other net loss for the year significantly decreased as a result of the absence of disposal during the year.

**Selling and distribution costs**

Selling and distribution costs in 2020 amounted to approximately RMB90.0 million, representing a decrease of approximately 4.7% as compared to 2019. Selling and distribution costs accounted for 5.2% (2019: 5.4%) of revenue. Since the Group has tightened the control over movement of people during the pandemic, which had a positive effect on the management of selling and distribution costs. The amount and the proportion of the revenue decreased during the year.

**Administrative and other operating expenses**

Administrative and other operating expenses increased by 3.0% from approximately RMB125.4 million in 2019 to approximately RMB129.2 million in 2020. Impairment on fixed assets in smart energy segment increased by RMB12.9 million during the year, resulting in a year-on-year increase in administrative and other operating expenses for the year.

**Impairment loss on trade and other receivables and contract assets**

Impairment loss on trade and other receivables and contract assets decreased by 36.6% from approximately RMB38.0 million in 2019 to approximately RMB24.1 million in 2020, which was mainly due to the improvement in the structure of trade and other receivables of the Group.

**Finance costs**

The Group's finance costs in 2020 were approximately RMB12.2 million. The Group's demand for working capital increased due to the effect of pandemic. During the year, short-term loans within one year of approximately RMB43.8 million were obtained and settled. However, the corresponding finance costs were presented in the period while loans were not presented in the closing balance. Therefore, finance costs for the year have increased by 3.4% year-on-year as compared to approximately RMB11.8 million in 2019.

**Income tax**

Income tax increased by 45.0% from approximately RMB15.1 million in 2019 to approximately RMB21.9 million in 2020. The effective tax rate increased from 11.7% in the previous year to 14.2% during the year. The increase in income tax was mainly driven by the increase in profit before tax for the year. Effective tax rate increased year-on-year was due to relatively low effective tax rate as a result of tax return from the income tax settlement in the previous year and payment for outstanding tax during the year.

**Profit for the period**

During the year, profit for the period increased by approximately 16.8% from approximately RMB113.4 million in 2019 to approximately RMB132.5 million in 2020. Net profit margin increased by 1.1 percentage points from 6.5% in 2019 to approximately 7.6% in 2020.

The basic earnings per share from continuing operations of the Group increased by 15.7 percentage points year-on-year to RMB0.1670 (2019: RMB0.1443). The diluted earnings per share increased by 15.7 percentage points year-on-year to RMB0.1670 (2019: RMB0.1443).

### Working capital and financial resources

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

	<b>As at 31 December 2020 (RMB'000)</b>	As at 31 December 2019 (RMB'000)
Inventories	<b>1,028,866</b>	901,725
Trade and other receivables	<b>1,366,911</b>	1,342,333
Trade and other payables	<b>1,555,301</b>	1,723,068
Average inventory turnover days	<b>200</b>	174
Average trade receivables turnover days <sup>(Note)</sup>	<b>231</b>	218
Average trade payables turnover days <sup>(Note)</sup>	<b>352</b>	338

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

The Group's inventories increased from approximately RMB901.7 million as at 31 December 2019 to approximately RMB1,028.9 million as at 31 December 2020. The inventory turnover days increased from approximately 174 days in 2019 to approximately 200 days in 2020. Affected by the pandemic, the progress of certain projects lagged behind and settlement slowed down, resulted in an increase in inventory scale and turnover days as compared to last year.

The Group's trade and other receivables amounted to RMB1,366.9 million in 2020, which remained basically stable as compared to approximately RMB1,342.3 million as at 31 December 2019. The average trade receivables turnover days increased from approximately 218 days in 2019 to 231 days in 2020. During the pandemic, the collection progress of projects was relatively slower, resulting in the slowdown in collection of trade receivables and the increase in the scale of trade receivables.

The Group's trade and other payables amounted to approximately RMB1,555.3 million as at 31 December 2020, representing a decrease from approximately RMB1,723.1 million as at 31 December 2019. The Group's average trade payables turnover days increased from approximately 338 days in 2019 to approximately 352 days in 2020. During the pandemic, the trade payables turnover days throughout the year increased as the Group made appropriate adjustment on payment pace to maintain liquidity. At the same time, the Group strived to guarantee the payment to suppliers of major projects so as to cater for the production and timeframe of the projects in haste, which led to the decrease in the closing balance of trade and other payables compared to last year.

### Liquidity and financial resources

In 2020, the Group financed its operations primarily through cash flow from operations and cash balance on hand. As at 31 December 2020, the Group had cash and cash equivalents of approximately RMB587.9 million, which accounted for 20.3% of the Group's net assets (31 December 2019: cash and cash equivalents of approximately RMB657.8 million).

As at 31 December 2020, the Group's indebtedness consisted of short-term bank loans of approximately RMB214.2 million with an average interest rate of 4.6% (2019: 5.1%) per annum. It is the result of the Group's financial planning based on the financial costs in the market and normal working capital required.

As at 31 December 2020, 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 certain amounts in USD, HKD, MOP and SGD, and deposits that are readily convertible into known amounts of cash.

As at 31 December 2020, the net cash of the Group was approximately RMB373.7 million (31 December 2019: net cash of approximately RMB400.7 million). Gearing ratio, defined as loans and borrowings divided by total assets, was approximately 4.4% (2019: approximately 5.2%).

**Pledge of assets**

As at 31 December 2020, the Group had no pledge of assets.

**Contingent liabilities**

As at 31 December 2020, 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 non-consolidated entities.

**Employee, training and development**

As at 31 December 2020, the Group had a total of 863 employees compared to the 905 employees as at 31 December 2019. Total staff costs in 2020 decreased from approximately RMB196.2 million in 2019 to approximately RMB192.7 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 2020, the Group had no material acquisition or disposal of subsidiaries or associates.

**Significant investments**

For the year ended 31 December 2020, the Group had no significant investment.

# DIRECTORS AND SENIOR MANAGEMENT

## Executive Directors



**Mr. Zhao Xiaobo (趙曉波)**

Aged 51, 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 as 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 48, 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 21 years of experience in the industry. He joined THTF (a company listed on the 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 served as the chairman of Tongfang Artificial Environment Co., Ltd\* (同方人工環境有限公司), Tongfang Kawasaki Advanced Energy-saving Machine Co., Ltd.\* (同方節能裝備有限公司) and Tongfang Energy Technology Development Co., Ltd.\* (同方能源科技發展有限公司) respectively. 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 in June 2000, the executive master degree in business administration from Tsinghua University 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 – Green Building and Intelligent Building branch\* (中國建築業協會綠色建造與智能建築分會), 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 59, 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 (王映滄)**

Aged 47, 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 the Director of Financial Management (財務管理總監) of the Funding and Finance Center of Tsinghua Holdings Co., Ltd. (清華控股有限公司) from February 2018 to June 2020. and has been served as the Joint Financial Controller and General Manager of the Financial Management Center of Tsinghua Unigroup Co., Ltd. (紫光集團有限公司) since June 2020. 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 (FAIA), and a Certified Internal Auditor (CIA). He graduated with a bachelor’s degree in Transport Economics (運輸經濟) from Northern Jiaotong University\* (北方交通大學, currently known as Beijing Jiaotong University\* (北京交通大學)). He also obtained an MBA degree from School of Economics and Managements, Tsinghua University.

## Independent Non-Executive Directors



**Mr. FAN Ren Da, Anthony (范仁達)**

Aged 60, 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) 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 62, 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 55, 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. Ms. Chen joined SB China Venture Capital (軟銀中國創業投資有限公司) as the operating partner and chief financial officer in 2010. Since 2020, Ms. Chen is the CEO of SBCVC Management PTE Limited. 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 paragraph headed “Executive Directors”.





**Mr. Leung Lok Wai (梁樂偉)**

Aged 45, 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 over 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 was 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 35, 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 2020.

## 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 2020 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 indicators 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 2020 are set out in note 14 to the financial statements.

## FINANCIAL STATEMENTS

The profit of the Group for the year ended 31 December 2020 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 71 to 144 of this annual report.

## DIVIDENDS

During 2020, the Company has not declared any dividend in respect of the financial year ended 31 December 2019. The Board does not recommend any final dividend for the year ended 31 December 2020.

## 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 2020, the aggregate amount of reserves available for distribution to equity shareholders of the Company was RMB421,070,000 (2019: RMB432,826,000). Details of the reserves of the Company as at 31 December 2020 are set out in note 25 to the financial statements.

## CHARITABLE DONATIONS

Charitable donations made by the Group during the year ended 31 December 2020 amounted to approximately RMB109,445 (2019: RMB3,000).



## PROPERTY, PLANT AND EQUIPMENT

Movements in property, plant and equipment of the Group for the year ended 31 December 2020 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 2020 are set out in note 25 to the financial statements.

## DIRECTORS

The Directors during the year ended 31 December 2020 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. Liu Tianmin (劉天民)

Mr. Wang Yinghu (王映濤)

Mr. Huang Yu (黃俞) (resigned effective on 9 January 2020)

### Independent Non-executive Directors

Ms. Chen Hua (陳華)

Mr. Chia Yew Boon (謝有文)

Mr. Fan Ren Da Anthony (范仁達)

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. Liu Tianmin, Mr. Wang Yinghu and Mr. Fan Ren Da Anthony will retire from the Board by rotation at the forthcoming annual general meeting. Mr. Liu Tianmin and Mr. Wang Yinghu have informed the Company that in order to devote more time to their other business commitments, they will not offer themselves for re-election as Directors of the Company after their retirement by rotation. Mr. Fan, being eligible, offers himself 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 2020.

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

As at 31 December 2020, 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 2020, 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 2020, there are no outstanding options under the Share Option Scheme.

No options granted under the Share Option Scheme were exercised, lapsed or cancelled during the year ended 31 December 2020, and no option was granted under the Share Option Scheme during the year ended 31 December 2020.

## 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 2020, 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 <sup>(1)</sup>	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 2020, 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 2020, 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 24 October 2019, Tongfang Technovator International (Beijing) Co., Ltd. ("Technovator Beijing") and THTF entered into a sales agreement (the "2019 Sales Agreement") to commence a new term for the transactions contemplated under the 2017 sales agreement entered into between the parties on 1 November 2017, pursuant to which Technovator Beijing agreed to sell or procure such other parties agreed by THTF, including members of the Group, to sell intelligent energy saving related products, equipment and services, which include control security systems, fire alarm systems and energy saving equipment to THTF, its subsidiaries and their respective associates and affiliates (the "Tongfang Group") for a term of three years from 1 January 2020 to 31 December 2022 and annual caps for the years ending 31 December 2020, 2021 and 2022, being RMB250.0 million, RMB300.0 million and RMB350.0 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 2020, the Group sold products to Tongfang Group in the amount of approximately RMB245.5 million, which was within the approved cap of RMB250.0 million.

The Group entered into the 2019 Sales Agreement to accommodate the business needs of the Group's non-core businesses. Further details of the 2019 Sales Agreement are set out in the announcement of the Company dated 25 October 2019 and the circular of the Company dated 16 December 2019.

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

On 24 October 2019, Technovator Beijing and THTF entered into a purchase agreement (the “2019 Purchase Agreement”) to commence a new term for the transactions contemplated under the 2017 purchase agreement entered into between the parties on 1 November 2017, 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 2020 to 31 December 2022 and annual caps for the years ending 31 December 2020, 2021 and 2022, being RMB200.0 million, RMB250.0 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 2020, the Group purchased such raw materials from Tongfang Group in the amount of approximately RMB87.2 million, which was within the approved cap of RMB200.0 million.

The Group entered into the 2019 Purchase Agreement to accommodate the business needs of the Group’s non-core businesses. Further details of the 2019 Purchase Agreement are set out in the announcement of the Company dated 25 October 2019 and the circular of the Company dated 16 December 2019.

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

On 24 October 2019, Technovator Beijing and THTF entered into a master agreement (the “2019 Master Agreement”) to commence a new term for the transactions contemplated under the 2017 master agreement entered into between the parties on 1 November 2017 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 2020 to 31 December 2022 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 2020, 2021 and 2022, 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 2020, 2021 and 2022, being RMB50.0 million, RMB60.0 million and RMB70.0 million, respectively.

Pursuant to the 2019 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 2019 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 2019 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 25 October 2019 and the circular of the Company dated 16 December 2019.

For the year ended 31 December 2020, the miscellaneous products and services provided by the Group to Tongfang Group amounted to approximately RMB0 million, which was within the approved cap of RMB30.0 million.

For the year ended 31 December 2020, the miscellaneous products and services provided by the Tongfang Group to the Group amounted to approximately RMB28.9 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 25 October 2019 and the circular of the Company dated 16 December 2019.

#### **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 24 November 2019, THTF, Technovator Beijing and Tongfang Energy Saving Engineering Technology Co., Ltd., wholly-owned subsidiaries of the Company agreed to engage in certain business arrangements (the "2019 Business Arrangements" in relation to Intelligent rail transit, building and urban heating network businesses (the "Intelligent Businesses")), including (i) for the projects (including new contracts or 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 will act as the party to supply contracts to procure materials or services from third party suppliers for the Nominee Projects and 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.

## REPORT OF THE DIRECTORS

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 THTF (including those Nominee Projects signed in name of THTF) in at least two projects within the past 12 months 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. The prices for the purchase of material and/or services to be procured under supply contracts subject to the 2019 Business Arrangements will be negotiated with third party suppliers based on the prices paid by THTF (including those Nominee Projects signed in name of THTF) in at least two purchases within the past 12 months for similar material and/or services.

The annual caps of payments to be transferred by THTF to the Group pursuant to the 2019 Business Arrangements for each of the years ended 31 December 2020, 2021 and 2022 are RMB1,600.0 million. For the year ended 31 December 2020, the payments transferred by THTF to the Group pursuant to the 2019 Business Arrangements amounted to approximately RMB1,256.5 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 2019 Business Arrangements for each of the years ending 31 December 2020, 2021 and 2022 are RMB1,300.0 million. For the year ended 31 December 2020, the payments transferred by the Group to THTF pursuant to the 2019 Business Arrangements amounted to approximately RMB699.5 million, which was within the approved annual cap of RMB1,300.0 million.

Please refer to the announcement of the Company dated 25 October 2019 and the circular of the Company dated 16 December 2019 for further details of the 2019 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 2020.

## **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 2020 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 2020 up to and including 31 December 2020, 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 2020 were 5.7% (2019: 4.8%) and 22.9% (2019: 20.6%) 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 2020 were 3.1% (2019: 1.8%) and 11.6% (2019: 7.8%) of the Group's total purchases respectively.

At no time during the year ended 31 December 2020, 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 2020, 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 2020.

## BANK LOANS

Details of bank loans of the Group as at 31 December 2020 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 2020 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 2020 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*

29 March 2021

# CORPORATE GOVERNANCE REPORT

## 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 2020, 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 2020 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 2020.



## BOARD OF DIRECTORS

### Board Composition

The directors during the year ended 31 December 2020 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. Liu Tianmin (劉天民)

Mr. Wang Yinghu (王映濤)

Mr. Huang Yu (黃俞) (resigned effective on 9 January 2020)

#### *Independent Non-executive Directors*

Ms. Chen Hua (陳華)

Mr. Chia Yew Boon (謝有文)

Mr. Fan Ren Da Anthony (范仁達)

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 2020:

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

## 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 2020 are set out as follows:

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

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 and annual financial performance. 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

Mr. Leung Lok Wai (“Mr. Leung”) and Ms. Cheok Hui Yee (“Ms. Cheok”) are the current joint company secretaries of the Company.

Details of the biography of Mr. Leung and Ms. Cheok 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. Cheok had attained no less than 15 hours of relevant professional training during the year ended 31 December 2020.

## 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 2020, the Audit Committee mainly performed following duties:

- reviewed the Group’s unaudited interim results for the six months ended 30 June 2020 and the audited annual results for the year ended 31 December 2020, 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 2020, 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 ( <i>Chairman</i> )	2
Mr. Chia Yew Boon	2
Mr. Fan Ren Da Anthony	2

There had been no disagreement between the Board and the Audit Committee during the financial year ended 31 December 2020.

## 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. At the start of the year, 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 2020, 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 2020.

During the year ended 31 December 2020, 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. Chia Yew Boon	1
Mr. Fan Ren Da Anthony ( <i>Chairman</i> )	1
Mr. Huang Yu (resignation effective on 9 January 2020)	0
Mr. Qin Xuzhong (appointment effective on 26 March 2020)	0

The remuneration of the members of the senior management by band for the year ended 31 December 2020 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. At the start of the year, 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 2020, 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 2020, 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 ( <i>Chairman</i> )	1
Mr. Fan Ren Da Anthony	1
Mr. Huang Yu (resignation effective on 9 January 2020)	0
Mr. Qin Xuzhong (appointment effective on 26 March 2020)	0

## 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 2020 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 2020, 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 2020, 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
Ms. Chen Hua	1
Mr. Chia Yew Boon	1
Mr. Fan Ren Da Anthony ( <i>Chairman</i> )	1
Mr. Liu Tianmin	1
Mr. Wang Yinghu	1
Mr. Huang Yu (resignation effective on 9 January 2020)	0
Mr. Qin Xuzhong	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 2020.

## 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 2020. 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 2020, 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 handling 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 2020.

## 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](mailto: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.



# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

## 1 ABOUT THE REPORT

This report is the fifth 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 2020 to 31 December 2020.

### **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 the intellectualization of urban energy, transportation, buildings and complex, energy-saving products, solutions and operational services with the goal of improving the safety, efficiency and energy efficiency of our customers, becoming a pioneer of promoting urban development in energy saving.

Technovator adheres to the urban comprehensive energy-saving service and technological innovation. Our business comprises three major fields, namely smart transportation, smart building and complex and smart energy. Our Group speeds up the building of smart cities by combining the technique of “Internet + Energy” with cloud platform and through resource integration and collaboration so as to achieve sustainable development. The Group attaches great importance to issues related to the environmental, social and governance (ESG), performs the enterprise’s social duties proactively and commits to becoming 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, corporate management and administration department, strategic cooperation department, general management 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

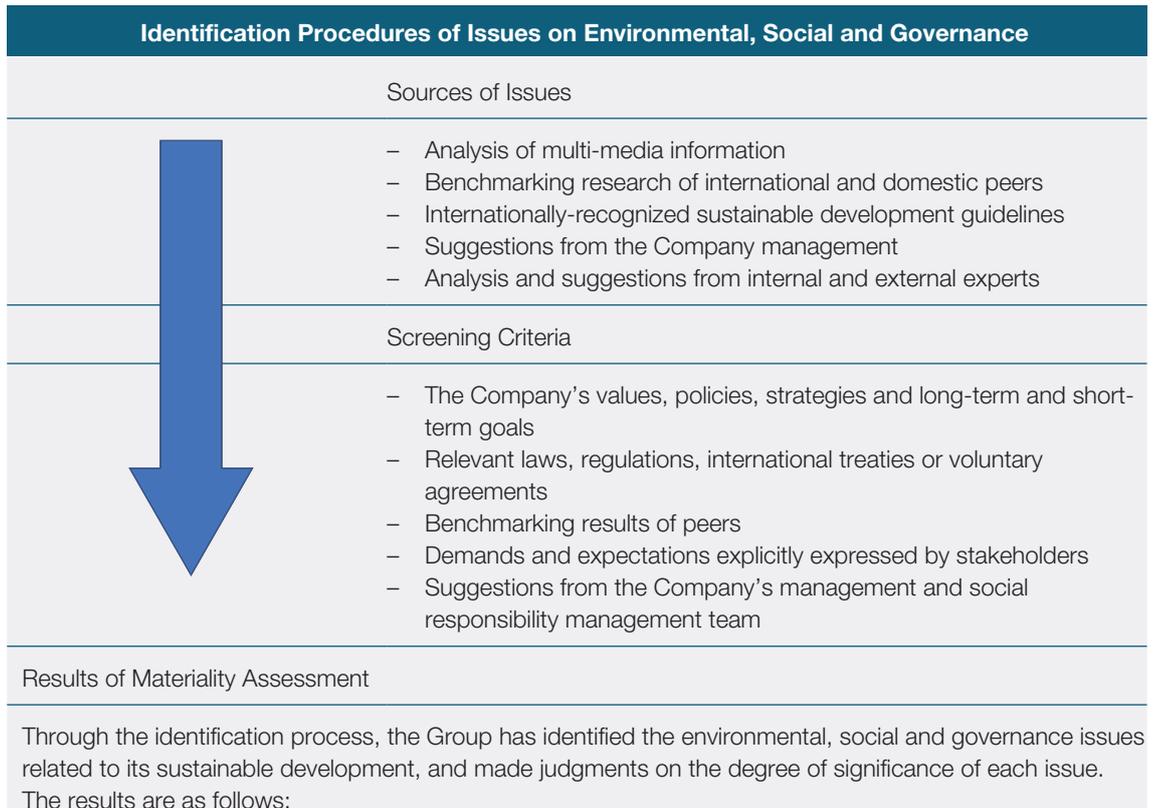
Keeping in mind the business model as well as internal and external communication, the Group has identified material types of stakeholders which have mutual influence with corporate operations to determine the focus of environment, society and governance for the Group through analysing the demands of 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:

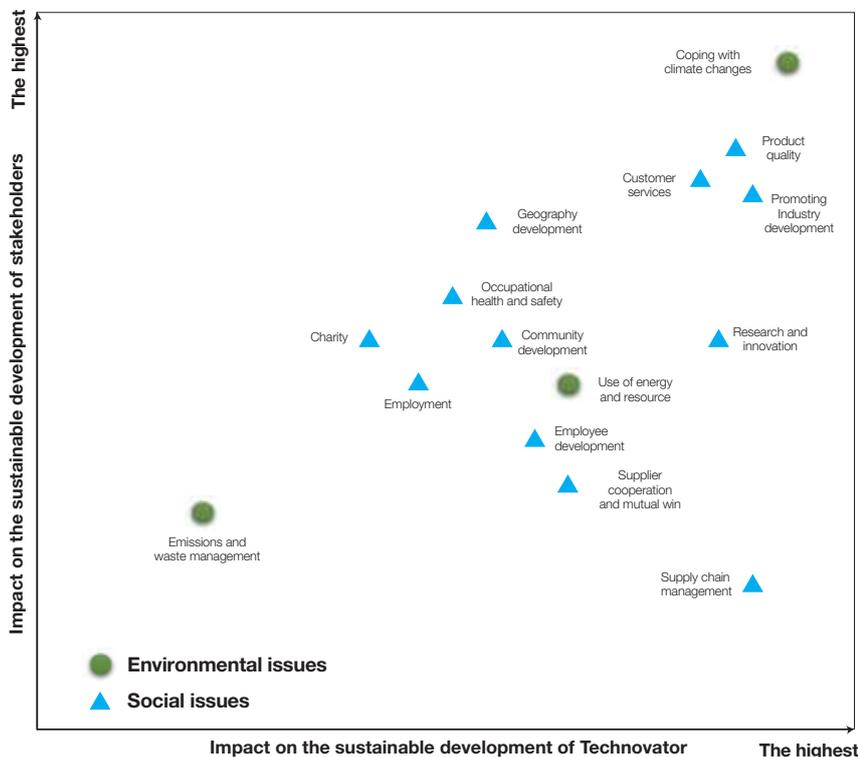
Stakeholders	Demands and Expectations	Communication and Response	Corporate Response
Government and Supervision Authorities	<ul style="list-style-type: none"> <li>- Comply with the laws and regulations</li> <li>- Promote technology advancement</li> <li>- Serve for the national economy and the people's livelihood</li> </ul>	<ul style="list-style-type: none"> <li>- Visit reception</li> <li>- Report submission</li> <li>- Company website</li> <li>- Negotiation and cooperation</li> </ul>	Strict observance of relevant laws and regulations; promote technology advancement; vigorously advocate energy conservation and emission reduction
Shareholders	<ul style="list-style-type: none"> <li>- Maintain good business performance</li> <li>- Compliance operation</li> <li>- Information disclosure</li> </ul>	<ul style="list-style-type: none"> <li>- Company announcement</li> <li>- Project report</li> <li>- Visit reception</li> </ul>	Endeavor to improve performance and generate profits; improve environmental and social responsibility management; truthful and thorough disclosure of information
Customers	<ul style="list-style-type: none"> <li>- Provide high quality products and services</li> <li>- Satisfy various customers' demands</li> </ul>	<ul style="list-style-type: none"> <li>- Regular communication with customers</li> <li>- Customers' satisfaction survey</li> <li>- Customers' complaint handling and feedback</li> </ul>	Provide sufficient, reliable and eco-friendly energy-saving products and services to fully meet customers' needs
Employees	<ul style="list-style-type: none"> <li>- Protect employees' rights and interest</li> <li>- Guarantee occupational health</li> <li>- Focus on training and development</li> <li>- A work-life balance</li> </ul>	<ul style="list-style-type: none"> <li>- Employees' meeting</li> <li>- Employees' advice platform</li> </ul>	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	<ul style="list-style-type: none"> <li>- Open, fair and impartial purchasing</li> <li>- Honor the contract</li> <li>- Mutual benefit and win-win result</li> </ul>	<ul style="list-style-type: none"> <li>- Signing the contract pursuant to laws</li> <li>- Open bidding</li> <li>- Project cooperation</li> </ul>	Adhere to open and transparent business principles and processes; active fulfilment of contracts and agreements; promotion of mutual visits
Community	<ul style="list-style-type: none"> <li>- Participate community's development</li> <li>- Support public activities</li> <li>- Assist educational business</li> </ul>	<ul style="list-style-type: none"> <li>- Community activities involvement</li> <li>- Interview and communication</li> </ul>	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 ESG, 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.



2020 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 greater extent and will gradually improve the statistical process to 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 2020 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 2020 is consistent with 2019, and certain indicators have been disclosed for two consecutive years since 2019.



## 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 transportation, smart building and complex and smart energy. We combine the technique of “Internet + Energy” with cloud platform to integrate urban resources in an all-round way and promote the smart, green and healthy development of cities 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 transportation, the Group has intensively explored the informatization and intellectualization of smart transportation with our business covering various fields including urban rail transit, intercity railway, lightweight passenger transport system and urban road transportation. The Group has built a host of M+ urban rail transit solutions combined with our own technology accumulation in various fields to provide customers with full life cycle services.

The Group adopted the self-developed Techcon EEC System for Metro to carry out energy-saving transformation of the ventilation and air-conditioning system at stations of Beijing Metro Line 15. During the operation of the system, the operation mode and load of the system were adjusted in real time according to the load demand of stations to achieve energy-saving and efficient operation on the basis of achieving requirements of temperature and humidity and carbon dioxide concentration of stations. The line introduced Techcon EMOD which could dynamically capture problems in the operation of ventilation and air conditioning system equipment, and realize real-time online diagnosis of problem points through energy-saving diagnosis function to assist operation.

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. Combined with business models like contract energy management model, we carry out the overall energy-saving solutions in aspects of air conditioning system smart control, public areas’ LED lighting and elevator system. At the same time, the Group continued to build culture, sports and education projects and set a new benchmark in the building energy-saving industry.

Technovator’s self-developed artificial intelligence control system and energy management and energy-saving diagnosis platform have been applied to PKU Resource and Culture Tianzhu Double Pioneer Park. Technovator focuses on the optimization and implementation of energy-saving system of complex and smart control and lean management of energy system, combined with energy trusteeship mode, to achieve the goal of energy consumption reduction and efficiency improvement. The annual energy efficiency of the energy centre is expected to reach over 5.0. Relying on the whole process product service system of “Control + Management + Equipment + Service” for the energy system, the accompanying adjustment service will be introduced during the operation period of the project to take care of the healthy, comfortable and efficient operation of the system.

The Group successfully helped Hebei Agricultural University to realize building energy-saving making use of the “EMOD” and the self-developed Techcon EEC. According to the actual energy load at the end of buildings, the Group could increase and decrease the workload and adjust the outlet water temperature and chilled water flow, so as to effectively reduce the energy consumption of the refrigeration room of buildings and improve the efficiency of energy management. Upon the energy-saving transformation of buildings, about 650 KWh can be saved every year and the overall energy-saving rate can exceed 20%.

In the field of smart energy, the Group has intensively explored central heating and heat pump heating, serving over hundreds of urban heating networks, and establishing an overall chain layout from energy production, energy transmission and distribution to energy consumption. As the pioneer of heating automation industry, based on the insight of heating production and transmission and distribution system, combined with intelligence technology and information technology, the Group integrates advanced heating concept and control logic into each heating segment; In the field of heating energy-saving, the Group has gained a deep energy-saving service capability throughout the whole industry chain and accumulated comprehensive energy-saving advantages in various aspects, such as core technology, hardware equipment and software products.

Technovator's self-developed "Qihui IHM 3.0 – Smart Heating Network Software" can collect, display, control and dispatch the data of source, network, station, household and operation management. With the application of big data, cloud computing and other technologies and through core algorithm of autonomous machine learning, it effectively responds to the development trend and management needs of diversified heating supply technology, complex heating supply management system, as well as heating supply information system improvement, which enables the whole network balance and intelligent management and control, and ensures the safe, environmentally-friendly, stable and economic operation of the heating network. With the application of this technology, the Group successfully built an integrated intelligent heating management and control platform for the centralized heating community served by Ningxia Power Investment Heating Company. In respect of the heating quality issues of public concern, the Group carried out energy-saving and automatic control transformation for 185 heating stations and 160,000 square meters of secondary pipe network of Ningxia Power Investment Heating Company simultaneously, and installed room temperature acquisition device, which effectively solved the hydraulic imbalance problem of heat exchange stations and the secondary pipe network and enabled the smart control over "the last kilometer" through the automatic adjustment of the secondary pipe network balance software of the intelligent heating platform, and improved the overall automation level of centralized heating and realized "on-demand heating and precise heating" while ensuring the heating quality, so as to provide users with the charm and warmth of "smart heating" at home.

Technovator's self-developed large-scale absorption heat pump continuously and stably provides clean and economic heat sources for dozens of cities such as Jinzhou, Xi'an, Tai'an and Shijiazhuang through the recovery of waste heat from power plants, flue gas waste heat and industrial waste heat, so as to realize the cascade utilization of energy, give full play to the potential of clean energy, effectively promote energy conservation and emission reduction, and improve environmental quality. During the year, in order to better ensure heating supply in the cold winter affected by the "La Nina" phenomenon, Technovator strengthened the inspection during the daily operation through the accompanying service, and conducted remote system inspection on the automatic control system to ensure the efficient and stable operation condition of the equipment system, so as to keep the system work better and protect the warmth of the people.

## 5 LEADING INDUSTRY INNOVATION

### 5.1 Innovation on Research and Development

Innovation is the core driver of the Group's long-term prosperity in the industry. 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 Saving", helping the industry to carry out research and development for technological innovation and contributing to the smart, green and healthy development of cities.

The Group has established a Building Energy-Saving Research Institute, which consists of a Building Data Application Research Institute, a 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.

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 2020, the Group launched three software platform products, namely "Qihui" energy system operation and management platform, integrated smart operation and management platform for stations (eziSCS-SOM) and integrated security platform (eziSMP):

- "Qihui" energy system operation and management platform aims to solve the problem of "big waste" caused by "small problems" in energy system. It is a three-level indicator system tailored for large-scale energy systems and can comprehensively analyse the energy consumption picture of the system and plan the energy saving path, so as to improve the quality and efficiency of operation and maintenance management. It is a forward-looking and pioneering "urban brain" independently developed by the Group and has been successfully applied in energy stations of a large automobile manufacturer.
- Integrated smart operation and management platform for stations (eziSCS-SOM) makes full use of new generation information technology such as artificial intelligence and industrial Internet to build three-dimensional station models with BIM and 3D GIS technology. It can comprehensively detect, connect and coordinate with various elements including people, equipment and environment on the basis of the comprehensive monitoring system, so as to build a smart station management system with smart operation, smart maintenance and smart service. It has been successfully applied in Xi'an Metro Line 5 and Chongqing Metro Line 6 branch line.
- Integrated security platform (eziSMP) is deeply integrated with five major security systems including video monitoring, intrusion alarm, security inspection and detection, entrance and exit control and electronic patrol. It achieves the operation target of security coordination and efficient solutions in emergency and becomes the "smart brain" in security industry on the basis of satisfying the required security management of metro network, lines and stations. It has been applied in Chongqing Metro Line 6.

The Group attaches great importance to cultivating scientific and technological innovation talents. As of 31 December 2020, not only there are a number of experts from Tsinghua University in the Building Energy-Saving Research Institute, but also employees with middle and senior titles accounts for 26.6%, and employees with postgraduates and above qualifications accounts for 47%. In order to further encourage employees to be engaged in innovation and research and development, the Group has adopted a series of measures to encourage technological innovation. For instance, we encourage staff to write, publish and gather articles. Innovative research and development project team selection activities are organized. 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. In 2020, the Group has a total of 180 R&D personnel in all relevant R&D departments and invested an aggregate of RMB7.2649 million in R&D activities.

In the future, the Group will continue to take intelligence, green and health as the research and development direction, adhere to the combination of production, learning, research, major equipment and major projects, and provide software and hardware products and full cycle solutions for the three business segments of smart transportation, smart building and complex and smart energy.

## 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 and innovative achievements and strengthening the competitiveness 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 strictly complies with the *Patent Law of the People's Republic of China* (《中華人民共和國專利法》), the *Copyright Law of the People's Republic of China* (《中華人民共和國著作權法》), the *Trademark Law of the People's Republic of China* (《中華人民共和國商標法》) and other laws and regulations, and, based on relevant laws and regulations, formulated *Intellectual Property Management System* (《知識產權管理制度》), which clearly standardized the working procedures of patent application, patent maintenance, patent protection, patent licensing and transfer.

The Group is carrying out intellectual property protection work in a planned and organized manner to promote the active transformation of scientific achievements of each business unit. As the centralized management department of intellectual property, the Technology Research Institute of the Group handles all intellectual property applications of each business unit, and the Group has set up an intellectual property specialist position to carry out management as required.

In 2020, the Group obtained 4 patents during the year, totaling 39 patents, and obtained 24 software copyrights during the year, totaling 133 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 technologies in the industry. In terms of construction informatization, the Group cooperated with China Academy of Building Research and intensely participated in the “Research and Demonstration of Whole-Process Big Data Green Building Management Technology”(基於全過程的大數據綠色建築管理技術研究與示範) project in the national key R&D program of the “13th Five-Year Plan (十三五)” and promoted data storage and data evaluation. The Group participated in the sub-issue of “Standardized Data Access of Public Buildings”(公共建築標準化數據接入) and “Research on Building Energy Efficiency Evaluation Method Based on Data Mining Technology”(基於數據挖掘技術的建築能效評價方法研究), and implemented buildings energy efficiency evaluation method based on data mining technology and demonstration of standardized data access for public buildings. The Group participated in the sub-issue of “Research and Application of Distributed Regional Energy Control Technology with Global Automatic Optimization”(分布式全域自動尋優區域能源控制技術研究及應用) in the key industrial R&D program of Chongqing Science and Technology Commission, and undertook the development of regional distributed energy control cabinet.

In terms of formulating industry standards, the Group actively participated in the construction of the intelligent building industry standard system, including standards in the field of intelligent buildings and electrical, metro, heating and air conditioning and building energy conservation, data center, utility tunnel, BIM as well as urban fire-fighting monitoring. The Group participated in the compilation of 36 national and industrial standards, and actively promoted the healthy development of the industry.

As a leading company in science and technology service industry, the Group has won many honors. The Group won the “ESCO Industry Famous Brand Enterprises” (節能服務產業品牌企業), “ESCO Excellent Enterprises in Public Facilities” (公共設施領域節能服務優秀企業) and “EMCA Outstanding Members of 2019” (2019EMCA優秀會員單位) issued by ESCO Committee of China Energy Conservation Association, and was awarded the certificate of “Comprehensive ESCO Ability in Public Facilities-5A” (公共設施領域節能服務綜合能力5A級), which show the competence as industry benchmark. The Taigu Heating Project with Substantial Temperature Differentials and Long-distance, which the Group participated in, won the “National Quality Engineering Award-Golden Award” (國家優質工程金獎), representing the first project winning the award in China's heating industry. The “Application and Development Report of Smart Complex” (《智慧園區應用與發展報告》) which the Group participated in the compilation of won the “Smart City Pioneer List Excellent Software Award of 2020” (2020智慧城市先鋒榜優秀軟件獎). In addition, Technovator won the “Top 10 Building Automation Brand Award” (十大樓宇自控品牌獎) for the eighth consecutive year, and continued to lead the national brands of building automation. During the year, the Group won 12 awards, totalling 177 awards.

## 6 ENVIRONMENT PROTECTION

Environment protection and energy conservation is an obligatory society responsibility, and it also serves as the foundation for enterprises to achieve green development and operation. The Group's production and operation involve products related to smart sensors, rail platform screen doors and smart heating system. As an unconventional high energy consuming company, the Group is 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.

The Group formulated environmental management systems for processing and manufacturing business (such as PCB) in its production and operation, 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, and continues to strengthen environmental management and control and continues to improve its environmental management system. The Group has obtained the ISO 14001 Environmental Management System Certification and will continue to improve the environmental compliance risk management in its operation, promote innovating measures for environmental-friendly and sustainable development and establish a good corporate social image.

In 2020, there were no breaches of relevant environmental laws and regulations that had a material impact on the Group.

## 6.1 Emission Management

The Group does not involve the emission of industrial waste gas and waste water in its production and operation. Waste gas and direct greenhouse gas are emitted during the use of official vehicles, while indirect greenhouse gas indirect comes from production and power consumption in offices. Waste water is mainly generated from production and office operations. The Group indirectly reduced waste gas emissions through standardizing the use of official vehicles. Since indirect greenhouse gases account for a large proportion of the Group's total greenhouse gases, the Group indirectly reduced greenhouse gas emissions through advocating electricity saving. The waste water emitted by the Group does not contain special pollutants. In 2020, the Group emitted a total waste water of 102,650 m<sup>3</sup>, which were emitted through the municipal pipe network in the place where it operates to the sewage treatment plant for treatment and purification. For the contents of electricity saving, water saving and management of official vehicles of the Group, see the section of "Consumption of Resource".

Types of exhaust gas		2020	2019
Waste gas emissions	Sulphur dioxide (kg)	0.11	0.19
	Nitrogen oxides (kg)	2.98	7.23
	Particulate matter (kg)	0.22	0.53
Direct greenhouse gas (ton carbon dioxide equivalence)		47.89	84.74
Indirect greenhouse gas (ton carbon dioxide equivalence)		3,992.39	3,689.57
Total greenhouse gases (ton carbon dioxide equivalence)		4,040.28	3,774.31
Greenhouse gas emission intensity (ton carbon dioxide equivalence/RMB10,000 revenue)		0.023	0.022

Note: Conversion is conducted according to China's regional power grid baseline emission factors of the 2017 annual emission reduction project released by the Department of Climate Change of the Ministry of Ecology and Environment,.

The waste gas emissions are from the waste gas produced by the official vehicles in the production base. Except for the sulphur dioxide emissions, which are only data of the Beijing headquarters and the production base in Miyun, the data of nitrogen oxides and particulate matter cover all subsidiaries and branches of the Group.

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.



Some of the Group's offices cooperate with printing equipment providers in the place where they operate and the printing equipment providers are responsible for recycling and filling the used ink cartridges and recycling them, which can reduce waste. Hazardous wastes are disposed by qualified third party, while non-hazardous wastes are recycled by the Group and classified and collectively disposed by the environmental hygiene department. Metal packages, wires and waste cardboard boxes that can be used continuously are recycled by the Group and applied in the corresponding process to reduce waste.

Types of waste		2020	2019
Hazardous Waste	Dross spot (ton)	0.44	0.42
	Used toner cartridges (kg)	13.60	9.60
	Used ink cartridges (kg)	1.95	1.65
Total hazardous waste (kg)		455.55	431.25
Discharge density of hazardous waste (kg/RMB10,000 revenue)		0.003	0.002
Non-hazardous Waste	Metal packages (ton)	0.24	0.20
	Wires (ton)	0.11	0.13
	Cardboard boxes (ton)	0.50	0.70
	Papers (ton)	57.16	88.09
Total non-hazardous waste (kg)		58,010.16	89,123.84
Discharge density of non-hazardous waste (kg/RMB10,000 revenue)		0.334	0.508

<sup>1</sup> 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, office supplies and packaging materials. 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		2020	2019
Power consumption (kWh)	Electricity consumption in production	5,318,053	5,100,418
	Electricity consumption in office area	271,036	325,988
Total power consumption (kWh)		5,589,089	5,426,406
Total gasoline consumption (l)		21,281	37,653
Comprehensive energy consumption (1000 kWh)		5,776.34	5,757.74
Comprehensive energy consumption intensity (1000 kWh/RMB10,000 revenue)		0.033	0.033
Water consumption (m <sup>3</sup> )	Water consumption in production	101,224	88,884
	Water consumption in office area	1,426	1,317
Total water consumption (m <sup>3</sup> )		102,650	90,201
Water consumption intensity (m <sup>3</sup> /RMB10,000 revenue)		0.591	0.515

<sup>3</sup> 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

<sup>4</sup> Data restatement

The Group actively practices resource saving by taking the following measures:

- Implement online office system, replace paper approval with OA approval system, reduce printing, and advocate double-sided printing and using paper twice for reimbursement;
- To address the issue of overtime work over the weekend in summer, mobile air conditioners are installed in some offices and meeting rooms to solve the air conditioning issue for overtime work and ad-hoc meetings over the weekend, and at the same time avoid to turn on the air conditioning on the whole floor, avoiding energy consumption;
- Intelligent light control is used 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;
- water-saving signs are posted over the sinks to enhance the awareness of water saving;
- Strengthen the inspection of water equipment in the office area to prevent "rushing, seeping, dropping and leaking" (「跑·冒·滴·漏」).
- Strengthen the management of official vehicles, and apply exclusive fuel cards for each official car, while do not encourage the use of official cars without special foreign affairs; Encourage joint meetings of multiple places to be held via video conference to reduce business trips; Encourage employees to adopt green transportation, etc.

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.

Types of packaging materials	2020	2019
Cardboard boxes (ton)	4.10	3.60
Plastics (ton)	0.02	0.01
Fillers (ton)	0.02	0.02
Consumption of recycled packaging materials (ton)	0.12	0.10
Consumption density of packaging materials (kg/RMB10,000 revenue)	0.025	0.021

## 7 CARING FOR EMPLOYEES

Employees are the core element of the sustainable development of enterprises and an important component of the core competitiveness for enterprises and the people-oriented development and operation philosophy serves as the important premise of sustainable development for enterprises. Through well-established employment system, harmonious staff relationship, excellent working environment, reasonable incentives as well as protection of employees' interest, enterprises are able to form inner strong cohesion and work together with employees for mutual growth.

### 7.1 Equal Employment

The Group strictly complies with laws and regulations of the related operation location 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》), the Regulations on Prohibiting Use of Child Labor (《禁止使用童工規定》), Employment Ordinance (《僱傭條例》) in Hong Kong region and Employment Act (《就業法案》) of Republic of Singapore. 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 establish a sound incentive 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, accommodating the sustainable development demands of the enterprise.

#### **Recruitment and dismissal**

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 realize continuous improvement and optimization. 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 abovementioned behaviors in 2020.

#### **Equal opportunity, diversity and anti-discrimination**

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, to ensure all employees different backgrounds of ethnicity, race, gender and religion enjoy equal employment opportunities and labor protection. In 2020, 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.

#### **Remuneration**

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, there will be a reasonable increase in the salary of employees per annum. In 2020, the Group has not committed any irregularities in remuneration packages.

#### **Working hours and leaves**

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 2020, 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.

### Benefits

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 2020, 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.

### Employee Care

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.

During the reporting period, the Group has a total workforce of 863, among which 833 employees entered into labor contract and 30 employees signed labor agreements. The contracting rate for employees with labor contract and labor agreement was 100%. In 2020, resigned employees of the Group amounted to 110 and turnover for employees was 12.7%.

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)	174	20.2%	14.4%
30-50 years old (50 years old exclusive)	613	71.0%	10.6%
50 years old and above	76	8.8%	26.3%

Gender	Number of employees	Proportion of total employees	Turnover rate
Male	575	66.6%	12.7%
Female	288	33.4%	12.8%

Region	Number of employees	Proportion of total employees	Turnover rate
Mainland China	854	99.0%	12.4%
Hong Kong, Macao and Taiwan	2	0.2%	0.0%
Overseas	7	0.8%	57.1%

Level	Number of employees	Proportion of total employees
Senior management	21	2.4%
Middle-level management	87	10.1%
Basic-level management	755	87.5%

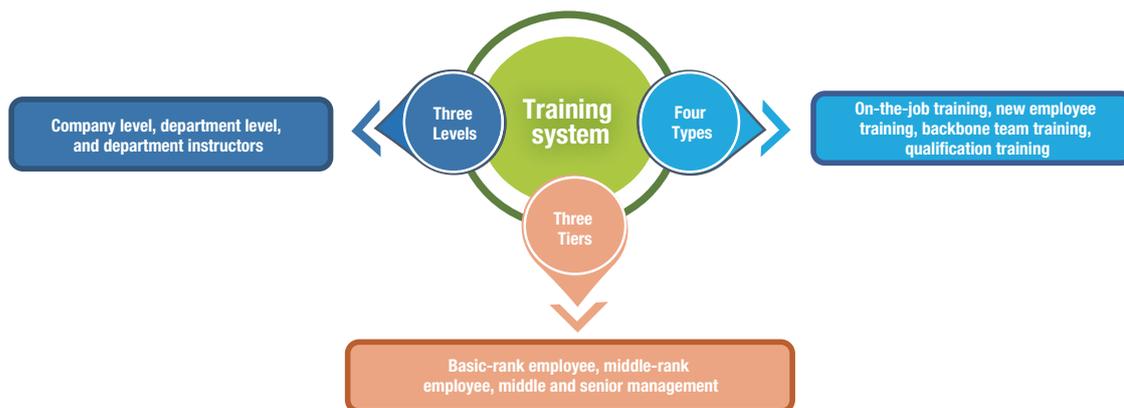
Note: "Senior management" in the report refers to the Group's management and/or employees at general manager level.

**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 subdivided 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 2020, employee training hours of the Group were 49,770 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	97.9%	64.63
Female employee	92.8%	54.49

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	76.2%	24.44
Middle-level management	83.7%	53.68
Basic level management	98.5%	62.95

### 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 and safety, implements safety production and occupational disease prevention, and commits to providing 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. The Group formulated the *Administrative Measures for Safe Work Production* (《安全生產工作管理辦法》), *Inspection System for Safe Production* (《安全生產檢查制度》), *Post Safety Operation Rules* (《崗位安全操作規程》), *Provision and Management System for Labor Protection Articles* (《勞動防護用品配備和管理制度》), *Management System for Dangerous Work* (《危險作業管理制度》), *Reward and Punishment System for Safe Work* (《安全生產獎勵和處罰制度》) to ensure the standard of operation, equipment and management in the production process. It has passed the third party certification of OHSAS18001, while continuously improving occupational health and safety performance by taking effective management measures to prevent loss from accidents.

#### **Implement responsibility and strict management**

As the centralized management department of safe production of the Group, the manufacturing department signs the fire control and safe production management responsibility letters with each manufacturing base layer by layer. Base leaders and responsible persons of the departments, departments and teams, teams and individuals sign layer by layer to establish the principle that safety management must attached to production management and whoever in charge must be responsible.

Safety officers are appointed in the base to be responsible for the arrangement, deployment, supervision and summary of safe production work in the office area. Base safety officers are the persons in charge of the safe production of the manufacturing bases. Safety officers are responsible for the safe production of the manufacturing bases, and the base senior leaders are the first person responsible for the safe production. The managers of each department are the persons in charge of the safe work of the departments, and a personnel is designated to be directly in charge of the safe production.

### **Strengthen safety publicity and education to improve the safety quality of employees**

Employees' safety standards and their awareness and consciousness of recognizing the hidden danger of accidents are directly related to production safety. As such, we must do a good job of publicity and education and standardize the safe production operations of employees to achieve safe production, and let employees understand that "from I am required to be safe to I want to be safe, I will be safe" (「要我安全到我要安全·我會安全」), and truly realize "do not hurt others, do not hurt themselves, do not be hurt by others" (「不傷害他人·不傷害自己·不被他人傷害」) to transform the safety behaviors from passive acceptance to conscious and active actions and lay a solid foundation for production safety. The Group 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 duration of labor protection equipment for all positions and specify the work-related accident response process and support arrangements. In 2020, the safety production training hours of the Group for the operation staff were 25 hours per person.

### **Strengthen safety inspection and strengthen safety rectification**

To eliminate safety hazards, make safety precautions, provide safe and reliable working environment for employees and enhance their sense of security, the Company makes hard efforts in the renovation and rectification of safety facilities and increases safety rectification and rectification efforts. It establishes safety checklist for safe production and performs regular work such as safety inspection, holiday inspection, seasonal inspection, electrical equipment safety inspection and temporary random inspection. If any problem is found, a notice of inspection and rectification will be issued in time. If the problem cannot be corrected, preventive measures shall be formulated and incorporated into the rectification plan, and measures will be formulated and implemented step by step, which ensures the normal operation of the Company's safe production. 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 Implementation* (《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.

### **Safe production emergency management**

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》) on the basis of strict compliance to the Law of the People's Republic of China on Fire Prevention (《中華人民共和國消防法》). In addition, the Group organizes employees to carry out fire emergency drills on a regular basis, and carries out effective safety supervision on daily production and operation as well as 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》), *Emergency Preparedness and Response Plan for Mechanical Injury* (《機械傷害應急準備與響應預案》), *Emergency Preparedness and Response Plan for Injury Accidents* (《傷害事故應急準備與響應預案》) and other methods to clarify emergency response measures, improve employees' emergency response and rescue capabilities, and ensure life safety and property safety.



**Occupational health protection**

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, to implement occupational disease prevention and management in order to facilitate the goal of creating 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. As such, the Group regularly provides employees with gloves, masks and other protective equipment.

In 2020, 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.

**Employee health protection under the impact of the pandemic**

Faced with the pandemic, we joined hand to ride through the challenges. Since the country launched the prevention and control measures against Coronavirus pandemic, the senior leaders of the Group rapidly established a Smart Energy Saving Division emergency response working group and issued *Tongfang Smart Energy Saving Division COVID-19 Emergency Response Plan* (《同方股份智慧節能產業本部新型冠狀病毒肺炎疫情應急處置預案》) to strengthening pandemic prevention and control. The members of the pandemic emergency response working group are composed of the relevant responsible administrative leaders of the Group and the administrative responsible persons of each unit, and are responsible for the comprehensive implementation of the pandemic emergency response work of the Group. During the outbreak period of the pandemic, employees are arranged to work at home based on the original online office system of the Group, and the technical department ensures the normal operation of the equipment and software. The Group communicates correct pandemic prevention measures and disinfection methods to all employees through official account and working groups, so as to achieve scientific pandemic prevention. The Group timely obtains accurate national anti-pandemic progress, and delivers it to employees, so as not to believe rumors and not to spread rumors, enhancing employees' confidence in overcoming the pandemic. After the normal work in office resumed, cleaning staff are arranged to clean the office building, stairs, handles and so forth several times a day, and the building is ventilated 24 hours a day. Employees are arranged to have meals at the workstation, and ensure that the dining distance is 1 meter. Alcohol, temperature gun, hand sanitizer and other anti-pandemic items are also placed in designated places for easy access by employees. Meanwhile, based on the pandemic emergency response plan, employees with suspected symptoms will be quarantined, and medical staff will be contacted and follow-up disinfection work will be carried out orderly.

## 8 PRODUCT RESPONSIBILITY

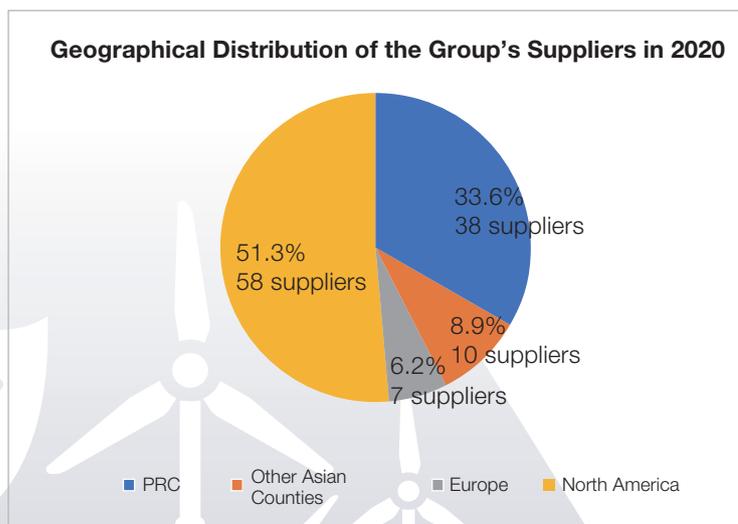
### 8.1 Supply Chain Management

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 purchasing department, quality management department, and storage and distribution 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. Most of 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. In order to effectively ensure that suppliers' products meet the requirements of HSF (Hazardous substances free) and that the product quality, price, delivery date, and the coordination degree of hazardous substances reduction meet the requirements of the Company's 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》) to standardize the procurement process, reduce operational risks, and achieve standardized management of global multichannel supply in terms of procurement of raw materials, ancillary materials, suppliers, as well as logistics, trade and other service providers. 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 reporting period, the Group has 113 suppliers of which there are 38 finished product suppliers reviewed on site and 3 self-produced product suppliers.



## 8.2 Product Quality

The Group adheres to the idea of “Quality Comes First” in all workplaces and 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. With the extensive application of artificial intelligence, our Group paid more attention to data quality in product quality management in 2020 and established the standards on meta data collection and data quality in relevant industry.

Benefited from the comprehensive product quality management process, no product was recalled by the Group by reasons of safety and health in 2020. 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.

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 to ensure customers’ demands are satisfied. In terms of software research and development, the Group passed the CMMI International Certification, obtained the qualification certificate evaluated by the Carnegie Mellon Software Engineering Institute (SEI). The Group could effectively handle more complicated software problems based on CMMI, namely Capability Maturity Model Integration, achieve parallel progress of software engineering, and further benefit from coordination of various subjects and process improvement, which marks that the Group’s software development, quality management and process improvement has been at the forefront of the world. Product testing is independent of product development. In the stage of product design, parallel test plans are designed, and testing can be further divided into two independent processes of testing and verification according to needs. As for key products and major projects, R&D personnel will be dispatched to provide on-site support and collect first-hand information in time so as to quickly solve problems.

**Ensuring safe operation and smooth delivery of products during the pandemic**

The Spring Festival in 2020 was destined to be extraordinary. Healthcare workers headed for the “silent battle” to protect the health of hundreds of million people at home against the outbreak of severe COVID-19 pandemic. Technovator had its own “frontline”. We strictly implemented pandemic prevention and control measures, committed to our jobs, interpreted and assumed responsibilities with actions, and ensured the safe operation of cities under pandemic with leading technologies.

During the pandemic, each message related to prevention and control mattered a lot. In the project department of Administrative Office of Beijing Municipal Sub Centre, Technovator responded to the new needs raised in the government’s daily meetings on the pandemic as soon as possible, tried to ensure information about health, urban transportation, public opinion monitoring, and social monitoring, and cooperated with Beijing Emergency Command Centre to provide technical support for pandemic control. In terms of key national projects such as Hengqin Port in Zhuhai and the renovation of Water Cube Curling Venue, project departments overcame the adverse impact of the pandemic, adopted closed construction and other methods to resume construction early in February, and made every effort to ensure the progress of the project. As a result, the project has successfully passed the acceptance during the year.

Concentration is persistence day after day. All staff in Technovator make the best endeavors on their respective posts, paying homage to the healthcare workers with “craftsmanship spirit”, and participating in the “hard battle against pandemic” with technology + service + unity. We believe that with the efforts of everyone, the world after the pandemic will be more beautiful!

**8.3 Customer Service**

Customers 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 from customers as driving force of our continual progress and development and adheres to improving customer satisfaction in order to establish good relationships with customers. 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 is handled properly. When our products do have quality problems, customers can fill in the quality feedback form and send it to our customer service officer by email. If it is necessary to return the product to the factory for maintenance after communication between the technical personnel and the customer, the customer shall deliver the defect product (including the list of defect product) to the designated maintenance center of the Group for maintenance service as informed by the customer service officer.

In 2020, the Group did not receive customer complaints about quality problems of self-produced components and received a total of 67 complaints about quality problems of outsourced finished products. The Group actively cooperated with customers and finished product suppliers to handle complaints, and timely assisted finished product suppliers to improve their work process according to customers’ advice. The Group resolved all customer complaints and customer satisfaction surveys showed 100% satisfaction. 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 national 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 *Criminal Law of the People's Republic of China* (《中華人民共和國刑法》), the *Anti-Money Laundering Law of the People's Republic of China* (《中華人民共和國反洗錢法》), 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 and enhanced employees' vigilance against corruption to further standardize their conduct.

The internal control department of the Group is responsible for anti-corruption and regularly checks the internal control and management documents and systems of the Group. It pays close attention to the update of relevant national laws and regulations, and revises relevant internal control and anti-corruption management systems based on the requirements of laws and regulations. The Group brings the work of anti-corruption into all kinds of important meetings of the Group, takes it as an important matter in the training of the Group's internal control and management, and strengthens the anti-corruption propaganda and education through the billboard. It requires all employees to be fair and honest so as to create a cultural atmosphere on clean and integrity. In 2020, our accumulated training time for anti-corruption was 735 hours with 379 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. Meanwhile, in cooperation with our suppliers, the Group expressly prescribes the anti-corruption clauses through relevant contracts and annexes.

The Group also set up internal reporting channels, including mailbox, telephone hotline and e-mail, and provided anti-corruption channels for cooperative suppliers. Employees and suppliers can report corruption and bribery anonymously or in real name through these channels which are supervised and managed by the internal control department of the Group. If there is case of improper act reported, the Group will initiate a response process and the case will be timely reported to the responsible person of the department or the management of the Group and be strictly and thoroughly investigated. For the privacy protection of whistleblowers, the Group completely conceals all the information of the whistleblowers when handling the reported cases, and will not provide the reported evidence to the person being reported or any other content that may disclose the information of the whistleblowers. During the year, the Group did not receive any report related to corruption and violation of the integrity practice policy.

## 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. In recent years, the centralized heating area served by Ningxia Electric Power Investment & Heating Company has grown rapidly and covers large areas of old communities, which results in a major difficulty and pain point in heating in winter. The 13th Five-Year Plan for Energy Development Plan of the Ningxia Hui Autonomous Region (Revised) (《寧夏回族自治區能源發展「十三五」規劃(修訂本)》) pointed out that efforts should be made to promote the optimization of energy structure and industrial upgrading, improve the level and efficiency of energy consumption, and accelerate the construction of Yinchuan national clean energy city.

In 2020, the Group helped Ningxia Electric Investment & Heating Company in respect of smart heating and established a comprehensive and integrated heating control platform for the company based on self-developed “Qihui IHM 3.0 – Smart Heating Network Software”. The platform improved management efficiency and quality of service while ensuring the heating quality. Meanwhile, the Group carried out energy-saving and automatic control transformation for 185 heating stations and 160,000 square meters of secondary pipe network of Ningxia Electric Investment & Heating Company simultaneously, and installed room temperature acquisition device, which let users feel the charm and warmth of “smart heating” at home. The implementation of the project can promote local energy conservation and emission reduction, improve the ecological environment, and serve the people's livelihood, making outstanding contributions to the construction of a “green, high-end, harmonious and habitable” of Yinchuan.

### 10.2 Community Welfare

The Group continues to fulfill its social responsibility while focusing on its own development. In 2020, the Group donated 13 Tsinghua Tongfang laptops to the Xiangbala Student Aid Association of Meigu County, Liangshan, Sichuan province for daily teaching of five village schools in Liangshan through organizing charity donation activities, which improved the local teaching conditions and promoted the development of local education. The Group invested a total of RMB109,445 in community welfare in 2020.



# INDEPENDENT AUDITOR'S REPORT

## **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 79 to 144 which comprise the consolidated statement of financial position as at 31 December 2020, 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 2020 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 ("HKSA") 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 101.

The Key Audit Matter	How the matter was addressed in our audit
<p>The Group's revenue for the year ended 31 December 2020 from construction projects totalled RMB1,382 million, which accounted for 80% 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.</p> <p>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.</p> <p>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.</p>	<p>Our audit procedures to assess accounting for construction projects included the following:</p> <ul style="list-style-type: none"> <li>• obtaining an understanding of the entity and its environment and assessing the design, implementation and operating effectiveness of management's key internal controls in relation to accounting for construction projects;</li> <li>• 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;</li> <li>• 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;</li> <li>• 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;</li> </ul>

## KEY AUDIT MATTERS *(Continued)*

### Accounting for construction projects

Refer to note 3 to the consolidated financial statements and the accounting policies on page 101.

The Key Audit Matter	How the matter was addressed in our audit
<p>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.</p>	<ul style="list-style-type: none"> <li>• 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;</li> <li>• 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;</li> <li>• identifying possible onerous projects by comparing the latest budgeted costs, taking into consideration the actual costs incurred up to 31 December 2020, 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</li> <li>• assessing the related disclosures in the consolidated financial statements with reference to the requirements of the prevailing accounting standards.</li> </ul>

**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 pages 92-97.

The Key Audit Matter	How the matter was addressed in our audit
<p>The Group's contract assets and trade receivables arise from the Group's construction projects. As at 31 December 2020, the aggregate amount of contract assets and trade receivables totalled RMB1,930 million.</p> <p>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.</p> <p>At 31 December 2020, the Group recognised loss allowances for contract assets and trade receivables of RMB128 million.</p> <p>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.</p>	<p>Our audit procedures to assess the valuation of contract assets and trade receivables included the following:</p> <ul style="list-style-type: none"> <li>• obtaining an understanding of the entity and its environment and assessing the design, implementation and operating effectiveness of management's key internal controls relating to credit control and the estimation of the ECL;</li> <li>• obtaining an understanding on the methods, key assumptions and data 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;</li> <li>• assessing the relevance and reliability of 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</li> <li>• assessing the related disclosures in the consolidated financial statements with reference to the requirements of the prevailing accounting standards.</li> </ul>

## 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 95.

The Key Audit Matter	How the matter was addressed in our audit
<p>As at 31 December 2020, the carrying values of the Group's Property, Plant and Equipment ("PP&amp;E") and intangible assets amounted to RMB222 million and RMB437 million, respectively.</p> <p>The Group's PP&amp;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 2020.</p> <p>When it is determined that indicators of potential impairment of PP&amp;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.</p> <p>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.</p>	<p>Our audit procedures to assess the potential impairment of PP&amp;E and intangible assets included the following:</p> <ul style="list-style-type: none"> <li>• obtaining an understanding of the entity and its environment and assessing the design, implementation and operating effectiveness of management's key internal controls relating to impairment assessment of PP&amp;E and intangible assets;</li> <li>• assessing management's identification of indicators of potential impairment of the PP&amp;E and intangible assets;</li> <li>• assessing the methods adopted by management in the preparation of the discounted cash flow forecasts, 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;</li> <li>• 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;</li> <li>• 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;</li> </ul>

**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 95.

The Key Audit Matter	How the matter was addressed in our audit
<p>We identified assessment of the potential impairment of PP&amp;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.</p>	<ul style="list-style-type: none"> <li>• 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;</li> <li>• comparing the actual results for the current year with the forecasts prepared in the prior year to assess the historical accuracy of the forecasting process;</li> <li>• 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</li> <li>• assessing the disclosures in the consolidated financial statements in respect of the impairment assessment of PP&amp;E and intangible assets with reference to the requirements of the prevailing accounting standards.</li> </ul>

**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, actions taken to eliminate threats or safeguards applied.

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 Simon.

### **KPMG**

*Certified Public Accountants*

8th Floor, Prince's Building  
10 Chater Road  
Central, Hong Kong

29 March 2021

# CONSOLIDATED INCOME STATEMENT

For the year ended 31 December 2020  
(Expressed in Renminbi ("RMB"))

	Note	2020 RMB'000	2019 RMB'000
<b>Revenue</b>	3,4	<b>1,736,664</b>	1,752,778
Cost of sales		<b>(1,374,010)</b>	(1,401,723)
<b>Gross profit</b>		<b>362,654</b>	351,055
Other revenue	5(a)	<b>48,198</b>	56,521
Other net loss	5(b)	<b>(1,203)</b>	(10,403)
Selling and distribution costs		<b>(89,981)</b>	(94,374)
Administrative and other operating expenses		<b>(129,176)</b>	(125,432)
Impairment loss on trade and other receivables and contract assets		<b>(24,061)</b>	(38,014)
Share of profits of associates		<b>187</b>	945
<b>Profit from operations</b>		<b>166,618</b>	140,298
Finance costs	6(a)	<b>(12,178)</b>	(11,819)
<b>Profit before taxation</b>		<b>154,440</b>	128,479
Income tax	7(a)	<b>(21,892)</b>	(15,062)
<b>Profit for the year</b>		<b>132,548</b>	113,417
<b>Profit attributable to:</b>			
Equity shareholders of the Company		<b>130,601</b>	112,866
Non-controlling interests		<b>1,947</b>	551
<b>Profit for the year</b>		<b>132,548</b>	113,417
<b>Earnings per share</b>	10		
– Basic (RMB)		<b>0.1670</b>	0.1443
– Diluted (RMB)		<b>0.1670</b>	0.1443

The accompanying notes form part of these financial statements.

# CONSOLIDATED INCOME STATEMENT AND OTHER COMPREHENSIVE INCOME

For the year ended 31 December 2020

(Expressed in Renminbi ("RMB"))

	2020 RMB'000	2019 RMB'000
<b>Profit for the year</b>	<b>132,548</b>	113,417
<b>Other comprehensive income for the year</b>		
Item that may be reclassified subsequently to profit or loss:		
Exchange differences on translation of financial statements of overseas subsidiaries, net of nil tax	<b>(5,723)</b>	1,629
<b>Total comprehensive income for the year</b>	<b>126,825</b>	115,046
<b>Attributable to:</b>		
Equity shareholders of the Company	<b>124,975</b>	114,464
Non-controlling interests	<b>1,850</b>	582
<b>Total comprehensive income for the year</b>	<b>126,825</b>	115,046

The accompanying notes form part of these financial statements.

# CONSOLIDATED STATEMENT OF FINANCIAL POSITION

At 31 December 2020

(Expressed in Renminbi ("RMB"))

	Note	31 December 2020 RMB'000	31 December 2019 RMB'000
<b>Non-current assets</b>			
Property, plant and equipment	11	221,943	256,954
Interests in associates		3,571	3,384
Intangible assets	12	437,434	311,321
Other financial assets	13	514,922	524,146
Deferred tax assets	23	29,725	24,134
		<b>1,207,595</b>	1,119,939
<b>Current assets</b>			
Inventories	15	1,028,866	901,725
Contract assets	16	688,664	905,752
Trade and other receivables	17	1,366,911	1,342,333
Cash and cash equivalents	18	587,889	657,759
		<b>3,672,330</b>	3,807,569
<b>Current liabilities</b>			
Trade and other payables	19	1,555,301	1,723,068
Contract liabilities	16	137,131	88,905
Loans and borrowings	20	214,227	257,098
Lease liabilities	21	1,765	2,610
Income tax payable		36,213	44,831
		<b>1,944,637</b>	2,116,512
<b>Net current assets</b>		<b>1,727,693</b>	1,691,057
<b>Total assets less current liabilities</b>		<b>2,935,288</b>	2,810,996

The accompanying notes form part of these financial statements.

**CONSOLIDATED STATEMENT OF FINANCIAL POSITION**

At 31 December 2020

(Expressed in Renminbi ("RMB"))

	Note	31 December 2020 RMB'000	31 December 2019 RMB'000
<b>Non-current liabilities</b>			
Deferred tax liabilities	23	28,805	28,474
Deferred income	24	9,551	10,003
Lease liabilities	21	1,814	–
Other non-current liabilities		–	57
		<b>40,170</b>	38,534
<b>NET ASSETS</b>		<b>2,895,118</b>	2,772,462
<b>CAPITAL AND RESERVES</b>			
Share capital	25	1,189,968	1,189,968
Reserves		1,687,523	1,562,548
<b>Total equity attributable to equity shareholders of the Company</b>		<b>2,877,491</b>	2,752,516
<b>Non-controlling interests</b>		<b>17,627</b>	19,946
<b>TOTAL EQUITY</b>		<b>2,895,118</b>	2,772,462

Approved and authorised for issue by the board of directors on 29 March 2021.

**Zhao Xiaobo**  
**Qin Xuzhong**

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*Directors*

The accompanying notes form part of these financial statements.

# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 31 December 2020

(Expressed in Renminbi ("RMB"))

	Attributable to equity shareholders of the Company							Non-controlling interests RMB'000	Total equity RMB'000
	Share capital	Statutory reserves	Translation reserve	Share-based compensation reserve	Other reserves	Retained profits	Total		
	RMB'000 Note 25 (c)	RMB'000 Note 25 (d)(i)	RMB'000 Note 25 (d)(ii)	RMB'000 Note 25 (d)(iii)	RMB'000 Note 25 (d)(iv)	RMB'000	RMB'000		
<b>Balance at 1 January 2019</b>	1,189,968	146,297	45,778	9,079	(537,048)	1,783,978	2,638,052	19,364	2,657,416
<b>Changes in equity for 2019:</b>									
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	-	-	-
<b>Balance at 31 December 2019</b>	1,189,968	158,889	47,376	-	(537,048)	1,893,331	2,752,516	19,946	2,772,462

	Attributable to equity shareholders of the Company							Non-controlling interests RMB'000	Total equity RMB'000
	Share capital	Statutory reserves	Translation reserve	Share-based compensation reserve	Other reserves	Retained profits	Total		
	RMB'000 Note 25 (c)	RMB'000 Note 25 (d)(i)	RMB'000 Note 25 (d)(ii)	RMB'000 Note 25 (d)(iii)	RMB'000 Note 25 (d)(iv)	RMB'000	RMB'000		
<b>Balance at 1 January 2020</b>	1,189,968	158,889	47,376	-	(537,048)	1,893,331	2,752,516	19,946	2,772,462
<b>Changes in equity for 2020:</b>									
Profit for the year	-	-	-	-	-	130,601	130,601	1,947	132,548
Other comprehensive income	-	-	(5,626)	-	-	-	(5,626)	(97)	(5,723)
Total comprehensive income for the year	-	-	(5,626)	-	-	130,601	124,975	1,850	126,825
Appropriation to reserves	-	17,455	-	-	-	(17,455)	-	-	-
De-registration of subsidiaries	-	-	-	-	-	-	-	(4,169)	(4,169)
<b>Balance at 31 December 2020</b>	1,189,968	176,344	41,750	-	(537,048)	2,006,477	2,877,491	17,627	2,895,118

The accompanying notes form part of these financial statements.

# CONSOLIDATED CASH FLOW STATEMENT

For the year ended 31 December 2020

(Expressed in Renminbi ("RMB"))

	Note	2020 RMB'000	2019 RMB'000
<b>Operating activities</b>			
<b>Profit for the year</b>		<b>132,548</b>	113,417
Adjustments for:			
Income tax		<b>21,892</b>	15,062
Depreciation	6(c)	<b>36,417</b>	41,933
Amortisation of intangible assets	6(c)	<b>59,061</b>	61,683
Impairment losses on trade and other receivables and contract assets	6(c)	<b>24,061</b>	38,014
Impairment losses on property, plant and equipment	6(c)	<b>12,941</b>	–
Finance costs	6(a)	<b>12,178</b>	11,819
Interest income	5(a)	<b>(40,221)</b>	(41,247)
Share of profits of associates		<b>(187)</b>	(945)
Net loss on disposal of property, plant and equipment	5(b)	<b>5</b>	6,500
Foreign exchange loss/(gain), net		<b>379</b>	(797)
		<b>259,074</b>	245,439
Increase in inventories		<b>(182,355)</b>	(108,621)
Increase in trade and other receivables		<b>(36,543)</b>	(157,010)
Decrease/(Increase) in contract assets		<b>218,174</b>	(110,634)
(Decrease)/Increase in trade and other payables		<b>(181,620)</b>	213,152
Increase/(Decrease) in contract liabilities		<b>48,226</b>	(22,750)
Decrease in deferred income		<b>(452)</b>	(1,336)
<b>Cash generated from operations</b>		<b>124,504</b>	58,240
Income tax paid		<b>(35,770)</b>	(14,477)
<b>Net cash generated from operating activities</b>		<b>88,734</b>	43,763

The accompanying notes form part of these financial statements.

**CONSOLIDATED CASH FLOW STATEMENT**  
For the year ended 31 December 2020  
(Expressed in Renminbi ("RMB"))

	Note	2020 RMB'000	2019 RMB'000
<b>Investing activities</b>			
Payments for the purchase of property, plant and equipment		<b>(49,294)</b>	(28,868)
Expenditure on purchase of intangible assets		<b>(76,742)</b>	(84,265)
Interest received		<b>34,513</b>	36,736
Proceeds from disposal of investing on associates		–	1,000
Proceeds from disposal of property, plant and equipment		–	22
<b>Net cash used in investing activities</b>		<b>(91,523)</b>	(75,375)
<b>Financing activities</b>			
Capital element of lease rentals paid	18(b)	<b>(3,540)</b>	(6,662)
Interest element of lease rentals paid	18(b)	<b>(174)</b>	(331)
Proceeds from loans and borrowings	18(b)	<b>214,227</b>	278,081
Repayment of loans and borrowings	18(b)	<b>(257,098)</b>	(260,803)
Other borrowing costs paid	18(b)	<b>(12,049)</b>	(11,236)
Decrease/(Increase) in restricted deposit		<b>10,888</b>	(30,003)
Distribution to non-controlling shareholders upon de-registration of subsidiaries		<b>(4,169)</b>	–
<b>Net cash used in financing activities</b>		<b>(51,915)</b>	(30,954)
<b>Net decrease in cash and cash equivalents</b>		<b>(54,704)</b>	(62,566)
<b>Cash and cash equivalents at the beginning of the year</b>		<b>610,143</b>	671,405
<b>Effect of foreign exchange rate changes</b>		<b>(4,278)</b>	1,304
<b>Cash and cash equivalents at the end of the year</b>	18	<b>551,161</b>	610,143

The accompanying notes form part of these financial statements.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2020

(Expressed in RMB unless otherwise indicated)

## 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 2020, 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 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 amendments to 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 accounting period reflected in these financial statements.

### (b) Basis of preparation of the financial statements

The consolidated financial statements for the year ended 31 December 2020 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 Hong Kong Financial Reporting Standards (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.

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (c) Changes in accounting policies

The HKICPA has issued the following amendments to HKFRSs that are first effective for the current accounting period of the Group:

- Amendments to HKFRS 3, *Definition of a Business*
- Amendments to HKFRS 9, HKAS 39 and HKFRS 7, *Interest Rate Benchmark Reform*
- Amendments to HKAS 1 and HKAS 8, *Definition of Material*

None of these 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.

### (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.

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (d) **Subsidiaries and non-controlling interests** *(Continued)*

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)).

### (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)). At each reporting date, the Group assesses whether there is any objective evidence that the investment is impaired. 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)).

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (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).

### (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.

### (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.

Where the Group enters into service concession arrangements under which the Group constructs, uses and operates certain assets for the provision of public services, construction revenue and costs are recognised in the income statement by reference to the stage of completion at the end of reporting period while the fair value of construction service is capitalised initially as service concession assets in the statement of financial position and amortised on a straight-line basis over the shorter of the assets' useful lives and the period in which the service concession assets are expected to be available for use by the Group. Service concession assets are carried on the statement of financial position at cost less accumulated amortisation and impairment losses, if any (note 2(j)).

**2 SIGNIFICANT ACCOUNTING POLICIES** *(Continued)***(h) Intangible assets (other than goodwill)** *(Continued)*

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
– Service concession assets	23 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.

**(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.

**(j) As a lessee**

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.

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (i) Leased assets *(Continued)*

#### (i) *As a lessee (Continued)*

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.

In the consolidated statement of financial position, the current portion of long-term lease liabilities is determined as the present value of contractual payments that are due to be settled within twelve months after the reporting period.

#### (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.

### (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));

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

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

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

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.

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.

## 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 *(Continued)*

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).

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.

**2 SIGNIFICANT ACCOUNTING POLICIES** *(Continued)***(j) Credit losses and impairment of assets** *(Continued)***(i) Credit losses from financial instruments and contract assets** *(Continued)*

## 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.

**(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).

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

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

#### (ii) **Impairment of other non-current assets** *(Continued)*

- 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.

### (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.

## 2 SIGNIFICANT ACCOUNTING POLICIES (Continued)

### (k) Inventories and other contract costs (Continued)

#### (ii) Other contract costs (Continued)

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).

### (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)).

### (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.

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

**(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.

#### (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).

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

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

**(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.

**(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.

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (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.
- (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.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2020

(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (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:

	2020 RMB'000	2019 RMB'000
Revenue from smart transportation business	574,417	523,087
Revenue from smart building and complex business	788,591	776,250
Revenue from smart energy business	373,656	453,441
	<b>1,736,664</b>	1,752,778

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 2020, the aggregated nominal contract amount allocated to the remaining performance obligations under the Group's existing contracts is approximately RMB2,788,191,000 (2019: RMB3,811,129,000). 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.

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.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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### 4 SEGMENT REPORTING (Continued)

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

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 2020 and 2019 is set out below:

	STB		SBB		SEB		Total	
	2020 RMB'000	2019 RMB'000	2020 RMB'000	2019 RMB'000	2020 RMB'000	2019 RMB'000	2020 RMB'000	2019 RMB'000
<b>Disaggregated by timing of revenue recognition</b>								
Point in time	25,929	10,384	151,588	219,732	70,453	89,583	247,970	319,699
Over time	548,488	512,703	637,003	556,518	303,203	363,858	1,488,694	1,433,079
<b>Revenue from external customers</b>	<b>574,417</b>	523,087	<b>788,591</b>	776,250	<b>373,656</b>	453,441	<b>1,736,664</b>	1,752,778
Inter-segment revenue	-	-	-	-	-	-	-	-
<b>Reportable segment revenue</b>	<b>574,417</b>	523,087	<b>788,591</b>	776,250	<b>373,656</b>	453,441	<b>1,736,664</b>	1,752,778
<b>Reportable segment profit</b>	<b>93,902</b>	79,460	<b>93,985</b>	43,749	<b>86,047</b>	126,446	<b>273,934</b>	249,655
Interest income	6,550	7,478	7,470	10,606	26,201	23,163	40,221	41,247
Impairment loss on trade and other receivables and contract assets	(8,844)	(11,345)	(7,688)	(16,833)	(7,529)	(9,836)	(24,061)	(38,014)
Impairment loss on property, plant and equipment	-	-	-	-	(12,941)	-	(12,941)	-

#### (b) Reconciliations of reportable segment profit or loss

	2020 RMB'000	2019 RMB'000
Profit		
Reportable segment profit	273,934	249,655
Depreciation and amortisation	(95,478)	(103,616)
Finance costs	(12,178)	(11,819)
Unallocated head office and corporate expenses	(11,838)	(5,741)
Consolidated profit before taxation	154,440	128,479

#### (c) Geographic information

For the year ended 31 December 2020, 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**

	2020 RMB'000	2019 RMB'000
Government grants	7,852	13,806
Interest income	40,221	41,247
Others	125	1,468
	<b>48,198</b>	56,521

**(b) Other net loss**

	2020 RMB'000	2019 RMB'000
Net foreign exchange loss	(747)	(1,105)
Net loss on disposal of property, plant and equipment	(5)	(6,500)
Others	(451)	(2,798)
	<b>(1,203)</b>	(10,403)

**6 PROFIT BEFORE TAXATION**

Profit before taxation is arrived at after charging:

**(a) Finance costs**

	2020 RMB'000	2019 RMB'000
Interest on loans and borrowings	12,004	11,488
Interest on lease liabilities	174	331
	<b>12,178</b>	11,819

**(b) Staff costs**

	2020 RMB'000	2019 RMB'000
Salaries and other benefits	183,770	178,460
Contributions to defined contribution retirement schemes	8,882	17,718
	<b>192,652</b>	196,178

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

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### 6 PROFIT BEFORE TAXATION *(Continued)*

#### (b) Staff costs *(Continued)*

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 (2019: 16%). 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.

#### (c) Other items

	2020 RMB'000	2019 RMB'000
Cost of inventories (Note 15(b))	1,226,640	1,248,040
Research and development expenses	7,265	7,229
Amortisation of intangible assets (Note 12)	59,061	61,683
Depreciation (Note 11)		
– owned property, plant and equipment	33,201	36,589
– right-of-use assets	3,216	5,344
Impairment losses		
– property, plant and equipment	12,941	–
Auditors' remuneration		
– audit services	2,900	2,900

### 7 INCOME TAX

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

	2020 RMB'000	2019 RMB'000
<b>Current tax</b>		
Provision for the year	24,898	21,635
Under/(over)-provision in respect of prior years	2,254	(3,137)
	27,152	18,498
<b>Deferred tax</b>		
Origination and reversal of temporary differences	(5,260)	(3,436)
	21,892	15,062

**7 INCOME TAX** *(Continued)***(b) Reconciliation between income tax expense and profit before taxation at applicable tax rates:**

	Note	2020 RMB'000	2019 RMB'000
Profit before taxation		<b>154,440</b>	128,479
Expected tax calculated at the respective tax rates	(i)/(ii)	<b>39,597</b>	33,130
Tax effect on non-deductible expenses		<b>1,336</b>	667
Effect of tax concession	(iii)	<b>(23,113)</b>	(18,155)
Tax effect of non-taxable income		<b>(940)</b>	(221)
Tax effect of unused tax losses not recognised		<b>3,168</b>	3,115
Tax effect of utilisation of tax losses not recognised in prior years		<b>(410)</b>	(337)
Under/(over)-provision in prior years		<b>2,254</b>	(3,137)
Actual income tax expense		<b>21,892</b>	15,062

## Notes:

- (i) The Company is subject to Singapore corporate income tax at 17% for the years ended 31 December 2020 and 2019. No provision for Singapore income tax was made because the Company sustained tax losses for the years ended 31 December 2020 and 2019.
- (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 2020 and 2019.
- 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 2020 and 2019.
- (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 2023.
- 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.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2020

(Expressed in RMB unless otherwise indicated)

### 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 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
<b>Executive directors</b>							
Zhao Xiaobo	-	600	1,000	-	1,600	-	1,600
Qin Xuzhong	-	-	-	-	-	-	-
<b>Non-executive directors</b>							
Huang Yu	-	-	-	-	-	-	-
Liu Tianmin	195	-	-	-	195	-	195
Wang Yinghu	195	-	-	-	195	-	195
<b>Independent non-executive directors</b>							
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

**8 DIRECTORS' REMUNERATION** (Continued)

	Year ended 31 December 2020						
	Directors' fees	Salaries, allowances and benefits in-kind	Discretionary bonuses	Retirement scheme contributions	Sub-total	Share-based payments (Note)	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
<b>Executive directors</b>							
Zhao Xiaobo	-	600	1,000	-	1,600	-	1,600
Qin Xuzhong	-	-	-	-	-	-	-
<b>Non-executive directors</b>							
Huang Yu (resigned on 9 January 2020)	-	-	-	-	-	-	-
Liu Tianmin	191	-	-	-	191	-	191
Wang Yinghu	191	-	-	-	191	-	191
<b>Independent non-executive directors</b>							
Fan Ren Da Anthony	313	-	-	-	313	-	313
Chia Yew Boon	316	-	-	-	316	-	316
Chen Hua	243	-	-	-	243	-	243
	<b>1,254</b>	<b>600</b>	<b>1,000</b>	<b>-</b>	<b>2,854</b>	<b>-</b>	<b>2,854</b>

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(c)(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.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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### 9 INDIVIDUALS WITH HIGHEST EMOLUMENTS

Of the five individuals with the highest emoluments, one (2019: 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:

	2020 RMB'000	2019 RMB'000
Salaries and other benefits	2,714	3,402
Discretionary bonuses	2,360	2,160
	<b>5,074</b>	5,562

The emoluments of the four (2019: four) individuals with the highest emoluments are within the following bands:

	2020 Number of Individuals	2019 Number of Individuals
HK\$1,000,001 – HK\$1,500,000	3	1
HK\$1,500,001 – HK\$2,000,000	1	3

## 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 RMB130,601,000 (2019: RMB112,866,000) and the weighted average number of ordinary shares of 782,192,189 (2019: 782,192,189) in issue during the year, calculated as follows:

Weighted average number of ordinary shares:

	2020 Number of shares	2019 Number of shares
Issued ordinary shares at 1 January	782,192,189	782,192,189
Effect of purchase of own shares	–	–
Weighted average number of ordinary shares at 31 December	782,192,189	782,192,189

### (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 RMB130,601,000 (2019: RMB112,866,000) and the weighted average number of ordinary shares of 782,192,189 (2019: 782,192,189) in issue during the year, calculated as follows:

Weighted average number of ordinary shares (diluted):

No adjustment has been made to the basic earnings per share amounts presented for the year ended 31 December 2020 in respect of a dilution as there were no dilutive potential shares outstanding.

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

	2020 Number of shares	2019 Number of shares
Weighted average number of ordinary shares at 31 December	782,192,189	782,192,189
Effect of deemed issue of ordinary shares under the Company's option scheme for nil consideration	–	–
Weighted average number of ordinary shares (diluted) at 31 December	782,192,189	782,192,189

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

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## 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
<b>Cost:</b>								
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 and 1 January 2020	19,419	2,473	8,569	374,207	7,345	12,340	90,598	514,951
Additions	-	724	499	26,598	83	4,683	26,465	59,052
Transfer out	-	-	-	(3,481)	-	-	(41,715)	(45,196)
Disposals	-	(5)	(109)	-	(5)	(9,602)	-	(9,721)
Exchange adjustments	(84)	(40)	(30)	-	(87)	-	-	(241)
At 31 December 2020	19,335	3,152	8,929	397,324	7,336	7,421	75,348	518,845
<b>Accumulated depreciation and impairment:</b>								
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
At 1 January 2020	7,323	1,054	5,065	231,793	5,598	7,164	-	257,997
Charge for the year	960	279	869	30,688	405	3,749	-	36,950
Impairment loss	-	-	-	12,941	-	-	-	12,941
Written back on disposals	-	(5)	(99)	-	(5)	(9,602)	-	(9,711)
Transfer out	-	-	-	(1,103)	-	-	-	(1,103)
Exchange adjustments	(50)	(28)	(7)	-	(87)	-	-	(172)
At 31 December 2020	8,233	1,300	5,828	274,319	5,911	1,311	-	296,902
<b>Net book value:</b>								
At 31 December 2019	12,096	1,419	3,504	142,414	1,747	5,176	90,598	256,954
At 31 December 2020	11,102	1,852	3,101	123,005	1,425	6,110	75,348	221,943

In 2020, due to the cautious anticipation that as certain waste energy recovery EMC projects of the smart energy business segment will terminate or maintain at a low level of business operation rate under the current economic condition in the future, the Group assessed the recoverable amounts of related assets and resulted in a provision of impairment loss on assets of RMB12,941,000 (2019: nil) which has been included in administrative and other operating expenses.

**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:

	<b>31 December 2020 RMB'000</b>	1 January 2020 RMB'000
Leasehold land and buildings, carried at depreciated cost	<b>6,110</b>	5,176

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

	<b>2020 RMB'000</b>	2019 RMB'000
Depreciation charge of right-of-use assets by class of underlying asset: – Leasehold land and buildings	<b>3,216</b>	5,344
Interest on lease liabilities (Note 6(a))	<b>174</b>	331
Expense relating to short-term leases and other leases with remaining lease term ending on or before 31 December 2020	<b>12,208</b>	8,947

During the year, additions to right-of-use assets were RMB4,683,000, 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.

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## 12 INTANGIBLE ASSETS

	Trade name RMB'000	Patents and technology know-how RMB'000	Service concession assets RMB'000	Total RMB'000
<b>Cost:</b>				
At 1 January 2019	4	467,698	–	467,702
Additions	–	82,365	–	82,365
Disposals	–	(84,644)	–	(84,644)
At 31 December 2019	4	465,419	–	465,423
At 1 January 2020	4	465,419	–	465,423
Additions	–	85,867	100,410	186,277
Disposals	–	(29,045)	–	(29,045)
At 31 December 2020	4	522,241	100,410	622,655
<b>Accumulated amortisation:</b>				
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
At 1 January 2020	–	154,102	–	154,102
Charge for the year	–	58,710	351	59,061
Other additions	–	–	1,103	1,103
Written back on disposals	–	(29,045)	–	(29,045)
At 31 December 2020	–	183,767	1,454	185,221
<b>Net book value:</b>				
At 31 December 2019	4	311,317	–	311,321
At 31 December 2020	4	338,474	98,956	437,434

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

The Group has entered into a service concession arrangement with certain government authorities in the PRC on a Build-operate-transfer (“BOT”) basis in respect of its heating service. Pursuant to the service concession arrangement contracts, the Group (i) is responsible for the construction of the underlying assets, and the acquisition of the related facilities and equipment; (ii) has the contractual obligations to maintain the infrastructure at a specified level of serviceability and also maintain the infrastructure to an acceptable level of working conditions before handing over the infrastructure to the grantors; and (iii) is entitled to operate the underlying assets upon completion for a specified concession period for 30 years by charging users of the public service. The Group will not hold any residual interest in the underlying assets upon expiration of the concession period. As such, the service concession arrangement contracts are accounted for as service concession arrangements and an intangible asset was recognised at an amount equal to the fair value of the consideration for provision of construction service upon initial recognition.

### 13 OTHER FINANCIAL ASSETS

	2020 RMB'000	2019 RMB'000
Long-term receivables	756,512	765,347
Less: current portion of long-term receivables	(241,590)	(241,201)
	<b>514,922</b>	524,146

At 31 December 2020, long-term receivables included receivables of Karamay construction project of RMB54,222,280 (2019: 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 mainly 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 2020.

Name of company	Place and date of incorporation/ establishment	Particulars of issued and fully paid up share/ registered capital	Proportion of ownership interest			Principal activity
			Group's effective interest	Held by the Company	Held by a subsidiary	
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.

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### 15 INVENTORIES

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

	31 December 2020 RMB'000	31 December 2019 RMB'000
Raw materials	383,286	255,130
Work in progress	10,710	9,996
Finished goods	634,870	636,599
	<b>1,028,866</b>	901,725

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

	2020 RMB'000	2019 RMB'000
Carrying amount of inventories sold	1,226,640	1,248,040

### 16 CONTRACT ASSETS AND CONTRACT LIABILITIES

(a) Contract assets

	31 December 2020 RMB'000	31 December 2019 RMB'000
<b>Contract assets</b>		
Arising from performance under construction projects	688,664	905,752
<b>Receivables from contracts with customers within the scope of HKFRS 15, which are included in "Trade and other receivables" (Note 17)</b>	<b>1,131,580</b>	1,070,496

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**

	<b>31 December 2020 RMB'000</b>	31 December 2019 RMB'000
<b>Contract liabilities</b>		
Construction projects		
– Billings in advance of performance	<b>137,131</b>	88,905

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**

	<b>2020 RMB'000</b>	2019 RMB'000
Balance at 1 January	<b>88,905</b>	111,655
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	<b>(35,115)</b>	(85,218)
Increase in contract liabilities as a result of billing in advance of construction activities	<b>83,341</b>	62,468
Balance at 31 December	<b>137,131</b>	88,905

The amount of billings in advance of performance received expected to be recognised as income after more than one year is RMB46,174,000 (2019: RMB21,984,000).

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### 17 TRADE AND OTHER RECEIVABLES

	31 December 2020 RMB'000	31 December 2019 RMB'000
Trade debtors due from related parties	147,157	86,256
Other trade debtors	1,093,049	1,024,168
Bills receivable	17,851	66,547
Less: Allowance for doubtful debts	(126,477)	(106,475)
	<b>1,131,580</b>	1,070,496
Other receivables		
– amounts due from related parties	41,550	50,398
– amounts due from third parties	83,702	96,567
Less: Allowance for doubtful debts	(6,542)	(6,350)
	<b>1,250,290</b>	1,211,111
Deposits and prepayments	116,621	131,222
	<b>1,366,911</b>	1,342,333

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:

	31 December 2020 RMB'000	31 December 2019 RMB'000
Current	1,029,789	993,640
Less than 1 month past due	1,495	28
More than 1 month but less than 3 months past due	1,755	4,219
More than 3 months but less than 12 months past due	82,400	25,682
More than 12 months past due	16,141	46,927
	<b>101,791</b>	76,856
	<b>1,131,580</b>	1,070,496

Trade debtors and bills receivable are due within 1–180 days from the date of billing.

**18 CASH AND CASH EQUIVALENTS****(a) Cash and cash equivalents comprise:**

	2020 RMB'000	2019 RMB'000
Deposit with banks and other financial institutions	36,728	47,616
Cash at bank and in hand	551,161	610,143
Cash and cash equivalents in the consolidated statement of financial position	587,889	657,759
Restricted deposit	(36,728)	(47,616)
Cash and cash equivalents in the consolidated cash flow statement	551,161	610,143

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

	Loans and borrowings RMB'000 (Note 20)	Lease liabilities RMB'000 (Note 21)	Total RMB'000
<b>At 31 December 2018</b>	<b>239,820</b>	<b>–</b>	<b>239,820</b>
Impact on initial application of HKFRS 16	–	7,063	7,063
<b>At 1 January 2019</b>	<b>239,820</b>	<b>7,063</b>	<b>246,883</b>
<b>Changes from financing cash flows:</b>			
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)
<b>Other changes:</b>			
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
<b>At 31 December 2019</b>	<b>257,098</b>	<b>2,610</b>	<b>259,708</b>

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## 18 CASH AND CASH EQUIVALENTS *(Continued)*

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

	Loans and borrowings RMB'000 (Note 20)	Lease liabilities RMB'000 (Note 21)	Total RMB'000
<b>At 1 January 2020</b>	257,098	2,610	259,708
<b>Changes from financing cash flows:</b>			
Proceeds from loans and borrowings	214,227	–	214,227
Repayment of loans and borrowings	(257,098)	–	(257,098)
Capital element of lease rentals paid	–	(3,540)	(3,540)
Interest element of lease rentals paid	–	(174)	(174)
Other borrowing costs paid	(12,049)	–	(12,049)
Total changes from financing cash flows	(54,920)	(3,714)	(58,634)
<b>Other changes:</b>			
Increase in lease liabilities from entering into new leases during the year	–	4,683	4,683
Interest expenses	12,049	–	12,049
Total other changes	12,049	4,683	16,732
<b>At 31 December 2020</b>	214,227	3,579	217,806

### (c) Total cash outflow for leases

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

	2020 RMB'000	2019 RMB'000
Within operating cash flows	12,208	8,947
Within financing cash flows	3,714	6,993
	<b>15,922</b>	15,940

These amounts relate to the following:

	2020 RMB'000	2019 RMB'000
Leasehold land and buildings	15,922	15,940

**19 TRADE AND OTHER PAYABLES**

	<b>31 December 2020 RMB'000</b>	31 December 2019 RMB'000
Trade and bills payables due to related parties	<b>104,693</b>	143,596
Other trade and bills payables	<b>1,275,045</b>	1,378,169
	<b>1,379,738</b>	1,521,765
Other payables and accruals		
– amounts due to related parties	<b>11,745</b>	53,356
– amounts due to third parties	<b>163,818</b>	147,947
Financial liabilities measured at amortised cost	<b>1,555,301</b>	1,723,068

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:

	<b>31 December 2020 RMB'000</b>	31 December 2019 RMB'000
<b>By date of invoice:</b>		
Within 3 months	<b>1,017,403</b>	1,080,668
More than 3 months but within 6 months	<b>52,803</b>	61,982
More than 6 months but within 12 months	<b>58,200</b>	78,997
More than 12 months	<b>251,332</b>	300,118
	<b>1,379,738</b>	1,521,765

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## 20 LOANS AND BORROWINGS

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

	2020 RMB'000	2019 RMB'000
Bank loans		
– Unsecured and unguaranteed	204,227	257,098
– Guaranteed	10,000	–
	<b>214,227</b>	257,098

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

	2020 RMB'000	2019 RMB'000
Within 1 year or on demand	214,227	257,098

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

	2020 RMB'000	2019 RMB'000
Unsecured banking facilities	820,000	660,000

At 31 December 2020, the facilities were utilised to the extent of RMB214,227,000 (2019: RMB257,098,000).

At 31 December 2020, none of the Group's banking facilities are subject to the fulfilment of covenants.

## 21 LEASE LIABILITIES

At 31 December 2020, the lease liabilities were repayable as follows:

	2020 RMB'000	2019 RMB'000
Within 1 year	1,765	2,610
After 1 year but within 2 years	1,814	–
	<b>3,579</b>	2,610

## 22 EQUITY SETTLED SHARE-BASED TRANSACTIONS

### 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.

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

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

#### Options granted in October 2014 *(Continued)*

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

	Number of options	Vesting conditions	Contractual life of options
<b>Options granted to directors</b>			
– on 15 August 2014	3,000,000	At grant	5 years
<b>Options granted to management and employees</b>			
– 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:

	2020		2019	
	Weighted average exercise price	Number of options	Weighted average exercise price	Number of options
Outstanding at the beginning and the end of the year	<b>HK\$3.64</b>	–	HK\$3.64	13,400,000
Forfeited during the year		–	HK\$3.64	(13,400,000)
Outstanding at the end of the year		–	HK\$3.64	–
Exercisable at the end of the year		–		–

The options granted in 2014 outstanding at 31 December 2018 had a weighted average exercise price of HK\$3.64. All outstanding options have been forfeited during 2019.

**22 EQUITY SETTLED SHARE-BASED TRANSACTIONS** *(Continued)***Share Option Scheme 2014** *(Continued)***Options granted in October 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
<b>Fair value of share options and assumptions</b>		
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.

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### 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 and impairment loss RMB'000	Receipts by instalment RMB'000	Total RMB'000
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
At 1 January 2020	(24,134)	28,474	4,340
(Credited)/Charged to the consolidated income statement (Note 7(a))	(5,591)	331	(5,260)
At 31 December 2020	(29,725)	28,805	(920)

	2020 RMB'000	2019 RMB'000
<b>Represented by:</b>		
Deferred tax assets	<b>(29,725)</b>	(24,134)
Deferred tax liabilities	<b>28,805</b>	28,474
	<b>(920)</b>	4,340

#### (b) Deferred tax assets not recognised

At 31 December 2020, 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 RMB182,159,000 (2019: RMB169,737,000) and the Group did not recognise deferred tax assets in respect of unused tax losses of RMB209,117,000 (2019: RMB190,969,000), 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 RMB22,470,000 will not expire until after 2021.

**23 INCOME TAX IN THE STATEMENT OF FINANCIAL POSITION** *(Continued)***(c) Deferred tax liabilities not recognised**

At 31 December 2020, 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 RMB1,640,733,000 (2019: RMB1,487,462,000), 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)	Share-based compensation reserve RMB'000 Note 25(d)(iii)	Translation reserve RMB'000 Note 25(d)(ii)	Retained profits 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

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### 25 CAPITAL, RESERVES AND DIVIDENDS (Continued)

#### (a) Movements in components of equity (Continued)

	Share capital RMB'000 Note 25(c)	Share-based compensation reserve RMB'000 Note 25(d)(iii)	Translation reserve RMB'000 Note 25(d)(ii)	Retained profits RMB'000	Total equity RMB'000
At 1 January 2020	1,189,968	-	185,456	432,826	1,808,250
Loss for the year	-	-	-	(11,756)	(11,756)
Other comprehensive income	-	-	(116,596)	-	(116,596)
At 31 December 2020	1,189,968	-	68,860	421,070	1,679,898

#### (b) Dividends

There were no dividends payable to equity shareholders attributable to the previous financial year, and no dividends were approved and paid during 2020 and 2019.

#### (c) Share capital

	2020		2019	
	Number of shares	Amounts RMB'000	Number of shares	Amounts RMB'000
<b>Ordinary shares issued and fully paid:</b>				
At 1 January	782,192,189	1,189,968	782,192,189	1,189,968
Shares repurchased and cancelled	-	-	-	-
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 2020 and 2019.

**25 CAPITAL, RESERVES AND DIVIDENDS** *(Continued)***(d) 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 2020, the aggregate amount of reserves available for distribution to equity shareholders of the Company was RMB421,070,000 (2019: RMB432,826,000).

## 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 has no significant concentration of credit risk in industries or countries in which the customers operate. Significant concentrations of credit risk primarily arise when the Group has significant exposure to individual customers. At 31 December 2020, 5.7% (2019: 4.2%) and 22.9% (2019: 16.7%) 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:

	2020		
	Expected loss rate %	Gross carrying amount RMB'000	Loss allowance RMB'000
Current (not past due)	0.67%	1,712,142	(11,539)
Less than 1 year past due	5.00%	90,158	(4,508)
More than 1 year but less than 2 years past due	25.00%	4,452	(1,113)
More than 2 years but less than 3 years past due	50.00%	15,197	(7,598)
More than 3 years past due	95.19%	108,239	(103,036)
		<b>1,930,188</b>	<b>(127,794)</b>

**26 FINANCIAL RISK MANAGEMENT AND FAIR VALUES** (Continued)**(a) Credit risk** (Continued)

	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)

Movement in the loss allowance account in respect of trade receivables and contract assets during the year is as follows:

	2020 RMB'000	2019 RMB'000
Balance at 1 January	<b>108,878</b>	80,101
Amounts written off during the year	–	(2,263)
Impairment losses recognised during the year	<b>18,916</b>	31,040
Balance at 31 December	<b>127,794</b>	108,878

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 RMB17,100,000 (2019: RMB32,622,000).

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## 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:

	2020			Balance sheet carrying amount RMB'000
	Contractual undiscounted cash flow			
	Within 1 year or on demand RMB'000	More than 1 year but less than 2 years RMB'000	Total RMB'000	
Trade and other payables measured at amortised costs	1,555,301	-	1,555,301	1,555,301
Loans and borrowings	218,628	-	218,628	214,227
Lease liabilities	1,870	1,870	3,740	3,579
	<b>1,775,799</b>	<b>1,870</b>	<b>1,777,669</b>	<b>1,773,107</b>

	2019		Balance sheet carrying amount RMB'000
	Contractual undiscounted cash flow		
	Within 1 year or on demand RMB'000	Total 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	2,660	2,660	2,610
	<b>1,989,526</b>	<b>1,989,526</b>	<b>1,982,776</b>

**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, loans and borrowings 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, as reported to the management of the Group, details the interest rate risk profile of the Group's borrowings at the end of the reporting period:

	Notional amount	
	2020 RMB'000	2019 RMB'000
<b>Fixed rate borrowings:</b>		
Lease liabilities	3,579	2,610
Bank loans	174,233	257,098
	<b>177,812</b>	259,708
<b>Variable rate borrowings:</b>		
Loans and borrowings	39,994	–
Less: interest bearing long-term receivables	54,222	65,751
	<b>(14,228)</b>	(65,751)

**(ii) Sensitivity analysis**

At 31 December 2020, 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 tax and retained profits by approximately RMB121,000 (2019: RMB559,000).

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 2019.

**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 Singapore Dollars, Canadian Dollars, United States Dollars, Hong Kong Dollars and Pataca de Macau.

**(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.

	2020			
	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	327	18,789	7,608	–
Cash and cash equivalents	1,234	–	771	2,286
Trade and other payables	(807)	–	–	(1,758)
Net exposure arising from recognised assets and liabilities	754	18,789	8,379	528

	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

**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 tax (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.

	2020		2019	
	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% (5)%	31 (31)	5% (5)%	151 (151)
Canadian Dollars	5% (5)%	780 (780)	5% (5)%	1,166 (1,166)
United States Dollars	5% (5)%	356 (356)	5% (5)%	499 (499)
Hong Kong Dollars	5% (5)%	22 (22)	5% (5)%	3 (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 2019.

**(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 2020.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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## 27 COMMITMENTS

### Capital commitments

Capital commitments outstanding at 31 December 2020 not provided for in the financial statements were as follows:

	2020 RMB'000	2019 RMB'000
Contracted for	213,031	112,700

## 28 MATERIAL RELATED PARTY TRANSACTIONS

### (a) Name and relationship with related parties

During the years ended 31 December 2020 and 2019, 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)

Biyang Tongfang Thermal Power Co., Ltd.\* (泌陽同方熱力有限公司)

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.

**28 MATERIAL RELATED PARTY TRANSACTIONS** *(Continued)***(b) Significant related party transactions**

Particulars of significant related party transactions during the years ended 31 December 2020 and 2019 are as follows:

	2020 RMB'000	2019 RMB'000
Sales to THTF and its subsidiaries	245,476	142,629
Purchases from THTF and its subsidiaries	87,178	131,448
Payment for miscellaneous products and services from THTF and its subsidiaries	28,919	18,518
Interest expenses on loans from Tongfang Artificial	-	983
Repayment of loans to Tongfang Artificial	-	69,512
Payments transferred by THTF to the Group	1,256,517	1,106,519
Payments transferred by the Group to THTF	699,548	767,841

Other than the above related party transactions, certain trademarks are used by the Group in the PRC licensed by THTF at nil consideration.

**(c) Amounts due from/(to) related parties**

At 31 December 2020 and 2019, the Group had the following balances with THTF and its subsidiaries:

	2020 RMB'000	2019 RMB'000
Trade and other receivables	188,708	136,654
Trade and other payables	(115,730)	(196,952)

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### 28 MATERIAL RELATED PARTY TRANSACTIONS *(Continued)*

**(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:

	2020 RMB'000	2019 RMB'000
Short term employee benefits	2,567	2,565

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.



## 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 2020 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.

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### 31 POSSIBLE IMPACT OF AMENDMENTS, NEW STANDARDS AND INTERPRETATIONS ISSUED BUT NOT YET EFFECTIVE DURING THE YEAR ENDED 31 DECEMBER 2020

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 2020 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
<i>Amendments to HKFRS 3, Reference to the Conceptual Framework</i>	1 January 2022
<i>Amendments to HKAS 16, Property, Plant and Equipment: Proceeds before Intended Use</i>	1 January 2022
<i>Amendments to HKAS 37, Onerous Contracts – Cost of Fulfilling a Contract</i>	1 January 2022
Annual Improvements to HKFRSs 2018-2020 Cycle	1 January 2022

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.

### 32 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. As the situation of prevention and control of COVID-19 continues to improve in China, the overall operation and project implementation of the Group have been resumed basically.

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.