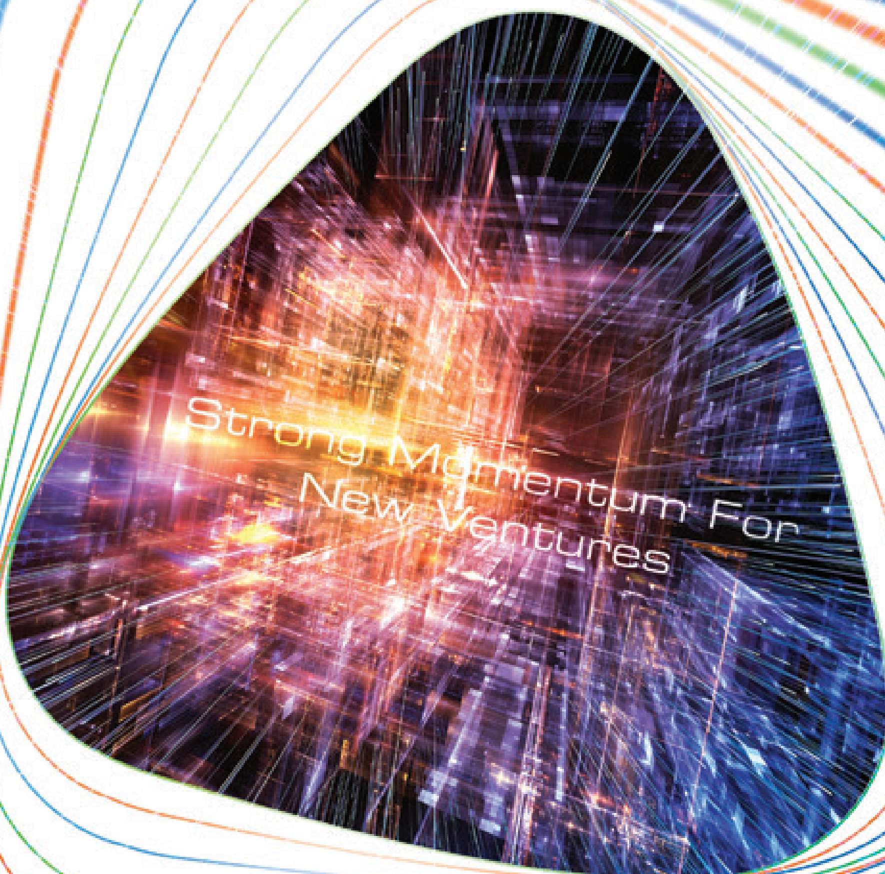
AsiaInfo
亚信科技

AsiaInfo Technologies Limited

(Incorporated in the British Virgin Islands with limited liability)
Stock Code: 01675



ANNUAL REPORT 2021

CONTENT

DEFINITIONS AND GLOSSARY OF TECHNICAL TERMS

DEFINITIONS

In this annual report, unless the context otherwise requires, the following expressions have the following meanings:

"AGM"	the forthcoming annual general meeting of the Company to be held on 26 May 2022
"Articles of Association"	the memorandum and articles of association of the Company, as amended from time to time
"AsiaInfo Chengdu"	AsiaInfo Technologies (Chengdu), Inc. (亞信科技(成都)有限公司), a limited liability company incorporated in the PRC on 31 December 2001, which is a wholly-owned subsidiary of AsiaInfo Security
"AsiaInfo China"	AsiaInfo Technologies (China), Inc. (亞信科技(中國)有限公司), a wholly foreign-owned enterprise incorporated in the PRC on 2 May 1995, which is an indirect wholly-owned subsidiary of the Company
"AsiaInfo International"	AsiaInfo International Investment Limited, a limited liability company incorporated in the British Virgin Islands on 24 July 2014, which is ultimately solely and beneficially owned by Dr. TIAN Suning
"AsiaInfo Security"	AsiaInfo Security Technology Limited (亞信安全科技股份有限公司), a limited liability company incorporated in the PRC on 25 November 2014, which is ultimately beneficially owned as to approximately 50.71% by Dr. TIAN Suning
"Audit Committee"	the audit committee of the Company
"Board"	the board of Directors
"Board Committees"	the Audit Committee, the Nomination Committee, the Remuneration Committee and the Strategy and Investment Committee
"CAICT"	the China Academy of Information and Communications Technology
"CG Code"	the Corporate Governance Code as set out in Appendix 14 to the Listing Rules (applicable to the Reporting Period)
"Chief Executive Officer"	the chief executive officer of the Company

DEFINITIONS AND GLOSSARY OF TECHNICAL TERMS

"China Mobile Group"	China Mobile Limited and its subsidiaries
"CMC"	China Mobile Communication Co., Ltd., a company established in the PRC with limited liability and a wholly-owned subsidiary of China Mobile Limited
"Company", "AsiaInfo" or "AsiaInfo Technologies"	AsiaInfo Technologies Limited (亞信科技控股有限公司), an international business company incorporated in the British Virgin Islands on 15 July 2003, whose Shares are listed on the Stock Exchange (stock code: 1675)
"connected person"	has the meaning ascribed thereto under the Listing Rules
"Director(s)"	the director(s) of the Company
"ESG Guide"	the Environmental, Social and Governance Reporting Guide as set out in Appendix 27 to the Listing Rules
"ESG Report"	the Environmental, Social and Governance (ESG) Report
"ETSI"	the European Telecommunications Standards Institute, a non-profit telecommunication standardisation organisation approved and established by the European Commission
"Exercise Notice"	written or electronic notice of the grantee to the Company to exercise share options on or after the vesting date of the share options
"Group"	the Company and its subsidiaries
"GSMA"	the Global System for Mobile Communications Association, an industry organisation in the global mobile communication area
"Hong Kong"	the Hong Kong Special Administrative Region of the PRC
"HK$"	Hong Kong dollars, the lawful currency of Hong Kong

DEFINITIONS AND GLOSSARY OF TECHNICAL TERMS

"IEEE"	the Institute of Electrical and Electronics Engineers
"Independent Third Party(ies)"	third party(ies) independent of and not connected with the Company and any of its connected person(s)
"International Business"	the software business serving the telecom operators headquartered in Southeast Asia, Europe and other regions outside the PRC
"ITU"	the International Telecommunication Union
"Lease Agreement"	the lease agreement entered into between AsiaInfo China and AsiaInfo Chengdu on 30 December 2019
"Lease Framework Agreement"	the lease framework agreement entered into between the Company and CMC on 20 April 2020
"Listing Rules"	the Rules Governing the Listing of Securities on the Stock Exchange
"Master Procurement Agreement"	the master information and telecommunication technology services and products procurement framework agreement entered into between the Company and CMC on 22 September 2021
"Model Code"	the Model Code for Securities Transactions by Directors of Listed Issuers as set out in Appendix 10 to the Listing Rules
"MPF"	mandatory provident fund
"MPF Scheme"	the MPF scheme operated by the Group for all eligible Hong Kong employees under the MPF Scheme Ordinance (Chapter 485 of the Laws of Hong Kong)
"Network Security Business"	the business of providing network security-related software products and services in the PRC
"New Security Technological Security Service Framework Agreement"	the technological service framework agreement entered into between AsiaInfo Security and the Company on 29 December 2020
"New Security Technological Service Framework Agreement"	the technological service framework agreement entered into between the Company and AsiaInfo Security on 29 December 2020
"Nomination Committee"	the nomination committee of the Company
"PRC" or "China"	the People's Republic of China
"Pre-IPO Share Award Scheme"	the pre-IPO restricted share award scheme of the Company

DEFINITIONS AND GLOSSARY OF TECHNICAL TERMS

"Pre-IPO Share Option Scheme"	the pre-IPO share option scheme of the Company adopted on 26 June 2018
"Prospectus"	the prospectus of the Company dated 6 December 2018
"Remuneration Committee"	the remuneration committee of the Company
"Reporting Period"	the year ended 31 December 2021
"R&D"	research and development
"RMB"	Renminbi, the lawful currency of the PRC
"RSU"	the restricted share units in relation to the Share Award Scheme
"SFO"	the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong), as amended or supplemented or otherwise modified from time to time
"Share(s)"	ordinary share(s) of the Company
"Shareholder(s)"	holder(s) of the Share(s)
"Software Products and Services Framework Agreement"	the software products and services framework agreement entered into between the Company and CMC on 20 April 2020
"Stock Exchange"	The Stock Exchange of Hong Kong Limited
"Strategy and Investment Committee"	the strategy and investment committee of the Company
"TMF"	the International Telecommunication Management Forum
"Trust Management Committee"	the trust management committee of the Company

DEFINITIONS AND GLOSSARY OF TECHNICAL TERMS

"US"	the United States of America
"USD" or "US$"	US dollars, the lawful currency of US
"2019 Share Option Scheme"	the share option scheme adopted by the Company on 25 November 2019
"2020 Share Award Scheme"	the share award scheme adopted by the Company on 7 January 2020
"%"	per cent

GLOSSARY OF TECHNICAL TERMS

This glossary of technical terms contains terms used in this annual report that are related to business of the Group. As such, these terms and their meanings may not always correspond to standard industry meaning or usage of these terms.

"AI"	artificial intelligence
"BSS"	business support systems used for the management of customer information, customer business and service processes and customer related services and resources, often used together with OSS to form end-to-end comprehensive business and operation management systems for the telecom industry
"CRM"	customer relationship management
"DevOps"	development and operation system
"DSaaS"	data-driven operation, namely the date-driven SaaS operation services
"ERP"	enterprise resource planning
"Internet of Things" or "IOT"	the network of physical objects — devices, vehicles, buildings and other items — embedded with electronics, software, sensors and network connectivity that enables these objects to collect and exchange data
"IT"	information technology, the application of computers and telecommunications equipment to store, retrieve, transmit and manipulate data
"MSP"	managed service provider

DEFINITIONS AND GLOSSARY OF TECHNICAL TERMS

"O-RAN"	open radio access network
"OSS"	operations support systems, a collective term for the software solutions telecom operators use to support their network operations, often used together with BSS to support various end-to-end telecommunications services
"SaaS"	software as a service, a software licensing and delivery model in which software is licensed on a subscription basis and is centrally hosted
"SDN"	software defined network/network function virtualisation
"Three New business"	consists of OSS, DSaaS, vertical industries and enterprises cloudification business
"3D"	3-dimension, referring to a spacing system in which a direction vector is added in the flat second dimension system
"4G"	the fourth-generation of mobile telecommunications technology, applied in amended mobile web access, IP telephony, gaming services, high-definition mobile TV, video conferencing, 3D television and cloud computing
"5G"	the fifth-generation of mobile telecommunications technology which has higher speed and capacity and lower latency than 4G

CORPORATE PROFILE

AsiaInfo Technologies listed its Shares on the Stock Exchange on 19 December 2018. The history of the Group dated back to 1993 when we served as the provider of China's first-generation telecom software, whereby we have collaborated extensively with each of China Mobile, China Unicom and China Telecom since the 1990s, supporting over one billion subscribers nationwide.

The Group is committed to becoming a digital transformation enabler of the large enterprises which aims to provide telecommunication operators and other large enterprise customers with software products and related service of business transformation and digitalisation by leveraging our products, services, operations and integration abilities. According to a Frost & Sullivan report, the Group is the largest telecommunication software product and related service provider in China, and the largest business support software product and related service provider in the telecommunication industry in China, with a comprehensive portfolio of more than 500 high-reliability, high-stability, and high-availability "carrier-grade" software products, including a complete AISWare product system of AI^2 artificial intelligence platform, AIF PaaS platform, charging and billing products, big data products, CRM products, 5G intelligent network products, DevOps products, database products, etc., and passed the CMMI Level 5 (Software Capability Maturity Model Integration Level 5) international certification.

As of 31 December 2021, the Group had interests in the following major subsidiaries/ branches: AsiaInfo Technologies (H.K.) Limited (香港亞信科技有限公司), AsiaInfo Technologies (China), Inc. (亞信科技（中國）有限公司), AsiaInfo Technologies (China), Inc. Fuzhou Branch, AsiaInfo Technologies (China), Inc. Shenyang Branch, AsiaInfo

CORPORATE PROFILE

Technologies (China), Inc. Guangzhou Branch, AsiaInfo Technologies (China), Inc. Shanghai Branch, AsiaInfo Technologies (China), Inc. Chengdu Branch, AsiaInfo Technologies (China) Inc., Hangzhou Branch, Hong Kong AsiaInfo Technologies Limited (香港亞信技術有限公司), AsiaInfo Technologies (Nanjing) Inc. (亞信科技(南京)有限公司), Guangzhou AsiaInfo Technology Co., Ltd. (廣州亞信技術有限公司), Guangzhou AsiaInfo Technology Co., Ltd. Fuzhou Branch, Guangzhou AsiaInfo Technology Co., Ltd. Chengdu Branch, Guangzhou AsiaInfo Technology Co., Ltd. Shanghai Branch, Guangzhou AsiaInfo Technology Co., Ltd. Hangzhou Branch, Hangzhou AsiaInfo Software Co., Ltd. (杭州亞信軟件有限公司), Hangzhou AsiaInfo Cloud Information Technologies Limited (杭州亞信雲信息科技有限公司), Hangzhou AsiaInfo Cloud Information Technologies Limited Beijing Branch, Nanjing AsiaInfo Software Co., Ltd. (南京亞信軟件有限公司), Hunan AsiaInfo Software Co., Ltd. (湖南亞信軟件有限公司), Hunan AsiaInfo Software Co., Ltd. Fuzhou Branch, Hunan Shanghai Xucao Technology Branch (上海徐漕科技分公司), AsiaInfo Big Data (H.K.) Limited (亞信大數據(香港)有限公司), Beijing AsiaInfo Smart Big Data Co., Ltd. (北京亞信智慧數據科技有限公司), Beijing AsiaInfo Smart Big Data Co., Ltd. Nanjing Branch, Beijing AsiaInfo Smart Big Data Co., Ltd. Chengdu Branch, Beijing AsiaInfo Smart Big Data Co., Ltd. Hangzhou Branch, Beijing AsiaInfo Xingyuan Technology Limited (北京亞信興源科技有限公司), Chongqing Logic Technology Co., Limited (重慶數智邏輯科技有限公司), Hainan AsiaInfo Software Co., Ltd. (海南亞信軟件有限公司), AsiaInfo Goods Cloud Beijing Technology Limited (亞信貨雲(北京)科技有限公司), Hubei AsiaInfo Technology Limited (湖北亞信科技有限公司) and Guizhou AsiaInfo Huiyu Information Technology Limited (貴州亞信慧域信息技術有限公司).

CORPORATE INFORMATION

BOARD OF DIRECTORS

Executive Directors

Dr. TIAN Suning *(Chairman)*
Mr. DING Jian
Mr. GAO Nianshu *(Chief Executive Officer)*

Non-executive Directors

Mr. ZHANG Yichen
Mr. XIN Yuesheng
Mr. ZHANG Liyang
(Resigned on 30 June 2021)
Mr. YANG Lin
Ms. LIU Hong
Mr. CHENG Xike
(Appointed on 30 June 2021)

Independent Non-executive Directors

Dr. GAO Jack Qunyao
Dr. ZHANG Ya-Qin
Mr. GE Ming
Ms. TAO Ping

AUDIT COMMITTEE

Mr. GE Ming *(Chairman)*
Dr. ZHANG Ya-Qin
Mr. ZHANG Liyang
(Resigned on 30 June 2021)
Mr. CHENG Xike
(Appointed on 30 June 2021)
Ms. TAO Ping

REMUNERATION COMMITTEE

Dr. GAO Jack Qunyao *(Chairman)*
Dr. ZHANG Ya-Qin
Mr. XIN Yuesheng

NOMINATION COMMITTEE

Dr. TIAN Suning *(Chairman)*
Mr. GAO Nianshu
Dr. GAO Jack Qunyao
Dr. ZHANG Ya-Qin
Mr. GE Ming
Ms. LIU Hong
Ms. TAO Ping

CORPORATE INFORMATION

STRATEGY AND INVESTMENT COMMITTEE

Mr. XIN Yuesheng *(Chairman)*
Dr. TIAN Suning
Mr. DING Jian
Mr. GAO Nianshu
Mr. YANG Lin

COMPANY SECRETARY

Ms. YU Wing Sze

AUTHORISED REPRESENTATIVES

Mr. GAO Nianshu
Ms. YU Wing Sze

REGISTERED OFFICE

Craigmuir Chambers
Road Town
Tortola, VG1110
British Virgin Islands

PRINCIPAL PLACE OF BUSINESS AND HEAD OFFICE IN CHINA

AsiaInfo Plaza, Dong Qu
10 Xibeiwang Dong Lu
Haidian District
Beijing 100193
PRC

PRINCIPAL PLACE OF BUSINESS IN HONG KONG

31/F, Tower Two
Times Square
1 Matheson Street
Causeway Bay
Hong Kong

BRITISH VIRGIN ISLANDS PRINCIPAL SHARE REGISTRAR AND TRANSFER OFFICE

Harneys Fiduciary (Cayman) Limited
4th Floor, Harbour Place
103 South Church Street
PO Box 10240
Grand Cayman, KY1-1002
Cayman Islands

HONG KONG SHARE REGISTRAR

Computershare Hong Kong
Investor Services Limited
Shops 1712–1716, 17th Floor
Hopewell Centre
183 Queen's Road East
Wan Chai
Hong Kong

LEGAL ADVISORS

As to Hong Kong law:
CFN Lawyers
27/F, Neich Tower
128 Gloucester Road
Wan Chai
Hong Kong

As to PRC law:
Han Kun Law Offices
9/F, Office Tower C1
Oriental Plaza
1 East Chang An Avenue
Beijing
PRC

As to British Virgin Islands law:
Harney Westwood & Riegels
Unit 3501, The Center
99 Queen's Road Central
Hong Kong

AUDITOR

KPMG
Registered Public Interest Entity Auditor
8th Floor, Prince's Building
10 Chater Road, Central
Hong Kong

PRINCIPAL BANKERS

East West Bank
3237 E. Guasti Rd.
Ontario, CA
91761
United States

China Merchants Bank
Beijing Jianguo Road Sub-branch
116 Jianguo Road
Chaoyang District
Beijing
PRC

China Merchants Bank
Nanjing Gulou Sub-branch
4 Beijing East Road
Nanjing, Jiangsu Province
PRC

STOCK CODE

1675

COMPANY'S WEBSITE

www.asiainfo.com

FINANCIAL HIGHLIGHTS

Financial data	**2021 RMB million**	2020 RMB million	Changes
Revenue	**6,895**	6,020	14.5%
Revenue from the Three New business	**1,568**	780	101.0%
Gross profit	**2,645**	2,303	14.8%
Gross profit margin (%)	**38.4%**	38.3%	0.1 percentage point
Profit for the year	**783**	662	18.2%
Net profit margin	**11.3%**	11.0%	0.3 percentage point
Basic earnings per share (RMB)	**0.86**	0.85	1.2%

PROFIT
FOR THE YEAR
RMB 783 Million
18.2%

FINANCIAL HIGHLIGHTS

REVENUE

RMB
6,895 Million
14.5%

REVENUE FROM THREE NEW BUSINESS

RMB
1,568 Million
101.0%

CHAIRMAN'S STATEMENT

Dr. TIAN Suning
Chairman and Executive Director

CHAIRMAN'S STATEMENT

Dear Shareholders,

The "14th Five-Year" Plan of the PRC put forward embracing digital era, activating data elements potential, promoting the construction of a powerful nation through Internet, accelerating the construction of a digital economy, a digital society and a digital government, and leveraging digital transformation to propel changes in the ways of production, lifestyles, and governance as a whole. Capitalising on the new wave of digitalisation brought by the "14th Five-Year" Plan, the software industry will gain more opportunities for development. Facing the new stage and new characteristics of the PRC's social and economic development, the Company actively responded to national policies and undertook social responsibilities, striving to become a leading provider with full-stack digital and intelligent capabilities.

In 2021, AsiaInfo Technologies adhered to the strategy of "One consolidation, Three developments" and its five-year plan, continued to promote the accelerated development of its business, and registered a double-digit growth in revenue and profit for the year. In the past year, the Company solidified the traditional business with premier quality and promoted the high speed development of the Three New business. We doubled the revenue again from Data-driven Operation (DSaaS) business with increases in both customer base and average revenue. The results-based charging model climbed up to a new level. The vertical industries and enterprise cloudification business significantly increased in scale, as the five key industries further expanded. The Operation Support Systems (OSS) business rapidly expanded in scale. The 5G network intelligent technology has reached the advanced international level, and its industry influence and products are taking the leading position.

OVERALL RESULTS

In 2021, the Company accelerated growth in the revenue which amounted to approximately RMB6,895 million, increased by 14.5% year-on-year. Among which, the Three New business became an important engine to drive revenue growth and its revenue amounted to approximately RMB1,568 million, increased by 101.0% year-on-year. The proportion of the Three New business to revenue continued to increase to 22.7%. Our profitability remained healthy with gross profit margin amounting to 38.4% and profit for the year amounting to approximately RMB783 million, representing a year-on-year increase of 18.2%. Net profit margin amounted to 11.3%, representing an increase of 0.3 percentage point as compared with last year.

The Board, after taking into full consideration of various factors including Shareholders' returns, profitability, cash flow level and capital needs for future development of the Company, has decided to propose the distribution of the 2021 final dividend of HK$0.416 per Share at the AGM with the annual dividend payout ratio of approximately 40%.

CHAIRMAN'S STATEMENT

BUSINESS DEVELOPMENT

Doubling revenue from DSaaS business again

The Company seized the increasing demand of customers' value operations, as well as the development opportunities brought by the digital economy, continued to step up its efforts in expanding its DSaaS business, explored data and information value, promoted various innovative business models such as results-based charging, sharing settlement and subscription, and successfully achieved multiple replication of such model adoption in customer groups, so as to provide several types of businesses, including user and content operation services, integrated big data construction and operation services for government affairs, and operational solutions for enterprise private domain traffic. Leveraging on the legal and compliant data sources, as well as its powerful AI and middle office technology sharing system, the Company unleashes the digital value and helps customers achieve value-based operations.

In 2021, we achieved revenue from the DSaaS business of approximately RMB730 million, up by 107.5% year-on-year, with DSaaS business accounting for 10.6% of the revenue, becoming the strongest contributor among the Three New business that drove the revenue growth of the Company.

Significant increase in business scale of vertical industries and enterprise cloudification

The Company continued its strategic focus on the five key vertical industries, including the government affairs, finance, postal services, transportation and energy sectors and achieved significant expansion in business scale and further growth in large enterprise customer base. The Company devoted greater efforts to strengthen industry solutions as well as product and capability cultivation. Of which, in the government affairs sector, we developed replicable solutions on digital government and acquired benchmark projects such as Shanghai Big Data Platform, Jieshou Digital City Brain and Zibo Big Data Platform. In the energy sector, we had promoted the implementation of several typical 5G private network-based application scenarios in nuclear power, wind power, thermal power and among other sub-sectors, including participation in China National Nuclear Power's 5G private network-based production project, accelerating the digital transformation of the energy industry. The Company also promoted the smart city business proactively and steadily by establishing strategic co-operation with various local governments and stated-owned businesses. The IT application innovation initiative has also been carried out in an orderly manner, including perfecting compatible adaptations, addition of IT innovation catalogues and promotion of product launch.

In the enterprise cloudification business, the Company had established strategic partnerships with mainstream cloud vendors such as Alibaba Cloud, Huawei Cloud, Baidu Cloud, Tencent Cloud, e-Surfing Cloud, Mobile Cloud, Wo Cloud and CECLOUD. In 2021, the Company deepened the cooperation with strategic partners to expand customer bases. It achieved sizable growth in delivery with Alibaba Cloud, and for the first time entered into RMB10 million level project with Tencent Cloud. Our capacity in cloudification business has further enhanced, and was rated as "Excellent" grade, the highest level of Trusted Cloud MSP certification in China in the assessment of Trusted Cloud • Cloud MSP Competency Assessment hosted by CAICT.

In 2021, the revenue from vertical industries and enterprise cloudification business of the Company amounted to approximately RMB425 million, up by 135.6% year-on-year.

CHAIRMAN'S STATEMENT

BSS and OSS business

During the "14th Five-Year" Plan period, the telecommunications industry will grow further and become a strong pillar of building a manufacturing power, a network power and a digital China. The Company actively responded to industry needs, and closely leveraged the development trend of BSS & OSS integration in the 5G era to enhance 5G network and application support capabilities.

For the OSS business, the Company takes full advantage of a technology-middle-stage software vendor and actively participates in the construction of operators' network intelligentisation and network management systems, providing customers with products of "global domain virtualisation, global domain intelligentisation and perceptible global domain" so as to help operators to achieve business and network support capability integration. Despite its relatively short history in OSS sector, the Company is able to catch up with its peers fast and exert a certain influence on the industry, thanks to its continuous efforts in R&D. The Company's 5G network intelligentisation products commanded the leading standard internationally and has been enlisted in the Gartner 2022 Network Intelligence Global Mainstream Vendor Matrix. In 2021, the Company's OSS business grew rapidly, achieving a revenue of approximately RMB413 million, up by 66.7% year-on-year.

For the BSS traditional business, the Company continued to maintain its strong market leadership position with high market share. Facing changes in the external environment, the Company actively met the needs of customers for business support transformation and innovation, assisted customers in digital and intelligent upgrade, strived to explore business potential, continued to improve efficiency and maintained a stable business scale. In 2021, the Company's traditional business revenue amounted to approximately RMB5,327 million, up by 1.7% year-on-year.

Continuing to play an industry leading role with the R&D technology and product through ingenious quality products

We always uphold the concepts of "driving by R&D, empowering by innovation". We propel the fast growth of the Three New business with our "ingenious" quality products.

The Company has increased its innovation efforts and R&D investment in the emerging business, including secure multi-party computation, federated learning, edge AI, digital twins, 5G private network, 5G network intelligence, database and other new technologies and new products, as well as abundant 5G industry solutions, empowering the construction of the 5G+X ecosystem, and many competitive products have been successfully applied commercially in the telecommunication and vertical industries.

The Company has further demonstrated its R&D and technological strengths. Our 5G intelligent network products system won the highest award for AI in China — Wu Wenjun AI Science and Technology Progress Award (吳文俊人工智能科技進步獎), and was selected for the Gartner 2022 Network Intelligence Global Mainstream Vendor Matrix. The cloud network product system continued to strengthen its leading position in the industry: the network cloud management and SDN multi-location replication built the product-oriented templates. The 5G private network products received the network access test certification from the Ministry of Industry and Information Technology, achieving a number of commercial market breakthroughs. The digital intelligence product system has been continuously innovated: the RPA was honoured the National Champion and Grand Prize in China RPA+AI Developer Competition. The RPA and Data OS were selected for Forrester 2021 Now Tech Global Mainstream Vendor Matrix. The AIOps products were ranked on the Gartner Hype Cycle Technology Maturity Curve for two consecutive years from 2020

CHAIRMAN'S STATEMENT

to 2021. Moreover, we continued to intensively participate in 20 international/national standards organisations, including 3GPP, ITU, ETSI, IEEE, TMF and O-RAN with leading contributions to 40 international communication standards.

In 2021, the Company's R&D expenses amounted to approximately RMB1,006 million, representing a year-on-year increase of 19.7% and accounting for 14.6% of revenue.

Investments and Mergers and Acquisitions

In January 2022, the Company completed the acquisition of 94.23% equity interests of iResearch Marketing Consulting Co., Ltd. ("**iResearch Consulting**"), a well-known brand and leading company in business decision services, and became the controlling shareholder of iResearch Consulting. Through this acquisition, the Company will greatly enhance its capability in DSaaS as well as digital and intelligent service capacity in smart decision making, and extend the core capabilities of the Company from product R&D, implementation and delivery, system integration, data operation, customer services to consulting planning as well as smart decision-making, thus becoming a leading provider with full-stack digital and intelligent capabilities.

SOCIAL RESPONSIBILITY

We reward the society with the heart of service, and always incorporate ESG concepts into our company management and business development. While improving our own energy conservation, emission reduction and low-carbon operations, we also take full advantage of the digital value, promote intelligent operations and green and low-carbon development across various industries to make our active contribution to building a beautiful and sustainable society.

We adhere to the concept of green development and actively promote energy conservation and emission reduction. We continue to implement our energy-saving renovation plans, and actively explore low-carbon operation methods by installing photovoltaic power generation facilities. It is expected that the average annual power generation of photovoltaic facilities will reach more than 100,000 kWh, and the average annual carbon dioxide emission reduction will reach more than 100 tons. In addition, the Company independently develops its AI-powered business travel office platform and promote a paperless office in an all-round manner.

We provide assistance to our customers in low-carbon operation with technology empowerment. The Company develops its intelligent products such as AI energy-saving systems to provide green and intelligent services for customers in various industries with aims to significantly improve energy-saving efficiency. In particular, in the energy industry, we provide digital solutions for green energy enterprises such as wind power and nuclear power in order to build an efficient, safe and sustainable clean energy development system. Moreover, the Company prepared a research report on carbon emission reduction in the industry together with CAICT, driving the technology industry to grow in the direction of green empowerment.

We always closely align our own development with social responsibility. AsiaInfo Technologies' products have played an important role in privacy protection, flood prevention and control, epidemic prevention and control and other respects. While focusing on our own development, we constantly strive to offer better products and services for the public and actively fulfil its responsibilities and obligations as a corporate citizen.

CHAIRMAN'S STATEMENT

OUTLOOK

During the "14th Five-Year" Plan period, the digital economy has become a new engine for high-quality development of the PRC economy. Benefiting from the digital economy, the software industry will accelerate its development pace. According to the forecast by CAICT, the scale of the PRC digital economy will exceed RMB65 trillion by 2025, accounting for 50% of GDP, with an average annual compound growth rate of approximately 10.7% from 2020 to 2025. Therefore, we have full confidence about the long-term development of the Company. The Company will continue to promote the "One consolidation, Three developments" strategy, strive to unleash the values and strengths of traditional business and endeavour to activate the growth momentum of the Three New business, so as to promote revenue growth rate of the Company to be not lower than the average growth in the size of the digital economy during the "14th Five-Year" Plan period, and make solid progress towards the goal of "achieving a business scale of over RMB10 billion, half of which comprises of the new business (業務規模超百億，新業務近半壁江山)" in 2025, with a view to create greater value for the country, Shareholders and customers.

Going forward, we see both challenges and opportunities. For the traditional market, the intelligent transformation based on emerging technologies such as big data and AI has brought new market opportunities. At the same time, the Company will strive to promote the development of new markets for BSS business. In 2022, we won the bidding for the construction project of 5G business support system for China Broadcasting Network Group Corporation Ltd., opening a new chapter of business cooperation. The demand for computing network as well as automatic and intelligent network will drive the needs in upgrading the OSS capability systems of customers.

The continuous adoption of big data in various industries continues to expand the market space for digital operations; operational demands focusing on value-based operation, privilege operation and integrated operation will continue to facilitate the needs of customers in the telecommunication industry for DSaaS. After the acquisition of iResearch Consulting, both parties will be able to complement each other's data products, data application capabilities and industry segments, which will greatly enhance the DSaaS and digital-intelligent transformation business and contribute to the continuous high growth momentum of the business. In terms of the enterprise cloudification business, the Company is actively facilitating cooperation with the state-owned cloud system, so as to increase its presence to develop the government affair and state-owned enterprise-based markets intensively. In terms of vertical industries, after the acquisition of iResearch Consulting, the Company will be able to combine the iResearch Consulting's strategy and digital consulting service capabilities to meet the essential preliminary consulting planning needs of industry clients and upgrade the comprehensive end-to-end digital and intelligent services from consulting planning to product delivery for customers. Moreover, the Company will continue to focus on key industries to create integrated industry solutions and establish a sustainable development model.

Finally, on behalf of the Board, I would like to take this opportunity to express our heartfelt thanks to all Shareholders, our customers and all circles of society for their support to AsiaInfo Technologies. I would also like to express our gratitude to all our staff for their relentless efforts and contributions. We will work together to build AsiaInfo Technologies into a respectable enterprise with pride for staff!

MANAGEMENT DISCUSSION AND ANALYSIS

BUSINESS OVERVIEW

Summary

The year 2021 was the inaugurated year of the "14th Five-Year" Plan of the PRC, and the government had introduced an array of policies on carbon peaking and carbon neutrality goals, urban digital transformation, state-owned enterprise digital transformation, autonomous and controllable capability, new infrastructure and digital economy. An important article by President Xi Jinping published in the second volume of the magazine QIUSHI of 2022 and titled "Continuously strengthening, improving and expanding China's digital economy" has once again stressed the promotion of intensive integration of digital technology with the real economy, empowering the transformation and upgrading of traditional industries, and spawning to new industries, new businesses and new models, so as to constantly strengthen, improve and expand China's digital economy. The new opportunities in digital economy give impetus to the new development of software industry. Facing the new stage and new features of socio-economic development of the PRC, the Company actively responds to the national policies, boldly assumes social responsibility and endeavours to become a leading provider with full-stack digital and intelligent capabilities.

During the Reporting Period, the Company continued to deepen its strategy of "One consolidation, Three developments" and accelerated its overall performance growth. Revenue of the Company amounted to approximately RMB6,895 million, up by 14.5% year-on-year. Among which, the Three New business, namely DSaaS, vertical industries and enterprise cloudification, and OSS business, had achieved a revenue of approximately RMB1,568 million, up by 101.0% year-on-year and achieved a breakthrough of 22.7% of revenue from 13.0% in 2020. Profit for the year reached approximately RMB783 million, increased by 18.2% year-on-year, hitting a new high in profitability. In terms of the ecological construction, through the acquisition of iResearch Consulting, the Company's capabilities in the data-driven operations and digital and intelligent transformation business have been greatly enhanced. We strive to become a leading provider with full-stack digital and intelligent capabilities.

I. Achieving another double growth in revenue from DSaaS business

In 2021, data security had been elevated to the level of national security. The successive introduction of the Data Security Law, the Regulations on the Security Protection of Critical Information Infrastructure and the Personal Information Protection Law have, on one hand, continuously compressed the survival room of grey data and regulated the use of data in various industries, while on the other hand, they stimulated the demand for the use of legitimate data and catalysed the continuous implementation of data security application scenarios. At the same time, intelligent data-driven operation model has been gradually accepted in the PRC market, and the release of the ““14th Five-Year” Plan for the Development of Big Data Industry” will further accelerate the development and utilisation of big data in the industry.

THE REVENUE FROM DSaaS UP BY 107.5%

Adhering to the philosophy of legal, safe, effective and timely data operation, AsiaInfo Technologies has always strictly complied with the relevant national laws and regulations, so as to provide legal, compliant and reasonable digital operation services to users in various sectors and industries. During the Reporting Period, leveraging on the legal and compliant data sources, as well as its powerful AI and middle office technology sharing system, the Company provided customers with abundant operation products and service systems. In terms of customer base expansion, the Company has expanded its customer base including government authorities at all levels, such as Bureau of Statistics, Public Security Bureau, fire emergency and rescue, local governments, representative customers in financial industry, such as China UnionPay, Ping An Insurance of China, China Life, Postal Savings Bank of China, Changan Automobile Finance, local rural commercial banks, as well as High Speed Housekeeper (Chongqing) Industrial Co., Ltd., SAIC Motor Corporation, Dongfeng Motor, China Tobacco, Jingpai, Nike, eBeauty, McDonald’s and many other industry customers.

In terms of business model, we have completed multiple replications in results-and-commission-based charging model, in which results-and-commission-based charging model has been achieved replications for operators in more than 10 provinces such as Guangdong, Henan, Chongqing and Beijing; in terms of content operation, we achieved remarkable results in new users acquisition and content operation services for a professional company, presenting high conversion of content operation with a total of nearly 100 million new users solicited for our client in 2021; in terms of integrated services for the government affairs-based big data construction and operation, we provided intelligent hub base construction and ancillary data operation services to big data bureaux in eight districts and counties under Chongqing municipality, Shandong, Anhui and Liaoning provinces; in terms of enterprise private traffic operation solutions, leveraging on WeChat and enterprise WeChat ecosystem, we provided digital employee empowerment, digital customer operation, digital scenario marketing and digital business marketing solutions for customers in communications, broadcasting and finance.

In terms of data-driven operation capability, through the acquisition of iResearch Consulting, the Company has extended the core capabilities of AsiaInfo Technologies from product R&D, implementation and delivery, system integration, data operation, customer services to consulting planning and smart decision-making, thus becoming a leading provider with full-stack digital and intelligent capabilities.

II. Significant increase in businesses scale of vertical industries and enterprise cloudification

The government laid down a series of policies in 2021 to stimulate the needs on the demand side for digital transformation and promoted digital investment on the supply side, showing the internal circulating of digital economy. According to the forecast by CAICT, the digital economy of the PRC will record a value of more than RMB65 trillion in 2025, accounting for up to 50% of the GDP, with a compound growth rate of approximately 10.7% from 2020 to 2025. Based on the requirements of scientific and technological independence, key basic software (operating system, database and middleware etc.), emerging platform software (cloud computing, artificial intelligence, big data and other platforms), industry application software, open ecological cultivation will be vigorously developed. At the same time, smart city market will continue to extend from first and second tier cities to third, fourth and fifth tier cities and counties. The cloud computing market will still maintain a high growth, and benefited from the safe, manageable and controllable requirements, state capital cloud, city cloud and information innovation cloud will become the preferred options by the government, central enterprises, local state-owned enterprises and other customers.

During the Reporting Period, the Company further focused on vertical industries and established an industrial layout featuring a 5 (focusing on industries: government affairs, energy, finance, transportation and postal) + X (exploring industry) + 1 (cloud business cooperation) model, sped up its business growth and doubled its revenue scale through further industry development and business expansion. For government affairs, we focused on the replicable solutions on digital government and big data in government affairs and acquired benchmark projects such as Shanghai Big Data Platform, Jieshou Digital City Brain, and Zibo Big Data Platform. In terms of finance, we focused on the replicable models on data middle office and data governance and acquired projects including data governance platform of China UnionPay, data middle office of Aeon Life, data governance platform of Wuhan rural commercial bank and big data of China Everbright Bank. For postal, we obtained the CRM phase II project tender again after winning the highly recognised CRM phase I project earlier. In the transportation segment, we focused on the replicable solutions on

MANAGEMENT DISCUSSION AND ANALYSIS

highway toll billing and big data auditing and acquired the highway toll billing and big data-related projects in Hunan, Yunnan, Guangxi and Gansu provinces. For energy and power, we paid attention to the core solutions on energy middle office and 5G private network and propelled their replication in the nuclear power, wind power and thermal power markets.

In the cloud business sector, we continued to deepen the cooperation with leading cloud service providers such as Baidu, Alibaba, Tencent, and Huawei and state-owned cloud service providers. We signed a contract with Tencent Cloud and were recognized as a general-purpose administrative delivery partner. We became a core MSP partner of Alibaba Cloud, and a core partner of Cloud Native, and was honoured the Alibaba Cloud Digital Construction Benchmarking Award. Also, we became a partner of AI Scheduling Platform, a partner of smart community solutions and a partner of cloud MSP of Huawei Cloud. We enhanced strategic cooperation with China Union Pay Cloud, China Electronic Cloud and other state-owned cloud service providers. Moreover, the Company passed the renewal assessment of Trusted Cloud • Cloud MSP Competency Assessment hosted by CAICT, and consistently maintained the "Excellent" grade, the highest level of Cloud MSP certification in China. At the "2021 Trusted Cloud Conference" hosted by CAICT and China Communications Standards Association, our AISWare CloudOS (AsiaInfo Cloud OS) hybrid cloud solution passed the "Trusted Cloud • Hybrid Cloud "assessment.

III. Further scaling up OSS business with products taking leading industry positions

The year 2021 was the inauguration year of China's "14th Five-Year" Plan, which was also the critical year for 5G scale application. The 5G network construction and applications continued to advance, with the total number of base stations and users constantly expanded, the number of new 5G base stations reached 654,000 in 2021, and the cumulative number of 5G base stations completed and operated reaching 1,425,000 units, and the number of 5G terminal connections exceeding 500 million. Various industries seized the major opportunity presented by 5G commercialization to accelerate industry digitization process. At the same time, the demand for computing networks and autonomous networks drive operators to focus on network autopilot and OSS capability system upgrades, and the OSS market investment scale will continue to grow steadily.

During the Reporting Period, the Company's OSS business was further scaled up and the capacity of revenue continued to grow at a rapid pace. In terms of technology leadership, the Company's 5G network smart products have reached the international advanced level. The Company was granted the Wu Wenjun AI science and Technology Progress Award (吳文俊人工智能科技進步獎), the highest award for artificial intelligence field in China. The Company was listed in the Gartner 2022 Network Intelligence Global Mainstream Vendor Matrix as a typical global vendor in this sector and received the Best Network Slicing Practice at the 5G World 2021 World Summit. The Company has established the 5G Intelligence Joint Laboratory together with the Institute for AI Industry Research in Tsinghua University, jointly committed to 5G network intelligence, autonomous smart network and other cutting-edge technology exploration and innovation. As one of the main achievements of the Joint Laboratory, the "5G network intelligence system" passed the national science and technology achievement appraisal in 2021, and its technology in general has reached the domestic leading and international advanced level. In particular, 5 subdivision technologies, including 5G network slicing end-to-end management, 5G Massive MIMO intelligent optimization and others have reached international leading level. In respect of academic achievements, the Company jointly published the Artificial Intelligence Communications Empowering Autonomous Networks White Paper (《通信人工智能賦能自智網絡白皮書》), The Next Decade of Artificial Intelligence Communications (《通信人工智能的下一個十年》) together with Tsinghua University, participated in compiling the 5G Network Slicing Industry Self-Management Industry White Paper (《5G網絡切片行業自管理產業白皮書》) with 5G Slicing Association, and participated in the writing of the Digital Twin Network (DTN) White Paper (《數字孿生網絡 (DTN) 白皮書》) led by China Mobile Research Institute.

IV. Maintaining steady growth in traditional BSS business and continuing to lead customers' digital intelligence transformation

In 2021, telecommunication operators witnessed the overall turnaround in operating results driven by the dual engines of 5G and innovative business. As the transformation of digital intelligence continues to advance, telecommunication operators will continue to increase investments in government and enterprise, household, digital innovation and other businesses.

During the Reporting Period, the Company actively facilitated the development strategy of operators, and recorded a rebound in revenue from the BSS business. In terms of BSS digital intelligence development, we deeply involved in the planning and construction of the smart middle office projects of telecommunication operators, actively promoted the operators' customer value enhancement and full-business convergence operation support construction, and continued to assist the operators in collaborating operation management and quality and efficiency improvement in the entire spectrum of digital intelligence. We completed the launching of China Mobile's smart middle office project in 19 provinces, and continued to move forward China Mobile's CHBN fully integrated operation support, the construction of China Unicom's 5 major middle office projects in various provinces, the construction and operation of China Telecom's enterprise micro-smart housekeeper (in 6 provinces) and the construction and operation of digital integrated grid (in 7 provinces). In terms of innovation of BSS digital intelligence, we assisted customers in carrying out the innovation of digital intelligence in the fields of application, platform and basic software through self-development of innovative products (RPA, AI platform, AI edge all-in-one machine, knowledge graph, PaaS platform, middleware, blockchain, database). We jointly built the RPA-based digital staff system with Zhejiang Mobile and Shandong Mobile. We helped China Telecom to apply the AIOPS intelligent operation and maintenance products in BSS system to improve operation and maintenance efficiency. We completed the launching of projects such as the Zhejiang Mobile and Shanghai Mobile core production database independent controllable projects and China Telecom core billing system on cloud independent R&D in memory database, and actively pushed forward multi-province docking with the PaaS platforms. In terms of BSS new market development, we signed contracts with emerging operator market customers such as China Broadcast Network and China Satellite Network.

V. Continuing to play an industry leading role with R&D technology and product through ingenious quality products

In 2021, the Company invested approximately RMB1,006 million in R&D, representing an increase of 19.7% year-on-year and accounted for 14.6% of the revenue. The Company continued to lead the industry in terms of R&D technology and products, empowered the rapid development of the Three New business, further drove the revenue growth of the Three New business and continued to improve the efficiency of traditional business.

The Company has increased its innovation efforts and R&D investment in the emerging business, including secure multi-party computation, federated learning, edge AI, digital twins, 5G private network, 5G network intelligence, database and other new technologies and new products, as well as abundant 5G industry solutions, empowering the construction of the 5G+X ecosystem, and many competitive products have been successfully applied commercially in the telecommunication and vertical industries.

The Company has further demonstrated its R&D and technological strengths. It remained as the industry leader in the 5G network intelligence segment, which was evidenced by its 5G network intelligence product system winning the highest award for artificial intelligence in China — Wu Wenjun AI Science and Technology Progress Award (吳文俊人工智能科技進步獎), and was enlisted in the Gartner 2022 Network Intelligence Global Mainstream Vendor Matrix. The "research and development and industrial scale application of 5G network intelligence system" passed the national science and technology achievement appraisal, reaching the international advanced and domestic leading level. In particular, 5 subdivision technologies, including the 5G network slicing and others have reached international leading level. The 5G network slicing products was awarded the Best Network Slicing Practice at the 5G World 2021 World Summit. The AI Communications Laboratory was awarded the ITU 5G AI/ML China Championship in 2021 and the Global Final Excellence Award. The RPA products entered the elite ranking of domestic vendors, being selected into

Won the Highest Award for AI in China — Wu Wenjun AI Science and Technology Progress Award

Forrester's Global RPA Mainstream Vendor Matrix, and won the National Champion cum Grand Prize of China RPA+AI Developer Competition. The AIOps products were ranked on the annual list of Gartner Hype Cycle for ICT for 2 consecutive years from 2020 to 2021. The digital twin products won three TMF Catalyst Awards, and in particular, the digital twin smart city project was the sole winner of the summit to win two awards for its sustainability and industry influence, and was selected as a case study for business school teaching at Dartmouth College, an Ivy League university in the US.

Multiple key innovative technologies and products of the Company were granted with patents and software copyrights. At present, the Company owns over 1,000 software copyrights in total. We continued to participate intensively in 20 international/national technical standards organisations such as 3GPP, ITU, ETSI, IEEE, TMF, and O-RAN. Our participation and influence in international standards have increased significantly, of which they include 40 international standards, 7 important standards of 3GPP, and led the federal learning in IEEE international standard establishment. We have several technology perspectives leading the industry, including "The Next Decade of AI Communications", "BFV Telecom Service Function Virtualisation", and "5G Value Surface". Moreover, as a key player in the area of domestic IT innovation, we have seen that our IT innovation products of database and middleware are fully compatible with 32 mainstream IT innovation products both upstream and downstream, and achieved a number of commercial implementations, and continue to contribute to the development of domestic IT innovation software.

The Company continued to uphold the spirit of ingenuity and continuously established a high-quality system. The product system covers the segments of cloud network, digital intelligence, IT and middle office. The cloud network product system continued to consolidate its industry leading position: the network cloud management and SDN multi-site replication and established product-based models; the 5G private network, which passed the network access test certification of Ministry of Industry and Information Technology, achieved market breakthroughs in multiple commercial sites; the customers experience management (CEM), which realized breakthrough in home broadband business management opportunities; the ReTiNA network intelligent planning, which optimized products and continued to expand the market scale; the 5G network intelligence, which focused on areas such as computing network, automatic and intelligent network; and the network digital twin, empowering the digital and intelligent transformation of the communications industry. The continuous innovation of digital intelligent product system: the Data Infra platform, which built a cloud native primary data technology base that integrates data fabric, lakehouse, and cloud edge collaboration; the Data OS platform, which realized data full domain integration, unified management and asset capitalization; the

MANAGEMENT DISCUSSION AND ANALYSIS

edge AI, which invested in key industries significantly and built model projects; the RPA, a multi-scenario digital employee on-the-job operation; the AIOps, which helped intelligent operation and maintenance in all scenarios; and the Data Discovery, which carried out architecture upgrade and made sound achievements at several stages. The continuous evolution of IT product system: the Cloud OS platform, which realized large-scale application; the PaaS platform, which built a digital technology platform for enterprises; the GIS platform, which built a GIS base for operators; the blockchain platform, which formed data connection and data circulation value chain; the DevOps, which improved quality and efficiency; the digital twin, which realized market breakthroughs in several industries; and the successful database model sites and growing pilot sites. The middle office system further clarified that: the technology middle office, data middle office, and AI middle office, which built the support base for the digital-intelligence transformation of many industries, and the smart middle office system, the commercial use of which was further promoted.

VI. Emerging "One Mainstay, Three Links" synergy with comprehensive strengths widely recognized

In respect of ecological construction, the Company's ecological system of "One Mainstay, Three Links" has achieved progressive improvements. As of the end of 2021, the number of ecological partners had exceeded 200. During the Reporting Period, the Company increased its efforts in capital link layout, and facilitated the implementation of the Company's strategic business and sustainable growth through complementary advantages. It established a holding company, AsiaInfo Goods Cloud Beijing Technology Limited 亞信貨雲（北京）科技有限公司, and built a multi-model transportation big data platform to provide industry customers with comprehensive data and information services for bulk logistic. It strategically invested in Guangdong New Vision Info-Tech Co., Ltd. (廣東新視野信息科技股份有限公司) and jointly published the "Edge AI for Smart Construction Sites" solution, in which both parties jointly expanded the related markets such as smart construction sites and industrial parks. It developed partners of capital link in smart cities and relevant integrated businesses, and reached an intention with Beitou Xinchuang Group (北投信創集團) to establish a joint venture, so as to jointly expand the market. In January 2022, the Company acquired iResearch Consulting, extending its core capabilities from product R&D, implementation and delivery, system integration, data operation, customer services to consulting planning and smart decision-making, thus becoming a leading provider with full-stack digital and intelligent capabilities. At the strategic link, the Company cooperated with leading enterprises such as communication operators, cloud providers as well as government departments to complement each other's advantages and achieve win-win cooperation. During the Reporting Period, it signed strategic agreements with Tencent Cloud, China Electronic Cloud, KylinSoft and others, and reached strategic cooperation with the Anshun People's Government to carry out cooperation in the smart city and IT innovation aspects.

In 2021, the Company received various honours and product awards and its brand influence continued to rise. It has been selected as one of the Top 100 Companies in China in terms of Software Business Revenue for 7 consecutive years, awarded various titles and honours such as Outstanding Enterprise in Software and Information Service Industry, China's Most Influential Enterprise Brand in Software and Information Service Industry, Excellent Enterprises in Electronic and Information Industry, Top 50 Enterprises in China's Electronic and Information Industry in terms of Social Contribution, Leading Enterprises in China's Artificial Intelligence, Most Influential Enterprises in China's Software Industry, Outstanding Entrepreneurs in China's Software Industry, Top 100 "Leap Technology Enterprise" in Hong Kong Stock, Innovative Software Enterprises of 2021 in China, Leading Enterprises in New Smart City, and Top 100 Technology Companies of 2021.

FUTURE OUTLOOK

The year 2022 is the year for the full implementation of China's "14th Five-Year" Plan, and is also the year for AsiaInfo Technologies to liberate the advantages of traditional business in efficiency and activate the growth momentum of the Three New business deeply and continuously. The Company will seize opportunities and firmly implement the "One consolidation, Three developments" strategy, striving to become a leading provider with full-stack digital and intelligent capabilities.

In respect of digital operation, the Company's DSaaS business will be fully integrated with iResearch Consulting to establish full-stack capabilities in the digital industry. In future, the Company' core capabilities will be extended from product R&D, implementation and delivery, system integration, data operation, customer services to consulting planning and smart decision-making, forming a closed loop for offering customer services and accelerating the rapid development of digital operation.

In respect of vertical industries and enterprises cloudification, the Company will continue its focus, strengthen the ecological cooperation system, create integrated solutions, and build up a vertical and sustainable development model. Through integration with iResearch Consulting, we have created the strengths in the whole chain capability from consulting planning, product solution, construction delivery to operation and maintenance, and provided integrated solutions and service model for vertical industry customers.

MANAGEMENT DISCUSSION AND ANALYSIS

In respect of OSS business segment, the Company will seize the market opportunities brought by 5G network intelligence, automatic and intelligent network, computing network, network digital twin and other new technologies, continue to expand business scale, increase market share, and constantly enhance the product technologies so as to maintain its leading position in the industry.

In respect of BSS business segment, the Company will seize the new opportunities in digital-intelligence transformation. Focusing on the arithmetic network, government and enterprise digital intelligence, intelligent operation, cloud network operation, new market, new areas, new projects, new needs of new operators as well as digital and intelligent technology based-BSS products, we continue to consolidate our leadership position in the BSS market.

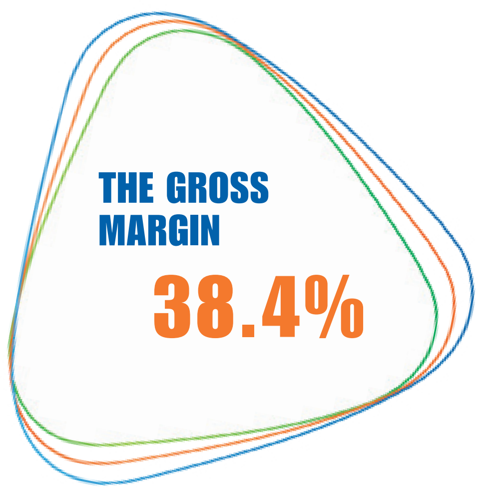
FINANCIAL OVERVIEW

Summary

In 2021, the Company staunchly implemented the development strategy of "One consolidation, Three developments" and continued to maintain a good development momentum and operating results. Driven by the constant and rapid development of the Three New business, revenue growth was accelerated. In 2021, we achieved revenue of approximately RMB6,895 million (2020: approximately RMB6,020 million), increased by 14.5% year-on-year, among which, the revenue from the Three New business amounted to approximately RMB1,568 million (2020: approximately RMB780 million), increased by 101.0% year-on-year, a double in growth and accounted for 22.7% of the revenue, becoming an important driver for the Company's business expansion.

In 2021, our gross profit amounted to approximately RMB2,645 million (2020: approximately RMB2,303 million), representing a year-on-year increase of 14.8%, and our gross profit margin amounted to 38.4% (2020: 38.3%), representing an increase of 0.1 percentage point as compared with last year. Profit for the year was approximately RMB783 million (2020: approximately RMB662 million), representing a significant increase of 18.2%, and profit margin for the year reached 11.3% (2020: 11.0%), up by 0.3 percentage point year-on-year.

In 2021, the Company achieved basic earnings per share of approximately RMB0.86 (2020: approximately RMB0.85), representing a year-on-year increase of 1.2%.



In 2021, net cash generated from operating activities was approximately RMB681 million (2020: approximately RMB710 million), representing a slight year-on-year decrease of 4.1%, and the cash generated from operating activities remained stable in general.

Revenue

During 2021, the Company adhered to the development strategy of "One consolidation, Three developments", kept up with market development changes, focused on the industry and digital transformation, accelerated its scalable expansion in the new business sectors in DSaaS, vertical industries and enterprise cloudification, and OSS business, which brought about accelerated revenue growth.

The following table sets forth the breakdown of our revenue by business category, both in absolute amounts and as percentages of our total revenue, for the periods indicated:

REVENUE
RMB
6,895
MILLION

	2021		2020	
	RMB'000	**%**	RMB'000	%
Revenue				
Software business:				
Traditional business	**5,327,134**	**77.3**	5,239,769	87.0
Three New business	**1,567,533**	**22.7**	779,709	13.0
DSaaS	**729,649**	**10.6**	351,600	5.8
Vertical industries and enterprise cloudification	**424,833**	**6.1**	180,329	3.0
OSS	**413,051**	**6.0**	247,780	4.2
Total software business	**6,894,667**	**100.0**	6,019,478	100.0
Network security business	**—**	**—**	377	—
Total	**6,894,667**	**100.0**	6,019,855	100.0

In 2021, the revenue amounted to approximately RMB6,895 million (2020: approximately RMB6,020 million), increased by 14.5% year-on-year, among which, the revenue from the Three New business amounted to approximately RMB1,568 million (2020: approximately RMB780 million), increased by 101.0% year-on-year, which accounted for 22.7% of the revenue (2020: 13.0%) and became an important driver for the Group's business scalable expansion.

The traditional business includes BSS business and sales of third-party hardware and software, system integration services, business consulting services and corporate trainings. In 2021, revenue from traditional businesses amounted to approximately RMB5,327 million (2020: approximately RMB5,240 million), increased by 1.7% year-on-year, accounted for 77.3% of the revenue (2020: 87.0%).

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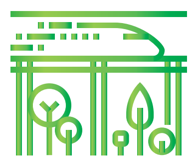
With the development of the digital economy, there is a huge demand for digital and intelligent services from enterprises and governments. In 2021, the DSaaS business kept up with market demand for value-based operations and continued to maintain a strong growth momentum and achieved revenue of approximately RMB730 million (2020: approximately RMB352 million), representing a year-on-year increase of 107.5%, and accounted for 10.6% of revenue. We have further expanded our customer base and hit a new record in business scale.

Benefited from years of market development, in 2021, the vertical industries and enterprise cloudification business witnessed rapid development and achieved revenue of approximately RMB425 million (2020: approximately RMB180 million), representing a year-on-year significant increase of 135.6% and exceeding more than 6.0% of the revenue for the first time. We will further focus on government affairs, finance, postal, transportation and energy, strengthen the cooperation and development with mainstream cloud vendors, and devote our efforts in the industry and business so as to accelerate the in-depth development of a sustainable business model.



The Company continued to strengthen the product capability of 5G network intelligence and took a strong step into the leading industry rank. With the implementation of a series of benchmark projects, in 2021, the OSS business achieved revenue of approximately RMB413 million (2020: approximately RMB248 million), representing an increase of 66.7% year-on-year.

Cost of Sales

In 2021, the cost of sales was approximately RMB4,250 million (2020: approximately RMB3,717 million), increased by 14.3% year-on-year, which was in line with business expansion.

Gross Profit and Gross Profit Margin

In 2021, our gross profit was approximately RMB2,645 million (2020: approximately RMB2,303 million), up by 14.8% year-on-year. Our gross profit margin was 38.4% (2020: 38.3%), maintained a sound profitability.

Selling and Marketing Expenses

In 2021, the selling and marketing expenses amounted to approximately RMB505 million (2020: approximately RMB473 million), representing a year-on-year increase of 6.9%, which was in line with the development of new business market.

Administrative Expenses

In 2021, the administrative expenses amounted to approximately RMB296 million (2020: approximately RMB321 million), representing a year-on-year decrease of 7.8%, which was the combined results of the Company's continued refinement of function management, the enhancement of digital management capabilities and the year-on-year decrease in expenses for the implementation of share incentive scheme in 2021.

R&D Expenses

R&D expenditures are fully expensed in the current period according to the Group's accounting policies. The Company paid great attention to the high-end leading technologies and products and continued to strengthen its R&D investment so as to evolve into a comprehensive R&D product system. In 2021, the R&D expenses amounted to approximately RMB1,006 million (2020: approximately RMB840 million), representing a year-on-year increase of 19.7% and accounted for 14.6% of the revenue (2020: 14.0%).

Income Tax Expenses

In 2021, the income tax expenses amounted to approximately RMB134 million (2020: approximately RMB102 million), which was mainly due to the provision for withholding income tax of approximately RMB33 million (2020: nil). Excluding withholding income tax, the effective income tax rate calculated based on the profit before tax was 11.0% in 2021.

Profit for the year

In 2021, we achieved a profit for the year of approximately RMB783 million (2020: approximately RMB662 million), representing a significant year-on-year increase of 18.2%. Net profit margin for the year reached 11.3% (2020: 11.0%), representing an increase of 0.3 percentage point as compared with last year. The continuous increase in profit for the year was due to the combined effect of expanding the Company's business scale, optimising internal process, and improving the management.

Dividend

The Board has resolved to recommend the payment of a final dividend of HK$0.416 per Share for the year ended 31 December 2021 (2020: HK $0.345 per Share).

Financial Position

The Group's financial position is sound. As of 31 December 2021, our total assets were approximately RMB9,505 million (31 December 2020: approximately RMB8,873 million), representing a year-on-year increase of 7.1%. Total liabilities were approximately RMB3,354 million (31 December 2020: approximately RMB3,318 million), and net assets were approximately RMB6,152 million (31 December 2020: approximately RMB5,555 million), representing a year-on-year increase of 10.7%.

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Goodwill

As at 31 December 2021, our goodwill amounted to approximately RMB1,932 million (31 December 2020: approximately RMB1,932 million), which was attributable to the business merger completed in 2010. The Group engaged a professional independent valuer to conduct an impairment evaluation on goodwill as at the end of 2021. During the Reporting Period, we had not identified any indication of impairment for goodwill and no impairment loss for goodwill was recorded. Our business scale grew steadily with strong profitability.

Pledged Assets

As at 31 December 2021, deposits amounting to approximately RMB179 million (31 December 2020: approximately RMB272 million) had been pledged to secure letters of guarantee and notes payable, representing a year-on-year decrease of 34.1%, which was mainly due to the repayment of bank loans and the release of corresponding deposit.

Trade and Notes Receivables

Our trade and notes receivables represented the outstanding trade and notes receivables from our customers for the purchase of our products or services. As at 31 December 2021, trade and notes receivables amounted to approximately RMB847 million (31 December 2020: approximately RMB942 million), representing a year-on-year decrease of 10.1%. The turnover days of trade and notes receivables were approximately 49.4 days (2020: approximately 56.2 days). Such changes were reflected in the Company's continuous improvement of delivery quality and achieved results in enhanced management of payment collection (the data disclosed above included trade and notes receivables from China Mobile Group).

Contractual Assets and Contractual Liabilities

On 31 December 2021, contractual assets amounted to approximately RMB2,231 million (31 December 2020: approximately RMB1,722 million), representing a year-on-year increase of 29.5%. On 31 December 2021, contractual liabilities amounted to approximately RMB290 million (31 December 2020: approximately RMB393 million), representing a year-on-year decrease of 26.2%. Changes in contractual assets and contractual liabilities were mainly attributable to changes in line with the project progress of the Company (the data disclosed above included contractual assets and contractual liabilities from China Mobile Group).

Financial assets at fair value through profit or loss ("FVTPL")

On 31 December 2021, financial assets at FVTPL amounted to approximately RMB529 million (31 December 2020: approximately RMB1,104 million), representing a year-on-year decrease of 52.1%, which was mainly due to the decrease of the investment in financial product held by the Company according to production and business needs.

Trade and Notes Payables

The trade and notes payables represented outstanding trade and notes payables to hardware, software and outsourcing service providers. As at 31 December 2021, the trade and notes payables amounted to approximately RMB324 million (31 December 2020: approximately RMB149 million), representing a year-on-year increase of 116.6%.

The turnover days of trade and notes payables decreased to approximately 20.3 days (2020: approximately 24.9 days). The above figures were mainly subject to normal changes in line with business development.

Borrowings

We had no bank borrowings for the year ended 31 December 2021 (31 December 2020: approximately RMB137 million), which was mainly due to full repayment of bank borrowings for the year. As at 31 December 2021, the gearing ratio[1] was nil (31 December 2020: 2.5%).

Note 1: Gearing ratio was calculated by dividing total bank borrowings by total equity and multiplied by 100%.

Contingencies

For the year ended 31 December 2021, save as disclosed in this report, we did not have any plan for material external debt financing, nor there was any outstanding debt securities, charges, mortgages, or other similar indebtedness, leasing commitments, guarantees or other material contingent liabilities.

Cash Flow and Financial Resources

Our business features enable us to maintain a healthy cash flow level. The net cash generated from operating activities in 2021 amounted to approximately RMB681 million (2020: approximately RMB710 million), representing a slight year-on-year decrease of 4.1%. This was primarily attributable to the normal changes in line with daily operation after continuous growth in the business scale.

NET CASH GENGERATED FROM OPERATING ACTIVITIES

RMB

681

MILLION

Our net cash generated from investing activities in 2021 was approximately RMB519 million, which was mainly due to the redemption of wealth management products issued by various banks and other financial institutions, and no single wealth management product investment accounted for over 5% of the Group's total assets. In 2020, we recorded a net cash used in investing activities of approximately RMB1,012 million, which was mainly due to the purchase of wealth management products issued by various banks and other financial institutions by the Group.

Our net cash used in financing activities in 2021 was approximately RMB550 million, which was mainly due to the payment of annual dividends and repayment of bank loans. In 2020, we recorded a net cash generated from financing activities of approximately RMB199 million, which was mainly due to the combined effects of the proceeds from the share subscription by China Mobile Group and repayment of bank loans as well as payment of annual dividends.

Cash and cash equivalents include cash at banks and other short-term deposits. Our Group's bank balance and fixed deposits are denominated in CNY, US$ and HK$.

Foreign Exchange Risk

Foreign exchange risk is the risk of loss resulting from changes in foreign currency exchange rates. Fluctuations in exchange rates between RMB and other currencies in which the Group conducts business may affect its financial position and results of operations. The foreign exchange risk facing the Group mainly comes from movements in the HKD/RMB and USD/RMB exchange rates.

As of 31 December 2021, the Group did not have any foreign currency hedging activity. However, the management of the Group monitors foreign exchange exposure and will consider hedging significant foreign currency exposure should the need arise.

Funding and Working Capital Management

Funding and liquidity are managed by the treasury department. The treasury department is responsible for the overall management and implementation of the Group's internal funding, including developing funding management policy of the Group, preparing the annual funding plan, supervising and evaluating the execution and implementation of funding plan and taking charge of the daily funding management of the members of the Group. We also adopt an intensive funding management policy and issue the administration measures on various aspects for funding management such as account management, capital budget, fund payment as well as credit and facility grants so as to ensure fund safety and improve the performance and efficiency in funding management.

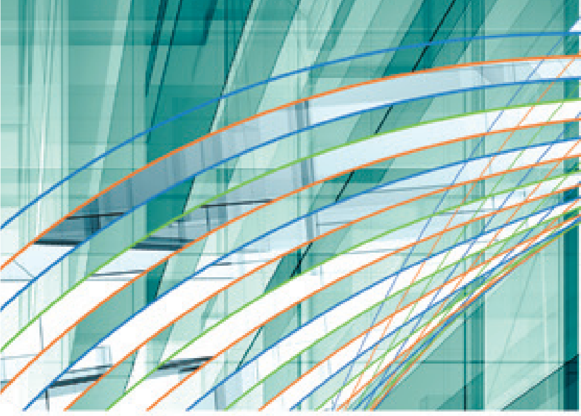
Significant Investments Held, Acquisitions and Disposals and Future Plans for Material Investments or Capital Assets

Save as disclosed in this report, the Group had no significant investments held or material acquisitions and disposals of subsidiaries, associates and joint ventures in 2021.

Subsequent Events

On 14 January 2022, the Company reached an agreement with the original shareholders of iResearch Consulting to acquire 94.23% equity interests in iResearch Consulting at a total consideration of approximately RMB512 million. iResearch Consulting has been engaging in industry research, user research, data insight, strategic and other professional industry services. Such acquisition will bring significant value and returns for the future business expansion and brand enhancement of the Company. As of the date of this report, the acquisition had been completed and the relevant valuation on the identifiable assets and liabilities of the acquiree is in progress.

Environmental, Social AND Governance (ESG) Report



ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

1. ABOUT THIS REPORT

Guidelines for this Report

AsiaInfo Technologies is pleased to publish the 2021 Environmental, Social and Governance ("**ESG**") Report ("**ESG Report**" or this "**Report**"). This Report is prepared in accordance with the Environmental, Social and Governance Reporting Guide ("**ESG Guide**") set out in Appendix 27 to the Listing Rules.

Scope of this Report

Reporting scope: Unless otherwise stated, the reporting scope covers the Group.

Reporting period: Unless otherwise stated, the reporting period is from 1 January 2021 to 31 December 2021.

Statement on this Report

This Report is prepared based on the reporting principles of materiality, quantitativeness, balance and consistency in the ESG Guide and is disclosed in compliance with the requirements of "mandatory disclosure" and the provisions of "comply or explain".

Materiality: The Group determines the impact of ESG-related issues on internal and external stakeholders through the materiality issue assessment process, so as to conduct key responses and disclosures on material issues.

Quantitativeness: The Group establishes data statistics mechanism for the measurable KPIs specified in the ESG Guide, and discloses the numerical calculation results in this Report and indicates the basis of calculation and statistical standard.

Balance: This Report reflects objective facts and discloses both positive and negative indicators information.

Consistency: This Report uses consistent methodologies as the previous ESG reports to allow meaningful comparisons of ESG data for the Reporting Period with historical data and future data. If adjustments are made to the methodologies, this Report explains the specific changes.

The Group attaches great importance to the contents of this Report and strives to ensure that all information and data derived from the original records or financial reports during the daily course of the Group. The Board reviews this Report to ensure that there are no false records, misleading descriptions or major omissions in its content.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Publishing of this Report

This report is published in both Chinese and English versions and can be accessed and downloaded on the "HKEX news" website of the Stock Exchange (www.hkexnews.hk) and the official website of AsiaInfo Technologies (www.asiainfo.com).

Advice and Feedback

Thank you so much for reading this Report. Your valuable advice will provide continuous impetus for improvement of our sustainability and the quality of ESG reports. Please feel free to contact us via the following way.

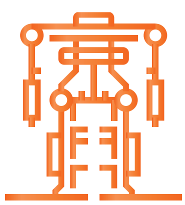
Email: aitech-boardoffice@asiainfo.com

2. SUSTAINABLE DEVELOPMENT GOVERNANCE

Governance Structure

The Group attaches great importance to ESG work, adheres to a top-down management approach and continues to improve its ESG management system. The Board is the highest ESG governance body of the Group, responsible for making decisions and overseeing the Company's ESG activities, including important matters such as the formulation of ESG governance strategy, ESG risk management and review of ESG objectives. During the Reporting Period, members of the Board actively participated in the materiality issue assessment, prioritised the issues according to their impact on the Company, and provided constructive advice and guidance on important ESG issues.

During the Reporting Period, the ESG working group was establish to better perform the promoting and implementing ESG-related works, and was composed of core staff from the Board Office, the Administration Department, the Strategy Department and other relevant departments. The main responsibilities of the ESG working group include implementing the Company's ESG governance strategy and approach, identifying and analysing ESG risks and opportunities, and tracking and reviewing the achievement of ESG objectives for reporting to be considered by the Board. The ESG working group is also responsible for the preparation of the Group's ESG report and liaising with various functional departments and subsidiaries to ensure that the preparation of the report is carried out in a timely and orderly manner.



ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Sustainable Development Governance Framework of AsiaInfo Technologies

ESG Risk Management

To effectively manage significant risk issues, AsiaInfo Technologies has established a comprehensive risk management mechanism. The Company has established a Risk Management System, in which the authority and working mechanism of risk management ranks are clearly defined. The Group conducts internal control evaluation and risk management twice a year, with all functional departments and business units participating. The specific processes include: in the terms of the key business segments, defining control objectives, identifying risks, analysing and evaluating risks, defining internal control management measures to control risks, and conducting tests to evaluate the soundness and effectiveness of internal control implementation.

In response to the significant risks identified, AsiaInfo Technologies has been improving the control measures continuously and optimise system controls. AsiaInfo Technologies launches special audits and inspections on key businesses and critical risks to further monitor the implementation of management measures and ensure that risk counter-measures are in place.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

ESG risks are also incorporated into the overall risk management process of AsiaInfo Technologies. During the Reporting Period, the 439 risk control points identified and assessed by AsiaInfo Technologies included a number of ESG risks such as supply chain risk and information security risk. For significant ESG risks, AsiaInfo Technologies has formulated risk response measures and implemented effective controls.

Comprehensive Risk Management Process of AsiaInfo Technologies

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Stakeholders' Communication

The Group is committed to maintaining a normalised and multi-channel communication with stakeholders to ensure timely understanding of the expectations of various stakeholders and responding to the their demands. During the Reporting Period, the communication between the Group and the identified major external stakeholders is as follows:

Stakeholders	Expectations and Requirements	Communication Channels
Shareholders	Financial performance Information disclosure Information security management Investors interaction and communication	General meeting Annual report, financial statements and announcements Results release meetings and road shows The Company's website
Staff	Employment management Customer data and privacy protection Safety and health Improving energy efficiency Clean energy use	CEO direct contact line Staff satisfactory survey The Company's online forum Training activities
Customers	Product R&D and Innovation Product support-based services capacity Privacy security	Customer satisfactory survey Product release meetings and exhibitions Customer communication platform
Suppliers	Procurement policy Fair transaction Supply chain management	Annual assessment Tendering and bidding activities Purchasing activities
Business partners	Product R&D and Innovation Product support-based services capacity Intellectual property protection	Communication through meetings Public events
Government and regulatory bodies	Compliance with laws and regulations Anti-corruption Community investment Achieving high energy efficiency Environmental protection Information security management	Government-enterprise cooperation projects Special reporting Regular supervision
Media	Information disclosure Industry co-development	Press conference Media interview New media such as MicroBlog and WeChat
Investors or financial institutions	Financial performance Customer privacy protection Investors interaction and communication	Annual report, financial statements and announcements Results release meetings and road shows The Company's website
Community and the public	Community charity Improving the community environment Open and transparent information	Community charity activities Open house New media such as MicroBlog and WeChat

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Materiality issue assessment

In order to understand the concerns and expectations of various stakeholders, the Group launched an ESG materiality issue survey in 2021, inviting internal and external stakeholders to participate in the assessment survey. The main processes of the materiality issue assessment include:

IDENTIFYING MAIN STAKEHOLDERS
The stakeholders participating in this survey were identified based on two dimensions: "Degree of influence by AsiaInfo Technologies" and "Degree of influence on AsiaInfo Technologies"

UPDATING MATERIAL ISSUES DATABASE
Updating the database of potential material issues based on the latest guidance requirements of the Stock Exchange, capital market concerns, industry development trends, etc.

QUESTIONNAIRE PRODUCTION AND DISTRIBUTION
Launching a survey to invite internal and external stakeholders to complete the survey

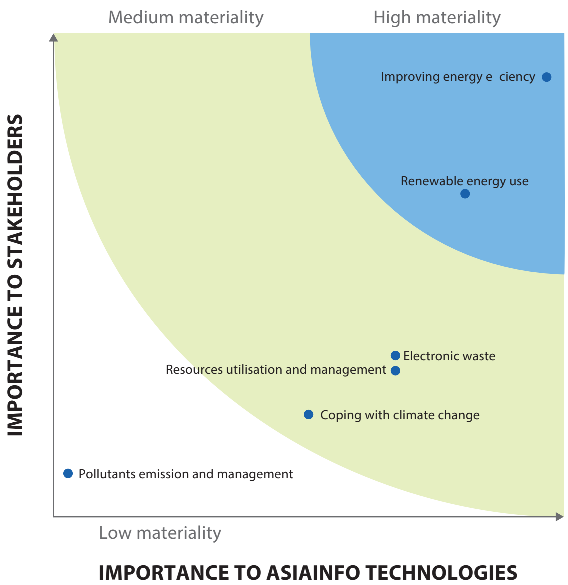
ANALYSIS OF RESULTS AND DETERMINATION OF MATERIALITY
The questionnaires were collected to analyse the results for creating a two-dimensional matrix of materiality for "Importance to AsiaInfo Technologies" and "Importance to stakeholders", showing the materiality of each issue

CONFIRMATION OF SURVEY RESULTS ON MATERIALITY ISSUES
The Directors and management of the Company reviewed the materiality survey results and made key disclosures on issues of high materiality

Based on the results of the material issues survey, the Group identified a total of 9 issues of high materiality, including 2 environmental and 7 social issues. This report will provide a focused response to the issues of high materiality identified.

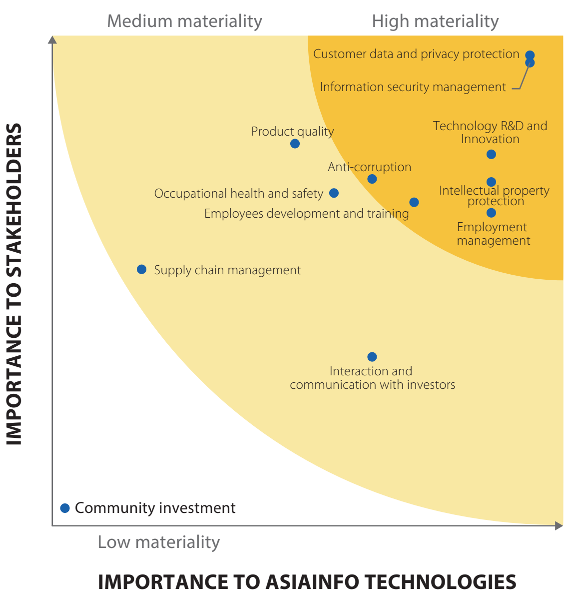
ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Matrix of Material Issues of AsiaInfo Technologies (Environmental Aspects)



Environmental Aspects	
Issues of high materiality	Improving energy efficiency Renewable energy use
Issues of medium materiality	Resources utilisation and management Electronic waste Coping with climate change
Issues of low materiality	Pollutants emission and management

Matrix of Material Issues of AsiaInfo Technologies (Social Aspects)



Social Aspects	
Issues of high materiality	Customer data and privacy protection Information security management Technology R&D and Innovation Intellectual property protection Employment management Anti-corruption Employees development and training
Issues of medium materiality	Product quality Occupational health and safety Interaction and communication with investors Supply chain management
Issues of low materiality	Community investment

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Awards and Qualifications

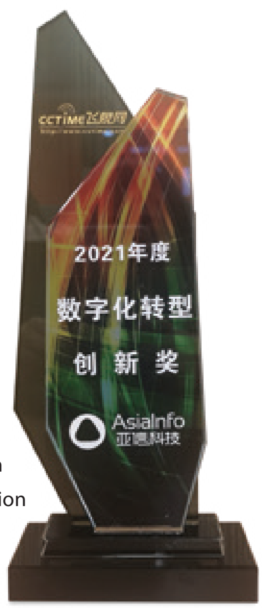
Category	Name of Award	Awardee
Social Responsibility Practitioner	2021 Most Socially Responsible Listed Companies	Sina Finance
	Title of Integrity Enterprise of Beijing	Recommended by Beijing Software and Information Service Industry Association and approved by Beijing Integrity Enterprise Accreditation Office and Beijing Enterprise Evaluation Association
	2021 Smart China CSR Annual Award	2021 Smart China by Digital Business Times
Innovative Technology Leader	China Digital and Software Services Most Innovative Enterprise Award	China International Digital and Software Service Fair 2021, co-organised by Ministry of Commerce, Ministry of Science and Technology, CCPIT and the People's Government of Liaoning Province
	Ranked 6th in 2021 Digital Construction Special Innovation Ranking	Selected by the China Internet Weekly
	2021 China's Digital Transformation TOP 100	Selected by the China Internet Weekly
	2021 China Top 100 New Technology Companies	Selected by the China Internet Weekly
	New Smart City Leading Enterprise Award	Selected by the China Internet Weekly
	2021 AI Pilot Enterprise	MEET 2022 Smart Future Conference organised by QbitAI
	2021 Digital Transformation Innovation Award	2021 Information and Communication Industry Innovation Contribution Award by CCTIME
	2021 China's Most Influential Enterprise Brand in Software Industry	Software and Information Service Industry Network
	Most Valuable Brand in the PRC Software and Information Service Industry 2021	Software and Information Service Industry Network
Service provider empowering the community	Digital Transformation Enabling Collective Services	China Academy of Information and Communications Technology
	2021 China Top 500 Digital Ecology Enterprises — Top 10 Industry Digital Service Provider Banks	2021 Digital Ecology Conference organised by B.P business partners
	2021 China Top 500 Digital Ecology Enterprises — Top 10 Information Security Service Providers in the Technology Sector	2021 Digital Ecology Conference organised by B.P business partners
	Top 100 Digital Eco-Information and Innovation Service Providers 2021	2021 Digital Ecology Conference organised by B.P business partners, Subdivision: System Integration Sector
	Ranking 7 in the TOP150 Enterprise Service (New) Providers in 2021, Subdivision: Digital Transformation	Selected by the China Internet Weekly

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

AsiaInfo Technologies won the 2021 Smart China CSR Annual Award

AsiaInfo Technologies won the China Digital and Software Services Most Innovative Enterprise Award

AsiaInfo Technologies is one of the first batch of companies to pass the Digital Trustworthy Services Assessment and was awarded the Digital Transformation Empowering Service Block



AsiaInfo Technologies won the 2021 Digital Transformation Innovation Award

AsiaInfo Technologies won the 2021 New Smart City Leading Enterprise Award

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

3. TOPIC: TECHNOLOGY EMPOWERMENT HELPING DUAL CARBON

Addressing climate change and practising low-carbon development have become the consensus of all countries in the world. The PRC government proposed in 2020 that "China will strive to reach the peak of carbon dioxide emissions by 2030 and achieve carbon neutrality by 2060" (hereinafter referred to as the "**Dual Carbon Goal**"). As a leading software product, solution and service provider in China, AsiaInfo Technologies has been actively responding to the call of the government. During the Reporting Period, the Group continuously performed the R&D of dual-carbon products, relying on key digital-intelligent technologies such as big data, artificial intelligence and 5G to promote the national "Dual Carbon Goal" with the power of digitisation. On one hand, the Group promoted the green and smart transformation of key industries through its own research results and development products to empower quality development in these industries. On the other hand, the Group actively developed energy saving systems for different enterprises and provided energy saving solutions through digital management to help different enterprises achieve their energy saving and emission reduction targets.

Empowering Quality Development in Key Industries

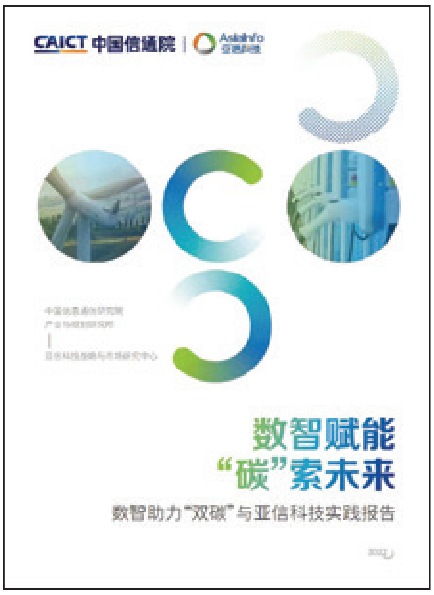
Actively exploring carbon emission reduction paths in key industries

Achieving the Dual Carbon Goal involves all sectors of the national economy and requires the joint participation of the government, industries and the public. AsiaInfo Technologies has been continuously exerting its influence, carrying out extensive cooperation with all parties in the society and actively exploring the implementation path of carbon emission reduction in key industries empowered by digital and intelligent technology, so as to make positive contributions to the government and industries in achieving the Dual Carbon Goal.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Case: AsiaInfo Technologies and CAICT jointly compiled a research report entitled "Digital Intelligence Empowering the Future by Carbon".

AsiaInfo Technologies and CAICT jointly compiled a research report entitled "Digital Intelligence Empowering the Future by Carbon" (hereinafter referred to as the "**Research Report**"). The Research Report took the "dual carbon" strategy as the background and provided a comprehensive overview of the "dual carbon" implementation paths of key industries empowered by digital intelligence. It also introduced AsiaInfo Technologies' own low-carbon practices and "dual path" carbon reduction plans for industry empowerment, serving as a valuable reference for enterprises from the same industry.



AsiaInfo Technologies and CAICT jointly compiled a research report entitled "Digital Intelligence Empowering the Future by Carbon"

Empowering the clean energy industry

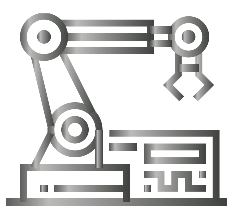
Against the backdrop of "dual carbon", low carbon transformation of the energy industry is a key force in carbon emission reduction. By empowering the quality development of the clean energy industry through digital technology and promoting the integration of the new energy industry with the digital industry with digital technology as the driving force, AsiaInfo Technologies is committed to building a cleaner, more efficient, safer and sustainable clean energy development system to help realise the national "Dual Carbon Goal".

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Case: Empowering Smart Wind Power — AsiaInfo Technologies products helped wind power companies achieve full network coverage and improve operational efficiency

Most of the new energy wind farms are located in remote areas with poor infrastructure network conditions, such as offshore and mountainous regions. Poor communication not only affects the efficiency of daily production and operation and maintenance, but also easily creates safety hazards and even threatens the lives of workers in bad weather. To solve these problems, AsiaInfo Technologies provided wireless communication solutions for wind farms, fully integrating the resources of operators to achieve efficient and secure network coverage for all new energy power stations and secure access to manage business applications in three areas, solving the basic network needs of wind farms and effectively improving their operational efficiency.

AsiaInfo Technologies' wireless private network interface

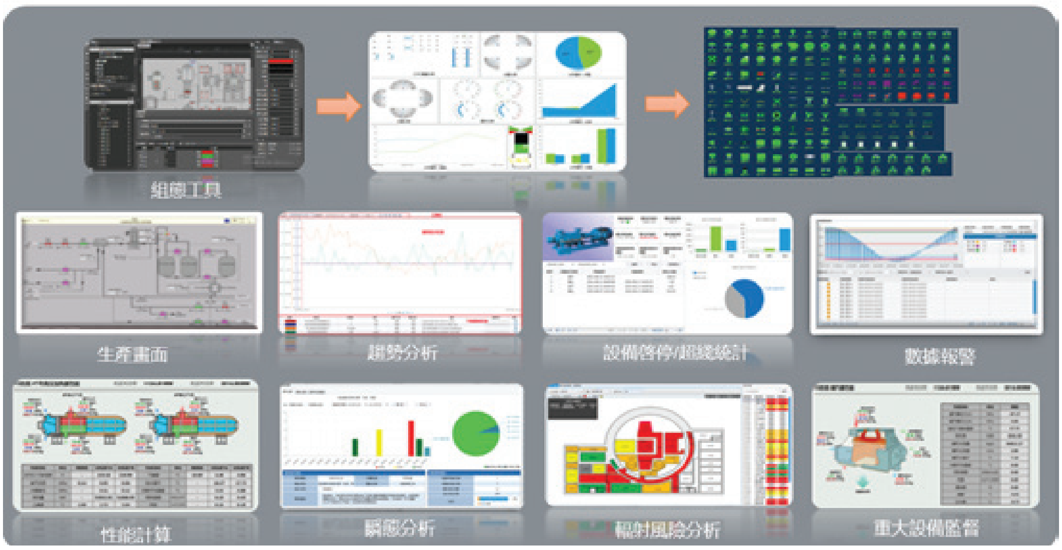


ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Case: Empowering Smart Nuclear Power — AsiaInfo Technologies' Energy Middle Platform provided data support for efficient production in nuclear power companies

It was difficult to store, analyse and manage real-time data on nuclear power, and AsiaInfo Technologies' Energy Middle Platform could help nuclear power companies to achieve power management, real-time data reporting and real-time data analysis.

AsiaInfo Technologies' Energy Middle Platform provided real-time aggregation and analysis of production process data for nuclear power companies, which effectively helped companies to optimise production decisions, enhance risk prevention capabilities and further improve equipment and unit operations.



A nuclear power plant in Jiangsu realised real-time production data monitoring based on AsiaInfo Technologies' Energy Middle Platform

Helping enterprises to save energy and reduce emissions

By leveraging its technological strengths, AsiaInfo Technologies has been able to help enterprises improve their energy efficiency through innovative thinking, and protect their green development. The Group provides green and smart services to different customers by building a comprehensive energy digital platform with AsiaInfo Technologies' characteristics and continuously optimising smart energy saving solutions to help various industries improve energy efficiency and energy conservation through digital and intelligent means.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Case: Energy saving system on 4/5G base stations effectively reduced network energy consumption

The AI Energy Saving System (hereinafter referred to as the "**AI Energy Saving System**") of AsiaInfo Technologies is based on a big data platform and AI algorithms to scientifically save energy while ensuring user perception and more coverage. The AI Energy Saving System ensures operational security through real-time monitoring of performance alarm data and prompting and retention of operation records. The AI Energy Saving System supports a variety of energy saving methods and has nationwide energy saving access and real-time monitoring and management capabilities, enabling maximum energy saving and consumption reduction in the network.

China United Network Communications Group Co., Ltd. Jiangsu Branch took the lead in piloting intelligent AI energy saving products

System energy saving performance highlights:

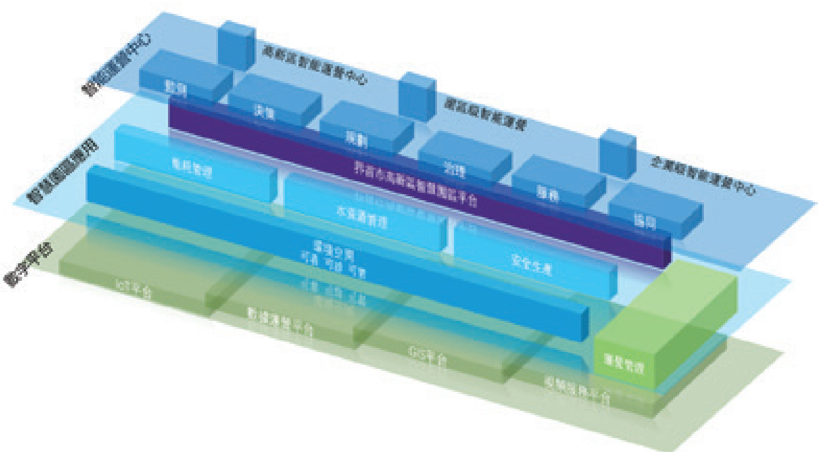
- Average daily energy saving (Jiangsu): 6,405kWh
- Average number of energy-saving communities per day (Jiangsu): 12,401 units

Case: Assisting the construction of smart parks and realizing refined energy management through digital means

The Intelligent IOT Edge Computing Platform and other products of AsiaInfo Technologies can monitor the parks' energy consumption data in real time and realise a "one-map overview", reducing energy consumption through refined management and helping the parks to save energy and reduce emissions.

During the Reporting Period, AsiaInfo Technologies has provided emerging technologies such as Internet of Things, big data, artificial intelligence and digital twins for the construction of a smart park in a city, realising comprehensive sensing, real-time monitoring and collection of the park's environment, energy consumption and security, and driving management decisions through data intelligence, thereby promoting the digital transformation of the park. The construction of smart parks has good social and economic benefits and can achieve:

- timely warning of pollution conditions and prevention of pollution incidents;
- accurate control of energy consumption to provide data support for enterprise energy saving and emission reduction decisions; and
- automatic and intelligent management of the environment, energy consumption, water resources and safe production, reducing manual management costs and improving management efficiency.



Smart Park Platform (including digital platform, smart park application and intelligent operation centre) in a city's high-tech zone

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

4. RESPONSIBLE MANAGEMENT ENHANCING INFORMATION SECURITY

Information Security Management

AsiaInfo Technologies adheres to the principle of "emphasising both management and technology" and attaches great importance to information security protection. In regard to information security management, the Group continued to establish and improve the information security management system, and formulated the AsiaInfo Technologies Information Security Approach (《亞信科技信息安全方針》), AsiaInfo Technologies Information Security Target (《亞信科技信息安全目標》), AsiaInfo Technologies Information Security Management Manual (《亞信科技信息安全管理手冊》) and AsiaInfo Technologies Staff Information Security Manual (《亞信科技員工信息安全手冊》). The information security management system covers 13 aspects including personnel security, asset security, encryption management, environmental security, operational security, network security and supplier security. During the Reporting Period, the Group continued to strengthen its information security management through security inspections, security audits and enhanced security publicity. In 2021, AsiaInfo Technologies (China), Inc. successfully passed the ISO 27001 information security management system certification.

In regard to information security technology, the Group coordinated with security management by continuously refining security protection technology, establishing and improving information security platforms, etc., to further mitigate information security risks. During the Reporting Period, through the combination of management and technology, the information security risks of the Group were effectively controlled and there were no material information security incidents occurred.

Information Security Management	➢ Information security audit: During the Reporting Period, AsiaInfo Technologies passed the ISO 27001 internal and external audit and completed the source code security audit ➢ Information security inspection: During the Reporting Period, AsiaInfo Technologies completed customer support security inspections in 20 offices ➢ Application permission review: During the Reporting Period, AsiaInfo Technologies completed the authority review of 14 core application systems ➢ Information security promotion and training: During the Reporting Period, AsiaInfo Technologies completed 12 information security propaganda activities and conducted one information security examination for all employees
Information security technology	➢ Penetration testing: During the Reporting Period, AsiaInfo Technologies completed the penetration testing of 3 important systems ➢ Vulnerability management: During the Reporting Period, AsiaInfo Technologies conducted system vulnerability check on a quarterly basis, and supervised the repair of vulnerabilities once identified ➢ Antivirus: During the Reporting Period, AsiaInfo Technologies completed the unified update and deployment of antivirus software ➢ Set up of information security platform: During the Reporting Period, AsiaInfo Technologies completed the setting up of the application system authority review platform

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

In order to implement the Company's policy of "safeguarding information security and supporting business development", AsiaInfo Technologies has established and published the Information Security Committee, and appointed the chief information officer as the chairperson of the Information Security Committee. The organizational structure of the Information Security Committee includes the Information Security Leading Group, the Information Security Office and the Information Security Working Group. All departments shall actually participate in the information security work of the Company to ensure that the Company's information security is guaranteed in full-process, multi-level and multi-dimension manner.

DNV

管理体系认证证书

亚信科技（中国）有限公司

GB/T 22080-2016/ISO/IEC 27001:2013

IAF CNAS

Information Security Management System Certificate of AsiaInfo Technologies

Protection of Intellectual Property Rights

AsiaInfo Technologies actively implements the 14th Five-Year Plan for the Protection and Utilization of National Intellectual Property Rights (《「十四五」國家知識產權保護和運用規劃》), complies with the requirements of the Patent Law of the PRC (《中華人民共和國專利法》), Copyrights Law of the PRC (《中華人民共和國著作權法》) and other laws and regulations, and constantly improves internal policies such as the Management Measures on Patent Applications (《專利申請管理辦法》) and Management Measures on Patent Incentives (《專利激勵管理辦法》) to ensure that the patent application process is well-developed and the relevant responsibilities and authorities are clearly defined.

Product R&D Center (PRD) Quality and Operation Department (Q&O)	Legal department	Patent Review committee
Responsible for patent demand collection, patent application process consultation and guidance, process execution of patent review process, patent application process tracking, patent fee payment and patent incentive application.	Responsible for engaging with patent agencies that cooperate with the Company, including: patent search and inquiry, application, contract execution, follow-up and maintenance, intellectual property disputes and litigation, etc.	Responsible for reviewing and assessing the quality of patents in accordance with the Company's internal rules.

Patent Management Responsibilities and Authority of AsiaInfo Technologies

In order to continuously strengthen its independent technological innovation capability and enhancing its core competitiveness, the Group encourages to foster an innovative culture, actively promotes the application of product software copyrights and R&D technology patents, and incorporates this indicator into the performance appraisal standards for R&D projects. For the evaluation of patent value, the Group has established a comprehensive scoring method to evaluate the value of patents from the perspectives of innovation and novelty, versatility, uniqueness, commercial value, patent usage and patent discoverability, and supplement by the innovation incentive mechanism to effectively stimulate employees' enthusiasm for innovation. In the past three years, the number of new software copyrights by AsiaInfo Technologies saw a trend of significant increase. During the Reporting Period, the Group registered 189 new software copyrights. As of the end of the Reporting Period, the Group had 1,113 software copyrights in total.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Upholding business ethics

AsiaInfo Technologies has always regarded integrity, incorruptibility and self-discipline as the foundation of its business development, and upholding business ethics is an important part of AsiaInfo Technologies' culture. The Group strictly abides by the Anti-Unfair Competition Law of the PRC (《中華人民共和國反不正當競爭法》), the Anti-Money Laundering Law of the PRC (《中華人民共和國反洗錢法》), the Hong Kong Prevention of Bribery Ordinance and other laws and regulations, and consciously implements international conventions including the United Nations Convention against Corruption. In order to strengthen the internal compliance management of AsiaInfo Technologies, the Group has formulated the AsiaInfo Technology Professional Ethics Code (《亞信科技職業道德規範》), AsiaInfo Technologies Conflict of Interest and Reporting Implementation Rules (《亞信科技利益衝突及申報實施細則》)and other integrity and compliance management policies. Specific management requirements were proposed in relation to "prohibition of bribery and corruption, prohibition of accepting benefits, offering benefits, conflict of interest management, information confidentiality, prohibition of any form of fraudulent and dishonest acts". During the Reporting Period, the Group did not violate any anti-corruption-related laws and regulations that had a material impact on the Group.

To ensure the effectiveness of the business ethics policy, the Group reviews the soundness of the business ethics policy based on management situation on an annual basis. During the Reporting Period, the Group supplemented and improved several internal systems, and further clarified management requirements such as "prohibition of employees from investing in companies that are in direct competition with the Company" and "information security reporting management responsibilities". At the same time, the Group has formulated the Employee Labour Discipline Management Rules (《員工勞動紀律管理制度》), which specifies the basis for punishment for corresponding violations of rules and disciplines. For behaviours that violated the professional ethics of AsiaInfo Technologies, the Company will impose sanctions or terminate the employment based on the severity of the circumstances. If the activities are violating the laws, the Company will bring them to national jurisdictions for trial in accordance with the laws.

In order to prevent and punish various violations of rules and disciplines and protect the legitimate rights and interests of employees, AsiaInfo Technologies has established a professional ethics committee as the leading organization for employee professional ethics development and behavioral compliance management, and the audit committee is also the anti-corruption, integrity and compliance supervision and management organization of the Company. The professional ethics committee, as a special agency for the Company to strengthen the development of professional ethics and regulate the behavior of employees, is responsible for reviewing the handling plans for violations of rules and disciplines, and promoting and implementing the development of professional ethics. In 2021, the key tasks of the professional ethics committee include investigating the Company's violations of rules and disciplines, penalising those who violate rules and disciplines, and promoting the Company's conflict of interest management. During the Reporting Period, the number of concluded corruption lawsuits filed against the Group and its employees was nil.

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Case: Conflict of Interest Management

In 2021, AsiaInfo Technologies organised more than 13,000 formal employees of the Company to declare conflicts of interest, and promote employees who have conflicts of interest internally and externally to make rectification in accordance with the requirements of the professional ethics committee, so as to better safeguard the Company's interests and control risks.

Following AsiaInfo Technologies joined the Trust and Integrity Enterprise Alliance in March 2019, in January 2021, AsiaInfo Technologies joined the Enterprise Anti-Fraud Alliance, the earliest and largest enterprise compliance exchange organization in the PRC

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Actively organizing anti-corruption training

The Group actively conducts internal integrity and honesty training, continuously promotes the publicity of professional ethics for all employees, and fosters a clean and upright corporate culture. During the Reporting Period, the Group disseminated its corporate culture of integrity and honesty through new employee training, special training for business divisions and on-site publicity for project teams. The total number of directors and employees participating exceeded 4,000. In addition, through the certification of professional ethics internal trainer, the Company continuously cultivates a new professional ethics internal train lecturer team within the organization, which provides a strong guarantee for the development of a clean culture.

Table: Participation of Directors and employees in anti-corruption training during the Reporting Period

Number of Directors participating in anti-corruption training	12
Coverage of Directors participating in anti-corruption training	100%
Number of employees participating in anti-corruption training (online)[1]	3,999
Number of employees participating in anti-corruption training (offline)	311

Anti-corruption Training of AsiaInfo Technologies

Smooth Channel for Complaint and Whistle-blowing

The Group has established a smooth channel for handling complaints and whistle-blowing. Complaints and whistle-blowing may be reported to the professional ethics committee and Audit Committee of AsiaInfo Technologies through internal and external whistle-blowing mailboxes, CEO direct contact line or letters disclosed on the corporate office platform and the homepage of AsiaInfo Technologies' official website in real-name or anonymous manner. After receiving a complaint, AsiaInfo Technologies will conduct independent investigations on violations of ethics code in strict accordance with the requirements of the AsiaInfo Technologies Complaint and Whistle-blowing Management System (《亞信科技投訴舉報管理制度》), work with Human Resources Center, Legal Department and other departments to make suggestions on the employees who violated the discipline and will publish the punishment results. During the Reporting Period, the Group updated the complaint and whistle-blowing management systems and whistleblower protection system in light of the actual management situation, and further clarified the responsibilities of the Audit Committee in the management of complaints, whistle-blowing and the reporting mechanism.

[1] Due to the Covid-19 pandemic, professional ethics training was primarily conducted through online broadcast, online micro-courses and other online methods during the Reporting Period.

To encourage all employees to jointly safeguard the interests of the Company and its employees, the Group has formulated the Whistleblower Protection System (《舉報人保護制度》), pursuant to which the personal information of the whistleblower and all the information provided by such whistle-blower will be kept strictly confidential. The Group absolutely prohibits any form of retaliation against whistle-blower of violations. Those who violated the requirements will be severely warned or even dismissed. A standardised and strict system is used to ensure that the rights and interests of whistleblowers are effectively protected.

5. INNOVATION-DRIVEN AND CONTROLLING PRODUCT QUALITY

Product Responsibility Management

Quality assurance

As a product and innovation-based enterprise, AsiaInfo Technologies actively seizes opportunities in the digital transformation of the economy and the society, emphasises product innovation and development and quality management and is committed to providing customers with high-quality and secured software products, solutions and services. AsiaInfo Technologies strictly complies with the laws and regulations such as the Product Quality Law of the People's Republic of China (《中華人民共和國產品質量法》), Advertising Law of the People's Republic of China (《中華人民共和國廣告法》), Network Security Law of the People's Republic of China (《中華人民共和國網絡安全法》) and Administrative Measures on Internet Information Services concurrently with the Telecommunications Regulations (《互聯網信息服務管理辦法》). AsiaInfo Technologies has formulated stringent internal evaluation systems on R&D projects to ensure that products developed and the R&D process and quality meet the requirements. No major violations of relevant laws and regulations that affect business operations occurred during the Reporting Period.

AsiaInfo Technologies has formulated the R&D Project Performance Evaluation Plan (《研發項目績效考核方案》) to track and evaluate the R&D of products on the R&D process, functional test and verification, product release and other processes. The Group has formulated detailed evaluation indicators, designated evaluation departments and standardised evaluation cycles to ensure the effective implementation of evaluation plans and meet the requirements on high-quality product delivery. In the event of product failure not caused by improper use, the Group would recall the products and provide refund to customers. During the Reporting Period, AsiaInfo Technologies (China) and AsiaInfo Technologies (Nanjing) have obtained the ISO 9001 quality management system certificate. During the Reporting Period, the Group was not involved in recall of products and there were no products sold or shipped subject to recalls for safety or health reasons.

Attaching Importance to Customer Interests

AsiaInfo Technologies insists on its customer-centric business philosophy and complies with the laws and regulations such as the Law on Protection of Consumer Rights and Interests of the People's Republic of China (《中華人民共和國消費者權益保護法》) and attaches importance to guaranteeing customer interests in the process of operation and services. The Group has established a complete compliant management mechanism to guarantee continuously smooth channels for customer complaints and feedbacks. The customer service department will actively track and confirm the complaints after receiving compliant cases and coordinate with relevant departments for handling. It implements entire follow-ups on the handling of complaints and will not treat the case as completed until the complaining customer confirms that the issue is resolved. During the Reporting Period, the total number of complaints about products and services received by the Group was nil.

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Customer Data and Privacy Protection

AsiaInfo Technologies attaches great importance to the protection of customer data and privacy. As a services provider, AsiaInfo Technologies always adheres to the stringent rules on the protection of customer data and all employees providing services shall strictly abide by the safety management requirements of customers and relevant requirements of the Group. The Group published the AsiaInfo Technologies Customer Support Security Management Requirements (《亞信科技客戶支撐安全管理要求》), the AsiaInfo Technologies Customer Support Network Security Management Standard (《亞信科技客戶支撐網絡安全管理規範》) and the AsiaInfo Technologies Source Code Security Management Requirements (《亞信科技源代碼安全管理要求》) to standardise the management of privacy protection and regulate the management in terms of cybersecurity, employee security, environmental security, access control, development security, office terminal security and data security, established a supervision mechanism to ensure the timely identification and handling of problems. To further highlight the importance of the protection of customer privacy, the Group published the AsiaInfo Technologies Reward and Punishment Management Systems on Information Security (《亞信科技信息安全獎懲管理制度》) to ensure the effective implementation of all systems and the full protection of customer data and privacy.

In addition, the Group further effectively guarantees the security of customer data and privacy through regularly conducting security inspections, source code security management and other means.

Regularly conducting security inspections	It conducts customer support security inspections to guarantee the security of customer services. In 2021, it completed customer support security inspections on 20 offices in total, effectively reducing risks on the leakage of customer data.
Customer source code security management	Through the security management on the source codes of the Group and customers, it guarantees the security of source codes, further improves the systems on the protection of customer information and privacy policies and practically guarantees customer privacy and interests.
Enhancing network management	It carries out strict authorization and approval on offices with access to proprietary network of customers and deploys firewalls and other safety protection equipment to avoid data leakage. It adopts IP whitelist, VPN, 4A systems and other safety technologies to guarantee access safety when visiting customers' network through the Internet.

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Case: AsiaInfo Technologies' products protect customer data and privacy

Banking enterprises shall use the data on users' basic behaviours at the level of operators to improve the service quality when improving marketing services. AsiaInfo Technologies' product AISWare AI^2 FL assists banking corporate customers in building the federal credit scoring model with operators and helps corporate customers and their partners achieve joint modelling on the premises of no data sharing and strict data and privacy protection, improves efficiency through AI collaboration, ensures safe, effective and accurate marketing and practically guarantees customer data and privacy.

Innovation-driven Development

Self-developed Innovation and R&D

AsiaInfo Technologies always upholds the "R&D-driven and innovation empowerment" development concept, and dedicates itself to continuously creating new values, and become a driving force in the digital transformation of large enterprises in the 5G era. At present, the Group has established the cloud-network-edge-end quality product system, which can empower the digital and intelligent transformation and innovation in vertical industries such as government affairs, telecommunication, finance, energy and transportation.

During the Reporting Period, AsiaInfo Technologies further optimises the R&D layout and management, continuously improves its productisation and standardisation capabilities with the "ingenuity" spirit, and achieves fruitful results in the development of technical products and scientific research results, and continues to enhance its leadership in the industry.

- **Establishing industry leading position in terms of 5G intelligent network**

  ➢ The "R&D and scaled industrial application of 5G intelligent system" passed the national science and technology achievement appraisal, and was granted the "Wu Wenjun AI Science and Technology Progress Award" (吳文俊人工智能科技進步獎), the highest award for the artificial intelligence field in China, was enlisted in the Gartner Network Intelligence Global Mainstream Vendor Matrix;

  ➢ The 5G network slicing products were awarded the "Best Network Slicing Practice" at the 5G World 2021 World Summit;

  ➢ The AI Communications Laboratory was awarded the ITU 5G AI/ML China Championship in 2021 and the Global Final Excellence Award.

- **Steadily developing cloud network product system**

  - The network cloud management, SDN multi-location replication, and the establishment of the productization template;

  - The 5G private network products received the network access test certification from the Ministry of Industry and Information Technology, achieving a number of breakthroughs in the commercial application market;

  - Many products such as the CEM Customer Perception have continued to break through the scope of application and expand the market;

  - The 5G intelligent network focuses on areas such as computing networks, self-intelligent networks and network digital twins, and enables digital intelligent transformation and innovation in the communication industry.

- **Continuously innovating digital intelligent product system**

  - The RPA was honoured the National Champion and Grand Prize in China RPA+AI Developer Competition; the RPA and Data OS were selected for Forrester 2021 Now Tech Global Mainstream Vendor Matrix;

  - The AIOps products were ranked in the Gartner Hype Cycle Technology Maturity Curve for two consecutive years from 2020 to 2021;

  - The Data Infra platform, which built a cloud native primary data technology base that integrates data fabric, lakehouse, and cloud edge collaboration;

  - A number of products continue to break through product capabilities and commercial value, empowering various industries.

- **Continuously evolving IT Product system**

  - Digital Twins won TM Forum 2021 Catalyst Project Best Industry Influence, Sustainability Innovation and Sustainability Impact Awards, and was selected as a case study for business school teaching at Dartmouth College, an Ivy League university in the USA;

  - Multiple products including the mass application of Cloud OS platform, PaaS platform and GIS platform will continue to be perfected.

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- **Continuously facilitating IT Software industry localization**

  - As a key player in the area of domestic IT application innovation, we have seen that our IT innovation products of database and middleware are fully compatible with 32 mainstream IT innovation products of IT application innovation players in both upstream and downstream fields;

  - IT innovation products are widely used across various segments including telecommunication, finance, energy, transport, postage.

- **Promoting mutual industry development**

  - Carrying out in-depth involvement in 20 international and national standard organisations including 3GPP and ITU, and making important contributions to 40 international standards for communication technology;

  - Having publication in famous academic journals both domestically and abroad, such as the "Next Decade of Telecommunications Artificial Intelligence", "BFV Telecommunications Service Function Virtualization", and "5G Value Surface", and also the "Artificial Intelligence Communications Empowering Autonomous Networks White Paper", "Edge AI Solutions on Smart Construction Sites White Paper" and other technology perspectives leading the industry, a total of additional 20 high-quality academic papers;

  - Establishing the "5G Intelligence Joint Laboratory" together with Tsinghua University, setting up "Endogenous Intelligence Network Joint Research and Development Laboratory" in partnership with the Zhong Guan Cun Institute of Innovation, jointly committed to building the AI research centre up to national standard and promoting the research on the application basics of 6G as well as the commercialisation of B5G technology, facilitating the cooperation in "Industry-University-Research".

Performance highlights in 2021

- ✓ Expenditure on R&D: **RMB1.006 billion**
- ✓ Percentage of Revenue for R&D: **14.6%**
- ✓ International Standards：**40**
- ✓ Academic Thesis：**20**
- ✓ Patents：**54**
- ✓ Software Copyrights：**189**

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The "R&D and industrial-scale application of 5G intelligent network" passed the national science and technology achievement appraisal, and was granted the "Wu Wenjun AI science and Technology Progress Award "(吳文俊人工智能科技進步獎), the highest award for artificial intelligence field in China

AsiaInfo Technology's 5G network intelligence products were listed in the Gartner Network Intelligence Global Mainstream Vendor Matrix

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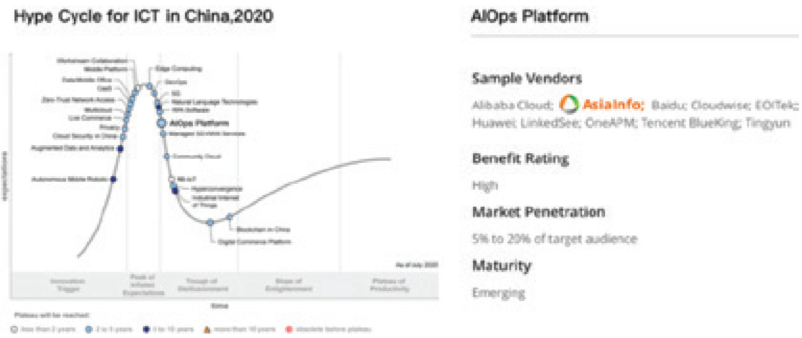
AsiaInfo Technology's 5G intelligent network products were awarded the "Best Network Slicing Practice" at the 5G World 2021 World Summit

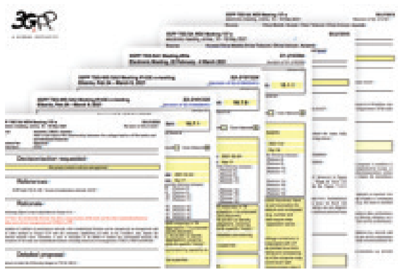
Some of the awards and qualifications of AISWare AIRPA of AsiaInfo Technology RPA products



The AISWare AIOps products of AsiaInfo were ranked in the Gartner Hype Cycle Technology Maturity Curve for two consecutive years

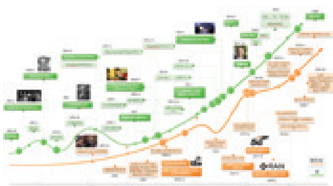
ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

AsiaInfo Digital Twins products won 3 major awards: the TM Forum 2021 Catalyst Project for Best Industry influence, Sustainability Innovation and Sustainability Impact



Passed 40 international standards for telecommunication technology, all of them have increased the global impact of "China Technology"


通信人工智能的下一个十年
The Next Decade of Telecommunications Artificial Intelligence



AsiaInfo Technologies in association with industry and academic partners, both domestically and abroad, jointly published the "Next Decade of Telecommunications Artificial Intelligence" (《通信人工智能的下一個十年》) to lead the technology perspectives of industry

Enhancing Introduction of Innovative Talents

AsiaInfo Technologies continuously improves its R&D management and enhances the soft power of the enterprise on innovation through the introduction of high-quality talents. The number of the Group's high-quality R&D talents has increased significantly in recent three years, promoting the significant improvement in the R&D efficiency.

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Table: Growth rate of the recruitment of innovative talents in recent three years

Year	2019	2020	2021
Growth rate	19%	40%	18%

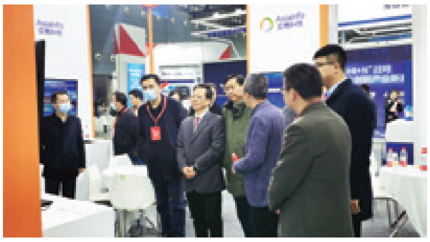
Seeking Common Development through Industrial Cooperation

AsiaInfo Technologies actively carries out diversified strategic cooperation with local governments, business partners and enterprises in the industry to jointly explore innovation opportunities in the industry, promote industrial development and drive the spreading of digital value. In addition, the Group proactively participates in industry forums and other interactions through the establishment of communication platforms for parties and expands innovative concepts to external parties to achieve intelligent and high-quality development with all parties.

AsiaInfo Technologies and Zhongguancun Academy of Mobile Communication Innovation established the Joint R&D Laboratory on Intelligent Endogenous Network to focus on joint R&D on the evolution of B5G/6G technologies

AsiaInfo Technologies and Tencent Cloud reached strategic cooperation to build integrated products and innovative resolutions with industrial competitiveness through mutual empowerment

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT



AsiaInfo Technologies was invited to participate in the 2021 Hunan International Intelligent Transportation Exposition and accepted an interview report with the "China Communications Broadcasting" by the Central People's Broadcasting Station

Supply Chain Management

AsiaInfo Technologies attaches importance to supply chain management and is committed to building a responsible supply chain management system. The Group strictly abides by the Bidding Law of the People's Republic of China (《中華人民共和國招標投標法》), Regulation on the Implementation of the Bidding Law of the People's Republic of China (《中華人民共和國招標投標法實施條例》), Measures for the Administration of Government Procurement by Non-Bid Procurement Methods (《政府採購非招標採購方式管理辦法》) and other laws and regulations. In order to guarantee the effective implementation of AsiaInfo Technologies' procurement activities and constantly improve supplier management and services and prevent procurement risks, the Group has formulated the AsiaInfo Technologies Supplier Management Norms (《亞信科技供應商管理規範》) and AsiaInfo Technologies Procurement Management — Supplier Management Process (《亞信科技採購管理-供應商管理流程》) to select and monitor suppliers.

In order to effectively prevent the environmental and social risks in the supply chain and enhance the sustainable development of the supply chain, during the procedures of selection and evaluation, the Group requires suppliers to enter into commitment documents such as the Letter of Undertaking on Environmental and Occupational Health and Safety Management (《環境和職業健康安全管理承諾書》), the Letter of Undertaking on Integrity (《廉潔承諾函》) and to provide the Notice of Stakeholders (《相關方告知書》), setting out requirements on environmental protection, occupational health, employment, integrity and compliance.

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Supplier Management	Specific Contents
Environmental protection management	• Reviewing whether suppliers pass the certification for ISO 14001 environmental management systems • Setting out clauses on environmental protection in the text of contracts, supervising suppliers to pay attention to environmental protection and low-carbon production and encouraging suppliers to give priority to pollution-free production technology, facilities and equipment • Imposing economic penalty and terminating cooperation with suppliers whose pollutant discharge and waste disposal fail to meet standards or regulations
Occupational health and safety management	• Reviewing whether suppliers possess the certification OHSAS 18001 or ISO 45001 occupational health and safety management systems • Requiring suppliers to be fully responsible for personal injuries, equipment damages, property losses and other safety accidents in the operation/construction process • Requiring suppliers to appoint site safety responsible person at the construction site to identify risk and implement safety operation plan only after obtaining the approval from relevant department
Employment management	• Requiring suppliers to guarantee the legality of employment and comply with national and local laws and regulations on labours and employment
Business ethics management	• Requiring suppliers and contractors to enter into the Letter of Undertaking on Integrity and the Letter of Undertaking on Compliance and commit to adopt effective internal measures to intensify education on laws, disciplines and business ethics, resolutely oppose and reject commercial briberies and meet requirements on compliance management. Those who are not up to standard will be disqualified

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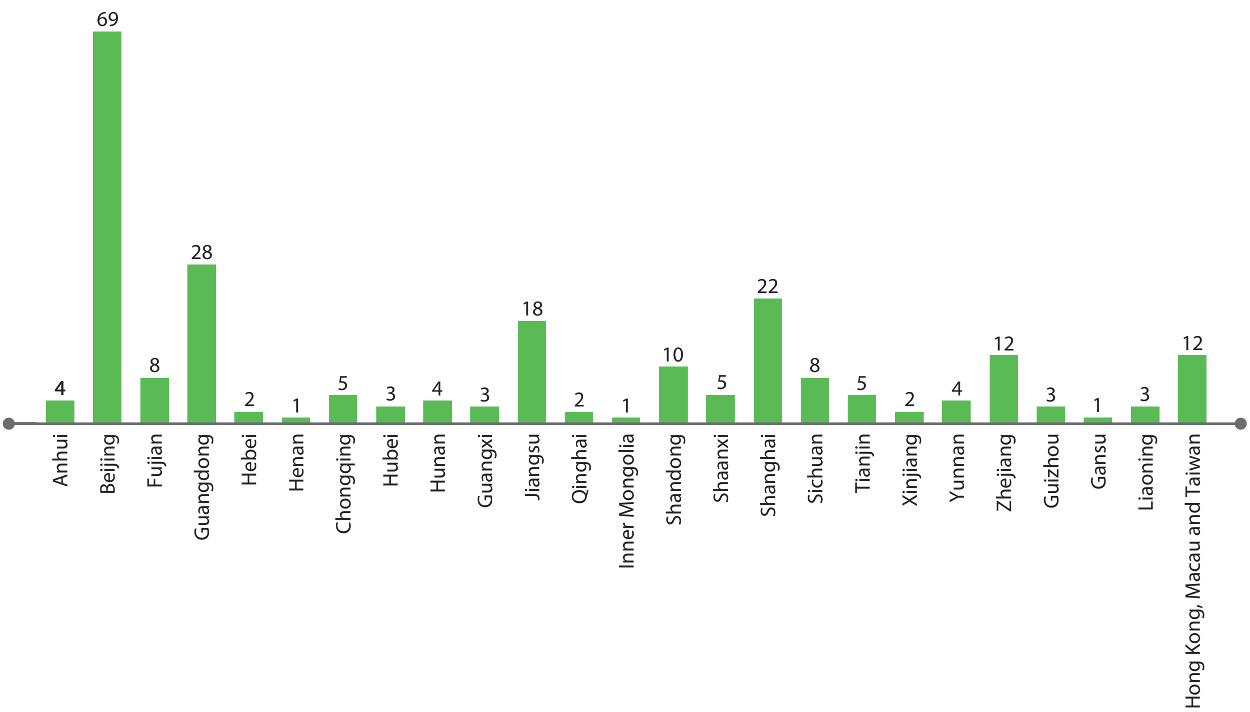
The Group has also established a supplier assessment mechanism to standardise normalised monitoring and evaluation on suppliers, including preliminary assessment, regular and irregular comprehensive assessment. During the Reporting Period, the Group employed a total of 235 suppliers (including project procurement and technical outsourcing). All suppliers were under stringent selection in accordance with the Supplier Selection (Procurement) Process (《供應商選擇(採購)流程》).



Number of suppliers of AsiaInfo Technologies by geographical region

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6. LOW-CARBON OPERATION AND PRACTICING GREEN DEVELOPMENT

Adhering to the sustainable development philosophy of "giving priority to environmental protection", AsiaInfo Technologies constantly explores innovative technologies and strives to improve environmental protection based on its own technological advantages. During the Reporting Period, the Group continued to promote environment protection and raised higher requirements on the management of use of resources and emissions management, making a leapfrog step.

Responding to climate change

As a practitioner to promote sustainable development, AsiaInfo Technologies takes the impact of climate change seriously and dedicates itself to the development of green, low-carbon operational models and actively responds to the challenges presented by global climate change.

Climate risks management

AsiaInfo Technologies firmly upholds the United Nations Framework Convention on Climate Change (《聯合國氣候變化框架公約》) and Paris Agreement, and implements the Action Plan for Carbon Dioxide Peaking Before 2030 (《2030前碳達峰行動方案》), Opinions Regarding the Complete and Precise Implementation of the New Development Principles Comprehensively and Handling Carbon Peaking Neutrality (《關於完整準確全面貫徹新發展理念做好碳達峰碳中和工作的意見》) and other polices of the State. AsiaInfo Technologies always places climate change at an important position in business development, and has included climate change-related issues in its materiality assessment for three consecutive years. The Board of Directors of the Group is also actively involved in and offered relevant guidance opinion. In addition, to ensure the efficiency of climate risk management and governance, the Group's ESG working group also regularly discusses climate-related issues and supervises the implementation of climate risk countermeasures.

Climate strategy

AsiaInfo Technologies keeps a close eye on the impact of climate change while developing its business, and strives to grasp the opportunity of low-carbon transformation, and is committed to achieving win-win cooperation with stakeholders. The Group not only actively explores the possibility of carbon emission reduction in its own operation process, but also continues to carry out R&D of green products and technologies, and is committed to providing green products and solutions for partners to help all interest parties to achieve carbon emission reduction. In future, AsiaInfo Technologies will also further integrate climate change into the Group's overall development strategy.

Identifying and responding to Climate change risk

To mitigate climate change risks, AsiaInfo Technologies conducts an analysis of climate change risks based on the Task Force on Climate-related Financial Disclosures (TCFD) framework, identifies risks that may have an impact on companies, and formulates relevant countermeasures.

Table：Climate change risk identification and response

Type of Risk	Description of Risk	Countermeasures
Acute physical risk	Climate change or extreme weather events triggered by climate change, such as heavy rainfall in Zhengzhou, which hindered the travel of employees of AsiaInfo Technologies, threatened employee safety, and caused losses of personnel and property	Deploy security personnel in each project to inform the corresponding security measures and actively communicate about the situation; develop a remote office platform to ensure the normal and orderly operation of the Group
Policy and legal risk	To achieve the "Dual Carbon Goal", the government may issue more stringent climate policies and strengthen carbon regulation of existing products and services, which could lead to increasing operating costs	Actively explore low-carbon operation models: improving vehicle-using efficiency and reducing vehicle emissions of greenhouse gases (scope one); using clean energy to reduce the use of externally purchased electricity, thereby reducing greenhouse gas (scope two) emissions
Market and technical risk	In the context of climate change, peer enterprises have stepped up their development of low-carbon technologies, therefore, AsiaInfo Technologies needs to keep abreast of the development of the latest technologies to avoid falling behind, in which it may lead to rising development and research costs	Conduct R&D of low-carbon technologies in the industry; promote clean energy use and reduce the cost of purchased electricity
Reputational risk	As the society's low-carbon awareness improves, customers may be more inclined to choose low-carbon products and services. The increase in carbon emissions that involved in the operation of AsiaInfo Technologies may lead to a shift in consumer preferences, in which it may affect the Group's market share	R&D of products and services related to low-carbon development

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Climate change goals and actions

In response to the challenge of climate change, AsiaInfo Technologies has set a green target for carbon emission reduction based on its green strategic plan:
Aiming to achieve carbon neutrality by 2028.

During the Reporting Period, the greenhouse gas emissions of AsiaInfo Technologies's major subsidiaries are as follows:

Greenhouse gas emissions (scope one and scope two) [1]	Unit	2021
Vehicle emissions and natural gas emissions (scope one)	Tons of carbon dioxide equivalent	448
Electricity emissions (scope two)	Tons of carbon dioxide	4,939
Total greenhouse gas emissions	Tons of carbon dioxide equivalent	5,387
Total greenhouse gas emission density	Kilograms of carbon dioxide equivalent/ revenue of RMB10,000	7.8

In order to achieve the carbon emission reduction target, AsiaInfo Technologies has launched a series of carbon emission reduction actions to further achieve its own low-carbon operations by promoting its own energy conservation and efficiency improvement, exploring renewable energy, and carrying out carbon offsetting. In addition, the Group continues to pay attention to value chain carbon emission reduction, and uses digital intelligent technology to empower vertical industries such as communications, energy, transportation and government, helping key industries to conserve energy and reduce emissions. At the same time, in order to cultivate employee awareness and promote employee environmental initiatives, the Group has carried out dual carbon promotion and training activities to comprehensively deepen their understanding of dual carbon.

1 The data in this table covers AsiaInfo Technology (China) Co., Ltd. and AsiaInfo Technology (Nanjing) Co., Ltd., the Group's principal operating subsidiaries. The calculation method of greenhouse gas emissions refers to the "Greenhouse Gas Accounting System Enterprise Accounting and Reporting Standards 2012 (Revised Edition)" (《溫室氣體核算體系企業核算與報告標準2012 (修訂版)》), the "Greenhouse Gas Emission Accounting Methods and Reporting Guidelines for Public Building Operating Enterprises"; the grid emission factors used for scope two calculation refer to the 2021 national grid average emission factors in the "Notice on the Key Tasks Related to the Management of Enterprise's Greenhouse Gas Emission Report in 2022" (《關於做好2022年企業溫室氣體排放報告管理相關重點工作的通知》) issued by Ministry of Ecology and Environment of China.

Energy savings and efficiency improvement

- Construct its own smart parks to activate dynamic monitoring and perception and reduce the comsumption of gas, electricity, water and other resources in all workplaces.
- Apply Cloud-based devices to cut load capacity.
- Improve the digital capabilities of the office platform, improve the level of paperless office, and reduce the number of employees' business trips.
- Establish a green procurement mechanism and prioritise low-carbon suppliers.

Renewable engergy

- Gradually increase the propotion of clean energy used: replace vehicles with new energy ones, and purchase clean electricity to replace existing electricity.
- Explore the establishement of AsiaInfo Technologies' own renewable energy, and install photovoltaic facilities in the spare pace of the park.

Carbon offsetting

- As there is a need to offset its carbon emission, new methods and technological innovations in the field of carbon exchange will be actively explored.
- For areas where it is difficult to achieve zero carbon emission, they are offset by purchasing green carbon and other means.

Empowered industries

- With technologies such as 5G intelligence, 4G/5G wireless private network, Internet of Things, big data and AI, it will empower verticial industries such as communications, energy, transportation, and government affairs, facilitate energy conservation and emission reudction, and help govnerment and enterprise customers achieve carbon neutrality.

Case: Practice of construction on clean energy in AsiaInfo Plaza

In order to further reduce the use of purchased electricity and carbon emissions, AsiaInfo Technologies actively promotes energy-saving transformation plans. It plans to adopt distributed photovoltaic resolutions and transform solar energy into electricity through the installation of photovoltaic facilities on the roof and carports to meet the electricity demand for office in AsiaInfo Plaza.

Based on preliminary calculation, the photovoltaic power generation facilities are expected to generate over 100,000kWh of electricity and reduce the emissions of carbon dioxide by over 100 tonnes each year after officially putting into use.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Case: Training on dual carbon

In September 2021, employees of the Company participated in the lecture with the theme of China's Economic and Industrial Trends & Opportunities and Challenges of IT Enterprises under the Background of "Dual Carbon" organised by the Research Institute. External senior experts interpreted relevant policies on dual carbon and the opportunities and challenges in the development of IT enterprises at the lecture. The training effectively expanded the new thoughts of AsiaInfo's employees on green development and enhanced their knowledge and enthusiasm on responding to climate change.

AsiaInfo's employees participated in the seminar with the theme of China's Economic and Industrial Trends & Opportunities and Challenges of IT Enterprises under the Background of "Dual Carbon".

Efficient resources utilisation

AsiaInfo Technologies has always adhered to the concept of green environmental protection and actively promoted the efficient and rational utilisation of resources. The Group abides by the "Energy Conservation Law of the People's Republic of China" and other laws and regulations, formulates the "AsiaInfo Technology Environmental Protection Management System" to standardise environmental management behaviour, so as to ensure the efficient utilisation of energy, water resources, paper and other resources (due to the nature of the business, the Group does not involve the consumption of packaging materials), and continues to explore environmentally friendly operation methods to reduce resource consumption through standardised behaviour, technological equipment transformation, environmental publicity and other ways.

The energy used by the Group includes purchased electricity, gasoline and natural gas, of which externally purchased electricity is the Group's main energy consumption. In 2021, in order to reduce the use of purchased electricity and improve the efficiency of energy use, AsiaInfo Technologies actively planned to install photovoltaic power generation facilities in the Beijing AsiaInfo Technology Office Building, and the photovoltaic green power generation capacity is expected to reach more than 100,000 kWh after the installation and adjustment are completed in 2022. In future, AsiaInfo Technologies will continue to rely on renewable energy and gradually improve the efficiency of consuming existing energy.

In the process of daily operation, the Group advocates green office and saves the use of purchased electricity through saving electricity for one hour in office areas during lunch break and adjusting the lowest air-conditioning temperature. The use of gasoline is mainly from the use of corporate vehicles. The Group improves vehicle use efficiency through standard management and arranging the use of vehicles reasonably.

Improving vehicle use efficiency:

1. Regulate the application for the use of vehicles and combine the use of vehicles when necessary for multi applications for the use of vehicles to reduce the frequency of use;

2. Check the traffic conditions before driving vehicles and select the best driving line to reduce the time on the use of vehicles;

3. Turn off the engine during waiting time to reduce the use of gasoline and exhaust emissions

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

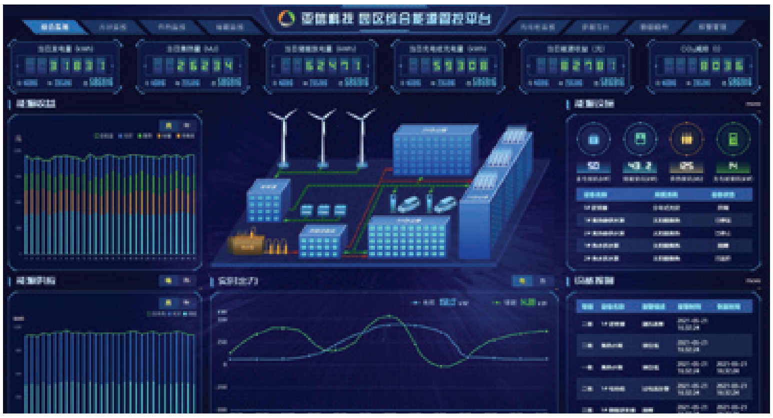
The Group consumes running water from the municipal pipe network and is not involved in obtaining suitable water source. The Group does not involve in any industrial water use or other large scale use of water resources, which are mainly for sanitary water and greening irrigation. During the Reporting Period, the Group carried out a series of measures to reduce the consumption of water resources:

Replacement with water-saving equipment	• Actively prepare for replacement with micro-spraying equipment for outdoor watering and save the use of water in irrigation
Equipment management	• Report for repairing when discovering problems with facilities such as water valve, water pipe and faucet
Water-saving publicity	• Routine water-saving publicity and put up water conservation signs

In addition, AsiaInfo Technologies actively explores the use of digital means to further improve the use efficiency of resources and save resources.

Case: Integrate energy and digital operation and build intelligent buildings of AsiaInfo

AsiaInfo Technologies monitors the consumption of electricity and water resources in AsiaInfo Plaza through the installation of intelligent electricity and water meters and check the use of resources through energy, temperature and other digital signage. It can discover and prevent the waste of resources in a timely manner through digital monitoring means and effectively improve the use efficiency of resources.



Sample graph of the digital platform of AsiaInfo's intelligent buildings

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Case: AI business travel platform saves the use of paper

AsiaInfo Technologies independently developed an AI business travel platform. Through the digital reimbursement method, employees on travel are not required to print hotel and taxi receipts for reimbursement. It has saved an average of approximately 100,000 pieces of paper per month (nationwide) since the official launch of the AI business travel platform in July 2021 and saved approximately 500,000 pieces of paper in total from August to December 2021.

For the consumption of major energy resources by the Group during the Reporting Period, please refer to the table below:

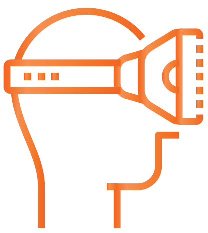
Resource consumption[1]		Unit	2021
Indirect Energy	Total electricity consumption[2]	'000 kWh	8,500
	Electricity consumption intensity	kWh/revenue of RMB10,000	12.33
Direct Energy	Total fuel consumption (vehicle)	L	19,431
	Total natural gas consumption	m^3	186,341
	Total direct energy consumption	'000 kWh	2,196
	Direct energy consumption intensity	kWh/revenue of RMB10,000	3.18
Total water consumption		tonne	44,028
Total water consumption intensity		tonne/revenue of RMB10,000	0.06
Paper consumption		kg	8,528
Paper consumption intensity		kg/revenue of RMB10,000	0.01

Enhancing Pollution Management and Control

As an application software and information system and service provider, AsiaInfo Technologies is not involved in the significant influence of pollutants. Major pollutants discharged in the operation of the Group include emissions of hazardous and non-hazardous wastes, greenhouse gas (GHG) emissions (scope 2) generated by purchased electricity, GHG emissions (scope 1) and air pollutants generated by using of vehicles and domestic sewage discharge. The Group is in strict compliance with the laws and regulations, including the Law of the PRC on the Prevention and Control of Atmospheric Pollution (《中華人民共和國大氣污染防治法》), Law of the PRC on the Prevention and Control of Water Pollution (《中華人民共和國水污染防治法》), Law of the PRC on the Prevention and Control of Environmental Pollution by Solid Waste (《中華人民共和國固體廢物污染環境防治法》) and Regulation on the Administration of the Recovery and Disposal of Waste Electrical and Electronic Products (《廢棄電器電子產品回收處理管理條例》). It has formulated the Environmental Protection and Management System of AsiaInfo Technologies and the Procedure on Prevention (《亞信科技環境保護管理制度》) and set out strict regulations on emissions of various pollutants to ensure that all pollutants meet the emission standards. During the Reporting Period, AsiaInfo Technologies (China), Inc. passed the ISO 14001 and ISO 45001 certifications and audits. There was no violation of the relevant laws and regulations in which they have any significant impact on the Group during the Reporting Period.

1 Data on resource use above only covers AsiaInfo Technologies (China), Inc. and AsiaInfo Technologies (Nanjing), Inc., both of which are major operating subsidiaries of the Group.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

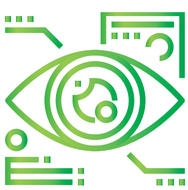


The solid wastes generated in the operation of the Group are those all generated from our daily work in the office, and do not involve large-scale waste discharge, including hazardous wastes (waste fluorescent tubes and waste toner cartridges) and non-hazardous wastes (waste batteries and office domestic wastes). To further reduce the generation of wastes, the Group has formulated the Treatment and Control of Solid Waste (《固體廢棄物防治控制程序》) to regulate the management of wastes produced. For hazardous wastes, the Group engages qualified companies for centralised recycling and disposal; and for non-hazardous wastes, office domestic wastes and waste batteries produced by the Group are recycled and disposed by qualified third-party treatment companies. During the Reporting Period, the treatment rate of domestic wastes reached 100%.

The Group actively promotes waste classification and classifies all wastes based on the requirements of regulations. It placed waste containers for recyclable wastes, kitchen wastes and other wastes in public areas of office buildings, pasted publicity boards on waste classification in cleaning and garbage rooms and effectively improved the efficiency of waste disposal through waste classification. In addition to the standard management and disposal of solid wastes, the Company also controls the emissions of solid wastes through the reasonable use of resources, reducing the waste of resources and enhancing publicity on environmental protection. While guaranteeing reasonable illumination intensity, the Group further reduces solid wastes by reducing the use of fluorescent tubes.

In terms of the management on emissions of air pollutants, the Group reduces the emissions of GHG and air pollutants through reducing the use of purchased electricity and improving the use efficiency of vehicles. In addition, the Group also actively reduces the emissions of air pollutants and GHG (scope 1) by reasonably arranging the use of vehicles and improving the use efficiency of vehicles.

In terms of the management on sewage discharge, the Group's sewage is mainly the office domestic sewage and it can effectively reduce the daily sewage discharge of the Group by reducing the use of water resources.



The statistics below show the information of emissions of the Group during the Reporting Period[1]:

Pollutant Emission	Unit	2021
Air pollutant emissions[2]		
CO emission	kg	94.35
NOx emission	kg	4.11
SOx emission	kg	0.29
PM2.5 emission	kg	0.54
PM10 emission	kg	0.54
Non-hazardous waste produced[3]		
Office domestic wastes[4]	tonnes	132
Kitchen wastes	tonnes	100
Waste battery	tonnes	0.036
Waste battery recycled	tonnes	0.034
Total non-hazardous waste emissions	tonnes	232
Intensity of non-hazardous waste emission	kg/revenue of RMB10,000	0.336
Hazardous wastes produced		
Waste fluorescent tube	tonnes	1.765
Waste fluorescent tube recycled	tonnes	1.675
Waste toner cartridge	tonnes	0.158
Waste toner cartridge recycled	tonnes	0.151
Total hazardous wastes produced	tonnes	1.922
Intensity of hazardous wastes produced	kg/revenue of RMB10,000	0.0027

1 During the Reporting Period, the Group was not involved in any packaging materials.

2 Air pollutant emissions are emissions from vehicles owned by the Group, including emissions from vehicles owned and operated by the Group, and are calculated with reference to the Technical Guide for Air Pollutant Emission Inventory for Road Motor Vehicles (Trial)《道路機動車大氣污染物排放清單編制技術指南 (試行)》).

3 With reference to the definition in Basel Convention, non-hazardous wastes of the Group include computers, digital communication circuits and devices, servers, printers etc. All electronic wastes are auctioned off by the Group.

4 During the Year, AsiaInfo Technologies continued to improve the collection process of domestic waste data. The continuous improvement of data collection indicators resulted in an increase in data this year.

7. PUTTING PEOPLE FIRST AND PROMOTING DEVELOPMENT WITH TALENTS

Guaranteeing Employees' Interests

The Group strictly complies with the Labour Law of the PRC (《中華人民共和國勞動法》), Labour Contract Law of the PRC (《中華人民共和國勞動合同法》), Social Insurance Law of the PRC (《中華人民共和國社會保險法》), Regulations on Prohibition of Child Labour (《禁止使用童工規定》) and other laws and regulations and formulated the AsiaInfo Technologies Staff Manual (《亞信科技員工手冊》), the AsiaInfo Technologies Social Recruitment Management System (《亞信科技社會招聘管理制度》) and other internal policies to ensure equal and diversified employment. The Group equally treats employees of different races, nations, nationalities, skin colors, genders, religious beliefs, etc., resolutely opposes discriminations in employment and firmly upholds the employment principle of equality and fairness. To effectively prevent the employment of child labours, the Group carries out the third-party background check on all new candidates and strictly verifies the identity information of candidates. Relevant provisions have been included into the AsiaInfo Technologies Background Investigation Management Norms (《亞信科技背景調查管理規範》). During the Reporting Period, the Group did not violate any laws and regulations related to remuneration and dismissal, recruitment and promotion, working hours, holidays, equal opportunities, diversity, anti-discrimination and other benefits and welfare.

Case: Digital human resources platform improves the recruitment efficiency

In 2021, AsiaInfo Technologies adopted the digital management model on human resources (HR) and the internal digital platform covered all businesses on recruitment, including the full-process integrated management on the construction of the resume base, recruitment demands, recruitment processes and approval on employment, which effectively improved the efficiency of human resources management. In addition, the digital platform also covers the electronic signature function, guaranteeing the signing of employment contracts upon joining and the signing, sealing, storage and management of renewed employment contracts and standardizing the process of employment management.

To effectively guarantee employees' interests and prevent forced labour and compulsory labour, the Group complies with the Labour Law of the PRC stringently and ensures that every employee can only work during normal working hours as required in the local laws and regulations and the AsiaInfo Technologies Staff Manual (《亞信科技員工手冊》) (under normal circumstances, the working hours of the Group are eight hours a day from Mondays to Fridays). In addition, in accordance with the Implementation Measures for Paid Annual Leave for Employees of Enterprises (《企業職工帶薪年休假實施辦法》), AsiaInfo Technologies has formulated the AsiaInfo Technologies Staff Vacation Management Regulations (《亞信科技員工假期管理規定》), which guarantees employees' entitlement to vacation on national statutory holidays, marriage leave, maternity leave (or paternity leave), bereavement leave, annual leave and sick leave and regulates employees' vacation time and the procedures for vacation applications. Since its establishment, the use of child labour and forced labour has not occurred, so the steps to eliminate relevant non-compliance are not applicable to the Group.

In addition, the Group constantly unblocks channels for employee communications to ensure employees' voices to be heard. In 2021, on the basis of the continuous improvement of daily communications through the "inquiries on micro service groups", the Group continued to expand channels for employee communications and practically promoted special services.

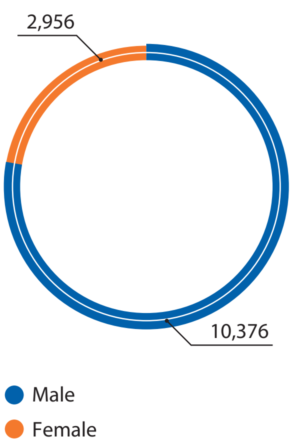
Case: Listen to demands of employees on business travel and improve travelling guidelines

AsiaInfo Technologies carried out a sample inspection on 50 employees on business travel in different cities and provide employees on business travel with various travelling information through listening to their demands and summarizing their concerns based on their feedbacks under the assistance of the AI business traveling program. As at the end of the Reporting Period, the system has provided tips on 37 cities. The AI business traveling program has effectively achieved the target of accompanying employees and facilitating successful travels.

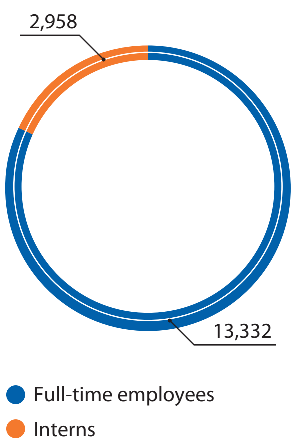
ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

As of the end of the Reporting Period, the number of full-time employees of the Group was 13,332, of which:

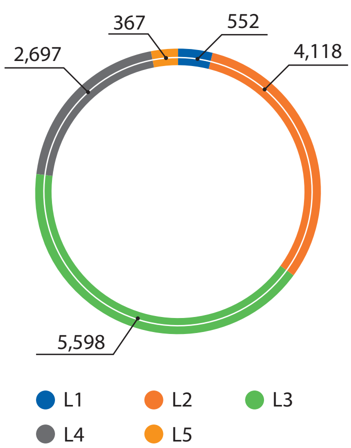
By gender of employees



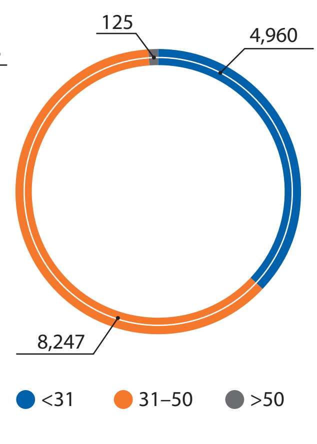
By employment type

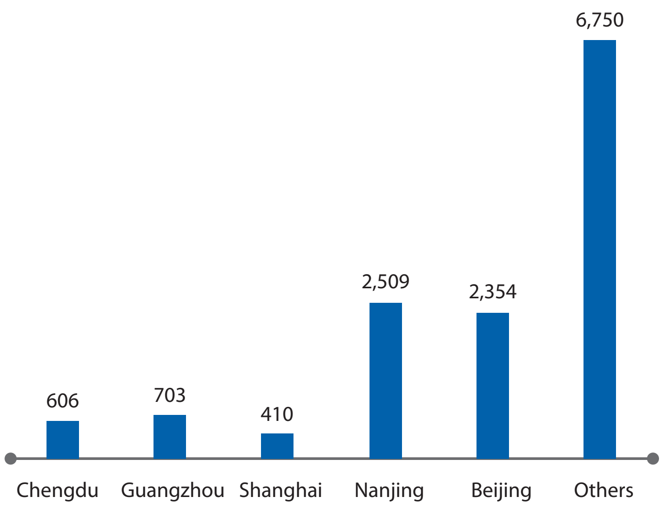


By rank[1]



By age group





By geographical region

[1] The rankings were listed from low to high by L1 to L5 according to the Company's position level system.

During the Reporting Period, the total number of employee turnover of the Group was 3,342, including:

Category	Turnover rate[1]
By gender	
Male	26.21%
Female	21.04%
By age group	
＜31 years old	35.69%
31–50 years old	18.89%
＞50 years old	11.20%
By geographic area	
Chengdu	27.89%
Guangzhou	23.61%
Shanghai	28.78%
Nanjing	25.15%
Beijing	33.01%
Others	21.94%

1 Turnover rate = Number of employee turnover in this category/Total number of employee in this category.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Promoting Talent Development

AsiaInfo Technologies adhered to the strategy of "talent-oriented business development". To promote the development of talents, the Group has built a professional training team and developed a standardised and scientific training system. In order to regulate the Group's internal training work and ensure the orderly implementation of various training work, the Group formulated and issued a series of system policies such as the AsiaInfo Technologies Internal Training Management System (《亞信科技內部培訓管理制度》) and AsiaInfo Technologies Staff Education Fund Management Measure (《亞信科技職工教育經費管理辦法》). During the Reporting Period, AsiaInfo Technologies formulated the 2021 Corporate Training Plan (《2021年公司培訓計劃》) (hereinafter referred to as the "**Training Plan**") and training budget. The Training Plan covers detailed plans for training courses on a quarterly basis. As such, the Group implemented specific work according to the plan, tracked training implementation and budget completion on a regular basis, evaluated training effects, identified problems and implemented continuous improvement of the construction of training system.

AsiaInfo Technologies devoted efforts to enhance the Company's core competitiveness and foster outstanding employees and management team, improves the quality and ability of employees and managers by carrying out various trainings in an orderly manner.

New staff training	General ability training	Management training	Professional and technical personnel training	Internal lecturer TTT training
The training mainly targets new staff, which covers company profile, organizational structure, corporate culture, professional ethics, basic business knowledge, technical skills, etc.	The general training targets all employees, which covers general capability, and corporate strategy, new system, new policy, etc.	The training mainly targets staff with management responsibilities in their capacities, which covers training program, training courses, strategy or business workshops, important conferences, etc.	The training mainly targets professional and technical personnel at different levels and types, which covers technical certification, product certification, training camps, external certification and other trainings	The training mainly targets the internal trainer team of the Company, which covers teaching skills, curriculum development and courseware production

2021 New staff training

2021 Frontline general ability series training

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Case: Management training — Navigator Program M4 Training Camp (領航計劃M4訓練營)

The "Navigator Program" is the fourth step of the AsiaInfo Technologies Manager Training Ladder, which aims to cultivate senior management talents reserve who have beliefs in the corporate values of AsiaInfo Technologies and meet the requirements of their positions. The two-year training camp is based on the results of senior leadership interviews and the senior management competency model, with various training activities designed around the four themes of thinking layout, implementation of decisions, team building, and cultural values. 2 offline training sessions were conducted in 2021, with cumulative 118 participants.

2021 Management training — Navigator Program M4 Training Camp (Phase One)

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Case: Product-specific training programs

Position Certification Project: In order to improve the quality of talents in professional segments, implement earnestly the evaluation standard of talents in each business unit, and ensure the basic abilities of the staff, AsiaInfo Technologies has launched the 2021 "Xin Changqing — AsiaInfo Technologies Position Certification Project (信長青-亞信科技崗位認證項目)", which aims to build up a position-based certification system to make known the growth path of employees and clear career direction, and provide objective assessment standards for promotion, so as to form a closed loop of learning and promotion.

PRD Product Certification Training: In order to support the Company's 2021 strategic battle to "achieve the separation of product and delivery ", assist in completing knowledge transfer between each product line, and improve the independent delivery capability of each business unit, AsiaInfo Technologies organised the 2021 AsiaInfo Technologies, a series of product certification training. In addition, the Group regularly conducted offline training and launched the Company's online learning platform for employees' learning and certification. During the Reporting Period, 6,218 people attended the training, of which 3,940 people took the examinations and 3,743 people passed the examinations.

AsiaInfo Technologies Position Certification Project Training

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

During the Reporting Period, the Group organised a total of over 200 sessions of various trainings for 8,588 employees, with total training time of 96,571 hours.

Number and percentage of trainees by gender and rank

Category	Trainees (Headcount)	Percentage[1]
By gender		
Male	6,569	76.49%
Female	2,019	23.51%
By rank		
L1	345	4.02%
L2	2,516	29.30%
L3	3,635	42.33%
L4	1,870	21.77%
L5	222	2.59%

Average training hours of trainees by gender and rank

Category	Average training hours (H)[2]
By gender	
Male	6.89
Female	8.47
By rank	
L1	6.54
L2	6.34
L3	7.76
L4	7.81
L5	6.41

1 Trainees rate in this category = Number of trainees in this category/Total number of trainees

2 Average training hours of trainees in the relevant category = Total number of training hours of trainees in the specific category/Number of trainees in the specific category

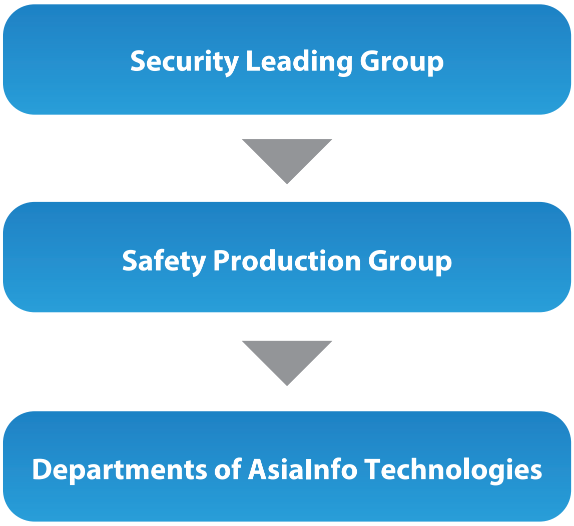
ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Safeguarding Employees' Health

AsiaInfo Technologies has always been placing much concern on the occupational health of its employees and has been actively responding to the call of the National 14th Five-Year Plan to "comprehensively promote the construction of a healthy China" by constructing an occupational health fortress for its employees and creating a "Healthy AsiaInfo". The Group has strictly complied with the laws and regulations such as the Work Safety Law of the PRC (《中華人民共和國安全生產法》), Fire Protection Law of the PRC (《中華人民共和國消防法》), Law of the People's Republic of China on the Prevention, Control of Occupational Diseases (《中華人民共和國職業病防治法》), and Measures for the administration of occupational health examination (《職業健康檢查管理辦法》), formulated the internal policies such as AsiaInfo Technologies Safe Production Management System (《亞信科技安全生產管理制度》) to fully integrate health and safety work into all divisions and daily operations of the Group. During the Reporting Period, the number of work-related fatalities in the Group was 1 (2020 and 2019: nil), with work-related fatality rate of 0.0075%, and the number of lost working days by employees due to work injury was nil. The Group did not violate any relevant laws and regulations. After the occurrence of the accident, the Group immediately made contact with the emergency contact person of the employee, properly calmed the employee's family and applied for a one-off work-related death grant, funeral expenses and dependent's pension for the employee's family in accordance with AsiaInfo Technologies's relevant emergency measures and internal procedures. Concurrently, we processed the commercial insurance claims for the employee. Moreover, AsiaInfo Technologies 's labour union provided additional mutual aid and care benefits to the employee's families in accordance with internal regulations, demonstrating our humane care. In order to prevent the recurrence of similar incidents, the Group learned from the accident and AsiaInfo Technologies will further enhance employee health checkups, enhance the awareness of health and safety, and organise regular cultural and sports activities to promote work-life balance among employees.

The Group constantly improves the safety production management system, builds a safety production responsibility system with clarity of power and responsibility. The production safety leading group and the production safety working group of the Group shall implement the safety assurance and labour protection responsibility layer by layer to various departments. Every department of the Group has no less than one security officer to supervise, inspect and report on safety matters, and ensure the smooth implementation of occupational health and safety work, so that the occupational health of the employees will be guarded. During the Reporting Period, AsiaInfo Technologies (China), Inc., a subsidiary of the Group, has received the IOS 45001 occupational health and safety management system certification.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT



Production Safety Management Structure of AsiaInfo Technologies

AsiaInfo Technologies (China), Inc. has passed the ISO 45001 occupational health and safety management system certification

AsiaInfo Technologies' daily business is mainly based on software technology development and paperwork in the office. There are no material occupational safety and health hazards during the process. In order to further enhance the health and safety awareness of our employees and to protect the safety of our operations, the Group regularly conducts safety inspections and safety training activities. During the Reporting Period, a total number of 15,042 participants took part in a series of training activities on production safety themes including occupational health and epidemic prevention, with a total of 7,405 hours of participation. In addition, the Group provided free medical check-ups to all regular staff, which provided a strong guarantee for effective prevention of occupational diseases.

Safety of Epidemic Prevention

In order to effectively curb the risk of epidemic spreading, AsiaInfo Technologies formulated and implemented "the Guidelines for Anit-Epidemic Work (《防疫工作指南》)" and "Management Norms for Office Space during Special Periods (《辦公場地特殊時期管理規範》)" and will update our internal epidemic prevention and management policy from time to time and publish relevant notices in a timely manner according to the national epidemic prevention and control situation. During the epidemic period, the Group took care of the health of its employees both physically and mentally through the distribution of epidemic prevention materials and online epidemic prevention training, and developed up to 25 epidemic prevention courses, including a series of courses such as "AsiaInfo's Employee Safety Manual for the Anti-Epidemic Period (《亞信防疫期員工安全手冊》)" and "Coping with Epidemic Anxiety (《疫情焦慮應對》)".

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Distribution of epidemic prevention materials to AsiaInfo's employees

Case: Intelligent epidemic prevention and management

AsiaInfo Technologies has developed the "Self-Reporting for Epidemic" mini programme in the "Xin Tribe (信部落)[1]" App and the employee QR code of Xin Tribe to provide effective support to ensure the safety of epidemic prevention and resumption of work and production. Employees can scan the Xin Tribe QR code to enter the office after confirming their health status. Employees can also report the epidemic situation and vaccination information through the "Self-Reporting for Epidemic "mini programme. As of the end of the Reporting Period, the "Xin Tribe Personal QR Code" on AsiaInfo Technologies cell phone end has been upgraded to three colours, namely black, green, and blue, depending on whether employees have passed through medium to high risk areas and whether they have been screened for epidemic prevention, which facilitated the fine management of epidemic prevention.

Self-Reporting for Epidemic in the "Xin Tribe"

[1] Xin Tribe is an APP developed and operated by AsiaInfo Technologies (China), Inc.

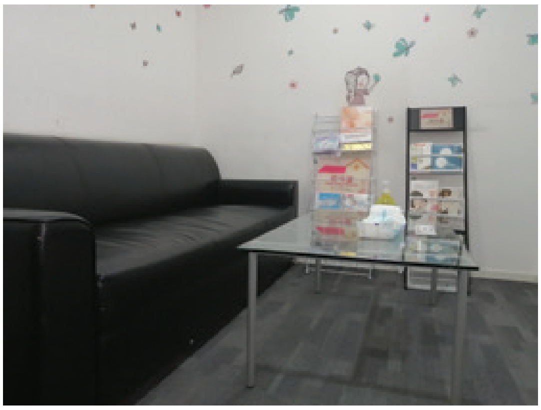
ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Caring for Employees' Growth

As always, AsiaInfo Technologies adheres to the "people-oriented" philosophy and continues to pay attention to the healthy growth of employees by actively creating a good working environment and organising various employee caring activities to promote a work-life balance style of work. During the Reporting Period, the Group organised a series of employee activities, including "Happy Day" theme activities, Programmer's Day and photo exhibition activities. In addition, to enhance the happiness of our employees, the Group regularly provides birthday benefits and holiday benefits (mooncake gift boxes, Spring Festival gift boxes, etc.) to all employees, demonstrating humane care.

Case: Establish the "Caring Mother and Baby Room"

The Group advocates a diversified, inclusive and humane working environment and actively cares for women's rights. Through the establishment of the "Caring Mother and Baby Room", the Group provides a private, clean, comfortable and safe resting place for working women and gives care and concern to women during the preparation period of conceiving, duration of pregnancy and breastfeeding period in the workplace.

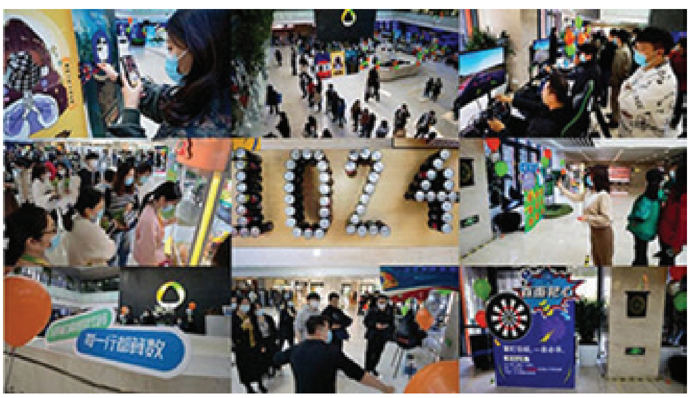


"Caring Mother and Baby Room" of AsiaInfo Technologies

Case: Setting up AsiaInfo Long Term Service Awards

To recognise the people of AsiaInfo who have grown up and worked together with AsiaInfo Technologies, AsiaInfo Technologies has set up Long-term Service Awards since 2017, namely "5 Years of Confidence (5年信心)", "10 Years of Trust (10年信任)", "15 Years of Faith (15年信守)" and "20 Years of Belief (20年信念)" awards. The prize is a platinum ring, which demonstrates the Company's full appreciation of its employees.

AsiaInfo Technologies set up Long-term Service Awards to recognise its employees



Activities for Programmer's Day — "Fun Playground" + "Active Market" activities were organised to relax programmers and strengthen their bodies in such events

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Activities for Women's Day — The Company has prepared bouquets, gifts and desserts for female employees, and held their favourite activities such as manicure, makeup, flower arrangement, oil painting and pottery DIY with rich content in various forms

Happyday Activities for Celebrating Mid-Autumn Festival — We held activities under the theme of "Sending Blessings for Mid-Autumn Festival in the Form of Poems to Obtain Jade Rabbit Lanterns", and sent "Making AI Full of Love" Mid-Autumn Festival gift boxes to employees

8. SHARING VALUE AND CONTINUING TO GIVE BACK TO SOCIETY

Empowering Social Development with Digital Means

Based on its own advantages in innovation, AsiaInfo Technologies actively exerted its professional strengths, and always adhered to the objective of realising close integration of its own development with public welfare undertakings, and leveraged on digital means to empower the healthy and sustainable development of society. During the Reporting Period, the Group's products and solutions played an important role in rural revitalisation, flood prevention and control, and pandemic prevention and control. AsiaInfo Technologies has been striving to provide better services for the public, continuing to give back to the society, and actively fulfilling its responsibilities and obligations as a corporate citizen.

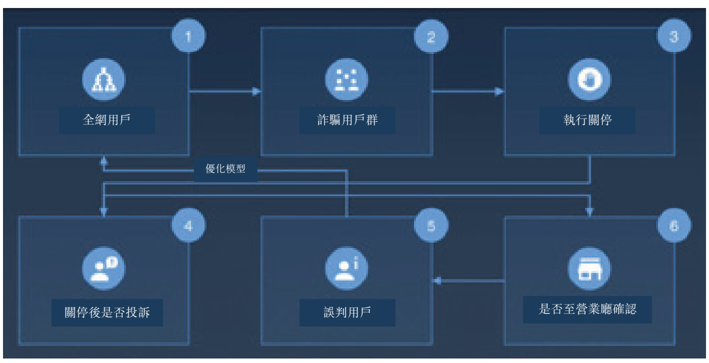
ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Case: Empowering rural revitalisation and realising unified management of data on supply, marketing and agriculture revitalisation

The business growth of "823" Platform for Poverty Alleviation[1] led to an increase in the demand for data from all parties and slower search speed of the platform. AsiaInfo Technologies's AISWare DataOS products helped to build a middle office for data on supply, marketing and agriculture revitalisation, which can realise unified storage and analysis of data, provide support for enterprises' decision-making, and meet the internal needs of enterprises for data. After the application of products, it can effectively help the major supply and marketing platforms for agriculture revitalisation nationwide to improve their operational efficiency and promote rural revitalisation.

Case: Anti-communication fraud, protecting communication security

In recent years, the crime of communication fraud has been ferocious and intensified. Such crimes have seriously infringed the interests of the people, damaged social integrity and affected people's peace of life, bringing great hidden dangers to national security and social stability. Relying on AsiaInfo Technologies's AISWare AI^2 Edge products, operators can build a model for anti-communication fraud and monitoring system to realise the analysis of massive user information and relationship, so as to build a model for identifying fraud. The system can also analyse fraudulent behaviours in real time and locate fraudulent numbers, so as to escort information security.



Example of Model for Anti-communication Fraud and Monitoring System

1 The full name of "823 Platform for Poverty Alleviation" is the "Online Sales Platform for Poverty Regions", and "832" refers to 832 national-level poverty-stricken counties in the PRC. It is a one-stop B2B platform established and operated by China CO-OP Electronic Commerce Co., Ltd. (E-Supply & Marketing) under the guidance of Ministry of Finance, State Council Leading Group Office of Poverty Alleviation and Development, and All China Federation of Supply and Marketing Cooperatives, which integrates the functions of "transaction, service and regulation", and realises online display, online transaction, logistics tracking, online payment, and product traceability of agricultural and sideline products in poverty-stricken areas.

Case: AsiaInfo Technologies assisted operators in launching "Yi Zhi Yi Xing (翼知疫行)" to ensure the effective implementation of epidemic prevention measures

AsiaInfo Technologies made full use of big data technologies, and fully assisted the Data Center of China Telecom in supporting epidemic prevention and control through the "Yi Zhi Yi Xing (翼知疫行)" APP, providing accurate data protection for the tough battle of epidemic prevention and control. "Yi Zhi Yi Xing (翼知疫行)" provided the government and individuals with functions including regional risk inquiry, epidemic prediction inquiry, inquiry of report for returning to hometown, travel history inquiry and contact inquiry. In addition to ensuring user privacy, it realised real-time perception of the flow of people in key areas, focused on analysis of changes in the flow of people in key areas such as designated hospitals, fever clinics, and crowded areas, providing support services for big data on population flow to prevent and control the pandemic.

Chart: "Yi Zhi Yi Xing (翼知疫行)" APP provides accurate data protection for the tough battle of epidemic prevention and control

Case: Flood prevention and control, leading the government and enterprise-based digital intelligence transformation

Due to climate change, floods occur frequently. With the popularisation of cameras in monitoring reservoir and river, flood control personnel can observe the water level, flow and dangerous situation of hydrological sites within respective jurisdictions in real time through video surveillance. Ensuring a high online rate of cameras, timely detection of faulty cameras and timely investigations have become the key to flood prevention. AsiaInfo Technologies's AISWare AIRPA products helped to create "digital flood prevention employees" to make the design, management and use of flood prevention digital employees a reality through robot designers, robot housekeepers, robot execution engines and others, and realise safe flood prevention, efficient flood prevention, and intelligent flood prevention.

Actively Engaging in Public Welfare undertakings

AsiaInfo Technologies has always insisted on promoting the spirit of public welfare and charity, and has paid attention and made contribution to public welfare undertakings for a long time. In 2021, the Group actively organised various public welfare and practice activities for employees and made contributions to the society with concrete actions. During the Reporting Period, the employees of the Group participated in voluntary activities for 1,471 hours.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

Case: AsiaInfo Public Welfare Tour — Book Donation Activity of Engaging in "Public Welfare Undertakings" Together

On 29 May 2021, employees of AsiaInfo across the country and their children engaged in "public welfare undertakings" together and participated in the book donation activity, so as to actively set a positive example for society. A total of 1,838 books were donated to children in poverty-stricken mountainous areas in this public welfare activity, which were sent to 7 schools in 5 provinces including Shaanxi, Gansu, Xinjiang, Henan and Guangdong, and we received the donation certificate issued by "Mutian Public Welfare (慕天公益)".

Employees of AsiaInfo and Their Children Participated in the Book Donation Activity

Donation Certificate issued by "Mutian Public Welfare (慕天公益)"

Case: Donation of Books to Luozhentian Primary School (羅針田小學)

On 19 September 2021, China Software & Information Service Network, on behalf of AsiaInfo Technologies and other 9 winners of the "2020 Corporate Social Responsibility Award of China Software and Information Service Industry", donated books and materials of about RMB45,000 to Luozhentian Primary School.

AsiaInfo Technologies Donated Books to Luozhentian Primary School

Based on its advantages in innovation and R&D and with the heart to service and make contribution to the society continuously, AsiaInfo Technologies leveraged on the role of digitalisation to drive intelligent operation, improvement of quality and efficiency and healthy development in various industries. We are committed to meeting the expectations of all stakeholders and making continuous contributions in building a beautiful and sustainable society in several aspects such as protecting information security and privacy, promoting green development and protecting employees' health.

PROFILES OF DIRECTORS AND SENIOR MANAGEMENT

DIRECTORS

Executive Directors

Dr. TIAN Suning
(田溯寧)
Executive Director

Aged 59, co-founded the Group in 1994, is the chairman and an executive Director. Dr. TIAN has over 21 years of experience in the business of software products, provision of IT services and software solutions, and is primarily responsible for the overall strategic planning and business direction of the Group.

Dr. TIAN served in various positions in China Netcom Group Corporation (Hong Kong) Limited. He served as the chief executive officer from 1999 to May 2006, as a director from August 2000 to July 2007 and as the vice chairman from April 2005 to July 2007. Dr. TIAN served as the deputy general manager at China Netcom Communications Group Corporation from April 2002 to May 2006. Dr. TIAN has been the founder and chairman of a private equity fund, China Broadband Capital Partners, L.P. since July 2006. Dr. TIAN had been an independent non-executive director of Lenovo Group Limited (listed on the Stock Exchange) from August 2007 to July 2019. Dr. TIAN had been an independent non-executive director of China Minsheng Banking Corp., Ltd. (中國民生銀行股份有限公司) (listed on the Shanghai Stock Exchange, also listed on the Stock Exchange) from June 2018 to October 2020. He was an independent director of Shanghai Pudong Development Bank Co., Ltd. (listed on the Shanghai Stock Exchange) from June 2016 to March 2018. He was also an independent non-executive director of Taikang Life Insurance Company Ltd. from July 2008 to July 2015. He was a non-executive director of Huayi Tencent Entertainment Company Limited (listed on the Stock Exchange) from January 2008 to February 2016, and served as an independent non-executive director of MasterCard Incorporated (listed on the New York Stock Exchange) from March 2006 to June 2016 and a deputy chairman and a non-executive director of PCCW Limited (listed on the Stock Exchange) from April 2005 to June 2007.

Dr. TIAN was awarded the New Century Talents — National Candidates (新世紀百千萬人才國家級人選) in 2004, which was issued by Ministry of Human Resources and Social Security of the PRC. Dr. TIAN obtained his Ph.D. degree in natural resource management from Texas Tech University in December 1993 and a Master of Ecology from Chinese Academy of Sciences in July 1988.

PROFILES OF DIRECTORS AND SENIOR MANAGEMENT

Mr. DING Jian
(丁健)
Executive Director

Aged 57, is an executive Director and was appointed as a Director in June 2018. Mr. DING joined the Group in January 2014. Mr. DING has over 16 years of experience in investment in telecommunications, media and technology industries and is primarily responsible for participating in formulation of business plans, strategies and major decisions of the Group.

Mr. DING served as the chairman of the board of AsiaInfo-Linkage, Inc. between April 2003 and July 2010, and has also served as a co-chairman since July 2010. Mr. DING is currently a managing director and general partner of GSR Ventures, a venture capital fund, a role in which he has served since June 2005. Mr. DING has been serving as an independent director of Baidu, Inc. (百度公司)(listed on NASDAQ) since August 2005. Mr. DING served as an independent director of Huayi Brothers Media Corporation (listed on the Shenzhen Stock Exchange) from March 2011 to August 2017. Mr. DING obtained a Master of Library Science from the University of California, Los Angeles in September 1990.

Mr. GAO Nianshu
(高念書)
Executive Director

Aged 58, is an executive Director and was appointed as a Director in August 2017. Mr. GAO joined the Group in July 2016 as the Chief Executive Officer of the Company, who is primarily responsible for the overall business operations and management of the Group.

Mr. GAO has over 21 years of working experience as senior management in large telecommunications companies. He served as a non-executive director of Phoenix Media Investment (Holdings) Limited (listed on the Stock Exchange) between September 2006 and August 2016. Mr. GAO served as the general manager of both the data department and the market operations department of China Mobile Communications Corporation (中國移動通信集團公司) between September 2005 and July 2016. He served as the vice general manager of the billing business center and the market operations department, the general manager of the billing business center and the general manager assistant of Beijing Mobile Communication Company Limited (北京移動通信有限責任公司) between June 2002 and September 2005. Mr. GAO also served as a non-executive director of True Corporation Public Company Limited (listed on the Stock Exchange of Thailand) between 2014 and 2016. Mr. GAO was presented with the award "Outstanding Entrepreneur in China's Electronic Information Industry (中國電子信息行業卓越企業家)" issued by China Information Technology Industry Federation (中國電子信息行業聯合會) in January 2018. In January 2018, Mr. GAO also received the "2017 Outstanding Entrepreneur in China's Software Industry (2017年中國軟件行業優秀企業家)" award from China Software Industry Association (中國軟件行業協會). In the 2017 Information and Communication Technology ("ICT") Leaderboard & Excellence Program Award Ceremony (2017 ICT龍虎榜&優秀方案頒獎典禮) held by Communication World Omnimedia (通信世界全媒體) in December 2017, Mr. GAO was presented with the award of "2017 Top Ten ICT Influencers" (2017年ICT十大影響人物).

Mr. GAO was awarded the qualification as a senior engineer from the Chinese Academy of Sciences in 1996. Mr. GAO obtained a Bachelor's degree in Science of Computing major from the Department of Mathematics in the Jilin University in July 1986, a Master's Degree in Engineering from the Institute of Computing Technology, Chinese Academy of Sciences in August 1994 and an executive Master of Business Administration degree from the Peking University in June 2005.

PROFILES OF DIRECTORS AND SENIOR MANAGEMENT

Mr. ZHANG Yichen (張懿宸)
Non-executive Director

Aged 59, is a non-executive Director and was appointed as a Director in June 2018. Mr. ZHANG joined the Group in January 2014. He has over 31 years of experience in the financial industry and is primarily responsible for providing professional opinion and judgment to the Board.

Mr. ZHANG began his career in Wall Street. In 1987, he worked for Greenwich Capital Markets, and then he was the head of proprietary trading in the Bank of Tokyo New York Branch, and Merrill Lynch, where he was the managing director of debt capital market for Greater China. In 2000, Mr. ZHANG joined the CITIC Group and served as the executive director of CITIC Limited and the president of CITIC Pacific Information Technology Co., Ltd. He participated in the founding of CITIC Capital in 2002 and witnessed the whole development process of the company. Mr. ZHANG currently serves as the chairman and chief executive officer of CITIC Capital Holdings Limited. Under the leadership of Mr. ZHANG, CITIC Capital has taken the lead in multiple transactions with milestone significance so far and invested in a series of well-known domestic enterprises, including McDonald's China, Alibaba, Sina, Harbin Pharmaceutical, SF Express, AsiaInfo and Focus Media. Mr. ZHANG currently serves as the chairman of the board of New McDonald's China. Mr. ZHANG served as the independent director of Weibo Corporation from January 2014 to December 2015, which is listed on NASDAQ. From May 2002 to March 2021, Mr. ZHANG served as the independent director of Sina Corporation, which was listed on NASDAQ. From June 2012 to August 2021, Mr. ZHANG served as the chairman of the board and a non-executive director of Genertec Universal Medical Group Company Limited (listed on the Stock Exchange). Mr. ZHANG served as the non-executive director of Frontier Services Group Limited (listed on the Stock Exchange) from March 2020 to February 2021. Mr. ZHANG has been appointed as the independent non-executive director of China Vanke Co., Ltd. (listed on the Stock Exchange) since 30 June 2020. Mr. ZHANG has been appointed as an independent non-executive director, a member of the Corporate Social Responsibility Committee, the Investment Committee, and the Panel Member Selection Committee of Hong Kong Exchanges and Clearing Limited (listed on the Stock Exchange) since 28 April 2021. Mr. ZHANG also serves as a member of the Mainland China Advisory Group (中國業務諮詢委員會) of Hong Kong Exchanges and Clearing Limited which was established on 8 July 2021.

Mr. ZHANG is a member of the 11th, 12th and 13th National Committee of the Chinese People's Political Consultative Conference. Mr. ZHANG obtained a Bachelor of Science degree in Computer Science and Engineering from the Massachusetts Institute of Technology, the US in June 1986.

Mr. XIN Yuesheng (信躍升)
Non-executive Director

Aged 52, is a non-executive Director and was appointed as a Director in June 2018. Mr. XIN joined the Group in August 2016. He has over 27 years of experience in finance and investment and is primarily responsible for providing professional opinion and judgment to the Board.

Mr. XIN currently serves as a senior managing director of CITIC Capital Holdings Limited and the managing partner of its private equity arm CITIC Capital Partners. He joined the firm in August 2002 and is responsible for the private equity investment business in China since 2004. Between December 1999 and August 2002, he served as a management consultant at McKinsey & Company in Shanghai and the Washington, D.C. to develop business strategies for global clients. From August 1992 to April 1996, Mr. XIN also served as a deputy manager for China Leasing Co., Ltd. (中國租賃有限公司), the largest leasing company in China and a subsidiary of CITIC Group Corporation Ltd. Mr. XIN served as a director of Focus Media Information Technology Co., Ltd. (分眾傳媒信息技術股份有限公司) (listed on the Shenzhen Stock Exchange) from March 2016 to November 2016.

He obtained a Bachelor of Economics degree from the Peking University in July 1992 and a Master of Business Administration degree from Harvard Business School with honors in June 1999.

PROFILES OF DIRECTORS AND SENIOR MANAGEMENT

Mr. CHENG Xike
(程希科)
Non-executive Director

Aged 32, is a non-executive Director and was appointed as a Director on 30 June 2021, who is responsible for providing professional opinion and judgment to the Board.

Mr. CHENG has over 6 years of experience in business strategy and financing. Mr. CHENG joined CITIC Capital Holdings Limited in July 2015 and is currently an employee of CITIC Capital (Tianjin) Equity Investment (Partnership), in which he is mainly responsible for private equity investments in the communications, media, technology and industrial industries. Before joining CITIC Capital Holdings Limited, Mr. CHENG also had entrepreneurial experience and was one of the founders of Beijing Sixing Chuangxiang Technology Co., Ltd. and Beijing Oriental Pilot Education Consulting Co., Ltd.. Mr. CHENG obtained a Master's degree in Management Science and Engineering from Tsinghua University in the PRC in July 2015. Mr. CHENG also obtained a Master's degree in International Energy Management from the Ecole Nationale des Mines de Paris in February 2015. Mr. CHENG obtained a Bachelor's degree in Finance from the University of International Business and Economics in the PRC in July 2011.

Mr. YANG Lin
(楊林)
Non-executive Director

Aged 50, was appointed as a non-executive Director on 2 September 2020. Mr. YANG is a senior engineer. Mr. YANG currently serves as the deputy general manager of the government and enterprise division in the Xiong'an office of China Mobile Communications Group Co., Ltd. He joined the China Mobile Communications Corporation in June 1999. Mr. YANG has extensive experience in engineering construction management, supply chain management and DICT project management. Mr. YANG obtained his Bachelor's degree in Communications Engineering from the Beijing University of Posts and Telecommunications in 1994 and subsequently obtained a Master's degree in Business Administration from the China Europe International Business School in 2003.

PROFILES OF DIRECTORS AND SENIOR MANAGEMENT

Ms. LIU Hong
(劉虹)
Non-executive Director

Aged 49, was appointed as a non-executive Director on 2 September 2020 and currently serves as a director and deputy general manager of China Mobile Information Technology Co., Ltd. From September 2010 to January 2018, Ms. LIU held the position of deputy general manager of the business support system department of China Mobile Communications Corporation. From June 2006 to September 2010, she served as the manager of the planning and construction division in the business support system department of China Mobile Group Corporation. Before that, Ms. LIU worked as a manager in the support office of China Mobile Group Corporation's billing business center from February 2002 to June 2006, and also respectively held the position of deputy director of the account clearing center, billing clearing center and the Beijing billing business center of China Mobile Group Corporation from January 2000 to February 2002. From August 1996 to January 2000, Ms. LIU successively worked in the billing center of the Mobile Communications Bureau of the Ministry of Posts and Telecommunications and the account clearing center of China Mobile Corporation (under preparation). Ms. LIU obtained her Bachelor's degree in Computer Mathematics and Application Software from the Beijing University of Technology in 1996, and subsequently obtained a Master's degree in Business Administration from the Peking University in 2006.

Dr. GAO Jack Qunyao
(高群耀)
Independent non-executive Director

Aged 64, was appointed as an independent non-executive Director in 19 December 2018. Dr. GAO has extensive experience in IT, media, entertainment and venture capital.

Dr. GAO has currently been the adjunct professor of the business school of The Chinese University of Hong Kong since 2011. Dr. GAO has been the founding partner and the chief executive officer at Beijing Times Digiwork Films Technology Co., Ltd. (Smart Cinema) (北京雲途時代影業科技有限公司 (移動電影院)) since April 2018. Dr. GAO has been a director of AGTech Holdings Limited (listed on the Stock Exchange) since May 2015. Dr. GAO was the interim chief executive officer of Legendary Entertainment LLC from January 2017 to October 2017, and was also a director of Legendary Entertainment LLC from January 2016 to October 2017. Dr. GAO served as a director at AMC Entertainment Holdings, Inc. (listed on the New York Stock Exchange) from September 2015 to October 2017. Dr. GAO also served as the senior group vice president and the chief executive officer of the international investments and operations, Wanda Cultural Industry Group from June 2015 to October 2017. Dr. GAO was previously a director of 萬通投資控股股份有限公司 (Vantone Holdings Co., Ltd.) (listed on the Shanghai Stock Exchange) from June 2010 to April 2017. Dr. GAO also served as the corporate senior vice president of News Corporation (listed on NASDAQ) from November 2006 to July 2014. Dr. GAO was an alternate director at Phoenix Media Investment (Holdings) Limited (listed on the Stock Exchange) from December 2008 to June 2013.

Dr. GAO served as the corporate vice president at Autodesk, Inc. (listed on NASDAQ) from June 2003 to November 2006. He was also the general partner of Walden International, Inc. from May 2002 to April 2003. Dr. GAO served as the president and the general manager of Microsoft (China) Co. Ltd., a subsidiary of Microsoft Corporation (listed on NASDAQ) from December 1999 to May 2002.

Dr. GAO obtained his Bachelor's degree, Master's degree and his Ph.D. degree in Engineering from Harbin Institute of Technology in January 1982, December 1984 and December 1994, respectively.

PROFILES OF DIRECTORS AND SENIOR MANAGEMENT

Dr. ZHANG Ya-Qin (張亞勤)

Independent Non-executive Director

Aged 56, was appointed as an independent non-executive Director on 19 December 2018. Dr. ZHANG is a famous scientist and entrepreneur in the digital video and artificial intelligence area, who has been an independent non-executive director of a number of companies, including Chinasoft International Limited (listed on the Stock Exchange) since December 2008 and Tarena (listed on NASDAQ) since April 2014. Dr. ZHANG served as an independent non-executive director of ChinaCache (listed on NASDAQ) from September 2010 to July 2017 and China Digital Video Holdings Limited (listed on the Stock Exchange) from January 2011 to June 2018. Dr. ZHANG was the president of Baidu, Inc (百度公司) (listed on NASDAQ), in charge of automatic driving, intelligent cloud computing, fundamental technology, internationalisation, quantum computing and other businesses from September 2014 to October 2019. Before joining Baidu, Dr. ZHANG held various positions at Microsoft Corporation (listed on NASDAQ) from January 1999 to September 2014, serving as the corporate vice president, the chairman of Microsoft Asia-Pacific Research & Development Group, the managing director of Microsoft Research Asia and the chairman of Microsoft China successively. Dr. ZHANG has made outstanding contributions in the digital video, Internet and artificial intelligence industries. He has more than 60 U.S. patents. He also published more than 500 papers and 11 monographs. Dr. ZHANG was elected as a member of the American Academy of Arts and Sciences in 2019, who was the only elected Chinese scientist in the engineering and computer science for that year. Dr. ZHANG was awarded a fellow of the Australian Academy of Technology and Engineering (ATSE) in December 2017, and in 1997, he was also awarded a fellow of the Institute of Electrical and Electronics Engineers (IEEE) at the age of 31, who was the youngest person awarded by the association in the centennial history. Dr. ZHANG obtained his Bachelor's degree in Radio Electronics and Master's degree in Telecommunication and Electrical Systems from the University of Science and Technology of China (中國科技大學) in July 1983 and January 1986, respectively. In February 1990, Dr. ZHANG obtained his Ph.D. degree in Electrical Engineering from George Washington University, Washington D.C. In July 2020, he joined the Tsinghua University as the chair professor for "Intelligence Science" and established the Institute for AI Industry Research in Tsinghua University (清華大學智能產業研究院).

PROFILES OF DIRECTORS AND SENIOR MANAGEMENT

Mr. GE Ming
(葛明)
Independent Non-executive Director

Aged 71, was appointed as an independent non-executive Director on 19 December 2018. Mr. GE has extensive experience in the field of auditing and advisory services and has assisted in the listing of various PRC companies on the Stock Exchange.

Mr. GE was appointed as an independent non-executive director of China Tourism Group Duty Free Corporation Limited, a company listed on the Shanghai Stock Exchange, on 31 May 2021. He served as an independent non-executive director of Amber Hill Financial Holdings Limited (listed on the Stock Exchange) from May 2017 to December 2018. Mr. GE has been an independent director of Focus Media Information Technology Co., Ltd. (分眾傳媒信息技術股份有限公司) (listed on the Shenzhen Stock Exchange) since January 2016. Mr. GE served as a non-executive director of China Innovation Investment Limited (listed on the Stock Exchange) from June 2015 to February 2016 and also served as a non-executive director of China Trends Holdings Limited (listed on the Stock Exchange) from June 2015 to February 2016. Mr. GE served as an independent director of Shanghai Zhenhua Heavy Industries Co., Ltd. (listed on the Shanghai Stock Exchange) from April 2015 to November 2016. Mr. GE has been an independent non-executive director of Ping An Insurance (Group) Company of China, Ltd. (listed on the Stock Exchange) since June 2015 and was an independent non-executive director of Chong Sing Holdings FinTech Group Limited (listed on the GEM of Stock Exchange) from September 2014 to April 2020. Mr. GE also served as an independent non-executive director of Shunfeng International Clean Energy Limited (listed on the Stock Exchange) from January 2011 to February 2013. From July 1992 to July 1995, Mr. GE served as a deputy general manager at Ernst & Young Hua Ming; from July 1995 to August 2012, Mr. GE served as the chairman at Ernst & Young Hua Ming; from August 2012 to September 2014, Mr. GE served as a partner of management committee at Ernst & Young Hua Ming LLP and subsequently from September 2014 to January 2016, Mr. GE served as a senior consultant at Ernst & Young Hua Ming LLP. Mr. GE has been a certified public accountant of the Chinese Institute of Certified Public Accountants since October 1983, and is also a senior accountant as certified by the Ministry of Finance of the PRC. Mr. GE is a vice president of the Mergers & Acquisitions Association of All-China Federation of Industry and Commerce (全國工商聯併購公會), an overseas member of the Society of Chinese Accountants and Auditors (香港華人會計師公會) and a member of the Hong Kong Chinese Enterprises Association (香港中國企業協會).

Mr. GE obtained his Master's degree in Western Accounting from the Research Institute for Fiscal Science, Ministry of Finance of the PRC in July 1982.

PROFILES OF DIRECTORS AND SENIOR MANAGEMENT

Ms. TAO Ping
(陶萍)
Independent Non-executive Director

Aged 64, was appointed as an independent non-executive Director on 2 September 2020. Ms. TAO has been engaged in the telecommunications industry for 36 years and has accumulated rich management experience in provincial and group companies of the telecommunications industry. Ms. TAO served successively as the deputy general manager and the general manager in the Anhui branch office of China Telecom from June 2002 to February 2011. During that time, China Telecom's informatisation level was maintained at a leading position within the industry. In 2007, Ms. TAO was awarded the "Outstanding Informatisation Leader Award" by the National Informatisation Evaluation Center and in 2010, she was also awarded the honorary title of "National Model Worker". From March 2011 to November 2017, Ms. TAO served as the general manager and senior consultant of the strategic department of the China Telecom Group; and from July 2012 to December 2017, she also served as an employee director of the board of directors of the China Telecom Group. Ms. TAO obtained a Bachelor's degree in Engineering from the Nanjing University of Posts and Telecommunications (formerly known as the Nanjing Institute of Posts and Telecommunications) in 1982. She subsequently obtained a Master's degree in Business Administration from the Australian National University in 2004.

Ms. HUANG Ying
(黃纓)
Senior Vice President and the Chief Financial Officer

Aged 53, has been a senior vice president and the chief financial officer of the Group since April 2017.

Ms. HUANG joined the Group in April 2017 and is primarily responsible for the management of finance, tax, auditing and legal matters of the Group. Ms. HUANG has over 21 years of working experience in financial management in the telecommunications industry, and has over 11 years of experience in senior management roles. Prior to joining the Group, Ms. HUANG successively served as the general finance department manager, the deputy general manager and other positions of the finance department of China Mobile Communications Corporation (中國移動通信集團公司) from July 2002 to March 2017. She successively served as a principal staff of the finance department at the general post office of the Ministry of Posts and Telecommunications and a deputy director at the corporate finance office of the planning and finance department of the State Post Bureau of the PRC and other positions from May 1995 to June 2002.

In June 1990, Ms. HUANG obtained a Bachelor's degree in Economics from the Beijing University of Posts and Telecommunications, where she subsequently also obtained a Master's degree in Economics in April 1995. She obtained a Master of Business Administration degree from the University of Wisconsin, the US in May 2006.

PROFILES OF DIRECTORS AND SENIOR MANAGEMENT

Mr. CHEN Wu
(陳武)
Senior Vice President

Aged 54, has been a senior vice president and the general manager of the business development and government affairs center of the Group since February 2015. Mr. CHEN joined the Group in April 2011 and is primarily responsible for the overall management of business development and government affairs.

Mr. CHEN has over 16 years of working experience in business development and dealing with government affairs, and has over 11 years of experience in senior management roles. He served as the director of telecommunications division of Cisco Systems (China) Networking Technology Co., Ltd. from August 2007 to April 2011. Prior to that, he served as the deputy general manager of Mobile Navi (Beijing) Co., Ltd. (北京移動納維信息科技服務有限公司) from January 2005 to August 2007. Mr. CHEN also served as the general manager of the international department of Beijing Honglian 95 Information Industries Company Limited (北京鴻聯九五信息產業有限公司) from August 2003 to December 2004.

Mr. CHEN obtained a Bachelor's degree in Japanese literature from Tianjin Foreign Studies University in July 1989, and further obtained a Master of Business Administration degree from the Nanyang Technological University, Singapore in June 2007.

Mr. LIANG Bin
(梁斌)
Senior Vice President

Aged 51, joined the Group in August 2002 and has been a senior vice president and the general manager of the business division for China Mobile of the Group since January 2017. Mr. LIANG is primarily responsible for the overall operations management of the supporting business division for China Mobile.

Mr. LIANG has over 21 years of experience in the IT and telecommunications industry, and has over 16 years of experience in middle and senior management roles. He served as the president of the business division for China Telecom, the chairman and the president of the cloud information division, the vice president of the China Unicom division, the deputy general manager of the cable division and the general manager of the wireless division of the Group from August 2002 to December 2016. He also served as the R&D manager of Jiangsu Hongtu High Technology Co., Ltd. (江蘇宏圖高科技股份有限公司) and UTStarcom Holdings Corp. from September 1998 to September 2002.

Mr. LIANG graduated from Nanjing University of Posts and Telecommunications (formerly known as Nanjing College of Posts and Telecommunications) with a major in Communications Engineering in July 1991.

PROFILES OF DIRECTORS AND SENIOR MANAGEMENT

Dr. OUYANG Ye
(歐陽曄)
Senior Vice President and the Chief Technology Officer

Aged 40, was appointed as the chief technology officer and a vice president of the Group in July 2018, has been promoted as a senior vice president in July 2020, and also the chairman of the technology committee and the head of PRD (product R&D center) of the Group, and is primarily responsible for the research, development and innovation of the Group's products and technologies.

Dr. OUYANG has over 11 years of distinguished experience of technology research, development and management in telecommunication sector. Prior to joining us, Dr. Ouyang worked in Verizon, the largest mobile communications operator in the US. Dr. OUYANG has been a Verizon Associate Fellow in Verizon since March 2016 (a Fellow title is Verizon's highest commendation for technical excellence and indicates Verizon's top tier scientist). He is one of the only 48 Fellows in Verizon's 170,000 employees globally. Between July 2013 and March 2016, he was a principal member of technical staff in Verizon. Dr. OUYANG is the head of Verizon Modeling & AI System. He led a multi-national technical team to conduct R&D and innovation in interdisciplinary and cross sectors of cutting-edge technologies such as mobile communications, artificial intelligence and data science. Dr. OUYANG is an outstanding scientist, researcher, innovator and R&D manager. In the past over ten years, he was one of the first scientists in USA using artificial intelligence technology and data science mobile communication networks. He is an internationally renowned expert in mobile communication, artificial intelligence and data science sectors. Dr. OUYANG's recent research fields focus on the innovation of mobile communications, data science and artificial intelligence, and he is committed to 5G empowerment for vertical industries, 5G network intelligence, 5G network management (OSS), multi-access edge computing (MEC), network slicing, 5G service and network (BSS & OSS) integration, 5G cloud network technology integration, network optimization, network experience, user perception, 4/5G network and terminal performance, capacity, traffic mode, user behavior and other disciplines.

Dr. OUYANG has won a number of awards in industry and academia. Recent international awards include the 2018–19 TMForum Future Digital Leader Award in the Telecommunications Industry, the 2017 Outstanding Asian American Engineer Award, and the 2017 IEEE International Big Data Conference Best Paper Award, 2016 and 2017 Fierce American Telecom Industry Innovation Award and Best OSS/BSS Product Award, 2017 North America Best Carrier Big Data System Award, 2015 IEEE Wireless Communications Annual Conference "Wireless Communication Cross-Sector Contribution Award", etc. He serves various roles in many international telecommunication standard bodies and technology, industry or academic organizations, including the chairman of industry sector of the IEEE 5G Forum, the industry sector chairman of IEEE Sarnoff, the industry panel chairman of IEEE ICII (International Conference on Industrial Internet), the chairman of Executive Forum of IEEE GLOBECOM, executive member of the IEEE Big Data Committee, seminar chairman of the IEEE computing, International Conference on Computing, Networking and Communications (ICNC), chairman of the IEEE Wireless Telecommunication Seminar (WTS), chairman of big data committee of the IEEE Wireless and Optical Communication Conference (WOCC), member of the expert advisory committee of China Machine Press, representative of the 3rd Generation Partnership Project (3GPP), and the corporate representative in the ETSI (European Telecommunications Standards Institute). Dr. OUYANG also serves as editorial board and reviewer in many academic conferences and journals.

Dr. OUYANG authored more than 30 academic papers, 40 patents, 7 international standards, and 5 books or book chapters. Dr. OUYANG obtained a Bachelor in Engineering in Information Engineering from the Southeast University in China, a Master of Science from the Tufts University, a Master Degree in Columbia University in USA and a Ph.D. from the Stevens Institute of Technology.

DIRECTORS' REPORT

The Board is pleased to present its report together with the audited consolidated financial statements of the Group for the year ended 31 December 2021.

PRINCIPAL ACTIVITIES

The principal activity of the Group is the provision of telecommunication software products and related services.

MAJOR SUBSIDIARIES

A list of our major subsidiaries together with the particulars of the place of incorporation/establishment, as well as their issued share capital/registered capital and their principal activities are set out in note 36 to the consolidated financial statements.

RESULTS

The results of the Group for the year ended 31 December 2021 are set out in the consolidated statement of profit or loss and other comprehensive income of this annual report.

DIVIDEND POLICY

The Company may declare and pay dividends by way of cash or by other means that we consider appropriate in the future. The distribution of dividends will be determined by the Board at its discretion. Whether the Company would declare or pay any dividends in the future and the amount of such dividends is subject to a number of factors, including the Group's results of operations, cash flows, financial condition, amount of cash dividends paid to the Company by our subsidiaries, requirements under the relevant accounting standards, future development needs and other factors that the Directors may consider relevant. By taking into considerations of the aforesaid factors properly, we will adopt a non-binding and general dividend policy with a dividend payout ratio of not less than 40% of our annual distributable net profits in each financial year, commencing from the financial year ended 31 December 2021. In addition, our dividend policy will also be subject to the Article of Association, Business Companies Act of British Virgin Islands, and any other applicable laws and regulations.

FINAL DIVIDENDS

The Board resolved to declare the proposed final dividends of HK$0.416 per Share for the year ended 31 December 2021 (2020: HK$0.345 per Share).

BUSINESS REVIEW

An analysis on the business performance review of the Group during the Reporting Period and the future business development of the Group is set out in the section headed "Management Discussion and Analysis" and "Chairman's Statement" of this annual report, respectively. The major risks faced by the Group is set out in the section headed "Corporate Governance Report" of this annual report. The analysis of the Group using the key financial performance indicators for the year ended 31 December 2021 is set out in the section headed "Management Discussion and Analysis" of this annual report.

DIRECTORS' REPORT

FINANCIAL SUMMARY

A summary of the results and assets and liabilities of the Group for the past five financial years is set out on pages 251 to 252 of this annual report. The summary does not form part of the audited consolidated financial statements.

USE OF NET PROCEEDS FROM LISTING

The Shares of the Company were listed on the Main Board of the Stock Exchange on 19 December 2018. The net proceeds raised during the period of initial public offering with issue price of HK$10.5 per Share (after deducting the underwriting commission and the issuance expenses from listing and prior to the exercise of the over-allotment option in January 2019) were approximately HK$871 million. Due to the issuance and allotment of over-allotment Shares pursuant to the partial exercise of over-allotment options on 15 January 2019, additional net proceeds of approximately HK$31 million were raised. The proposed use of the net proceeds was in line with those disclosed in the Prospectus.

The following table sets out the details of the said net proceeds that were utilised as of 31 December 2021:

	Approximate percentage of total amount	**Proceeds from initial public offering**	**Proceeds utilised up to 31 December 2021**	**Proceeds unutilised as at 31 December 2021**
	%	HK$'000	HK$'000	HK$'000
Enhance our R&D capabilities and expand DSaaS, IOT and 5G network intelligence businesses	35%	315,547	315,547	—
Repayment of bank loans	30%	270,469	270,469	—
Strategic investments and acquisition	25%	225,391	36,056	189,335 (Note)
Working capital and other general corporate purpose	10%	90,156	90,156	—
Total	100%	901,563	712,228	189,335

Note: The Group had fully utilised proceeds in strategic investments and acquisition in January 2022.

DIRECTORS' REPORT

MAJOR CUSTOMERS AND SUPPLIERS

Major customers

For the year ended 31 December 2021, the Group's top five independent and contracted customers accounted for approximately 33.4% (2020: approximately 29.6%) of the Group's total revenue, while the transaction amount with the Group's single largest customer accounted for approximately 15.6% (2020: approximately 12.6%) of the Group's total revenue.

Major suppliers

For the year ended 31 December 2021, the Group's top five suppliers accounted for approximately 18.3% (2020: approximately 14.4%) of the Group's total cost for the year ended 31 December 2021, while the transaction amount with the Group's single largest supplier accounted for approximately 7.0% (2020: approximately 6.0%) of the Group's total cost.

During the Reporting Period, none of the Directors, any of their close associates (as defined in the Listing Rules) or any Shareholders (who, as far as the Directors are aware, own more than 5% of the number of issued Shares) of the Group had any interests in the Group's top five customers or suppliers.

During the Reporting Period, the Company maintained good relationships with its customers and suppliers.

Environmental Protection

The environmental policies and performance of the Company are set out in the section headed "Environmental, Social and Governance (ESG) Report" of this annual report.

The Group has complied with the applicable environmental laws and regulations where its business operations are located. The Company will review its environmental protection practices from time to time, and will consider implementing other environmental protection measures and practices in the business operations of the Group to enhance sustainability.

PROPERTY, PLANT AND EQUIPMENT

Details of the changes in the property, plant and equipment of the Group during the year ended 31 December 2021 are set out in note 12 to the consolidated financial statements.

SHARE CAPITAL

Details of movement in the share capital of the Company during the year ended 31 December 2021 are set out in note 28 to the consolidated financial statements.

RESERVES AND DISTRIBUTABLE RESERVES

Details of the changes in the reserves of the Company for the year ended 31 December 2021 are set out in note 37 to the audited consolidated financial statements, respectively, of which, the reserves available for distribution to Shareholders amounted to approximately RMB1,932 million (2020: approximately RMB2,180 million).

BORROWINGS

The Group had no bank borrowings for the year ended 31 December 2021 (31 December 2020: approximately RMB137 million), which was mainly due to full repayment of bank borrowings for the year. Details of the bank borrowings of the Group as at 31 December 2021 are set out in note 25 to the consolidated financial statements.

DIRECTORS' REPORT

DIRECTORS

During the Reporting Period and up to the date of this annual report, the Directors are as follows:

Executive Directors:

Dr. TIAN Suning *(Chairman)*
Mr. DING Jian
Mr. GAO Nianshu *(Chief Executive Officer)*

Non-executive Directors:

Mr. ZHANG Yichen
Mr. XIN Yuesheng
Mr. ZHANG Liyang (Resigned on 30 June 2021)
Mr. YANG Lin
Ms. LIU Hong
Mr. CHENG Xike (Appointed on 30 June 2021)

Independent Non-executive Directors:

Dr. GAO Jack Qunyao
Dr. ZHANG Ya-Qin
Mr. GE Ming
Ms. TAO Ping

Pursuant to the article 14.2 of the Articles of Association, the Board shall have the power from time to time and at any time to appoint any person as a Director either to fill a casual vacancy or as an addition to the existing Board. Any Director appointed by the Board to fill a casual vacancy or as an addition to the existing Board shall hold office only until the next following general meeting of the Company and shall then be eligible for re-election at the relevant meetings. Accordingly, Mr. CHENG Xike, who was appointed as a Director on 30 June 2021, will retire at the AGM, and being eligible, has offered himself for re-election as a Director at the AGM.

Pursuant to article 14.18 of the Articles of Association, one-third of the Directors for the time being (or if their number is not three or a multiple of three, then the number nearest to but not less than one-third) will retire from office by rotation and will be eligible for re-election and re-appointment at every annual general meeting, provided that every Director shall be subject to retirement by rotation at least once every three years. Accordingly, Mr. DING Jian, Mr. ZHANG Yichen, Mr. GE Ming and Ms. TAO Ping will retire and, being eligible, have offered themselves for re-election as Directors at the AGM.

Details of the Directors being re-elected at the AGM are set out in the circular despatched together with this annual report. The biographical details of the Directors and senior management are set out in the section headed "Profiles of Directors and Senior Management" of this annual report.

DIRECTORS' REPORT

INDEPENDENCE OF INDEPENDENT NON-EXECUTIVE DIRECTORS

Each of the independent non-executive Directors has confirmed his/her independence for the year ended 31 December 2021 in accordance with Rule 3.13 of the Listing Rules. The Company is of the view that all of the independent non-executive Directors are independent in accordance with Rule 3.13 of the Listing Rules.

DIRECTOR'S INTEREST IN A SIGNIFICANT TRANSACTION, ARRANGEMENT OR CONTRACT

For the year ended 31 December 2021 and up to the date of this annual report, save as disclosed herein, none of the Directors had directly or indirectly a material interest in a transaction, arrangement or contract, to which the Company, any of its subsidiaries or its fellow subsidiaries is a party and is significant to the business of the Group.

MANAGEMENT CONTRACT

No contract, other than employment contracts, concerning the management and administration of all or any significant part of the Company's business, was entered into or existed during 2021.

REMUNERATION OF DIRECTORS AND SENIOR MANAGEMENT

EMPLOYEES AND REMUNERATION POLICY

As of 31 December 2021, the Group had a total of 13,332 (31 December 2020: 13,216) full-time employees. The Company strives to align the remuneration level of its employees with market level, so as to maintain competitiveness. The remuneration of employees is subject to the remuneration and bonus policy of the Group, and determined in accordance with the performance of each staff. The Group also provides comprehensive benefit packages and career development opportunities to its employees, including insurance benefits etc. Internal and external training programs are provided according to the change in the industry, technological updates and needs of employees.

Details of the Group's relationship with the employees are set out in the section headed "Environmental, Social and Governance (ESG) Report" of this annual report.

According to the Group's remuneration policy, in evaluating the amount of remuneration payable to Directors and senior management, the factors to be considered by the Remuneration Committee include the salaries paid by similar companies, tenure of Directors and senior management, commitment, responsibilities and individual performance (as the case may be), etc.

The remuneration received by Directors and senior management include salaries, bonuses, contributions to pension schemes, long-term reward (including share-based incentives), housing and other allowances, and benefits in kind in compliance with applicable laws, rules and regulations.

Details of the remuneration of the Directors and the five highest paid individuals of the Group are set out in note 11 to the consolidated financial statements.

RETIREMENT AND EMPLOYEE BENEFIT SCHEMES

As required under the rules and regulations in the PRC, the Group participates in various defined contribution retirement benefit plans which are available to all relevant employees. These plans are generally funded through payments to schemes established by governments or trustee-administered funds. In addition to the contributions required to be made to the retirement plans on a certain percentage of the basic salaries of its employees, the Group has no further obligation for the actual payment of the previous or post-retirement benefits. The relevant state-managed retirement plans are responsible for the entire present obligation to retired employees.

The Group's contributions to the defined contribution plans are expensed as incurred and not reduced by contributions forfeited by those employees who leave the plans prior to vesting fully in the contributions.

In accordance with the relevant MPF laws and regulations in Hong Kong, the Company operates MPF Scheme for all qualifying employees in Hong Kong. The assets of the MPF Scheme are held separately from those of the Company and are under the control of an independent MPF service provider. Under the rules of the MPF Scheme, each of the employer and its employees make monthly contributions to the scheme at 5% of the employees' earnings as defined under the Mandatory Provident Fund Schemes Ordinance (Chapter 485 of the Laws of Hong Kong). The monthly contributions of each of the employer and its employees are subject to a cap of HK$1,500 and thereafter contributions are voluntary. The only obligation of the Company in respect of the MPF Scheme is to make the required contributions under the MPF Scheme and contributions to the MPF Scheme vest immediately.

During the reporting period, no forfeited contributions were used by the Group to reduce the existing level of contributions. Details of the retirement and employee benefit plans of the Company are set out in note 33 to the consolidated financial statements.

DIRECTOR'S TERM OF OFFICE AND SERVICE CONTRACT

Each of the executive Directors has entered into a service contract with the Company, under which they have agreed to act as executive Directors for an initial term of three years commencing from 30 December 2019. Such contract shall be terminated by not less than three months' notice in writing served by the executive Director or the Company.

The non-executive Director, being Mr. CHENG Xike, has entered into a letter of appointment with the Company for a term of one year commencing from 30 June 2021. In addition, each of the other non-executive Directors and independent non-executive Directors has signed an appointment letter with the Company for a term of one year commencing from 30 December 2021. Under their respective appointment letters, each of the independent non-executive Directors is entitled to a fixed Director's fee of USD60,000 (or equivalent in Hong Kong dollars) per annum.

Remuneration of each of the executive Directors and non-executive Directors will be first recommended by the Remuneration Committee and then determined by the Board as authorised by the Shareholders, in accordance with the Articles of Association.

DIRECTOR'S INTEREST IN COMPETING BUSINESS

Apart from the businesses of the Group, Dr. TIAN, the chairman and an executive Director, currently holds interests in the following businesses, which compete or are likely to compete, directly or indirectly, with the Group's businesses:

Name of Entity Engaging in Such Business	Equity Interest	Summary of Business
AsiaInfo Security	Indirectly held approximately 50.71%	Operation of software products and services related to the Network Security
Nanjing AsiaInfo Rongxin Enterprise Management Center (Limited Partnership) (南京亞信雲互聯網信息科技有限公司)	Indirectly held approximately 30%	Operation of software R&D, sales, product system (platform and cooperation) and other related businesses
Beijing Youyou Tianyu System Technology Co., Ltd. (北京友友天宇系統技術有限公司)	Indirectly held approximately 26.52%	Operation of software technology development, data processing and other related businesses
Beijing Tianyun Rongchuang Software Technology Co., Ltd. (北京天雲融創軟件技術有限公司)	Indirectly held approximately 17.15%	Operation of software technology development business
Tianyun Rongchuang Data Technology (Beijing) Co., Ltd. (天雲融創數據科技 (北京) 有限公司)	Indirectly held approximately 6.88%	Operation of technology development, application software services and other related businesses

DIRECTORS' REPORT

Save as disclosed above, the Directors confirm that they did not have any interest in a business, apart from the business of the Group, which competes or is likely to compete, directly or indirectly, with our business, which would require disclosure under Rule 8.10 of the Listing Rules.

INTERESTS AND SHORT POSITIONS OF THE DIRECTORS AND THE CHIEF EXECUTIVE IN THE SHARES, UNDERLYING SHARES AND DEBENTURES

As at 31 December 2021, the interests and short positions of Directors and chief executives of the Company in the shares, underlying shares and debentures of the Company or its associated corporations (within the meaning of Part XV of the SFO which will be required to be notified to the Company and the Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests or short positions which they were taken or deemed to have under such provisions of the SFO) or which will be required under Section 352 of the SFO to be entered in the register referred to in that section, or which will be required under the Model Code to be notified to us and the Stock Exchange, once the Shares are listed, are as follows:

Name of Director/ chief executive	Nature of interest (Note 1)	Number of Shares	Approximate percentage of shareholding interest of the Company (Note 2)
Dr. TIAN Suning[1]	Beneficial owner (L)	48,932,670	5.29%
	Interest in controlled corporation (L)	1,151,111	0.12%
	Interest in controlled corporation (L)	31,209,360	3.37%
	Interest in controlled corporation (L)	39,442,000	4.26%
	Total:	120,735,141	13.05%
Mr. DING Jian[2]	Beneficial owner (L)	11,516,704	1.25%
	Interest in controlled corporation (L)	1,198,440	0.13%
	Total:	12,715,144	1.37%
Mr. GAO Nianshu[3]	Beneficiary of a trust (L)	14,520,897	1.57%
	Others (L)	8,943,216	0.97%
	Total:	23,464,113	2.54%
Mr. ZHANG Yichen[4]	Interest in controlled corporation (L)	213,924,952	23.13%
Dr. GAO Jack Qunyao[5]	Beneficial owner (L)	112,000	0.01%
Dr. ZHANG Ya-Qin[5]	Beneficial owner (L)	112,000	0.01%
Mr. GE Ming[5]	Beneficial owner (L)	112,000	0.01%
Ms. TAO Ping[5]	Beneficial owner (L)	112,000	0.01%

DIRECTORS' REPORT

Notes:

1. (L) — Long position; (S) — Short position

2. As at 31 December 2021, a total of 924,944,850 Shares had been issued by the Company.

[1] Dr. TIAN is the sole shareholder of Info Addition Limited which in turns is a general partner of Info Addition Capital Limited Partnership. As such, Dr. TIAN is deemed to be interested in the 1,151,111 Shares in which Info Addition Capital Limited Partnership is interested. Dr. TIAN indirectly has full control over CBC Partners II L.P. which is the general partner of China Broadband Capital Partners II, L.P. which in turn is the sole shareholder of CBC TMT III Limited. Therefore, Dr. TIAN is deemed to be interested in the 31,209,360 Shares in which CBC TMT III Limited is interested. PacificInfo Limited is wholly owned by Dr. TIAN and therefore Dr. TIAN is deemed to be interested in 39,442,000 Shares in which PacificInfo Limited is interested.

[2] New Media China Investment I Limited is wholly owned by Mr. DING and therefore Mr. DING is deemed to be interested in the 1,198,440 Shares in which New Media China Investment I Limited is interested.

[3] These interests comprise (i) 5,144,560 Shares; (ii) 3,798,656 underlying Shares in respect of the outstanding share options granted to Mr. GAO under the Pre-IPO Share Option Scheme held by the custodian, Noble (Nominees) Limited; and (iii) 14,520,897 Shares granted under the 2020 Share Award Scheme held by AsiaInfo SAS Management Trust, respectively.

[4] Each of Power Joy (Cayman) Limited (as the controlling shareholder of Skipper Investment Limited), CITIC Capital China Partners II L.P. (as the sole shareholder of Power Joy (Cayman) Limited), CCP II GP, Ltd. (as the general partner of CITIC Capital China Partners II L.P.), CCP LTD (as the general partner of CCP II GP, Ltd. and the shareholder of CCPII Advisory Ltd.), Trustar Capital Partners Limited (as the sole shareholder of CCP LTD), Trustar Capital Company Limited (as the sole shareholder of Trustar Capital Partners Limited), Trustar Capital Holdings Limited (as the sole shareholder of Trustar Capital Company Limited), CCHL Investment Holdings Limited and CP Management Holdings Limited (which hold 51% and 49% shareholding of Trustar Capital Holdings Limited, respectively) and Mr. ZHANG Yichen (as the sole shareholder of CP Management Holdings Limited) is deemed or taken to be interested in all the 213,924,952 Shares which are beneficially owned by Skipper Investment Limited for the purpose of Part XV of the SFO.

[5] The Company granted 112,000 share options to each of independent non-executive Directors, under the 2019 Share Option Scheme, respectively, details of which are set out in the announcements of the Company dated 16 June 2020 and 25 March 2021 and the section headed "the 2019 Share Option Scheme" under the "Share Option Incentive Scheme" section of this report, respectively.

Save as disclosed above, none of the Directors nor chief executives of the Company had any interests 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) which would be required to be notified to the Company and the Stock Exchange; or which would be required to be registered in the register to be kept pursuant to Section 352 of the SFO, or otherwise notified to the Company and the Stock Exchange pursuant to the Model Code.

DIRECTORS' REPORT

DIRECTORS' RIGHTS TO ACQUIRE SHARES OR DEBENTURES

Save as disclosed in this annual report, for the year ended 31 December 2021, at no time did the Company or any of its subsidiaries enter into any arrangement that would enable the Directors to acquire benefits by means of acquisition of shares in, or debentures of, the Company or any other body corporate, and none of the Directors or any of their respective spouses or children under the age of 18 were granted any right to subscribe for the share capital or debt securities of the Company or any other body corporate or had exercised any such right.

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

As at 31 December 2021, to the best of the Directors' knowledge, the following persons have interests or short positions in the Shares or underlying Shares which would fall under the provisions of Divisions 2 and 3 of Part XV of the SFO to be disclosed to the Company, or which were recorded in the register required to be kept by the Company under Section 336 of the SFO:

Name of Shareholders	Nature of interest (Note 1)	Number of Shares	Approximate percentage of shareholding interest of the Company (Note 2)
Skipper Investment Limited[6]	Beneficial owner(L)	213,924,952	23.13%
Power Joy (Cayman) Limited[6]	Interest in controlled corporation(L)	213,924,952	23.13%
CITIC Capital China Partners II L.P.[6]	Interest in controlled corporation(L)	213,924,952	23.13%
CCP II GP, Ltd.[6]	Interest in controlled corporation(L)	213,924,952	23.13%
CCPII Advisory Ltd.[6]	Interest in controlled corporation(L)	213,924,952	23.13%
CCP Ltd.[6]	Interest in controlled corporation(L)	213,924,952	23.13%
Trustar Capital Partners Limited[6]	Interest in controlled corporation(L)	213,924,952	23.13%
Trustar Capital Company Limited[6]	Interest in controlled corporation(L)	213,924,952	23.13%
Trustar Capital Holdings Limited[6]	Interest in controlled corporation(L)	213,924,952	23.13%
CCHL Investment Holdings Limited[6]	Interest in controlled corporation(L)	213,924,952	23.13%
CP Management Holdings Limited[6]	Interest in controlled corporation(L)	213,924,952	23.13%

Notes:

1. (L) — Long position; (S) — Short position

2. As at 31 December 2021, a total of 924,944,850 Shares had been issued by the Company.

6 Each of Power Joy (Cayman) Limited (as the controlling shareholder of Skipper Investment Limited), CITIC Capital China Partners II L.P. (as the sole shareholder of Power Joy (Cayman) Limited), CCP II GP, Ltd. (as the general partner of CITIC Capital China Partners II L.P.), CCP LTD (as the general partner of CCP II GP, Ltd. and shareholder of CCP II Advisory Ltd.), Trustar Capital Partners Limited (as the sole shareholder of CCP LTD), Trustar Capital Company Limited (as the sole shareholder of Trustar Capital Partners Limited), Trustar Capital Holdings Limited (as the sole shareholder of Trustar Capital Company Limited), CCHL Investment Holdings Limited and CP Management Holdings Limited (which hold 51% and 49% shareholding of Trustar Capital Holdings Limited, respectively) and Mr. ZHANG Yichen (as the sole shareholder of CP Management Holdings Limited) is respectively deemed or taken to be interested in all the Shares which are beneficially owned by Skipper Investment Limited for the purpose of Part XV of the SFO.

DIRECTORS' REPORT

Name of Shareholders	Nature of interest (Note 1)	Number of Shares	Approximate percentage of shareholding interest of the Company (Note 2)
China Mobile International Holdings Limited[7]	Beneficial owner (L)	182,259,893	19.70%
China Mobile (Hong Kong) Group Limited[7]	Interest in controlled corporation (L)	182,259,893	19.70%
China Mobile Communications Group Co., Ltd.[7]	Interest in controlled corporation (L)	182,259,893	19.70%
China Mobile Hong Kong (BVI) Limited[7]	Interest in controlled corporation (L)	182,259,893	19.70%
China Mobile Limited[7]	Interest in controlled corporation (L)	182,259,893	19.70%
Ocean Voice Investment Holding Limited[8]	Beneficial owner (L)	62,418,728	6.75%
Sino Venture Capital 1B[8]	Interest in controlled corporation (L)	62,418,728	6.75%
Sino Venture Capital 1 VCC[8]	Interest in controlled corporation (L)	62,418,728	6.75%
Sino Capital Management Company Ltd[8]	Interest in controlled corporation (L)	62,418,728	6.75%
Mr. Liao Hsueh-Hsuan[8]	Interest in controlled corporation (L)	62,418,728	6.75%
Sino Suisse Financial Holding Limited[8]	Interest in controlled corporation (L)	62,418,728	6.75%
A.M.Y. (Sinosuisse) Ltd.[8]	Interest in controlled corporation (L)	62,418,728	6.75%
Mr. Liu Chung Hsing[8]	Interest in controlled corporation (L)	62,418,728	6.75%
Ellington Investments Pte. Ltd.[9]	Beneficial owner (L)	52,015,608	5.62%
Bartley Investments Pte. Ltd.[9]	Interest in controlled corporation (L)	52,015,608	5.62%
Tembusu Capital Pte. Ltd.[9]	Interest in controlled corporation (L)	52,015,608	5.62%
Temasek Holdings (Private) Limited[9]	Interest in controlled corporation (L)	52,015,608	5.62%
Al Gharrafa Investment Company[10]	Beneficial owner (L)	52,015,608	5.62%
Qatar Holding LLC[10]	Interest in controlled corporation (L)	52,015,608	5.62%
Qatar Investment Authority[10]	Interest in controlled corporation (L)	52,015,608	5.62%
InnoValue Capital Ltd.[11]	Beneficial owner (L)	52,015,608	5.62%
Ms. LIU Tzu-Lien[11]	Interest in controlled corporation (L)	52,015,608	5.62%

7 China Mobile International Holdings Limited is wholly owned by China Mobile Limited, which is owned as to 72.72% by China Mobile Hong Kong (BVI) Limited. China Mobile Hong Kong (BVI) Limited is wholly owned by China Mobile (Hong Kong) Group Limited, which is wholly owned by China Mobile Communications Group Co., Ltd. Hence, each of China Mobile (Hong Kong) Group Limited, China Mobile Communications Group Co., Ltd., China Mobile Hong Kong (BVI) Limited and China Mobile Limited is deemed or taken to be interested in the interests so acquired by the China Mobile International Holdings Limited for the purpose of Part XV of the SFO.

8 Sino Venture Capital 1B (as the sole shareholder of Ocean Voice Investment Holding Limited), Sino Venture Capital 1 VCC (as the sole shareholder of Sino Venture Capital 1B), Sino Capital Management Company Limited (as the management shareholder of Sino Venture Capital 1 VCC) and Mr. Liao Hsueh-Hsuan (holding 99% equity interest of Sino Capital Management Company Limited) are deemed or taken to be interested in all the Shares beneficially owned by Ocean Voice Investment Holding Limited for the purpose of Part XV of the SFO. In addition, Sino Suisse Financial Holding Limited (as the sole shareholder of Sino Suisee Capital Pte. Ltd. (as the manager of Sino Venture Capital 1 VCC)), A.M.Y. (Sinosuisse) Ltd. (holding 80% equity interest of Sino Suisse Financial Holding Limited) and Mr. Liu Chung Hsing (as the sole shareholder of A.M.Y. (Sinosuisse) Ltd.) are deemed or taken to be interested in all the Shares beneficially owned by Ocean Voice Investment Holding Limited.

9 Each of Bartley Investments Pte. Ltd. (as the sole shareholder of Ellington Investments Pte. Ltd.), Tembusu Capital Pte. Ltd. (as the sole shareholder of Bartley Investments Pte. Ltd.) and Temasek Holdings (Private) Limited (as the sole shareholder of Tembusu Capital Pte. Ltd.) is deemed or taken to be interested in all the Shares which are beneficially owned by Ellington Investments Pte. Ltd. for the purpose of Part XV of the SFO.

10 Each of Qatar Holding LLC (as the sole shareholder of Al Gharrafa Investment Company) and Qatar Investment Authority (as the sole shareholder of Qatar Holding LLC) is deemed or taken to be interested in all the Shares which are beneficially owned by Al Gharrafa Investment Company for the purpose of Part XV of the SFO.

11 Ms. LIU Tzu-Lien (as the sole shareholder of InnoValue Capital Ltd.) is deemed or taken to be interested in all the Shares which are owned by the controlled corporation of InnoValue Capital Ltd. for the purpose of Part XV of the SFO.

DIRECTORS' REPORT

SHARE OPTION INCENTIVE SCHEME

SHARE OPTION SCHEME

The (i) Pre-IPO Share Option Scheme and (ii) 2019 Share Option Scheme were approved and adopted by the Shareholders on 26 June 2018 and 25 November 2019, respectively, in order to grant eligible Directors, management and employees such related share-based compensation. The Remuneration Committee will, from time to time, determine the eligibility of participants to be granted any option as an incentive pursuant to, including but not limited to, the current and expected contribution of such participant, general financial position of the Group, general business targets and future plans of the Group. The Pre-IPO Share Option Scheme and the 2019 Share Option Scheme are aimed to approve and reward eligible participants who have contributed to the Group's growth and development.

PRE-IPO SHARE OPTION SCHEME

Eligible participants under the Pre-IPO Share Option Scheme include (i) any member of the Group or executive, non-executive or independent non-executive directors of any entity of the Group who are holding an interest; (ii) any full-time or part-time employee or affiliate of any member of the Group; (iii) any member of the Group or consultants, advisors and independent contractors of any entity of the Group who are holding an interest; or (iv) a qualified former grantee. The maximum number of shares involved in Share options that may be granted under the Pre-IPO Share Option Scheme (including the Shares involved in share options granted (whether exercised or not) and Shares issued under cancelled share options) is 15,055,107 Shares (being 120,440,856 Shares after taking into account the share subdivision), accounting for approximately 13.0% of the total number of issued Shares as at the latest practicable date (being 14 April 2022).

The exercise price per Share for share options granted under the Pre-IPO Share Option Scheme is determined by the Remuneration Committee and set out in the grant letter. The exercise price must not be lower than the nominal value of the Shares involved in the relevant share options. There is no consideration to be paid by eligible participants to accept the share options. The grantee may exercise all share options on or after the vesting date of the share options (rather than before) by giving the Exercise Notice to the Company. The Exercise Notice must state the number of Shares under which the share option to be exercised and exercised. If requested by the grantee in writing, the Remuneration Committee may in its absolute discretion accept "non-cash exercise" share options. The Remuneration Committee may also direct the grantee to exercise "non-cash exercise" if considers it appropriate. Otherwise, any Exercise Notice announced must be accompanied by a full remittance of the exercise price of the Shares. Any Exercise Notice issued without the relevant remittance or confirmation is an invalid notice. Within 30 days after receiving the Exercise Notice with the full remittance of the relevant exercise price and (if applicable) the certificate of the independent financial adviser (excluding any period of suspension of the Company's share registration procedures), the Company must allot and issue the relevant number of Shares to the grantee, and issues the Shares allotted and issued to the grantee. Unless otherwise stated, vested share options may be exercised by the grantee at any time during the applicable exercise period.

The Pre-IPO Share Option Scheme has expired after 11:59 p.m. on the business day before the listing date. The Company will no longer grant share options under the Pre-IPO Share Option Scheme. The provisions of the Pre- IPO Share Option Scheme shall remain in full force and effect to the extent necessary for the grant of any share options before the expiration of validity or other circumstances that may be required under the provisions of the scheme.

Please refer to the Prospectus for further information of the Pre-IPO Share Option Scheme. No share options had been cancelled during the Reporting Period. Details of movements in share options granted under the Pre-IPO Share Option Scheme during the year are as follows:

Grantees	Date of Grant[1]	Outstanding as at 1 January 2021	Share Options Exercised[2]	Share Options Lapsed	Outstanding as at 31 December 2021	Exercise Price (US$)
Director						
GAO Nianshu	11 July 2018	800,000	—	—	800,000	1.9225
	1 August 2018	2,998,656	—	—	2,998,656	1.2725
Sub-total		3,798,656	—	—	3,798,656	
Employees	11 July 2018	714,000	559,800	154,200	—	0.5525
	1 August 2018	12,000	—	4,800	7,200	0.5525
	1 August 2018	25,600	—	9,600	16,000	0.84
	11 July 2018	520,000	—	—	520,000	1.13
	1 August 2018	21,126,712	4,139,529	337,096	16,650,087	1.2725
	11 July 2018	27,581,544	—	1,858,896	25,722,648	1.9225
	1 August 2018	49,350,632	1,596	5,394,992	43,954,044	1.9225
Sub-total		99,330,488	4,700,925	7,759,584	86,869,979	
Total		103,129,144	4,700,925	7,759,584	90,668,635	

Notes:

1 The validity period of all the share options is ten years from the date of grant. As at the latest practicable date, the share options were fully vested.

2 The weighted average closing price immediately before the dates of the exercise of the share options for the year ended 31 December 2021 was approximately HK$12.81 per Share.

2019 Share Option Scheme

The eligible participants of the 2019 Share Option Scheme include any director(s), employee(s) or consultant(s) of the Group (whether on an employment or contractual or honorary basis or otherwise and whether paid or unpaid) who the Remuneration Committee considers, in its sole discretion, has/have contributed or will contribute to the Group. The consultants of the Group may include: (a) any person or entity that provides research, development or other technical support to any member of the Group, i.e. senior professionals who provide consulting services for the Group with cutting-edge technical support such as 5G, big data, artificial intelligence and the Internet of Things; and (b) any adviser or consultant to any area of business or business development of any member of the Group, i.e. senior professionals who provide strategic advisory or consulting services for the Group's new business, new customers and new model of business development.

DIRECTORS' REPORT

Pursuant to and subject to the terms of the 2019 Share Option Scheme, the Remuneration Committee shall be entitled (but shall not be bound) at any time, to grant share options to any eligible participant as the Remuneration Committee may in its absolute discretion select. Such grant shall be made to an eligible participant in such written form of a grant letter as the Remuneration Committee may from time to time determine and shall remain open for acceptance by the eligible participant concerned for a period of not less than 7 business days from the date of grant. A grant shall be deemed to have been accepted when the Company receives the duly signed grant letter from the grantee with the number of Shares in respect of which the offer is accepted and clearly stated therein together with a remittance of HK$1.00 (or such other nominal sum in any currency as the Remuneration Committee may determine) in favour of the Company as the consideration for the grant thereof. Such remittance shall in no circumstances be refundable and shall not be deemed to be a part payment of the exercise price. Once accepted, the share option is deemed to be granted as from the date on which it was offered to the relevant eligible participant.

The maximum number of Shares which may be issued in respect of which share options may be granted under the 2019 Share Option Scheme together with the number of Shares which may be issued in respect of any options to be granted under any other share option scheme(s) shall not in aggregate exceed 10% (being 92,058,886 Shares, accounting for approximately 9.9% of the total number of issued Shares as at the latest practicable date) of the total number of Shares (being 920,588,862 Shares) in issue on the date of approval of the refreshment of the 2019 Share Option Scheme Mandate Limit at the annual general meeting of the Company dated 28 May 2021 by the Shareholders, provided, however, that: (a) the maximum number may be "refreshed", with the separate approval of the Shareholders in a general meeting, up to a maximum limit of 10% of the total number of Shares then in issue at the date of such approval of the Shareholders, and the circular containing the requisite information in accordance with Rule 17.03(3) of the Listing Rules will be sent to the Shareholders prior to such general meeting; and (b) the total maximum number of Shares which may be issued upon exercise of all outstanding share options granted but yet to be exercised under the 2019 Share Option Scheme and any other options granted but yet to be exercised under the other share option scheme(s) shall not exceed 30% of the total number of Shares in issue from time to time. No share option may be granted under the 2019 Share Option Scheme and no share option may be granted under any other share option schemes if it will result in such limit being exceeded. The total number of Shares available for issue under the 2019 Share Option Scheme is 90,729,094 (representing approximately 9.8% of the total number of issued Shares as at the latest practicable date), which includes 39,065,100 outstanding share options and 51,663,994 share options to be further granted by the Company.

Unless separately approved by the Shareholders in general meeting (with the relevant eligible participant and such eligible participant's close associates (with the meaning ascribed thereto under the Listing Rules) (or such eligible participants' associates if the eligible participant is a connected person of the Company) abstaining from voting), no eligible participant shall be granted a share option if the total number of Shares issued and to be issued upon exercise of the share options (including exercised, cancelled and outstanding share options but excluding lapsed share options) granted and to be granted to such eligible participant in any 12-month period up to and including such further grant would in aggregate exceed 1% of the total number of Shares in issue from time to time.

Each share option shall be exercisable at such times and subject to terms and conditions set out in the 2019 Share Option Scheme (in particular, the provisions relating to early termination) and such other terms and conditions as the Remuneration Committee determines, provided that the term of any share option shall not exceed 10 years from the date of grant of the share option. The terms of the 2019 Share Option Scheme do not specify a minimum period for which a share option must be held before the share option can be exercised, but specified that the Remuneration Committee has the power to specify the requirement as to the said minimum period.

The exercise price of each share option shall be a price determined by the Remuneration Committee in its absolute discretion at the time of grant but not be less than the higher of: (i) the nominal value of a Share; (ii) the closing price of a Share as stated on the Stock Exchange's daily quotations sheet on the date of grant of such share option; and (iii) the average closing price of a Share as stated on the Stock Exchange's daily quotations sheets for the 5 business days immediately preceding the date of grant of such share option. In determining the exercise price, the Remuneration Committee will take into account, among other things, the performance of the relevant eligible participants and/or their contributions (past or future) to the Group, the then prevailing market price of the Share at the date of grant, any minimum holding period, any vesting conditions, etc.

DIRECTORS' REPORT

Unless otherwise terminated by the Board or the Shareholders in a general meeting in accordance with the terms of the 2019 Share Option Scheme, the 2019 Share Option Scheme shall be valid and effective for a period of 10 years from the adoption date (being 25 November 2019), after which no further share options will be granted or offered, but the provisions of the 2019 Share Option Scheme shall remain in full force and effect to the extent necessary to give effect to the exercise of any subsisting share option granted prior to the expiry of this 10-year period or otherwise as may be required in accordance with the provisions of the 2019 Share Option Scheme. The remaining validity of 2019 Share Option Scheme is about 7 years and 8 months. For further details of 2019 Share Option Scheme, please refer to the circular of the Company dated 4 November 2019.

Under the 2019 Share Option Scheme, the Company granted a total of 14,516,000 share options to eligible participants (including three independent non-executive Directors, the details of which are set out in the following table) on 16 June 2020; 112,000 share options to Ms. TAO Ping (an independent non-executive Director) on 25 March 2021; and a total of 13,146,200 share options to eligible participants on 9 June 2021. Each share option shall entitle the grantee to subscribe for Shares upon the exercise of such share option at the exercise price mentioned below. For details, please refer to the Company's announcements dated 16 June 2020, 25 March 2021 and 9 June 2021, respectively.

Grantees	Date of Grant (Note 1)	Outstanding as at 1 January 2021	Granted (Note 2)	Exercised (Note 3)	Lapsed	Outstanding as at 31 December 2021	Exercise Price (HK$)
Directors							
Dr. GAO Jack Qunyao	16 June 2020	112,000	—	—	—	112,000	9.56
Dr. ZHANG Ya-Qin	16 June 2020	112,000	—	—	—	112,000	9.56
Mr. GE Ming	16 June 2020	112,000	—	—	—	112,000	9.56
Ms. TAO Ping	25 March 2021	—	112,000	—	—	112,000	12.46
Employees	16 June 2020	13,380,000	—	908,992	947,608	11,523,400	9.56
	9 June 2021	—	13,146,200	—	220,000	12,926,200	12.54
Sub-total		13,380,000	13,146,200	908,992	1,167,608	24,449,600	
Total		13,716,000	13,258,200	908,992	1,167,608	24,897,600	

DIRECTORS' REPORT

Notes:

1. The closing price was HK$9.18, HK$11.38 and HK$12.54 per Share immediately before respective the date of grant on 16 June 2020, 25 March 2021 and 9 June 2021.

2. The validity period of share options is ten (10) years commencing from the date of grant, for the share options granted on 16 June 2020 and 25 March 2021, 50%, 20% and 30% of the share options granted shall be vested on the date falling on the first, second and third anniversary from the date of grant, respectively; for the share options granted on 9 June 2021, 40%, 30% and 30% of the share options granted shall be vested on the date falling on the first, second and third anniversary from the date of grant, respectively. The Company has used the Binomial Model to determine the fair value of the share options as at the date of grant, which is to be recorded in profit or loss over the vesting period. For the share options granted on 16 June 2020 and 25 March 2021, the weighted average fair value of the share options granted by the Company was approximately HK$3.51 per Share; for the share options granted on 9 June 2021, the weighted average fair value of the share options granted by the Company was approximately HK$4.86 per Share. Other than the exercise price mentioned above, the model inputs for determining the fair value of share options including:

	Granted on 16 June 2020	**Granted on 25 March 2021**	**Granted on 9 June 2021**
Closing price as at the date of grant	HK$9.05	HK$12.46	HK$12.54
Risk free interest rate	0.5%	0.5%	1.1%
Expected dividend yield	2.5%	2.5%	2.8%
Expected volatility	49%	49%	50%

Further details of determining the fair value of the share options are set out in note 32 to the consolidated financial statements.

3. The weighted average closing price of the Shares was approximately HK$13.01 immediately before the date of the exercise of the share options.

4. No share options had been cancelled during the Reporting Period.

Share Incentive Schemes

The Pre-IPO Share Award Scheme and the 2020 Share Award Scheme were approved and adopted by the Shareholders on 26 June 2018 and 7 January 2020, respectively, in order to grant eligible members of the management and employees such related share-based compensation. The Remuneration Committee will, from time to time, determine eligibility of participants to be granted any award as incentive pursuant to, including but not limited to, the current and expected contribution of such participant, the general financial position of the Group, the general business targets and future plans of the Group.

Pre-IPO Share Award Scheme

The Pre-IPO Share Award Scheme will provide such participants the opportunity to obtain ownership rights and interests of the Company to achieve the following main objectives: (i) motivate such participants with their best performance and highest efficiency to create benefits for the Group; (ii) encourage and retain relevant parties to cooperate with the Group and provide them with additional incentives to achieve performance goals; and (iii) allow former holders to directly hold relevant restricted share awards to be granted by the Company.

The maximum number of Shares subject to Pre-IPO share awards which may be granted under the Pre-IPO Share Awards Scheme (including the Shares involved in the vested or not yet vested restricted share awards and those granted under the issued restricted share awards) must not exceed 2,561,241 Shares on the date of the adoption of the Pre-IPO Share Award Scheme (after taking into account the share subdivision being 20,489,928 Shares), accounting for approximately 2.2% of the total number of issued Shares at the latest practicable date, or other limits may be determined by the Remuneration Committee at its sole discretion.

Pursuant to the terms of the Pre-IPO Share Award Scheme and specific terms and conditions applicable to each granted restricted share award, the granted restricted share award is subject to a vesting period to achieve performance and/or other conditions determined by the Board and/or Remuneration Committee.

The Pre-IPO Share Award Scheme has expired after 11:59 p.m. on the business day before the listing date. The Company will no longer grant restricted share awards under the Pre-IPO Share Award Scheme. The provisions of the Pre-IPO Share Award Scheme shall remain in full force and effect to the extent necessary for the grant of any Pre-IPO share awards before expiration of validity or other circumstances that may be required under the provisions of the scheme.

Please refer to the Prospectus for further information of the Pre-IPO Share Award Scheme. The weighted average fair value of the restricted share awards on the date of grant was approximately US$1.185.

Details of movements in restricted share awards granted under the Pre-IPO Share Award Scheme during the year are as follows:

Name of grantee of RSU	RSU not yet vested as at 1 January 2021	RSU vested during the year	RSU forfeited during the year	RSU not yet vested as at 31 December 2021
Director				
GAO Nianshu	466,792	466,792	—	—
Employees (in total)	3,103,348	3,100,708	2,640	—
Total	3,570,140	3,567,500	2,640	—

2020 Share Award Scheme

The adoption of the 2020 Share Award Scheme is for the purposes of (i) recognizing the contributions and to fully motivate the potential and vitality of talents of the eligible persons; and (ii) encouraging the eligible persons to continue contributing to the long-term growth and development of the Group. Subject to the criteria and conditions as set out in the 2020 Share Award Scheme, any employee whom the Board or the Remuneration Committee or their respective delegate(s) considers, in its sole discretion, to have contributed or will contribute to the Group is eligible to receive an award.

The Board or the Remuneration Committee or their respective delegate(s) may, from time to time, at their absolute discretion, grant an award to a selected participant by way of an award letter. The award letter will specify the grant date, the number of award shares underlying the award, the vesting criteria and conditions, the vesting date and such other details as the Board or its delegate(s) may consider necessary.

According to the 2020 Share Award Scheme, the Company may transfer to the trustee the necessary funds and instruct the trustee to acquire Shares through market transactions at the prevailing market price or through the over-the-counter markets at the price determined by the Company, so as to satisfy the awards. During the Reporting Period, the trustee purchased a total of 6,996,000 Shares on the Stock Exchange.

The aggregate number of Shares underlying all grants made pursuant to the 2020 Share Award Scheme (excluding award shares which have been forfeited in accordance with the 2020 Share Award Scheme) shall not exceed 5.0% (i.e. 36,302,245 Shares, accounting for approximately 3.9% of the total number of issued Shares as at the latest practicable date) of the total number of issued Shares as at the adoption date which can be adjusted and/or refreshed by the Board as it may deem appropriate. On 20 April 2021, the maximum number of Shares underlying all grants to be made pursuant to the Share Award Scheme (excluding Award Shares which have been forfeited in accordance with the 2020 Share Award Scheme) had been refreshed and shall not exceed 46,013,946 Shares, representing 5.0% of the total number of issued Shares as at the date of refreshment (accounting for approximately 5.0% of the total number of issued Shares as at the latest practicable date).

Neither the selected participant nor the trustee may exercise any voting rights in respect of any Shares held under the trust, unless the trustee of the 2020 Share Award Scheme will exercise in accordance with the voting mechanism as set out below:

(i) in respect of each general meeting of the Company, the Company will send a voting instruction form to each of the selected participants to solicit votes from such selected participants. The voting instruction form will be very similar to the proxy form for the relevant general meeting and will set out a general description of the resolutions proposed at the general meeting and will allow the selected participants to select whether to vote for or against each of the resolutions. A copy of the relevant corporate communication concerning matters to be proposed at such general meeting (such as Shareholders' circular and annual report) will also be made available to each of the selected participants so that the selected participants will have all relevant information for considering the relevant resolutions as if they were Shareholders. Each selected participant shall be entitled to one vote for each of the award share, whether vested or unvested. The selected participants will be required to return the signed and completed voting instruction forms to the Trust Management Committee by the deadline stated in the voting instruction form, which deadline shall be no less than seven days before the time for holding the relevant general meeting and the selected participants will be given at least seven days to consider how they would like to cast their votes. In so far as the duly signed and completed voting instruction forms from the selected participants have been received by the Trust Management Committee prior to the proposed deadline, the Trust Management Committee will calculate the total of votes for and against each proposed resolution and will instruct the Trustee accordingly, and the trustee shall vote only in accordance with the instructions of the Trust Management Committee which reflect the instructions of the selected participants;

(ii) for those selected participants who fail to return a duly signed and completed voting instruction form to the Trust Management Committee prior to the proposed deadline as set out in the voting instruction form, the Trust Management Committee will not give any instruction to the trustee so that no votes will be cast for such award shares and the trustee shall abstain from voting with respect to such award shares; and

(iii) for the avoidance of doubt, for other Shares held by the trustee which have not been granted to any selected participants, the Trust Management Committee will not give any instruction to the trustee so that no votes will be cast for those ungranted Shares and the trustee shall also abstain from voting with respect to such Shares.

The 2020 Share Award Scheme should be valid and effective for a period of 10 years from the date of adoption (being 7 January 2020) unless the Board may decide to terminate in advance. The remaining effective period for the 2020 Share Award Scheme was approximately 7 years and 10 months. Please refer to the announcements of the Company dated 8 January 2020 and 27 February 2020, respectively, for further details of the 2020 Share Award Scheme.

On 30 December 2020, the Company granted a total of 21,270,897 award shares to eligible persons; and on 26 May 2021, a total of 15,260,449 award shares were granted to eligible persons (including Mr. GAO Nianshu (an executive Director) under the 2020 Share Award Scheme. Subject to the applicable vesting criteria and conditions, the award shares will be vested to eligible persons during the vesting period. For further details, please refer to the Company's announcements dated 30 December 2020 and 26 May 2021.

Grantee	Number of Award Shares not yet vested as at 1 January 2021	Granted	Vested	Lapsed	Number of Award Shares not yet vested as at 31 December 2021
Directors					
GAO Nianshu	—	4,840,299	—	—	4,840,299
Other employees (in total)	1,400,000	10,420,150	700,000	225,000	10,895,150
Total	1,400,000[1]	15,260,449[2]	700,000	225,000	15,735,449

Notes:

1) The vesting period shall commence from the date of grant (i.e. 30 December 2020) and end on the three years period from the date of grant. For further details, please refer to the announcement of the Company dated 30 December 2020.

2) The vesting period shall commence on the date which is one year from the date of grant (i.e. 26 May 2021) and end on the date which is three years from the date of grant. For further details, please refer to the announcement of the Company dated 26 May 2021.

DIRECTORS' REPORT

ISSUED SHARES AND USE OF PROCEEDS

On 14 April 2020, the Company and China Mobile International Holdings Limited (the "**Subscriber**") (a wholly-owned subsidiary of China Mobile Limited, the shares of which are listed on the Main Board of the Stock Exchange (stock code: 00941)) entered into the subscription agreement (the "**Subscription Agreement**").

The Subscription was completed on 2 September 2020 (the "**Completion**"), which raised total proceeds and net proceeds of approximately HK$1,385 million and approximately HK$1,384 million, respectively. The net issue price per subscription share was approximately HK$7.6. The intended use of the net proceeds is consistent with the intended use as disclosed in the Company's circular dated 28 May 2020.

The following table sets out the details of the proceeds from the Subscription that the Group had utilised as of 31 December 2021:

	Approximate proportion of total amount %	Proceeds from the Subscription HK$'000	Proceeds utilised as of 31 December 2021 HK$'000	Proceeds unutilised as at 31 December 2021 HK$'000	Expected timetable for utilising the unused proceeds[1]
R&D investment in new products and new technologies and business development of DSaaS, vertical industries and enterprise cloudification and OSS	40%	553,640	457,879	95,761	31 December 2022
Invest or acquire assets and businesses that complement the Group's business and complement the Group's development strategy	35%	484,435	—	484,435[2]	31 December 2022
General working capital (including administrative purposes and sales and marketing purposes)	25%	346,025	306,651	39,374	31 December 2022
Total	100%	1,384,100	764,530	619,570	

Note 1: The expected timeline for utilising the unused amount is based on the best estimation of the future market conditions made by the Group. It may be subject to change based on the current and future development of market conditions.

Note 2: The amount used by the Group for acquisition in January 2022 was approximately HK$423 million.

EQUITY-LINKED AGREEMENT

Save as disclosed in this annual report, no equity-linked agreement was entered into or renewed by the Company during the year ended 31 December 2021 or subsisting as at 31 December 2021.

PURCHASE, SALE OR REDEMPTION OF LISTED SECURITIES

Save for the purchase conducted by the trustee under the 2020 Share Award Scheme as disclosed in the section "2020 Share Award Scheme" above, for the year ended 31 December 2021, neither the Company nor any of its subsidiaries had purchased, sold or redeemed any of the Company's listed securities.

ARRANGEMENTS ON PRE-EMPTIVE RIGHTS AND SHARE OPTIONS

For the year ended 31 December 2021, there were no provisions relating to pre-emptive rights, which required the Company to offer new Shares on a pro-rata basis to existing Shareholders, or any share option arrangement under the relevant laws of the British Virgin Islands and the Articles of Association.

MODEL CODE FOR SECURITIES TRANSACTIONS

The Company has adopted the Model Code as its own code of conduct regarding Directors' securities transactions. Having made specific enquiries of all Directors, each of the Directors has confirmed that he/she has complied with the required standards as set out in the Model Code for the year ended 31 December 2021.

For the year ended 31 December 2021, the Company has also adopted its own code of conduct regarding employees' securities transactions on terms no less exacting than the standard as set out in the Model Code for the compliance by its relevant employees who are likely to be in possession of unpublished inside information of the Company in respect of their dealings in the Company's securities.

CONTINUING CONNECTED TRANSACTIONS

Below are the continuing connected transactions conducted or entered into by the Group during 2021 which were subject to reporting, annual review, announcement and/or independent Shareholders approval requirements pursuant to Chapter 14A of the Listing Rules. China Mobile Group in this section represents China Mobile Limited, subsidiaries and other connected person as defined in Chapter 14A of the Listing Rules.

Non-exempted continuing connected transactions

1 The provision of software products and services by the Group to China Mobile Group

The Company entered into the Software Products and Services Framework Agreement with CMC on 20 April 2020, pursuant to which, the Company agreed to provide software products and services to the members of China Mobile Group, including but not limited to, the provision of software products and related deployment services, ongoing operation and maintenance services, data-driven operation services, business consulting services, system integration services, corporate trainings and procurement and sale of third-party hardware and software. The validity period of the Software Products and Services Framework Agreement is from 2 September 2020 to 31 December 2022.

Pricing policy: The prices to be charged by the Group for products and/or services to be provided to China Mobile Group under any separate definitive agreements pursuant to the Software Products and Services Framework Agreement shall be determined based on arm's length negotiation between the parties and on order-by-order basis with reference to the prevailing market price, being the price offered to or charged by Independent Third Parties in contemporaneous transactions in respect of similar types of products or services in the ordinary course of business in the same or nearby service area and subject to normal commercial terms and in accordance with the principle of fairness and reasonableness.

The annual caps for 2020, 2021 and 2022 are RMB4,210,000,000, RMB4,840,000,000 and RMB5,730,000,000, respectively. The actual transaction amount for the year ended 31 December 2021 was approximately RMB4,441,172,000 (the period from 2 September 2020 (being the date when China Mobile Group (being the substantial Shareholder) became a connected person of the Company) to 31 December 2020: approximately RMB1,775,532,000).

DIRECTORS' REPORT

Partially exempted continuing connected transactions

1 Technological services provided to the Group by AsiaInfo Security

AsiaInfo Security, being a company controlled by Dr. TIAN (the chairman and executive Director) is a connected person of the Group pursuant to the Listing Rules.

On 29 December 2020, AsiaInfo Security entered into the New Security Technological Security Service Framework Agreement with the Company, pursuant to which AsiaInfo Security agreed to (i) provide professional technical staff to support the projects undertaken by the Group; and (ii) provide certain network security services and products to the Group. The term of the New Security Technological Security Service Framework Agreement is from 1 January 2021 until 31 December 2023.

Pricing policy: The service fees payable by the Group to AsiaInfo Security under any separate technological service agreement pursuant to the New Security Technological Security Service Framework Agreement will be determined based on an arm's length negotiation between the parties with reference to (i) the staff costs (including salaries and staff expenses) and/or (ii) market rate of similar products and services. In any event, such service fees shall not be higher than the price charged by AsiaInfo Security to its independent customers for similar services and products.

The annual caps for each of 2021, 2022 and 2023 under the New Security Technological Security Service Framework Agreement shall be RMB15,000,000. The actual transaction amount for the year ended 31 December 2021 was approximately RMB2,569,000 (2020: approximately RMB1,418,000).

2 China Mobile Group leases workspace stations to the Group

On 20 April 2020, the Group entered into the Lease Framework Agreement with CMC, pursuant to which China Mobile Group has agreed to lease and use its reasonable endeavours and good faith to procure other members of China Mobile Group to lease workspace stations to any members of the Group to facilitate the Group's provision of software services to members of China Mobile Group. The validity period of the Lease Framework Agreement is from 2 September 2020 to 31 December 2022.

Pricing policy: The pricing terms of the Lease Framework Agreement and each definitive agreement shall be consistent with the following guidelines: (i) the terms of the lease shall be negotiated and agreed by the parties on an arm's length basis and shall be fair and reasonable; (ii) the rentals shall represent the prevailing market rentals of similar premises in neighboring areas based on available property rental market comparables and, actual gross floor area of each of the leased premises; (iii) annual increments in rentals shall be determined by reference to the potential increase in the value of the premises; and (iv) where property rental market comparables are not available, the pricing terms shall be determined on a fair and reasonable basis which is equivalent or comparable to those offered to or quoted by Independent Third Parties to the Group for similar premises in proximity.

The annual caps for 2020, 2021 and 2022 under the Lease Framework Agreement shall be RMB6,000,000, RMB7,500,000 and RMB10,000,000, respectively. The actual transaction amount for the year ended 31 December 2021 was approximately RMB4,837,000 (the period from 2 September 2020 to 31 December 2020: approximately RMB1,579,000).

3 Provision of work spaces and certain ancillary office maintenance services to AsiaInfo Security by the Group

AsiaInfo China, a wholly-owned subsidiary of the Company, entered into the Lease Agreement with AsiaInfo Chengdu (a wholly-owned subsidiary of AsiaInfo Security) on 30 December 2019 to replace the old framework agreement, pursuant to which AsiaInfo China agreed to provide work spaces and certain ancillary office maintenance services to AsiaInfo Security. The Lease Agreement is valid for a term of three years commencing from 1 January 2020.

Rentals and fees: The fees payable under the Lease Agreement shall not exceed approximately RMB14,500,000 for the first year ended 31 December 2020 (assuming no change in the leased areas), which include rentals for the work spaces and fees arising from the ancillary office maintenance services to be provided by AsiaInfo China to AsiaInfo Chengdu. The specific amount of the fees payable under the Lease Agreement shall be calculated per RMB7.10/sq.m./day, comprising (i) rental fee at RMB6.00/sq.m./day; and (ii) service fee at RMB1.10/sq.m./day, subject to the actual office area to be used by AsiaInfo Chengdu, which are inclusive of facilities usage charges and management fee and exclusive of other IT utilities charges and tax.

The annual caps under the Lease Agreement for 2020, 2021 and 2022 shall be RMB14,500,000, RMB15,000,000 and RMB15,500,000, respectively. The actual transaction amount for the year ended 31 December 2021 was approximately RMB9,615,000 (2020: approximately RMB9,494,000).

4 **Provision of technological services and products to AsiaInfo Security by the Group**

On 29 December 2020, the Group entered into the New Security Technological Service Framework Agreement with AsiaInfo Security, pursuant to which the Group agreed to provide (i) technical staff to support projects undertaken by AsiaInfo Security Group; and (ii) certain software products and services to AsiaInfo Security Group. The New Security Technological Service Framework Agreement has a validity term commencing from 1 January 2021 to 31 December 2023.

Pricing policy: pursuant to the New Security Technological Service Framework Agreement, the service fees payable to the Group under any separate technological service agreements are determined between the parties with reference to (i) the staff costs (including staff salaries and disbursements) or cost of the products to be sold; (ii) the complexity of the nature of work and/or services to be provided; and (iii) a margin as agreed between the Group and AsiaInfo Security taking into account the margin for the services/products of similar nature in the market by referring to margins for provision of similar services/sale of similar products by the Group to independent customers.

The annual caps under the New Security Technological Service Framework Agreement for each of the years of 2021, 2022 and 2023 shall be RMB20,000,000. The actual transaction amount for the year ended 31 December 2021 was approximately RMB515,000 (2020: not applicable).

5 **Provision of information and telecommunication technology services and products by China Mobile Group to the Group**

In view of further expansion of the Group's operating scale, there has also been an increase in demand for information and telecommunication technology services and products provided by China Mobile Group. Therefore, on 22 September 2021, the Group and CMC entered into the Master Procurement Agreement regarding the provision of information and telecommunication technology services and products, including but not limited to voice services, information services (such as SMS, MMS, hotline, prepaid cards, wireless/wired broadband services), mobile cloud business related services and products, advertising and sales, customised application technology, application and other services, smart end and communication products etc., by China Mobile Group to the members of the Group, for a term commencing from 22 September 2021 to 31 December 2022 (both days inclusive).

Pricing policy: The prices to be charged by China Mobile Group for the services and products to be provided to the Group under any separate definitive agreements pursuant to the Master Procurement Agreement shall be determined based on arm's length negotiation between the parties and subject to normal commercial terms and in accordance with the principles of fairness and reasonableness. Such prices shall be determined with reference to the prevailing market price, being the price offered to or charged by Independent Third Parties in contemporaneous transactions in respect of similar types of products or services in the ordinary course of business in nearby service areas.

The annual caps under the Master Procurement Agreement shall be RMB60,000,000 and RMB90,000,000 for 2021 and 2022, respectively. The actual transaction amount for the year ended 31 December 2021 was approximately RMB12,895,000. The transaction amount of various services and products that the Group purchased from China Mobile Group for the period from 2 September 2020 to 31 December 2020 was RMB2,700,000.

For the year ended 31 December 2021, the independent non-executive Directors have reviewed the above continuing connected transactions and has confirmed that such transactions:

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

(ii) are on normal commercial terms or better terms; and

(iii) are in accordance with the agreements related to such transactions, the terms of which are fair and reasonable and in the interests of the Shareholders as a whole.

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

The independent auditors' letter has confirmed that nothing has come to their attention that cause them to believe that the continuing connected transactions:

(A) have not been approved by the Board;

(B) were not, in all material respects, in accordance with the pricing policies of the Group as stated in this annual report;

(C) were not entered into, in all material respects, in accordance with the relevant agreements governing the continuing connected transactions; and

(D) have exceeded their respective annual caps for the financial year ended 31 December 2021 set out in the previous announcements of the Company.

Save as disclosed above, the related party transactions referred in note 34 to the consolidated financial statements do not constitute the connected transactions or continuing connected transactions as defined in Chapter 14A of the Listing Rules.

Save as disclosed in this annual report, and except continuing connected transactions (if any) that were fully exempt from the requirements under Chapter 14A of the Listing Rules by the Stock Exchange, there were no connected transactions or continuing connected transactions which are required to be disclosed by the Company during the Reporting Period in accordance with the provisions concerning the disclosure of connected transactions under Chapter 14A of the Listing Rules.

COMPLIANCE WITH DEED OF NON-COMPETITION

In order to ensure that we do not have direct competition between our activities and those of our substantial Shareholders, Skipper Investment Limited entered into a deed of non-competition in favor of the Company on 5 July 2018, pursuant to which Skipper Investment Limited has undertaken to the Company (for itself and for the interest of its subsidiaries) that it would not, and would use its best efforts to procure that its associates (except any members of the Group) shall not, whether directly or indirectly (including through any physical entities, partnership, joint venture or other contractual arrangement) or as a principal or agent, and whether on their own account or with each other or in conjunction with or on behalf of any person, firm or company or through any entities (except in or through any member of the Group) to carry on, engage, participate or hold any right or interest in or render any services to or otherwise be involved in any business which is in competition, directly or indirectly, with the business of any member of the Group. If any investment or other business opportunities relating to our business are identified by Skipper Investment Limited (the "**Business Opportunities**"), it shall refer such Business Opportunities to the Company and shall not seek such Business Opportunities unless the Directors or Board decline the Business Opportunities. For details of the deed of non-competition, please refer to the Prospectus.

Skipper Investment Limited has provided the Company with the confirmation in writing of compliance of the deed of non-competition. The independent non-executive Directors have also reviewed the compliance of the deed of non-competition (in particular, the right of first refusal relating to any Business Opportunities) by Skipper Investment Limited, and considered that the deed of non-competition has been complied with for the year ended 31 December 2021.

CONTRACT OF SIGNIFICANCE

At no time during the Reporting Period had the Company or any of its subsidiaries entered into any contract of significance with the controlling Shareholder or any of its subsidiaries, nor had any contract of significance been entered into for the services provided by the controlling Shareholder or any of its subsidiaries to the Company or any of its subsidiaries.

PERMITTED INDEMNITY PROVISIONS

In accordance with the Articles of Association, each Director shall be entitled to be indemnified out of the assets of the Company against all losses or liabilities incurred or sustained by him as a Director in defending any proceedings, whether civil or criminal, in which judgment is given in his favour, or in which he is acquitted. The Company has arranged appropriate insurance cover in respect of legal action against the Directors.

DONATIONS

During the year ended 31 December 2021, charitable and other donations made by the Group was approximately RMB700,000 (2020: approximately RMB1,000,000).

COMPLIANCE WITH CORPORATE GOVERNANCE PRACTICES

For details, please refer to the Corporate Governance Report in this annual report.

DIRECTORS' REPORT

PUBLIC FLOAT

Based on the information that is publicly available to the Company and within the knowledge of the Directors, the Directors confirmed that for anytime for the year ended 31 December 2021 and up to the latest practicable date (being 14 April 2022) prior to the issue of this annual report, at least 25% of the total issued share capital (the minimum public float percentage required by the Stock Exchange and the Listing Rules) of the Company was held by the public.

TAX RELIEF AND EXEMPTION

The Directors are not aware of any tax relief and exemption available to the Shareholders by reason of their holding of the Company's securities.

MATERIAL LEGAL PROCEEDINGS AND COMPLIANCE

For the year ended 31 December 2021 and up to the date of this report, to the knowledge of Directors, the Company has complied with applicable laws and regulations in all material respects, and there are no material legal proceedings or claims which are pending or threatened against the Company.

AUDIT COMMITTEE

The Audit Committee had, together with the management and the auditor of the Company, KPMG reviewed the accounting standards and practices adopted by the Group, and discussed internal control and financial reporting matters, including the review of the audited consolidated financial statements for the financial year ended 31 December 2021.

AUDITORS

Deloitte Touche Tohmatsu ("**Deloitte**") has retired as the auditor of the Company at the conclusion of the annual general meeting held on 28 May 2020, and KPMG has been appointed as the auditor of the Company following the retirement of Deloitte.

Approved by the annual general meeting of the Company held on 28 May 2021, KPMG was re-appointed as the auditor of the Company to review the consolidated financial statements prepared in accordance with Hong Kong Financial Reporting Standards for the year ended 31 December 2021, and hold office until the conclusion of the next AGM of the Company. KPMG shall retire and, being eligible, have offered themselves for re-appointment as the auditor of the Company at the AGM. KPMG has audited the accompanying consolidated financial statements prepared based on the Hong Kong Financial Reporting Standards.

A resolution will be proposed at the AGM of the Company for the approval to appoint KPMG as the auditor of the Company for the year ending 31 December 2022.

DIRECTORS' REPORT

EVENTS AFTER THE REPORTING PERIOD

Reference is made to the acquisition agreement entered into by Beijing AsiaInfo Smart Big Data Co., Ltd. (an indirect wholly-owned subsidiary of the Company) ("**Beijing AsiaInfo**") and the relevant vendors (all of which are Independent Third Parties) on 14 January 2022, pursuant to which, Beijing AsiaInfo has agreed to acquire approximately 94.23% of the equity interests of iResearch Consulting at a total consideration of approximately RMB512 million from the vendors. The acquisition was completed on 17 January 2022 and iResearch Consulting has become an indirect 94.23%-owned subsidiary of the Company. For further details, please refer to the announcements of the Company dated 14 January 2022 and 17 March 2022.

Save as disclosed above, since the end of the Reporting Period and up to the date of this annual report, there has been no significant event after the Reporting Period that affects the Group.

At present the Group's overall operation is stable. Directors will continue to pay close attention to the development of COVID-19, and actively assess and respond to the impact of the COVID-19 on the financial position and operating performance of the Group.

By order of the Board of Directors
TIAN Suning
Chairman and Executive Director

CORPORATE GOVERNANCE REPORT

The Board is pleased to present the corporate governance report set out in this annual report for the year ended 31 December 2021.

The CG Code as set out in Appendix 14 to the Main Board Listing Rules has been amended with effect from 1 January 2022. As this Corporate Governance Report covers the year ended 31 December 2021, all the corporate governance principles and code provisions mentioned herein refer to those stated in the CG Code before the amendments, not the revised CG Code.

CORPORATE GOVERNANCE PRACTICES

The Company strives to maintain high standards of corporate governance in order to safeguard the interests of its Shareholders and enhance the corporate value and accountability. The Company has adopted the principles set out in the CG Code as its own code of corporate governance. The Company has applied the principles of the CG Code on the Company's corporate governance structure and operation in the manner as stated in the report, and has complied with all applicable code provisions of the CG Code for the year ended 31 December 2021. The Company will continue to review and oversee the corporate governance practices to ensure its compliance with the CG Code.

RESPONSIBILITY OF THE BOARD

The Board is responsible for the overall leadership of the Group and oversees the strategic decisions and monitors business and performance of the Group. The Board has delegated the authority and responsibility for day-to-day management and operation of the Group to the senior management of the Group. To oversee particular aspects of the Company's affairs, the Board has established four Board Committees including the Audit Committee, the Nomination Committee, the Remuneration Committee and the Strategy and Investment Committee. The Board has delegated to the Board Committees responsibilities as set out in their respective terms of reference.

All Directors shall ensure that they carry out duties in good faith, in compliance with applicable laws and regulations, and in the interests of the Company and the Shareholders at all times.

The Company has maintained appropriate liability insurance for legal proceedings against Directors and will review the coverage of the insurance annually.

CORPORATE GOVERNANCE REPORT

COMPOSITION OF THE BOARD

As at the date of this annual report, the Board comprises 12 Directors, which includes 3 executive Directors, 5 non-executive Directors and 4 independent non-executive Directors. The current members of the Board are set out as follows:

Name	Gender	Position
TIAN Suning	Male	Executive Director *(Chairman)*
DING Jian	Male	Executive Director
GAO Nianshu	Male	Executive Director *(Chief Executive Officer)*
ZHANG Yichen	Male	Non-executive Director
XIN Yuesheng	Male	Non-executive Director
CHENG Xike	Male	Non-executive Director
YANG Lin	Male	Non-executive Director
LIU Hong	Female	Non-executive Director
GAO Jack Qunyao	Male	Independent non-executive Director
ZHANG Ya-Qin	Male	Independent non-executive Director
GE Ming	Male	Independent non-executive Director
TAO Ping	Female	Independent non-executive Director

The biographies of the Directors are set out in the "Profiles of Directors and Senior Management" section in this annual report.

During the year ended 31 December 2021 up to the date of this report, the Board has complied with the requirements of Rule 3.10(1) and 3.10(2) of the Listing Rules in relation to the appointment of at least three independent non-executive Directors with at least one of them possessing appropriate professional qualifications or accounting or related financial management expertise at any time.

The Company has also complied with the requirement of Rule 3.10A of the Listing Rules in relation to appointing independent non-executive Directors as equivalent to one-third members of the Board. Each of independent non-executive Directors has confirmed its independence under Rule 3.13 of the Listing Rules for the year ended 31 December 2021. Therefore, the Company regarded them as independent parties.

Save as disclosed in biographies of the Directors set out in the section headed "Profiles of Directors and Senior Management" in this annual report, none of the Directors has any relationship (including financial, business, family members or other material/relevant relationship) with any other Directors or chief executives (particularly the chairman and Chief Executive Officer).

CORPORATE GOVERNANCE REPORT

We are committed to promoting the culture of diversity in the Company. We have strived to promote diversity to the extent practicable by taking into consideration a number of factors in our corporate governance structure. We have adopted the Board diversity policy which sets out the objective and approach to achieve and maintain diversity of our Board in order to enhance the effectiveness of our Board. Pursuant to the board diversity policy, we seek to achieve Board diversity through the consideration of a number of factors, including but not limited to professional experience, skills, knowledge, gender, age, cultural and education background, ethnicity and length of service. Our Directors have a balanced mix of knowledge and skills, including knowledge and experience in the areas of business management, telecommunications, information technology, software solutions, finance, investment, auditing and accounting. They obtained degrees in various majors including business administration, natural resource management, library science, engineering, computer science, telecommunications, economics and accounting. Furthermore, our Board has a wide range of age, ranging from 32 years old to 71 years old. The current gender ratio of all employees (including senior management) of the Group is approximately 78% (male) and approximately 22% (female), respectively. We have also taken, and will continue to take steps to promote gender diversity at all levels of our Company, including but without limitation at the Board and the management levels. In particular, one out of five of the existing senior management of the Company are female and, our company secretary is female. In order to effectively implement the diversity policy of the Board, the Company appointed three new Directors in September 2020, two of whom are female. While we recognise that the gender diversity at the Board level has been improved given its former composition of all-male Directors, we will continue to apply the principle of appointments based on merits with reference to our diversity policy as a whole. Moreover, we believe that gender diversity is less relevant to our business.

We are also committed to adopting similar approach to promote diversity of the management (including but not limited to the senior management) of the Company to enhance the effectiveness of our corporate governance as a whole. All Directors, including independent non-executive Directors, have brought a variety of valuable business experience, knowledge and professional skills to the Board for its efficient and effective running. Independent non-executive Directors are invited to serve on the Board Committees like the Audit Committee, the Remuneration Committee and the Nomination Committee.

As regards the CG Code provision requiring Directors to disclose the number and nature of positions held in listed companies or organizations and other significant commitments as well as their identity and the time involved to the issuer, the Directors have agreed to disclose their commitments to the Company in a timely manner.

INDUCTION AND CONTINUOUS PROFESSIONAL DEVELOPMENT

Each newly appointed Director is provided with necessary induction training and information to ensure that he has a proper understanding of the Company's operations and businesses as well as his responsibilities under relevant statutes, laws, rules and regulations in accordance with code provision A.6.1 of the CG Code. The Company will also arrange regular seminars to provide Directors with updates on latest development and changes in the Listing Rules and other relevant legal and regulatory requirements from time to time. The Directors are also provided with regular updates on the Group's performance, position and prospects to enable the Board as a whole and each Director to discharge their duties.

All Directors are encouraged to participate in continuous professional development to develop and refresh their knowledge and skills, ensuring that their contribution to the Board consistently remains well informed and thoroughly relevant. The company secretary of the Company has from time to time updated and provided written training materials relating to the roles, functions and duties of a Director.

All Directors have complied with code provision A.6.5 of the CG Code in relation to the training of Directors. During the year ended 31 December 2021, the Company has provided all Directors with training, including Directors' responsibilities, Listing Rules and corporate governance matters, and has provided executive Directors and management with internal training in relation to the Company.

CORPORATE GOVERNANCE REPORT

A summary of training received by the Directors for the year ended 31 December 2021 is as follows:

Name of Directors	Nature of Continuous Professional Development Training Note
Executive Director	
TIAN Suning	A, B
DING Jian	A, B
GAO Nianshu	A, B
Non-executive Director	
ZHANG Yichen	A, B
XIN Yuesheng	A, B
CHENG Xike[1]	A, B
YANG Lin	A, B
LIU Hong	A, B
ZHANG Liyang[2]	A, B
Independent non-executive Director	
GAO Jack Qunyao	A, B
ZHANG Ya-Qin	A, B
GE Ming	A, B
TAO Ping	A, B

Notes:

1 Appointed as a non-executive Director and a member of the Audit Committee on 30 June 2021

2 Resigned as a non-executive Director and a member of the Audit Committee on 30 June 2021

Notes:

A: Attending seminars and/or conferences and/or forums and/or briefings, or making speeches on seminars and/or conferences and/or forums, or participating in trainings provided by law firms that are relating to the business of the Company

B： Reading materials on various topics, including corporate governance matters, Directors' responsibilities, Listing Rules and other relevant laws

CHAIRMAN AND CHIEF EXECUTIVE OFFICER

Under code provision A.2.1 of the CG Code, the roles of chairman of the Board and Chief Executive Officer should be separated and performed by different individuals. The chairman of the Board and the Chief Executive Officer are separately held by Dr. TIAN Suning and Mr. GAO Nianshu, respectively, with clear distinction in responsibilities. The chairman of the Board is responsible for providing strategic advice and guidance on the development of the Group, while the Chief Executive Officer is responsible for the day-to-day operations of the Group.

CORPORATE GOVERNANCE REPORT

APPOINTMENT AND RE-ELECTION OF DIRECTORS

The non-executive Directors, being Mr. CHENG Xike, has entered into a letter of appointment with the Company for a term of one year commencing from 30 June 2021. Each of the other non-executive Directors and the independent non-executive Directors, has entered into a letter of appointment with the Company for a term of one year from the date of signing the letter of appointment, which can be automatically renewed upon expiration. Pursuant to the requirement of the Articles of Association, the Board shall have the power from time to time and at any time to appoint any person as a Director either to fill a casual vacancy or as an addition to the existing Board. Any Director appointed by the Board to fill a casual vacancy or as an addition to the existing Board shall hold office only until the next following general meeting of the Company and shall then be eligible for re-election at the relevant meetings.

No Director has entered into any service contract with the Company which is not determinable by the Company within one year without payment of compensation (other than statutory compensation). The Company may from time to time by resolution of members increase or reduce the number of Directors, provided that the number of Directors shall not be less than two (2). Subject to the provisions of the Articles of Association and requirements under the statutes, the Company may by resolution of members elect any person to be a Director either to fill a casual vacancy or as an addition to the existing Directors. Any Director appointed to fill a casual vacancy or as an addition to the existing Board shall hold office only until the next following general meeting of the Company, and in each case such Director shall then be eligible for re-election at the relevant meeting.

No person shall, unless recommended by the Board, be eligible for election to the office of Director at any general meeting unless during the period, which shall be at least seven (7) days, commencing no earlier than the day after the despatch of the notice of the meeting appointed for such election and ending no later than seven (7) days prior to the date of such meeting, there has been given to the secretary of the Company notice in writing by a member (not being the person to be proposed), entitled to attend and vote at the meeting for which such notice is given, of his intention to propose such person for election and also notice in writing signed by the person to be proposed of his willingness to be elected.

The procedures and process of appointment, re-election and removal of Directors are set out in the Articles of Association. The Nomination Committee is responsible for reviewing the Board composition and making recommendations to the Board on the appointment and re-election of Directors and succession planning for Directors.

BOARD MEETINGS

The Company will adopt the practice of holding Board meetings regularly, at least four times a year as required by code provision A.1.1 of the CG Code, and at approximately quarterly intervals. Notices of not less than 14 days are given for regular Board meetings to provide all Directors with an opportunity to attend the regular meeting and discuss matters in the agenda therein.

For other Board and Board Committee meetings, reasonable notice will be given by the Company. Notices of meetings, which include the agenda and accompanying Board papers are dispatched to the Directors at least three days before the Board and Board Committee meetings to ensure that they have sufficient time to review the accompanying documents and be adequately prepared for the meetings. When Directors or Board Committee members are unable to attend a meeting, they will be advised of the matters to be discussed and given an opportunity to make their views known to the chairman prior to the meeting. The company secretary of the Company will keep the minutes of meetings and provide copies of such minutes to all Directors for reference and record purposes.

Dr. TIAN, the chairman of the Board and the chairman of the Nomination Committee, had attended the annual general meeting in 2021 as required by code provision E.1.2 of the CG Code. The chairman of the Audit Committee, Mr. GE Ming, and the representatives of the independent auditor of the Company were also present to answer questions from the Shareholders.

CORPORATE GOVERNANCE REPORT

Minutes of the Board meetings and Board Committee meetings will record in sufficient detail the matters considered by the Board and the Board Committees and the decisions reached, including any concerns raised by the Directors. Draft minutes of each Board meeting and Board Committee meeting are sent/will be sent to the Directors for their consideration within a reasonable time after convening the meetings. The minutes of the Board meetings are open for inspection by all Directors.

The Board held 5 meetings in 2021. The attendance of each Director at the Board meetings, Board Committees meetings, annual general meeting and extraordinary general meeting (whether in person or electronically) is detailed in the table below:

	Attendance/Number of Board Meetings, Board Committee Meetings and Annual General Meeting					
Name of Directors	**Board Meeting**	**Audit Committee**	**Nomination Committee**	**Remuneration Committee**	**Strategy and Investment Committee**	**Annual General Meeting**
Executive Director						
Dr. TIAN Suning	5/5	—	1/1	—	1/1	1/1
Mr. DING Jian	3/5	—	—	—	1/1	1/1
Mr. GAO Nianshu	5/5	—	1/1	—	1/1	1/1
Non-executive Director						
Mr. ZHANG Yichen	5/5	—	—	—	—	1/1
Mr. XIN Yuesheng	5/5	—	—	1/1	1/1	1/1
Mr. CHENG Xike[1]	3/3	2/2	—	—	—	0/0
Mr. YANG Lin	1/5	—	—	—	—	1/1
Ms. LIU Hong	2/5	—	0/1	—	0/1	0/1
Mr. ZHANG Liyang[2]	2/2	2/2	—	—	—	1/1
Independent non-executive Director						
Dr. GAO Jack Qunyao	5/5	—	1/1	1/1	—	1/1
Dr. ZHANG Ya-Qin	5/5	4/4	1/1	1/1	—	1/1
Mr. GE Ming	5/5	4/4	1/1	—	—	1/1
Ms. TAO Ping	5/5	4/4	1/1	—	—	1/1

Notes:

1 Appointed as a non-executive Director and a member of the Audit Committee on 30 June 2021

2 Resigned as a non-executive Director and a member of the Audit Committee on 30 June 2021

Attendance of Directors who are appointed in the middle of the financial year shall be calculated based on the number of meetings held during such Directors' terms.

CORPORATE GOVERNANCE REPORT

MODEL CODE FOR SECURITIES TRANSACTIONS

The Company has adopted the Model Code as its own code of conduct regarding Directors' securities transactions. Specific enquiry has been made to all the Directors by the Company and each of the Directors has confirmed that he/she has complied with the requirements under Model Code for the year ended 31 December 2021.

For the year ended 31 December 2021, the Company also adopted its own code of conduct regarding employees' securities transactions on terms no less exacting than the standard set out in the Model Code for the compliance by its relevant employees who are likely to be in possession of unpublished inside information of the Company in respect of their dealings in the Company's securities.

DELEGATION BY THE BOARD

The Board reserves for its decision on all major matters of the Company, including: approval and monitoring of all policy matters, overall strategies and budgets, internal control and risk management systems, material transactions (in particular those that may involve conflict of interests), financial data, appointment of Directors and other significant financial and operational matters. Directors could have recourse to seek independent professional advice in performing their duties at the Company's expense. Directors are encouraged to access and to consult with the Company's senior management independently.

The daily management, administration and operation of the Group are delegated to the senior management. The delegated functions and responsibilities are periodically reviewed by the Board. Approval has to be obtained from the Board prior to any significant transactions entered into by the management.

CORPORATE GOVERNANCE FUNCTION

The Board recognises that corporate governance should be the collective responsibility of Directors and their corporate governance duties, which include:

(a) to review and monitor the Company's policies and practices on compliance with legal and regulatory requirements;

(b) to review and monitor the training and continuous professional development of Directors and senior management;

(c) to develop, review and monitor the code of conduct and compliance manual applicable to employees and Directors;

(d) to develop and review the Company's policies and practices on corporate governance and to make recommendations and report to the Board;

(e) to review the Company's compliance with the CG Code and disclosure in the corporate governance report; and

(f) to review and monitor the Company's compliance with the Company's whistleblowing policy and anti-corruption policy.

The Board has reviewed and performed the above corporate governance functions in this year.

BOARD COMMITTEES

Audit Committee

The Audit Committee consists of four members: i.e. three independent non-executive Directors, being Mr. GE Ming (Chairman), Dr. ZHANG Ya-Qin and Ms. TAO Ping, and one non-executive Director, being Mr. CHENG Xike, majority of them are independent non-executive Directors.

CORPORATE GOVERNANCE REPORT

The primary duties of the Audit Committee include, among other things, the following:

1. to monitor the completeness of the financial statements of the Company and the annual reports and accounts, the half-year reports and (if to be published) the quarterly reports of the Company, and review the material accounting judgments stated in the statements and reports;

2. to review the financial statements and reports and consider any significant or unusual matters raised by the Company's staff responsible for the accounting and financial reporting function, compliance officer or the auditor before submission to the Board;

3. to review the adequacy and effectiveness of the Company's internal audit function, financial control and reporting systems; internal control system and risk management system and associated procedures, including the adequacy of the resources, staff qualifications and experience, training programs and budget of the Company's accounting and financial reporting function; and

4. to make recommendations to the Board on the appointment, re-appointment and removal of the external auditor, approving the remuneration and terms of engagement of the external auditor.

There was no disagreement between the Board and the Audit Committee on the selection and appointment of the external auditor during the Reporting Period.

The written terms of reference of the Audit Committee are available on the websites of the Stock Exchange and the Company.

Nomination Committee

The Nomination Committee consists of seven members: i.e. two executive Directors, being Dr. TIAN Suning (Chairman) and Mr. GAO Nianshu, four independent non-executive Directors, being Dr. GAO Jack Qunyao, Dr. ZHANG Ya-Qin, Mr. GE Ming and Ms. TAO Ping, and one non-executive Director, being Ms. LIU Hong.

The primary duties of the Nomination Committee include the following:

1. to review the structure, number and composition (including the skills, knowledge and experience) of the Board at least annually and make recommendations on any proposed changes to the Board to complement the Company's strategy;

2. to identify individuals suitably qualified to become Board members and select or make recommendations to the Board on the selection of individuals nominated for directorships;

3. to assess the independence of independent non-executive Directors;

4. to make recommendations to the Board on the appointment or re-appointment of Directors and the succession planning for Directors, in particular the chairman and the chief executive; and

5. to perform missions allocated by the Board from time to time.

The Nomination Committee assesses the candidate or incumbent on criteria such as integrity, experience, skill and ability to commit time and effort to carry out the duties and responsibilities. The recommendations of the Nomination Committee will then be put to the Board for decision.

CORPORATE GOVERNANCE REPORT

Policy for Nomination of Directors

The Company had adopted its policy for nomination of Directors through resolution on 19 December 2018 and the summary is as follows: the Company values the selection process of the Board members with high transparency. The nomination policy aims to ensure that the Board keeps balance on the skills, experience and diversity of views to meet the business needs of the Company. The Nomination Committee has been appointed to identify individuals suitably qualified to become Board members and select or make recommendations to the Board on the selection of individuals nominated for directorships. The Board is ultimately responsible for the selection and appointment of new Directors, and is subject to retirement by rotation and re-election at annual general meetings pursuant to the Articles of Association.

Board Diversity Policy

The Company had adopted the Board Diversity Policy along with setting the measurable targets for implementing this policy on 19 December 2018. The Company is convinced that the diversity of the Board is beneficial to improve the quality of its performance. The policy aims to set out the approach adopted to achieve the diversity of the Board. When setting up composition of the Board, the Company considers the diversity of the Board from various measurable aspects, including skills, experience, knowledge, expertise, culture, independence, age and gender. All appointments to the Board are based on the principle of meritocracy, while considering diversity, including gender diversity. The measurable targets for the implementation of this diversity policy include independence, educational background, professional qualifications and years of employment.

The written terms of reference of the Nomination Committee are available on the websites of the Stock Exchange and the Company.

Remuneration Committee

The Remuneration Committee consists of three members: i.e. two independent non-executive Directors, being Dr. GAO Jack Qunyao (Chairman) and Dr. ZHANG Ya-Qin, and one non-executive Director, being Mr. XIN Yuesheng.

The primary duties of the Remuneration Committee include the following:

1. to make recommendations to the Board on the Company's overall policy and structure for the remuneration of the Directors and senior management and on the establishment of a formal and transparent procedure for developing remuneration policy (i.e. the code provision B.1.2(c)(ii) of the CG Code is adopted);

2. to review and approve the management's remuneration proposals with reference to the corporate goals and objectives determined by the Board from time to time;

3. to decide on the remuneration packages of all Directors and senior management, and make recommendations to the Board on the remuneration packages of all non-executive Directors. These, among other things, include benefits in kind, pension rights and compensation payments (including any compensation payable for loss or termination of their office or appointment);

4. to assess performance of the executive Directors and approve the terms of the executive Directors' service contracts;

5. to consider salaries paid by comparable companies, time commitment and responsibilities and employment conditions elsewhere in the Group;

6. to review and approve compensation payable to executive Directors and senior management for any loss or termination of office or appointment to ensure that it is consistent with contractual terms and is otherwise fair and not excessive;

7. to review and approve compensation arrangements relating to dismissal or removal of Directors for misconduct to ensure that they are consistent with contractual terms and are otherwise reasonable and appropriate; and

8. to ensure that no Director or any of his/her associates (as defined in the Listing Rules) is involved in deciding his/her own remuneration.

The written terms of reference of the Remuneration Committee are available on the websites of the Stock Exchange and the Company.

Strategy and Investment Committee

The Strategy and Investment Committee consists of five members: i.e. three executive Directors, being Dr. TIAN Suning, Mr. GAO Nianshu and Mr. DING Jian, and two non-executive Directors, being Mr. XIN Yuesheng (Chairman) and Mr. YANG Lin.

The primary duties of the Strategy and Investment Committee include the following:

1. to conduct research on the long-term strategic planning, annual operational plans, investment policies and major investment and financing projects of the Company and make recommendations, and to monitor and follow up on major investment and financing projects approved by the Shareholders' meeting and the Board and to notify all Directors in a timely manner;

2. with the authorization of the Board, to approve major discloseable investment and financing projects with a total transaction amount (in a single transaction or transactions under the same project) of more than RMB50 million (including RMB50 million) but not subject to the Board's approval, other than ordinary operating loans, credits, privatization loans and income-based transactions in the ordinary course of business. Matters related to the approvals above shall also comply with the relevant requirements of the Listing Rules regarding notifiable transactions;

3. to conduct research on other major matters that may have impacts on the development of the Company and make recommendations to the Board; and

4. other matters stipulated by the terms of reference of the Strategy and Investment Committee and authorised by the Board.

The written terms of reference of the Strategy and Investment Committee newly adopted for the year by the Board on 30 June 2021 are available on the websites of the Stock Exchange and the Company.

DIRECTORS' RESPONSIBILITIES FOR FINANCIAL REPORTING IN RESPECT OF THE CONSOLIDATED FINANCIAL STATEMENTS

The Directors understand and acknowledge their responsibility for preparing the consolidated financial statements for the year ended 31 December 2021 which give a true and fair view of the Group's conditions, results and cash flows.

The management has provided to the Board such explanation and information as are necessary to enable the Board to carry out an informed assessment of the Company's financial statements, which are put to the Board for approval. The Company provides all members of the Board with monthly updates on Company's performance, positions and prospects.

The Directors were not aware of any material uncertainties relating to events or conditions which may cast significant doubt upon the Group's ability to continue as a going concern. The statement by the auditor regarding their reporting responsibilities on the consolidated financial statements of the Company is set out in the section headed "Independent Auditor's Report" of this annual report.

CORPORATE GOVERNANCE REPORT

REMUNERATION OF DIRECTORS AND SENIOR MANAGEMENT

Our Directors and senior management receive remuneration in the form of salaries, bonuses, contributions to pension schemes, long-term incentives (including share-based remuneration), housing and other allowances and benefits in kind subject to applicable laws, rules and regulations.

The remuneration of the Directors and senior management of the Company (whose biographies are set out in the section headed "Profiles of Directors and Senior Management" of this annual report) for the year ended 31 December 2021 falls under the following bands:

Band of remuneration	Number of individuals
HK$7,500,001 to HK$8,000,000	1
HK$8,500,001 to HK$9,000,000	1
HK$14,500,001 to HK$15,000,000	1
HK$16,000,001 to HK$16,500,000	1
HK$32,000,001 to HK$32,500,000	1

REMUNERATION OF AUDITOR

For the year ended 31 December 2021, in respect of audit and non-audit services offered to the Company by the auditor of the Company, KPMG, the remuneration paid or payable by the Group are as follows:

Classification of services	Amount RMB'000
Audit and audit-related services	4,950
Non-audit services(i)	1,090
Total	6,140

Note:

(i) The non-audit services conducted by the auditor mainly include tax advisory services and due diligence services for financial tax.

RISK MANAGEMENT AND INTERNAL CONTROL

The Board acknowledges that it is the responsibility of the Board for maintaining adequate risk management and internal control systems to safeguard Shareholders' investments and the Company's assets and reviewing the effectiveness of such systems. The Board reviews such systems on a semi-annual basis.

The Group's risk management and internal control team plays an important role in monitoring the Group's internal governance. The major duties of internal control team are to regulate and review the Company's financial condition and internal control and conduct comprehensive audits of all branches and subsidiaries of the Company on a semi-annual basis.

With the requirements of the CG Code, the Company has established a "three-level" risk management framework consisting of functional back office, internal audit and external auditor. Internal audit department has released risk management system and continuously monitors the completeness, rationality and effectiveness of the system by identifying and assessing major external and internal risks during risk surveys of the headquarters and business units. Effective procedures on internal control deficiencies were implemented to enhance the risk control and prevention ability.

CORPORATE GOVERNANCE REPORT

The Company has now established a complete and effective internal control system in which corporate management and business operations are controlled and supervised systematically. Now the scope of evaluation of the Company comprises internal environment, risk assessment, control activities, information and communication and internal supervision; major business within the scope of the evaluation are sales, costs, funding, finance, procurement, investment and related transactions. Meanwhile, the independent evaluation of the design of internal control and the efficiency and effectiveness of implementation is conducted by ways of risk inspection, internal audits, supervisors' inspection, etc in an effort to ensure legal and compliant operations, asset safety, and the authenticity and completeness of financial reports and relevant information.

The Company has formulated and complemented Asiainfo Inside Information and Insider Dealing Management System which stipulates the inside information scope, inside information insider scope, prescribes registration requirements for the insider before the disclosure of inside information and stipulates that insiders should not deal with the securities of the Company or should report his securities transactions.

The Board has reviewed risk management and internal control systems of the Group for the year ended 31 December 2021 and believes that such systems are effective and adequate.

RESPONSE TO MAJOR RISKS

In 2021, the Group conducted an annual risk review and assessment of the Company as a whole based on the corporate risk management framework, and formulated coping and monitoring measures for major risks so as to prevent or reduce possible occurrence of major risks in the Company.

The Company saw a rapid development in the results of operations in 2021. We derived a significant portion of our revenue from telecom operators in China, which depended on our ability to develop and maintain longstanding business relationships with telecom operators in China. Our close relationships with clients might be impaired if we failed to offer software products and services required by telecom operators or if telecom operators turned to our competitors instead for the purpose of sourcing software products and services. We owed our success of business to the continuing efforts made by our core management and technical personnel, and our business might be affected to a certain extent if we lost their services or they competed against us.

In order to cope with its potential operational risks and ensure its continuous and long-term development, the Company increased its input to business support, 5G intelligent network, data-driven operation, big data and AI products. Additionally, the Company also actively participated in the transformation and upgrading of telecom operators by supporting the R&D of various large-scale IT projects, further consolidating our leading position in the telecom software and service market. Moreover, we strengthened the management of core management and technical personnel, designed career development channels for talents, and simultaneously improved the incentive mechanism and continued to reinforce staff training; in the hope of offering and ensuring talents reserve for the Company's sustainable development.

COMPANY SECRETARY

The Company engages Ms. YU Wing Sze (余詠詩) from an external service provider as the company secretary. Ms. YU is the primary corporate contact person of the external service provider whose primary corporate contact person at the Company is Mr. ZHAO Yan, the senior office director of the Board office.

For the year ended 31 December 2021, Ms. YU has undertaken not less than 15 hours of relevant professional training in compliance with Rule 3.29 of the Listing Rules.

SHAREHOLDERS' RIGHTS

To safeguard Shareholders' interests and rights, a separate resolution will be proposed for each issue at general meetings, including the election of individual Directors.

CORPORATE GOVERNANCE REPORT

All resolutions put forward at general meetings will be voted by poll pursuant to the Listing Rules and poll results will be posted on the websites of the Company and the Stock Exchange in a timely manner after each general meeting.

PROCEDURES FOR CONVENING OF EXTRAORDINARY GENERAL MEETING AND PUTTING FORWARD PROPOSALS/RESOLUTIONS

Pursuant to Article 10.3 of the Articles of Association, on the requisition of the Shareholders at the date of deposit of the requisition holding not less than one-tenth of the paid-up share capital of the Company at the principal place of business of the Company in Hong Kong having the right to vote at general meetings, the Directors are obliged to proceed to convene an extraordinary general meeting of the Company. The requisitionists must state the purposes of the meeting and sign the requisition letter. If the Board does not within twenty one (21) days from the date of deposit of the requisition proceed duly to convene the meeting to be held within a further twenty one (21) days, the requisitionist(s) themselves or any of them representing more than one-half of the total voting rights of all of them, may convene the general meeting in the same manner, as nearly as possible, as that in which meetings may be convened by the Board, provided that any meeting so convened shall not be held after the expiration of three (3) months from the date of deposit of the requisition, and all reasonable expenses incurred by the requisitionist(s) as a result of the failure of the Board shall be reimbursed to them by the Company. The Shareholders who wish to put forward proposals and/or resolutions may requisition an extraordinary general meeting and include a proposal and/or resolution at such meeting pursuant to Article 10.3 of the Articles of Association.

COMMUNICATION WITH SHAREHOLDERS AND INVESTOR RELATIONS

The Company considers that effective communication with Shareholders is essential for enhancing investor relations and understanding of the Group's business, performance and strategies. The Company also recognises the importance of timely and non-selective disclosure of its information, which will enable Shareholders and investors to make the informed investment decisions. The Company establishes an investor relations department and liaison mailbox (ir@asiainfo.com), which is responsible for providing Shareholders and investors with the necessary information. It maintains proactive communications with Shareholders, investors and other capital market participants, which enable Shareholders and investors to fully understand the Company's operation and development, by various means such as participating in domestic and foreign investor exchanges, performance conferences, press conferences, telephone conferences and investment analysts meetings.

The annual general meeting of the Company provides opportunity for Shareholders to communicate directly with the Directors. The chairman of the Company and the chairman of each of the Board Committees or their authorised representative will attend the annual general meetings to answer Shareholders' questions. The auditor will also attend the annual general meetings to answer questions about the conduct of the audit, the preparation and content of the auditor's report, the accounting policies and auditor independence. Any E-mail from our Shareholders to the aforesaid liaison mailbox to make enquiry to the Board are also welcome.

To promote effective communication, the Company adopts a Shareholders' communication policy which aims at establishing a two-way relationship and communication between the Company and the Shareholders and maintains a website at www.asiainfo.com, where up-to-date information on the Company's business operations and developments, financial information, corporate governance practices and other information are available for public access.

During the year ended 31 December 2021, the Company has reviewed the implementation and effectiveness of the Shareholders' communication policy. After evaluating and considering the actual communication circumstance between the Company and Shareholders during the year, the Company is of the opinion that (i) the Company has implemented the policy properly; and (ii) the policy can effectively facilitate the communication between the Company and Shareholders.

CHANGE IN CONSTITUTIONAL DOCUMENTS

The Company made no amendment to the Articles of Association for the year ended 31 December 2021.

INDEPENDENT AUDITOR'S REPORT

KPMG

TO THE SHAREHOLDERS OF ASIAINFO TECHNOLOGIES LIMITED

(Incorporated in the British Virgin Islands with limited liability)

OPINION

We have audited the consolidated financial statements of AsiaInfo Technologies Limited (the "**Company**") and its subsidiaries (collectively referred to as the "**Group**") set out on pages 155 to 250, which comprise the consolidated statement of financial position as at 31 December 2021, the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows 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 2021, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Hong Kong Financial Reporting Standards ("**HKFRSs**") issued by the Hong Kong Institute of Certified Public Accountants ("**HKICPA**") and have been properly prepared in compliance with the disclosure requirements of the Hong Kong Companies Ordinance.

BASIS FOR OPINION

We conducted our audit in accordance with Hong Kong Standards on Auditing ("**HKSAs**") issued by the HKICPA. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the HKICPA's Code of Ethics for Professional Accountants ("**the Code**") together with any ethical requirements that are relevant to our audit of the consolidated financial statements in the British Virgin Islands, and we have fulfilled our other ethical responsibilities in accordance with 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.

INDEPENDENT AUDITOR'S REPORT

KEY AUDIT MATTERS (Continued)

Revenue: Recognition of revenue from software products and related services

Refer to Note 3 to the consolidated financial statements and the accounting policies in Note 1(v).

The Key Audit Matter	How the matter was addressed in our audit
A significant portion of the Group's revenue comes from the provision of software products and related services, which is recognised over time based on the stage of completion of a contract by reference to the proportion of costs incurred relative to the estimated total costs to completion. Significant management judgement is required in estimating total contract costs throughout the contract period. Key assumptions include total estimated labour hours to complete the contract, labour rate, subcontracting costs, material costs and other related expenses. We identified revenue recognition of software product and related services as a key audit matter due to the involvement of significant management judgement in estimating total contract costs of each contract.	Our audit procedures on revenue recognised over time based on the stage of completion of contracts included the following: • Assessing the design, implementation and operating effectiveness of the Group's key internal controls over revenue recognition of software business, with the assistance of our internal information technology specialist; • Agreeing the costs incurred to date and the total contract sum to expense invoices and the signed contracts and tracing the estimated total costs to the approved project budgets on a sample basis; • Assessing the mathematical accuracy of management's calculation of the percentage of completion and the relevant revenue recognised; • Inspecting, on a sample basis, the completion reports or other evidence for projects completed in the current year; • Comparing, on a sample basis, the actual costs incurred for completed contracts to the estimation of total costs, identifying any significant variance and inquiring with management for the reason; and • Evaluating the reasonableness of the disclosures with reference to the prevailing accounting standards.

INDEPENDENT AUDITOR'S REPORT

KEY AUDIT MATTERS (Continued)

Goodwill: Impairment of goodwill

Refer to Note 15 to the consolidated financial statements and the accounting policies in Note 1(f).

The Key Audit Matter	How the matter was addressed in our audit
The Group recorded goodwill in software business amounting to RMB1,932,246,000 as at 31 December 2021. No impairment loss was recognised for the year ended 31 December 2021. Impairment of goodwill is assessed annually by management by comparing the recoverable amount and carrying amount of the relevant cash-generating unit at the end of the reporting period. Management engaged an external valuer to assess the recoverable amount based on the value in use method, which involved significant assumptions such as discount rate and the forecasts of future revenue growth rates and gross margins used in the estimated future cash flow. We identified impairment of goodwill as a key audit matter because of the magnitude of the carrying amount of goodwill and the impairment assessments prepared by management contain certain judgments which could be subject to management bias in their selection.	Our audit procedures on management's impairment assessment of goodwill included the following: • Assessing the design, implementation and operating effectiveness of the Group's key control over the management's impairment assessment on goodwill; • Evaluating the competence, experience, capability and objectivity of the external valuer engaged by management to perform the calculation of the recoverable amounts; • Checking the mathematical accuracy of the calculation of the recoverable amount included in the valuation report prepared by the external valuer; • With the assistance of our internal valuation specialist, assessing the appropriateness of the methodology adopted in determining the recoverable amount and evaluating the discount rate used in the discounted cash flow model by comparing with the industry practice; • Evaluating the key assumptions used in the estimated future cash flow, including forecasts of future revenue growth rates and gross margins, by comparing with historical performance and forecast approved by management; • Obtaining from management sensitivity analyses for key assumptions adopted in the discounted cashflow forecasts and assessing the impact of changes in the key assumptions on the conclusions reached in the impairment assessments and whether there was any indication of management bias; • Comparing forecast revenue, forecast cost of sales, forecast other operating expenses and forecasts working capital included in the discounted cash flow forecasts prepared in the prior year with the current year's performance to assess how accurate the prior year's cash flow forecasts were and making enquiries of management as to the reasons for any significant variations identified and whether there was any indication of management bias; and • Assessing the reasonableness of the disclosures in the consolidated financial statements of the assumptions in the impairment assessments of goodwill with reference to the requirements of the prevailing accounting standards.

INDEPENDENT AUDITOR'S REPORT

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 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, in accordance with our agreed terms of engagement, 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.

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

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.

- 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.

INDEPENDENT AUDITOR'S REPORT

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

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 Chan Siu Tung.

KPMG
Certified Public Accountants

8th Floor, Prince's Building
10 Chater Road
Central, Hong Kong
7 March 2022

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

For the year ended 31 December 2021
(Expressed in thousands of Renminbi, unless otherwise stated)

	Note	2021 RMB'000	2020 RMB'000
Revenue	3	6,894,667	6,019,855
Cost of sales		(4,249,501)	(3,716,620)
Gross profit		2,645,166	2,303,235
Other income	4	162,191	143,289
Impairment losses under expected credit loss model, net of reversal		(68,415)	(35,051)
Other gains and losses	5	(4,434)	15,956
Selling and marketing expenses		(505,255)	(472,786)
Administrative expenses		(296,225)	(321,442)
Research and development expenses		(1,006,051)	(840,225)
Share of results of associates		172	(1,567)
Impairment losses on associates	16	—	(6,410)
Finance costs	6	(10,618)	(20,672)
Profit before tax		916,531	764,327
Income tax expenses	7	(134,012)	(102,224)
Profit for the year	8	782,519	662,103
Other comprehensive income for the year		—	—
Total comprehensive income for the year		782,519	662,103
Profit for the year/total comprehensive income for the year attributable to:			
Equity holders of the Company		785,729	662,103
Non-controlling interests		(3,210)	—
Earnings per share			
—Basic (RMB)	10	0.86	0.85
—Diluted (RMB)	10	0.84	0.84

The notes on pages 161 to 250 form part of these financial statements. Details of dividends payable to equity holders of the Company attributable to the profit for the year are set out in Note 9.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As at 31 December 2021
(Expressed in thousands of Renminbi, unless otherwise stated)

	Note	31 December 2021 RMB'000	31 December 2020 RMB'000
Non-current assets			
Property, plant and equipment	12	285,170	293,224
Right-of-use assets	13	228,350	257,534
Intangible assets	14	5,297	3,818
Goodwill	15	1,932,246	1,932,246
Investments in associates	16	19,672	—
Deferred tax assets	26	120,930	133,111
Pledged bank deposits	22	333	8,737
Term deposits	22	370,000	240,000
Other non-current assets		23,241	17,088
		2,985,239	2,885,758
Current assets			
Inventories		2,349	392
Trade and notes receivables	17	846,573	941,957
Prepayments, deposits and other receivables	18	188,699	114,386
Contract assets	19	2,230,815	1,722,485
Financial assets at fair value through profit or loss ("**FVTPL**")	20	528,692	1,103,800
Amounts due from related parties	34	12,532	10,233
Pledged bank deposits	22	178,744	263,067
Term deposits	22	200,000	140,923
Bank balances and cash	22	2,331,821	1,690,151
		6,520,225	5,987,394
Current liabilities			
Trade and notes payables	23	323,677	149,454
Contract liabilities	19	290,495	393,371
Other payables, deposits received and accrued expenses	24	2,159,975	2,063,218
Amounts due to related parties	34	11,881	9,154
Income tax payable		274,194	278,420
Bank borrowings	25	—	137,023
Lease liabilities	13	49,239	46,201
		3,109,461	3,076,841
Net current assets		3,410,764	2,910,553

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As at 31 December 2021
(Expressed in thousands of Renminbi, unless otherwise stated)

	Note	31 December 2021 RMB'000	31 December 2020 RMB'000
Total assets less current liabilities		**6,396,003**	5,796,311
Non-current liabilities			
Deferred tax liabilities	26	**155,812**	123,205
Lease liabilities	13	**88,622**	117,658
		244,434	240,863
NET ASSETS		**6,151,569**	5,555,448
Capital and reserves			
Share capital	28	**—**	—
Reserves		**6,154,779**	5,555,448
Equity attributable to equity holders of the Company		**6,154,779**	5,555,448
Non-controlling interests		**(3,210)**	—
TOTAL EQUITY		**6,151,569**	5,555,448

The consolidated financial statements on pages 155 to 250 were approved and authorised for issue by the Board of Directors on 7 March 2022 and are signed on its behalf by:

Mr. Suning Tian
DIRECTOR

Mr. Nianshu Gao
DIRECTOR

The notes on pages 161 to 250 form part of these financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 31 December 2021
(Expressed in thousands of Renminbi, unless otherwise stated)

	Attributable to equity holders of the Company									
	Share capital RMB'000	Share premium RMB'000	Merger reserve RMB'000	Translation capital reserve RMB'000	Statutory surplus reserves(i) RMB'000	Other reserves RMB'000	Retained profits RMB'000	Sub-total RMB'000	Non-controlling interests RMB'000	Total equity RMB'000
At 1 January 2020	—	997,954	285,200	(15,129)	176,247	1,545,848	917,083	3,907,203	—	3,907,203
Profit for the year and total comprehensive income for the year	—	—	—	—	—	—	662,103	662,103	—	662,103
Issue of new shares upon the contribution from shareholders(Note 28)	—	1,222,099	—	—	—	—	—	1,222,099	—	1,222,099
Recognition of equity-settled share-based payments (Note 32)	—	—	—	—	—	267,642	—	267,642	—	267,642
Lapse of share options and restricted stock units	—	—	—	—	—	(11,833)	11,833	—	—	—
Dividends approved in respect of the previous year (Note 9)	—	—	—	—	—	—	(168,936)	(168,936)	—	(168,936)
Purchase of ordinary shares of the Company ("Shares") for share award scheme (Note 29)	—	(364,284)	—	—	—	—	—	(364,284)	—	(364,284)
Vesting of restricted stock units (Note 32)	—	215,886	—	—	—	(215,886)	—	—	—	—
Exercise of share options (Note 32)	—	43,972	—	—	—	(14,351)	—	29,621	—	29,621
Transfer to statutory surplus reserve	—	—	—	—	4,562	—	(4,562)	—	—	—
Changes in equity for the year	—	1,117,673	—	—	4,562	25,572	(161,665)	986,142	—	986,142
At 31 December 2020	—	2,115,627	285,200	(15,129)	180,809	1,571,420	1,417,521	5,555,448	—	5,555,448
Profit for the year and total comprehensive income for the year	—	—	—	—	—	—	**785,729**	**785,729**	**(3,210)**	**782,519**
Recognition of equity-settled share-based payments (Note 32)	—	—	—	—	—	**106,994**	—	**106,994**	—	**106,994**
Lapse of share options and restricted stock units	—	—	—	—	—	**(18,706)**	**18,706**	—	—	—
Dividends approved in respect of the previous year (Note 9)	—	—	—	—	—	—	**(261,334)**	**(261,334)**	—	**(261,334)**
Purchase of Shares for share award scheme (Note 29)	—	**(75,359)**	—	—	—	—	—	**(75,359)**	—	**(75,359)**
Vesting of restricted stock units (Note 32)	—	**35,990**	—	—	—	**(35,990)**	—	—	—	—
Exercise of share options (Note 32)	—	**64,008**	—	—	—	**(20,707)**	—	**43,301**	—	**43,301**
Transfer to statutory surplus reserve	—	—	—	—	**6,450**	—	**(6,450)**	—	—	—
Changes in equity for the year	—	**24,639**	—	—	**6,450**	**31,591**	**(249,078)**	**(186,398)**	—	**(186,398)**
At 31 December 2021	—	**2,140,266**	**285,200**	**(15,129)**	**187,259**	**1,603,011**	**1,954,172**	**6,154,779**	**(3,210)**	**6,151,569**

Note:

(i) In accordance with the Articles of Association of all subsidiaries established in the People's Republic of China (the "**PRC**"), the PRC subsidiaries are required to set aside 10% of their profit after tax as per statutory financial statements determined under the PRC laws and regulations for the statutory surplus reserve fund until the reserve reaches 50% of their registered capital. Transfer to this reserve must be made before distributing dividends to equity owners of the subsidiaries. The statutory surplus reserve can be used to make up previous years' losses, expand the existing operations or convert into additional capital of the respective subsidiaries.

The notes on pages 161 to 250 form part of these financial statements.

CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended 31 December 2021
(Expressed in thousands of Renminbi, unless otherwise stated)

	2021 RMB'000	2020 RMB'000
OPERATING ACTIVITIES		
Profit before tax	**916,531**	764,327
Adjustments for:		
Depreciation of property, plant and equipment	**36,929**	32,581
Depreciation of right-of-use assets	**71,814**	64,449
Amortisation of intangible assets	**3,367**	7,428
Loss/(gain) on disposal of property, plant and equipment	**68**	(1,194)
Finance costs	**10,618**	20,672
Net foreign exchange loss	**7,260**	841
Interest income on bank balances, pledged bank deposits and term deposits	**(36,396)**	(28,943)
Net gains on disposal of financial assets at FVTPL	**(26,597)**	(23,104)
Changes in fair value of financial assets at FVTPL	**(6,896)**	(7,400)
Gain on disposal of investments in an associate	**—**	(6,944)
Impairment loss on associates	**—**	6,410
Share of results of associates	**(172)**	1,567
Allowance for trade receivables, net of reversal	**(18,123)**	29,621
Net provision for/(reversal of) other receivables	**91**	(432)
Allowance for contract assets, net of reversal	**88,974**	5,862
Share-based payment expenses	**106,994**	267,642
Operating cash flows before movements in working capital	**1,154,462**	1,133,383
Increase in inventories	**(1,957)**	(88)
Decrease/(increase) in trade and notes receivables	**113,508**	(130,396)
(Increase)/decrease in prepayments, deposits and other receivables	**(51,582)**	118,024
Increase in contract assets	**(597,304)**	(173,826)
Increase in amounts due from related parties	**(2,299)**	(3,875)
(Increase)/decrease in other non-current assets	**(6,153)**	22,553
Increase/(decrease) in amounts due to related parties	**2,727**	(8,938)
Increase/(decrease) in trade and notes payables	**174,223**	(208,594)
(Decrease)/increase in contract liabilities	**(102,876)**	96,426
Increase/(decrease) in other payables, deposits received and accrued expenses	**92,019**	(68,744)
Cash generated from operating activities	**774,768**	775,925
Income taxes paid	**(93,450)**	(65,500)
NET CASH GENERATED FROM OPERATING ACTIVITIES	**681,318**	710,425

CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended 31 December 2021
(Expressed in thousands of Renminbi, unless otherwise stated)

	2021 RMB'000	2020 RMB'000
INVESTING ACTIVITIES		
Purchases of property, plant and equipment	(31,329)	(39,352)
Purchases of intangible assets	(5,039)	(3,538)
Acquisition of investment in an associate	(19,500)	—
Purchases of financial assets at FVTPL	(2,322,288)	(2,292,156)
Proceeds on disposal of property, plant and equipment	360	4,870
Proceeds on disposal of intangible assets	193	—
Proceeds on disposal of investment in an associate	30,000	20,000
Proceeds on disposal of financial assets at FVTPL	2,930,889	1,417,585
Placement of pledged bank deposits	(385,747)	(516,051)
Withdrawal of pledged bank deposits	478,474	594,105
Placement of term deposits	(510,000)	(533,488)
Withdrawal of term deposits	319,975	317,062
Interest received	32,706	19,106
NET CASH GENERATED FROM/(USED IN) INVESTING ACTIVITIES	518,694	(1,011,857)
FINANCING ACTIVITIES		
Repayment of bank borrowings	(134,308)	(1,360,914)
New bank borrowings raised	—	931,647
Borrowing interest paid	(912)	(13,622)
Capital element of lease rentals paid	(68,905)	(67,328)
Interest element of lease rentals paid	(9,660)	(7,038)
Proceeds from issue of Shares	—	1,222,099
Proceeds from issue of Shares under share option schemes	29,378	29,011
Purchase of Shares for share award scheme	(75,359)	(364,284)
Dividends paid	(264,277)	(167,455)
Other cash flows arising from financial activities	(25,765)	(3,576)
NET CASH (USED IN)/GENERATED FROM FINANCING ACTIVITIES	(549,808)	198,540
NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS	650,204	(102,892)
CASH AND CASH EQUIVALENTS AT 1 JANUARY	1,690,151	1,810,591
Effect of exchange rate changes	(8,534)	(17,548)
CASH AND CASH EQUIVALENTS AT 31 DECEMBER, REPRESENTED BY BANK BALANCES AND CASH	2,331,821	1,690,151

The notes on pages 161 to 250 form part of these financial statements.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2021
(Expressed in thousands of Renminbi, unless otherwise stated)

1. 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 requirements of the Hong Kong Companies Ordinance. These financial statements also comply with the applicable disclosure provisions of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited. Significant accounting policies adopted by the Group are disclosed below.

The HKICPA has issued certain amendments to HKFRSs that are first effective or available for early adoption for the current accounting period of the Group. Note 1(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 2021 comprise the Company and its subsidiaries (together referred to as the "**Group**") and the Group's interest in associates. The measurement basis used in the preparation of the financial statements is the historical cost basis except that assets and liabilities are stated at their fair value as explained in the accounting policies set out below:

— Financial assets at fair value through profit or loss

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

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

Judgements made by management in the application of HKFRSs that have significant effect on the financial statements and major sources of estimation uncertainty are discussed in note 2.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2021
(Expressed in thousands of Renminbi, unless otherwise stated)

1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

(c) Changes in accounting policies

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

- Amendment to HKFRS 16, *Covid-19-related rent concessions beyond 30 June 2021*
- Amendments to HKFRS 9, HKAS 39, HKFRS 7, HKFRS 4 and HKFRS 16, *Interest rate benchmark reform — phase 2*

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, transactions and cash flows arising from intra-group transactions are eliminated in full in preparing the consolidated financial statements.

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.

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 statement of profit or loss 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 note 1(q) or (r) depending on the nature of the liability.

1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

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

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

When the Group loses control of a subsidiary, it is accounted for as a disposal of the entire interest in that subsidiary, with a resulting gain or loss being recognised in profit or loss. 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 1(g)) or, when appropriate, the cost on initial recognition of an investment in an associate (see note 1(e)).

In the Company's statement of financial position, an investment in a subsidiary is stated at cost less impairment losses (see note 1(l)), unless the investment is classified as held for sale (or included in a disposal group that is classified as held for sale).

(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, unless it is classified as held for sale (or included in a disposal group that is classified as held for sale). 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 notes 1(f) and (l)(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 statement of profit or loss, whereas the Group's share of the post-acquisition post-tax items of the investees' other comprehensive income is recognised in the consolidated statement of profit or loss 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 expected credit loss ("**ECL(s)**") model to such other long-term interests where applicable.

1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

(e) Associates (Continued)

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 profit or loss.

If an investment in an associate becomes an investment in a joint venture or vice versa, the retained interest is not remeasured. Instead, the investment continues to be accounted for under the equity method.

In all other cases, when the Group ceases to have significant influence over an associate, it is accounted for as a disposal of the entire interest in that investee, with a resulting gain or loss being recognised in profit or loss. Any interest retained in that former investee at the date when significant influence 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 1(g)).

In the Company's statement of financial position, investments in associates are stated at cost less impairment losses (see note 1(l)), unless classified as held for sale (or included in a disposal group that is classified as held for sale).

(f) Goodwill

Goodwill represents the excess of

(i) the aggregate of the fair value of the consideration transferred, the amount of any non-controlling interest in the acquiree and the fair value of the Group's previously held equity interest in the acquiree; over

(ii) the net fair value of the acquiree's identifiable assets and liabilities measured as at the acquisition date.

When (ii) is greater than (i), then this excess is recognised immediately in profit or loss as a gain on a bargain purchase.

Goodwill is stated at cost less accumulated impairment losses. Goodwill arising on a business combination is allocated to each cash-generating unit, or groups of cash generating units, that is expected to benefit from the synergies of the combination and is tested annually for impairment (see note 1(l)).

On disposal of a cash generating unit during the year, any attributable amount of purchased goodwill is included in the calculation of the profit or loss on disposal.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2021
(Expressed in thousands of Renminbi, unless otherwise stated)

1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

(g) Other investments in debt

The Group's policies for investments in debt, other than investments in subsidiaries, associates and joint ventures, are set out below.

Investments in debt 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 profit or loss. For an explanation of how the Group determines fair value of financial instruments, see Note 31. These investments are subsequently accounted for as follows, depending on their classification.

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 1(v)(iii)).

— fair value through other comprehensive income (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 profit or loss 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.

— fair value through 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 profit or loss.

(h) Derivative financial instruments

Derivative financial instruments are recognised at fair value. At the end of each reporting period the fair value is remeasured. The gain or loss on remeasurement to fair value is recognised immediately in profit or loss, except where the derivatives qualify for cash flow hedge accounting or hedges of net investment in a foreign operation, in which case recognition of any resultant gain or loss depends on the nature of the item being hedged.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2021
(Expressed in thousands of Renminbi, unless otherwise stated)

1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

(i) Property, plant and equipment

Property, plant and equipment are stated at cost less accumulated depreciation and impairment losses (see note 1(l)).

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 profit or loss on the date of retirement or disposal.

Depreciation is calculated to write off the cost, less their estimated residual value, if any, using the straight line method over their estimated useful lives as disclosed in Note 12.

(j) Intangible assets (other than goodwill)

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 1(l)). 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 profit or loss on a straight-line basis over the assets' estimated useful lives. Intangible assets with finite useful lives are amortised from the date they are available for use and their estimated useful lives as disclosed in Note 14.

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 in Note 14.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2021
(Expressed in thousands of Renminbi, unless otherwise stated)

1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

(k) Leased assets

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

(i) As a lessee

Where the contract contains lease components and non-lease components, the Group has elected to separate non-lease components and accounts for each lease component 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. 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 profit or loss in the accounting period in which they are incurred.

The right-of-use asset recognised when a lease is capitalised is initially measured at cost, which comprises the initial amount of the lease liability plus any lease payments made at or before the commencement date, and any initial direct costs incurred. Where applicable, the cost of the right-of-use assets also includes an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, discounted to their present value, less any lease incentives received. The right-of-use asset is subsequently stated at cost less accumulated depreciation and impairment losses (see notes 1(i) and 1(l)(ii)).

The initial fair value of refundable rental deposits is accounted for separately from the right-of- use assets. Any difference between the initial fair value and the nominal value of the deposits is accounted for as additional lease payments made and is included in the cost of right-of-use assets.

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 profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2021
(Expressed in thousands of Renminbi, unless otherwise stated)

1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

(k) Leased assets (Continued)

(i) As a lessee (Continued)

The lease liability is also remeasured when there is a change in the scope of a lease or the consideration for a lease that is not originally provided for in the lease contract ("**lease modification**") that is not accounted for as a separate lease. In this case the lease liability is remeasured based on the revised lease payments and lease term using a revised discount rate at the effective date of the modification. The only exceptions are rent concessions that occurred as a direct consequence of the COVID-19 pandemic and met the conditions set out in paragraph 46B of HKFRS 16 Leases. In such cases, the Group has taken advantage of the practical expedient not to assess whether the rent concessions are lease modifications, and recognised the change in consideration as negative variable lease payments in profit or loss in the period in which the event or condition that triggers the rent concessions occurred.

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.

(l) Credit losses and impairment of assets

(i) Credit losses from financial instruments and contract assets and lease receivables

The Group recognises a loss allowance for ECLs on the following items:

— financial assets measured at amortised cost (including cash and cash equivalents, trade receivables and other receivables;

— contract assets as defined in HKFRS 15 (see note 1(n)); and

— lease receivables.

Other financial assets measured at fair value are not subject to the ECL assessment.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2021
(Expressed in thousands of Renminbi, unless otherwise stated)

1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

(l) Credit losses and impairment of assets (Continued)

(i) Credit losses from financial instruments and contract assets and lease receivables (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 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 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, 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.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2021
(Expressed in thousands of Renminbi, unless otherwise stated)

1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

(l) Credit losses and impairment of assets (Continued)

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

Significant increases in credit risk

In assessing whether the credit risk of a financial instrument has increased significantly since initial recognition, the Group compares the risk of default occurring on the financial instrument assessed at the reporting date with that assessed at the date of initial recognition. In making this reassessment, the Group considers that a default event occurs when (i) the borrower is unlikely to pay its credit obligations to the Group in full, without recourse by the Group to actions such as realising security (if any is held); or (ii) the financial asset is 30 days past due. The Group considers both quantitative and qualitative information that is reasonable and supportable, including historical experience and forward-looking information that is available without undue cost or effort.

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

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

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

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

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

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

ECLs are remeasured at each reporting date to reflect changes in the financial instrument's credit risk since initial recognition. Any change in the ECL amount is recognised as an impairment gain or loss in profit or loss. 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.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2021
(Expressed in thousands of Renminbi, unless otherwise stated)

1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

(l) Credit losses and impairment of assets (Continued)

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

Basis of calculation of interest income

Interest income recognised in accordance with note 1(v)(iii) is calculated based on the gross carrying amount of the financial asset unless the financial asset is credit-impaired, in which case interest income is calculated based on the amortised cost (i.e. the gross carrying amount less loss allowance) of the financial asset.

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

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

— significant financial difficulties of the debtor;

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

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

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

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

Write-off policy

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

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

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For the year ended 31 December 2021
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1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

(l) Credit losses and impairment of assets (Continued)

(ii) Impairment of other non-current assets

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

— property, plant and equipment, including right-of-use assets (other than property carried at revalued amounts);

— intangible assets;

— goodwill; 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 profit or loss 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 ("**CGU**") are allocated first to reduce the carrying amount of any goodwill allocated to the cash-generating unit (or group of units) and then, 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).

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For the year ended 31 December 2021
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1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

(l) Credit losses and impairment of assets (Continued)

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

— *Reversals of impairment losses*

In respect of assets other than goodwill, an impairment loss is reversed if there has been a favourable change in the estimates used to determine the recoverable amount. An impairment loss in respect of goodwill is not reversed.

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 profit or loss in the year in which the reversals are recognised.

(m) Inventories

Inventories are stated at the lower of cost and net realisable value. Cost of inventories are determined on a first-in, first-out basis. Net realisable value represents the estimated selling price for inventories less all estimated costs of completion and costs necessary to make the sale.

(n) Contract assets and contract liabilities

A contract asset is recognised when the Group recognises revenue (see note 1(v)) before being unconditionally entitled to the consideration under the payment terms set out in the contract. Contract assets are assessed for ECL in accordance with the policy set out in note 1(l)(i) and are reclassified to receivables when the right to the consideration has become unconditional (see note 1(o)).

A contract liability is recognised when the customer pays non-refundable consideration before the Group recognises the related revenue (see note 1(v)). A contract liability would also be recognised if the Group has an unconditional right to receive non-refundable consideration before the Group recognises the related revenue. In such cases, a corresponding receivable would also be recognised (see note 1(o)).

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 1(v)).

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2021
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1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

(o) 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 1(n)).

Trade receivables that do not contain a significant financing component are initially measured at their transaction price. Trade receivables that contain a significant financing component and other receivables are initially measured at fair value plus transaction costs. All receivables are subsequently stated at amortised cost, using the effective interest method and including an allowance for credit losses (see note 1(l)(i)).

(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 ECL in accordance with the policy set out in note 1(l)(i).

(q) Trade and other payables

Trade and other payables are initially recognised at fair value. Subsequent to initial recognition, trade and other payables are stated at amortised cost unless the effect of discounting would be immaterial, in which case they are stated at invoice amounts.

(r) Interest-bearing borrowings

Interest-bearing borrowings are measured 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 1(w)).

(s) Employee benefits

(i) Short-term employee benefits

Salaries, annual bonuses and paid annual leave 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.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2021
(Expressed in thousands of Renminbi, unless otherwise stated)

1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

(s) Employee benefits (Continued)

(ii) Retirement benefits scheme

In accordance with the rules and regulations in the PRC, the PRC based employees of the Group participate in various defined contribution retirement benefit plans organised by the relevant municipal and provincial governments in the PRC under which the Group and the PRC based employees are required to make monthly contributions to these plans calculated as a percentage of the employees' salaries.

The municipal and provincial governments undertake to assume the retirement benefit obligations of all existing and future retired PRC based employees' payable under the plans described above. Other than the monthly contributions, the Group has no further obligation for the payment of retirement and other post- retirement benefits of its employees. The assets of these plans are held separately from those of the Group in independently administrated funds managed by the PRC government.

The Group's contributions to the defined contribution retirement schemes are expensed as incurred.

(iii) Share-based payments

The fair value of share options granted to employees is recognised as an employee cost with a corresponding increase in a capital reserve within equity. The fair value is measured at grant date using the binomial lattice 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 profit or loss for the year of the review, unless the original employee expenses qualify for recognition as an asset, with a corresponding adjustment to the other 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 other reserve). The equity amount is recognised in the other reserve until either the option is exercised (when it is included in the amount recognised in share capital for the shares issued) or the option expires (when it is released directly to retained profits).

Treasury shares which are held by the Company for 2020 Share Award Scheme are recognised directly in equity at cost. The amount will be transferred to the share premium account when the related awarded shares are vested on first-in-first-out basis.

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For the year ended 31 December 2021
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1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

(s) Employee benefits (Continued)

(iv) 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.

(t) Income tax

Income tax for the year comprises current tax and movements in deferred tax assets and liabilities, which are recognised in profit or loss.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantively 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 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 the 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.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2021
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1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

(t) Income tax (Continued)

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.

Additional income taxes that arise from the distribution of dividends are recognised when the liability to pay the related dividends is recognised.

Current tax balances and deferred tax balances, and movements therein, are presented separately from each other and are not offset.

(u) 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.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2021
(Expressed in thousands of Renminbi, unless otherwise stated)

1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

(v) Revenue and other income

Income is classified by the Group as revenue when it arises from the sale of goods, the provision of services or the use by others of the Group's assets under leases in the ordinary course of the Group's business.

Revenue is recognised when control over a product or service is transferred to the customer, or the lessee has the right to use the asset, 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.

Control is transferred over time and revenue is recognised over time by reference to the progress towards complete satisfaction of the relevant performance obligation if one of the following criteria is met:

- the customer simultaneously received and consumes the benefits provided by the Group's performance as the Group performs;

- the Group's performance creates or enhances an asset that the customer controls as the Group performs; or

- the Group's performance does not create an asset with an alternative use to the Group and the Group has an enforceable right to payment for performance completed to date.

Otherwise, revenue is recognised at a point in time when the customer obtains control of the distinct good or service.

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.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2021
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1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

(v) Revenue and other income (Continued)

(i) Revenue from contracts with customer

Variable consideration

For contracts with performance bonus that contain variable consideration, the Group estimates the amount of consideration to which it will be entitled using either (a) the expected value method or (b) the most likely amount, depending on which method better predicts the amount of consideration to which the Group will be entitled.

The estimated amount of variable consideration is included in the transaction price only to the extent that it is highly probable that such an inclusion will not result in a significant revenue reversal in the future when the uncertainty associated with the variable consideration is subsequently resolved.

At the end of the reporting period, the Group updates the estimated transaction price (including updating its assessment of whether an estimate of variable consideration is constrained) to represent faithfully the circumstances present at the end of the reporting period and the changes in circumstances during the reporting period.

Over time revenue recognition: measurement of progress towards complete satisfaction of a performance obligation

Input method

The progress towards complete satisfaction of a performance obligation is measured based on input method, which is to recognise revenue on the basis of the Group's efforts or inputs to the satisfaction of a performance obligation relative to the total expected inputs to the satisfaction of that performance obligation, that best depict the Group's performance in transferring control of goods or services.

Revenue is measured based on the consideration specified in a contract with customer and excluded amounts collected on behalf of third parties. The Group principally earns revenue from provision of software and data-driven operation services as well as a variety of other services including:

- Provision of services
  - — Software and data-driven operation services
  - — Others
- Sales of goods

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For the year ended 31 December 2021
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1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

(v) Revenue and other income (Continued)

(i) Revenue from contracts with customer (Continued)

Specifically, revenue is recognised in profit or loss as follows:

Provision of services

The Group primarily is engaged in (i) software and data-driven operation services, and (ii) others.

(i) Software and data-driven operation services

i. Software products and related deployment services

The software products and related deployment services include a comprehensive set of professional services, from demand analysis, project design and planning, software development and sourcing, system installation and launch to trial operation and acceptance, which are highly interrelated to and significantly affected by other goods and services in the contract. The directors of the Company have assessed that the Group's performance creates and enhances an asset that the customers control as the Group performs. Therefore, the directors of the Company have satisfied that there is only one single performance obligation and the services are satisfied over time.

Revenue from software products and related deployment services, which are generally under project based development contracts, is recognised based on the stage of completion of the contract which is determined as the proportion of the costs incurred for the works (i.e. subcontracting costs, material costs, rental expenses and direct staff costs incurred) performed to date relative to the estimated total costs to complete the satisfaction of these services and the margin of each project, to the extent that the amount can be measured reliably and its recovery is considered probable.

ii. Ongoing operation and maintenance services ("**O&M services**")

Upon the launch of a system from the software products and related deployment services the Group provided, customers typically engage the Group to provide ongoing O&M services to ensure the stable functioning of the system.

Pursuant to the contracts of rendering related O&M services, the transaction price is the amount of consideration to which the Group expects to be entitled in exchange for transferring O&M services to customers. Additionally, the O&M services typically meet the criterion where customers simultaneously receive and consume the benefits of the Group's performance as the Group performs. The fact that another entity would not need to re-perform maintenance services for the service that the Group has provided to date also demonstrates that customers simultaneously receive and consume the benefits of the Group's performance as the Group performs. Therefore, the directors of the Company have satisfied that the performance obligation of rendering O&M services are satisfied over time which is recognised over the service period.

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For the year ended 31 December 2021
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1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

(v) Revenue and other income (Continued)

(i) Revenue from contracts with customer (Continued)

Provision of services (Continued)

(i) Software and data-driven operation services (Continued)

iii. Data-driven operation services

The Group provides data-driven operation services directly to telecom operators and/or in collaboration with telecom operators to the government and enterprise customers in relation to the rendering of comprehensive data operational analytics services to analyse customer behavior.

The directors of the Company have assessed that the data-driven operation service is one single performance obligation and the customers simultaneously receive and consume the benefits provided by the Group's performance as the Group performs. Therefore, the directors of the Company have satisfied that the services are satisfied over time.

(ii) Others

The Group generates other revenues from system integration service, business consulting services and corporate trainings.

The Group enters into system integration service agreements, consulting service agreements with telecom operators and large enterprises, the term of which generally ranges with a fixed contract price.

The performance obligation of provision of such services is satisfied over time. Revenue from rendering business consulting services and corporate trainings is recognised based on the services provided as the customers simultaneously receive and consume the service provided by the Group over the period. Revenue from rendering system integration services is recognised over time based on the stage of completion of the contract which is determined as the proportion of the cost incurred for the work performed to date relative to the estimated total costs to complete the satisfaction of these services and the margin of each project as the Group's performance creates and enhances an asset that the customers control as the Group performs.

Sales of goods

The Group generates other revenues from sales of third-party hardware and software.

Revenue is recognised at a point in time when the customer obtains control of the third-party hardware and software.

(ii) Rental income from operating leases

Rental income receivable under operating leases is recognised in profit or loss in equal instalments over the periods covered by the lease term, except where an alternative basis is more representative of the pattern of benefits to be derived from the use of the leased asset. Variable lease payments that do not depend on an index or a rate are recognised as income in the accounting period in which they are earned.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2021
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1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

(v) Revenue and other income (Continued)

(iii) Interest income

Interest income is recognised as it accrues under the effective interest method using the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to the gross carrying amount of the financial asset. For financial assets measured at amortised cost 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 1(l)(i)).

(iv) 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 profit or loss on a systematic basis in the same periods in which the expenses are incurred.

(v) Research and development costs

Expenditure on research activities is recognised as an expense in the period in which it is incurred.

An internally-generated intangible asset arising from development activities (or from the development phase of an internal project) is recognised if, and only if, all of the following have been demonstrated:

- the technical feasibility of completing the intangible asset so that it will be available for use or sale;
- the intention to complete the intangible asset and use or sell it;
- the ability to use or sell the intangible asset;
- how the intangible asset will generate probable future economic benefits;
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and
- the ability to measure reliably the expenditure attributable to the intangible asset during its development.

The amount initially recognised for internally-generated intangible asset is the sum of the expenditure incurred from the date when the intangible asset first meets the recognition criteria listed above. When no internally-generated intangible asset can be recognised, development expenditure is recognised in profit or loss in the period in which it is incurred.

The Group did not meet the criteria to recognise any internally-generated intangible asset from development activities or from the development phase of an internal project.

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For the year ended 31 December 2021
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1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

(w) 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.

(x) Translation of foreign currencies

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 profit or loss, except those arising from foreign currency borrowings used to hedge a net investment in a foreign operation which are recognised in other comprehensive income.

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 or 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.

(y) Related parties

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

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

(ii) has significant influence over the Group; or

(iii) is a member of the key management personnel of the Group or the Group's parent.

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

(i) 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).

(ii) 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).

(iii) Both entities are joint ventures of the same third party.

(iv) One entity is a joint venture of a third entity and the other entity is an associate of the third entity.

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

(vi) The entity is controlled or jointly controlled by a person identified in (a).

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For the year ended 31 December 2021
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1. SIGNIFICANT ACCOUNTING POLICIES (Continued)

(y) Related parties (Continued)

(b) (Continued)

(vii) A person identified in (a)(i) 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).

(viii) 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 person in their dealings with the entity.

2. ACCOUNTING JUDGEMENT AND ESTIMATES

(a) Critical accounting judgements in applying the Group's accounting policies

In the process of applying the Group's accounting policies, management has made the following accounting judgement:

Judgments in determining the timing of satisfaction of performance obligations

Note 1 describes the revenue recognition basis to each of the Group's revenue stream. The recognition of each of the Group's revenue stream requires judgment by the directors of the Company in determining the timing of satisfaction of performance obligations.

In making their judgment, the directors of the Company considered the detailed criteria for recognition of revenue set out in HKFRS 15 and in particular, whether the Group has satisfied all the performance obligations over time or at a point in time with reference to the detailed terms of transactions as stipulated in the contracts entered into with its customers.

For the Group's software products and related deployment services, the directors of the Company have assessed that the Group's performance creates and enhances an asset that the customer controls as the Group performs. Therefore, the directors of the Company have satisfied that the performance obligation is satisfied over time and recognised the revenue over the service period.

For O&M services included in the software business, the directors of the Company have determined that the customer simultaneously receives and consumes the benefits provided by the Group's performance as the Group performs. Therefore, the directors of the Company have satisfied that the performance obligation is satisfied over time and recognised the revenue over the service period.

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2. ACCOUNTING JUDGEMENT AND ESTIMATES (Continued)

(b) Sources of estimation uncertainty

The following are the key assumptions concerning the future, and other key sources of estimation uncertainty at the end of the reporting period, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year.

(i) Impairment of goodwill

Determining whether goodwill is impaired requires an estimation of the recoverable amount of the CGU to which goodwill has been allocated. The recoverable amount determination of the CGU as at 31 December 2021 and 31 December 2020 is based on the present value calculation which requires the Group to estimate the future cash flows expected to arise from the CGU and a suitable discount rate in order to calculate the present value. Where the actual future cash flows are less than expected, or change in facts and circumstances which results in downward revision of future cash flows, an impairment loss may arise. As at 31 December 2021, the carrying amount of goodwill was RMB1,932,246,000 (2020: RMB1,932,246,000). Details of the recoverable amount calculation are disclosed in Note 15.

(ii) Revenue recognition regarding variable consideration of performance bonus

The Group recognises upfront payments and milestone payments based on specified contract terms, allocated to one performance obligation over the estimated service period based on a pattern that reflects the transfer of the goods and services. As included in certain contracts, the Group earns performance bonus up to a specified certain percentage of the total contact amounts, however, to what extent the Group would recognise performance bonus will depend on the final performance satisfaction reports the Group receives from its customers upon their inspections months after the completion of the project-based development projects.

For contracts with performance bonus that contain variable consideration, the Group estimates the amount of consideration to which it will be entitled using the most likely amount and recognises revenue relating to performance bonus when it is highly probable that such revenue will not reverse.

According to the historical experience, the directors of the Company consider it is reasonable to estimate possible outcomes before receipt of the performance satisfaction reports and therefore, revenue was reasonably recognised by the completion method for the year ended 31 December 2021 with the contracts related to performance satisfaction reports.

(iii) Project-based development contracts

Revenue from project-based development contracts is recognised under the stage of completion method which requires estimation made by management. The directors of the Company estimate the contract costs, outcome and expected cost to complete the contracts based on the budgets prepared for the contracts. Due to the nature of the activities, the directors of the Company review and revise the estimates of both contract outcome and expected costs to complete in the budget prepared for each contract as the contract progresses. Any revisions to estimates of contract outcomes and expected costs to completion would affect contract revenue recognition. Should expected costs to complete exceed contract revenue, a provision for contract loss would be recognised.

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2. ACCOUNTING JUDGEMENT AND ESTIMATES (Continued)

(b) Sources of estimation uncertainty (Continued)

(iv) Provision of ECL for trade receivables and contract assets

Trade receivables and contract assets which are credit-impaired are assessed for ECL individually. In addition, the Group uses provision matrix to calculate ECL for the trade receivables and contract assets. The provision matrix is based on the Group's historical default rates taking into consideration forward-looking information that is reasonable and supportable available without undue costs or effort. At every reporting date, the historical observed default rates are reassessed and changes in the forward-looking information are considered.

The provision of ECL is sensitive to changes in estimates. The information about the ECL and the Group's trade receivables and contract assets are disclosed in Note 21.

3. REVENUE AND SEGMENT INFORMATION

The Group's revenue is primarily generated from project-based software development contracts, under which the Group develops software products and provides services at fixed prices and/or variable prices. Revenue is recognised net of sales related taxes.

The performance obligation of rendering software products and related services is mainly derived from the project-based software development contracts and is satisfied over time which usually range from six months to eighteen months.

The rendering of data-driven operation services is mainly derived from telecommunication operators, government and enterprise customers to perform data analysis services to analyse customer behavior and operational efficiency. The performance obligation of rendering of data-driven operation services is satisfied over time, mainly ranging from one month to six months or the contract service period.

The performance obligation of sale of third-party hardware and software is satisfied at a point in time when the control of hardware and software is transferred to the customer.

(Expressed in thousands of Renminbi, unless otherwise stated)

3. REVENUE AND SEGMENT INFORMATION (Continued)

Disaggregation of revenue

	Year ended 31 December	
	2021	2020
	RMB'000	RMB'000
Timing of revenue recognition		
At a point in time	**424,669**	241,914
Over time	**6,469,998**	5,777,941
	6,894,667	6,019,855
Types of goods and services		
Provision of services	**6,471,485**	5,779,166
Software and data-driven operation services[i]	**6,344,220**	5,670,611
Others[ii]	**127,265**	108,555
Sales of goods	**423,182**	240,689
	6,894,667	6,019,855

Notes:

(i) The Group records contract liabilities when receiving consideration from customers prior to its provision of services or the amount is due. The transaction price allocated to performance obligations in relation to the non-refundable advance payments that were unsatisfied amounted to RMB290,495,000 as at 31 December 2021 (2020: RMB393,371,000), representing the contract liabilities included in Note 19.

The services provided and recognised overtime are mainly derived from fixed-price contracts. Respective transaction price allocated to the unsatisfied contracts, representing the contract liabilities, as at 31 December 2020 in the amount of RMB364,697,000 had been recognised as revenue over the contract periods for the year ended 31 December 2021. The management expects substantially all of the amount allocated to the unsatisfied contracts as at 31 December 2021 of RMB290,495,000 will be recognised as revenue during the year ending 31 December 2022.

(ii) Others represent revenue primarily generated from the provision of system integration services, business consulting services and the corporate training services.

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3. REVENUE AND SEGMENT INFORMATION (Continued)

Segment information

The Group makes resources allocation decisions based on internal management functions and assesses the Group's business performance as one integrated business instead of by separate business lines or geographical regions. Accordingly, the Group has only one operating segment and therefore, no segment information is presented.

Geographical information

The Group's operations are in the PRC. Substantially all revenue of the Group and non-current assets of the Group are generated from and located in the PRC.

Information about the Group's revenue from external customers is presented based on the location of the signing parties of the sales or service contracts. During the years ended 31 December 2021 and 31 December 2020, substantially all the sales and service contracts were with a signing party located in the PRC.

Information about major customers

Revenue from customers of the corresponding years contributing over 10% of the total revenue of the Group during the reporting periods are as follows:

	Year ended 31 December	
	2021	2020
	RMB'000	RMB'000
Customer A	**4,434,868**	3,841,488
Customer B	**1,072,022**	1,043,724
Customer C	**851,143**	831,183

Note: The customers as shown above are at their group level which aggregates the customer's headquarters, provincial, municipal and specialised subsidiaries which enter into contracts with the Group individually.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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4. OTHER INCOME

	Year ended 31 December	
	2021	2020
	RMB'000	RMB'000
Government grants(i)	**50,946**	50,398
Interest income on bank balances, pledged bank deposits and term deposits	**36,396**	28,943
Net gains on disposal of financial assets at FVTPL(ii)	**26,597**	23,104
Changes in fair value of financial assets at FVTPL(ii)	**6,896**	7,400
Gain from additional input VAT credit(iii)	**25,990**	14,988
Income from management support services(iv)	**6,861**	9,647
Others	**8,505**	8,809
	162,191	143,289

Notes:

i. For the year ended 31 December 2021, government grants amounted to RMB44,174,000 (2020: RMB43,508,000) are related to high-tech industrial development. Government grants amounted to RMB6,772,000 (2020: RMB6,890,000) are mainly related to human resources related subsidies. The amounts have been recognised as other income, and there was no unfulfilled condition attached to these government grants in the year in which they were recognised.

ii. The financial assets represent the financial products bought from bank, with no principal or return guaranteed.

iii. On 20 March 2019, the Ministry of Finance of the PRC, the State Administration of Taxation and the General Administration of Customs promulgated and implemented VAT Reformation Article 39 over deductible input VAT, pursuant to which the Group is allowed to have a 10% additional deduction of input VAT credit from 1 April 2019 to 31 December 2021 upon meeting all applicable criteria.

iv. Income from management support services mainly represents income generated primarily from the provision of management services such as legal support, human resources, management system and network, daily administration, etc. to the Group's related parties.

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5. OTHER GAINS AND LOSSES

	Year ended 31 December	
	2021	2020
	RMB'000	RMB'000
Gain on disposal of investment in an associate	**—**	6,944
Gain from extinguishment of liabilities[i]	**1,243**	3,914
(Loss)/gain on disposal of property, plant and equipment	**(68)**	1,194
Net foreign exchange loss	**(7,260)**	(841)
Others	**1,651**	4,745
	(4,434)	15,956

Note:

i. The amount mainly represents certain outstanding trade payables, other payables and accrued expenses, relating to project-based software development contracts, aged over years which has exceeded the maximum recourse period and is no longer payable by the Group.

6. FINANCE COSTS

	Year ended 31 December	
	2021	2020
	RMB'000	RMB'000
Interest on bank borrowings	**905**	12,581
Interest on lease liabilities	**9,660**	7,038
Others	**53**	1,053
	10,618	20,672

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7. INCOME TAX EXPENSES

	Year ended 31 December	
	2021	2020
	RMB'000	RMB'000
Current tax:		
PRC enterprise income tax ("**EIT**") — Current year	**92,957**	99,347
Deferred tax (Note 26)	**44,788**	2,877
	137,745	102,224
Over-provision in prior years:		
PRC EIT	**(3,733)**	—
	134,012	102,224

Under the Law of the PRC on enterprise income tax (the "**EIT Law**") and implementation regulation of the EIT Law, the tax rate of the PRC subsidiaries is 25% during the year ended 31 December 2021 (2020: 25%).

The Group's subsidiaries operating in the PRC are eligible for tax credits of 175% (2020: 175%) deduction rates on certain research and development expenses ("**R&D expenses**") for the year ended 31 December 2021.

In December 2020, the Ministry of Finance ("**MOF**"), State Taxation Administration ("**STA**"), National Development and Reform Commission ("**NDRC**") and Ministry of Industry and Information Technology ("**MIIT**") jointly issued the Public Notice regarding the EIT policies to encourage the development of integrated circuit ("**IC**") industry and software industry ("**Public Notice No.45**"). Following which, the NDRC, MIIT, MOF, General Administration of Customs ("**GAC**") and STA jointly released the Notice ("**Fa Gai Gao Ji [2021] No.413**") in March 2021 regarding the List-making for the IC Enterprises or Projects and Software Enterprises Eligible for Preferential Tax Policies (the "**Notice**"), pursuant to which key software enterprises under the State Planning layout could go through tax reduction procedures with the relevant tax authorities to enjoy preferential tax policies.

During the years ended 31 December 2021 and 31 December 2020, two of the Company's subsidiaries, including AsiaInfo Technologies (China), Inc. ("**AsiaInfo China**") and AsiaInfo Technologies (Nanjing), Inc. ("**AsiaInfo Nanjing**"), were identified as the key software enterprises with tax privileges and entitled to a preferential EIT rate of 10%, pursuant to the designation as a key software enterprise under the State Planning. Such tax preference was applied and entitled by performing the record filling to the tax authorities on a yearly basis. The Directors consider that AsiaInfo China and AsiaInfo Nanjing will re-apply for such tax preference provided that its business operations will continue to be qualified as key software enterprises.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2021
(Expressed in thousands of Renminbi, unless otherwise stated)

7. INCOME TAX EXPENSES (Continued)

MOF and STA promulgated and implemented Income Tax Policies for Integrated Circuit Design and Software Enterprises (the "**Policies**") in 2011, pursuant to which, all eligible software enterprises that were profit-making up to the year ended 31 December 2017 would be entitled to two-year EIT exemptions followed by three years' 50% EIT reduction of the statutory EIT rates, starting from their first profit-making year. In May 2019, the relevant taxation authority renewed this Policies for the first time to make eligible software enterprises that were profit- making for the year ended 31 December 2018 to be entitled for such preferential EIT rates. Nanjing AsiaInfo Software Co., Ltd ("**Nanjing Software**") had met all the requirements to be eligible under the Policies and therefore, Nanjing Software has EIT exemptions for two year starting from the year ended 31 December 2019 and be entitled to a preferential EIT rate of 12.5% from 2021 to 2023. Meanwhile, pursuant to the Policies, effective from its profit-making year, Hunan AsiaInfo Software Co., Ltd. enjoys EIT exemptions for the next first two years of profit-making, starting 2018 (retrospectively applied in 2018 as it was the first year the relevant taxation authority renewed the Policies) and was entitled to a preferential EIT rate of 12.5% from 2020 to 2022.

Hangzhou AsiaInfo Cloud Information Technologies Limited ("**Hangzhou Cloud**") was designated as "High and New Technology Enterprise" in 2019 for a period up to 31 December 2021. Guangzhou AsiaInfo Technology Co. Ltd. and Beijing AsiaInfo Smart Big Data Co., Ltd. were designated as "High and New Technology Enterprise" in 2020 for a period up to 31 December 2022. As a result, the three companies above were entitled to a preferential income tax rate of 15% for the year ended 31 December 2021 (2020: 15%).

Based on the Notice regarding the Preferential EIT Policies for the Hainan Free Trade Port ("**Cai Shui [2020] NO. 31**"), and the Announcement on Continuation of EIT Policies for Large-scale Development in the Western Region Notice regarding Extending Preferential EIT Policies for the Development of the Western Regions ("**Announcement of the Ministry of Finance, the State Taxation Administration, and the National Development and Reform Commission [2020] No.23**"), Hainan AsiaInfo Software Co., Ltd. ("**Hainan Software**") and Chongqing Shuzhi Logic Co., Ltd. ("**Shuzhi Logic**") both complied with the preferential policies and further enjoyed the EIT rate of 15% in 2021 as a result.

According to the relevant tax law in the PRC, dividend distributed to foreign investors out of the profit generated from 1 January 2008 onwards shall be subject to withholding tax at 10% and withheld by the PRC entity, pursuant to Articles 3 and 37 of the EIT Law and Article 91 of its Detailed Rules for the Implementation of the Regulation.

On 21 March 2018, the Hong Kong Legislative Council passed The Inland Revenue (Amendment) (No.7) Bill 2017 (the "**Bill**") which introduces the two-tiered profits tax rates regime. The Bill was signed into law on 28 March 2018 and was gazetted on the following day. Under the two-tiered profits tax rates regime, the first HK$2 million of profits of the qualifying group entity will be taxed at 8.25% and profits above HK$2 million will be taxed at 16.5%. The profits of group entities not qualifying for the two-tiered profits tax rates regime will continue to be taxed at a flat rate of 16.5% (2020: 16.5%). The Directors considered the amount involved upon implementation of the two-tiered profits tax rates regime as insignificant to the consolidated financial statements. Hong Kong Profits Tax is calculated at 16.5% of the estimated assessable profit for 2021 (2020: 16.5%).

Pursuant to the rules and regulations of the BVI, the Company is not subject to any income tax in the BVI.

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7. INCOME TAX EXPENSES (Continued)

The income tax expenses for the years ended 31 December 2021 and 31 December 2020 can be reconciled to the profit before tax per the consolidated statement of profit or loss and other comprehensive income as follows:

	Year ended 31 December	
	2021	2020
	RMB'000	RMB'000
Profit before tax	**916,531**	764,327
Notional tax at applicable income tax rate of 10%	**91,653**	76,433
Tax effect of different tax rates of subsidiaries not applicable of 10% (2020: 10%)	**4,907**	(3,736)
Tax effect of share of results of associates	**(17)**	157
Tax credits on eligible R&D expenses	**(60,719)**	(44,842)
Tax effect of expenses not deductible for tax purpose	**40,069**	60,921
Effect of using the deductible losses for which no deferred tax asset was recognised in previous periods	**—**	(6,671)
Tax effect of income not taxable for tax purpose	**624**	(2,933)
Tax effect of tax losses not recognised	**28,428**	22,895
Over-provision in prior years	**(3,733)**	—
Tax effect of withholding tax on profit distribution[i]	**32,800**	—
Income tax expenses for the year	**134,012**	102,224

Note:

i. Since the Group is able to control the timing of the reversal of temporary differences arising from the subsidiaries' undistributed profits, a corresponding deferred tax liability of RMB32,800,000 was recognised in 2021 as per the subsidiaries' profit distribution resolutions (2020: nil).

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8. PROFIT FOR THE YEAR

	Year ended 31 December	
	2021	2020
	RMB'000	RMB'000
Profit for the year has been arrived at after charging:		
Staff costs, including Directors' and chief executive's remuneration set out in Note 11		
Directors' remuneration	**28,411**	101,375
Employee benefit expenses		
Other staff costs (salaries, wages, allowance, bonus and others)	**3,369,632**	3,074,613
Contribution to retirement benefits scheme	**317,413**	219,705
Share-based compensation expenses	**85,410**	172,600
Total staff costs	**3,800,866**	3,568,293
Cost of inventories recognised as expenses (transferred into cost of sales)	**423,124**	230,580
Depreciation of property, plant and equipment	**36,929**	32,581
Depreciation of right-of-use assets	**71,814**	64,449
Amortisation of intangible assets	**3,367**	7,428
Expense of short-term and low value lease	**55,749**	68,112
Auditor's remuneration[i]	**5,852**	5,178

Note:

i. The amount included audit service fee of RMB4,950,000 (2020: RMB4,380,000) and RMB902,000 (2020: RMB798,000) for the Company and the subsidiaries in the Group, respectively.

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9. DIVIDENDS

(i) Dividends payable to equity holders of the Company attributable to the year

	2021 RMB'000	2020 RMB'000
Final dividend proposed after the end of the Reporting Period of HK$0.416 (equivalent to RMB0.340) per Share (2020: HK$0.345 (equivalent to RMB0.290) per Share)	314,292	264,841

The final dividend proposed after the end of the Reporting Period has not been recognised as a liability at the end of the Reporting Period.

(ii) Dividends payable to equity holders of the Company attributable to the previous financial year, approved and paid during the year

	2021 RMB'000	2020 RMB'000
Final dividend in respect of the previous financial year, approved and paid during the year, of HK$0.345 (equivalent to RMB0.290) per Share (2020: HK$0.252 (equivalent to RMB0.226) per Share)	264,277	168,936

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10. EARNINGS PER SHARE

The calculation of the basic and diluted earnings per share attributable to the ordinary equity holders of the Company is based on the following data:

	Year ended 31 December	
	2021	2020
	RMB'000	RMB'000
Earnings:		
Earnings for the purpose of calculating basic and diluted earnings per share	**785,729**	662,103
Number of shares:		
Issued Shares at 1 January	**915,767,433**	726,044,916
Effect of shares issued to China Mobile International Holdings Limited ("**CMI**")	**—**	60,255,320
Effect of shares repurchased	**(3,287,846)**	(10,577,531)
Effect of share options exercised and restricted stock units ("**RSUs**") vested	**5,688,082**	4,685,691
Weighted average number of shares for the purpose of calculating basic earnings per share	**918,167,669**	780,408,396
Effect of dilutive potential shares:		
Share options and RSUs	**13,432,093**	6,276,616
Weighted average number of shares for the purpose of calculating diluted earnings per share	**931,599,762**	786,685,012

The calculations of basic earnings per share for the years ended 31 December 2021 and 31 December 2020 were based on the profit for the year attributable to the equity holders of the Company.

The calculations of the number of shares for the purpose of basic earnings per share for the years ended 31 December 2021 and 31 December 2020 had taken into account the issuance of shares with regard to the exercise and vesting of share options and RSUs, purchase of shares in 2021 and 2020, and the issuance of shares to CMI in 2020.

The computation of diluted earnings per share for the year ended 31 December 2021 did not assume the exercise of the share options under the 2014 stock inventive plan ("2014 Plan"), the share options that exercised with exercise prices of US$1.9225 under the Pre-IPO Share Option Scheme, the share options that exercised with exercise prices of HK$12.54 and HK$12.46 under the 2019 Share Option Scheme since such share options had an anti-dilutive effect.

The computation of diluted earnings per share for the year ended 31 December 2020 did not assume the exercise of the share options under the 2014 Plan, the share options that exercised with exercise prices of US$1.9225 and partly of US$1.2725 under the Pre-IPO Share Option Scheme, the exercise of share options granted under the 2019 Share Option Scheme and the vesting of share awards granted under the 2020 Share Award Scheme since such share options and share awards had an anti-dilutive effect.

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11. DIRECTORS' AND CHIEF EXECUTIVE'S EMOLUMENTS AND EMPLOYEES' EMOLUMENTS

Directors and chief executive

Details of the emoluments paid or payable to the directors and chief executive of the Company by entities comprising the Group during the years ended 31 December 2021 and 31 December 2020 are as follows:

Year ended 31 December 2021

	Directors' fees RMB'000	Salaries allowances and benefits in kind RMB'000	Discretionary bonus RMB'000	Contribution to retirement benefit scheme RMB'000	Total RMB'000
Directors and chief executive:					
Mr. Suning Tian	—	—	—	—	—
Mr. Jian Ding	—	—	—	—	—
Mr. Nianshu Gao	—	2,274	2,987	41	5,302
Sub-total	—	2,274	2,987	41	5,302
Non-executive directors:	—	—	—	—	—
Mr. Yichen Zhang	—	—	—	—	—
Mr. Yuesheng Xin	—	—	—	—	—
Mr. Xike Cheng*	—	—	—	—	—
Mr. Lin Yang	—	—	—	—	—
Ms. Hong Liu	—	—	—	—	—
Mr. Liyang Zhang**	—	—	—	—	—
Sub-total	—	—	—	—	—
Independent non-executive directors:					
Mr. Jack Qunyao Gao	381	—	—	—	381
Mr. Ya-Qin Zhang	381	—	—	—	381
Mr. Ming Ge	381	—	—	—	381
Ms. Ping Tao	383	—	—	—	383
Sub-total	1,526	—	—	—	1,526
Total	1,526	2,274	2,987	41	6,828

* Mr. Xike Cheng was appointed as a non-executive director of the Company since June 30, 2021.

** Mr. Liyang Zhang was resigned as a non-executive director of the Company since June 30, 2021.

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11. DIRECTORS' AND CHIEF EXECUTIVE'S EMOLUMENTS AND EMPLOYEES' EMOLUMENTS (Continued)

Directors and chief executive (Continued)

Year ended 31 December 2020

	Directors' fees RMB'000	Salaries allowances and benefits in kind RMB'000	Discretionary bonus RMB'000	Contribution to retirement benefit scheme RMB'000	Total RMB'000
Directors and chief executive:					
Mr. Suning Tian	—	—	—	—	—
Mr. Jian Ding	—	—	—	—	—
Mr. Nianshu Gao	—	2,001	2,900	39	4,940
Sub-total	—	2,001	2,900	39	4,940
Non-executive directors:	—	—	—	—	—
Mr. Yichen Zhang	—	—	—	—	—
Mr. Yuesheng Xin	—	—	—	—	—
Mr. Liyang Zhang	—	—	—	—	—
Mr. Lin Yang	—	—	—	—	—
Ms. Hong Liu	—	—	—	—	—
Sub-total	—	—	—	—	—
Independent non-executive directors:					
Mr. Jack Qunyao Gao	419	—	—	—	419
Mr. Ya-Qin Zhang	419	—	—	—	419
Mr. Ming Ge	419	—	—	—	419
Ms. Ping Tao	136	—	—	—	136
Sub-total	1,393	—	—	—	1,393
Total	1,393	2,001	2,900	39	6,333

The emoluments disclosed above didn't contain the amount recognised as expense in relation to share-based payments during the years ended 31 December 2021 and 31 December 2020. For details of directors' share-based compensation, please refer to Note 32.

No emoluments were paid or payable to Mr. Suning Tian, Mr. Jian Ding, Mr. Yichen Zhang, Mr. Yuesheng Xin, Mr. Liyang Zhang, Mr. Lin Yang, Ms. Hong Liu, the directors of the Company during the years ended 31 December 2021 and 31 December 2020. Additionally, no emoluments were paid or payable to Mr. Xike Cheng, the director of the Company during the year ended 31 December 2021.

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11. DIRECTORS' AND CHIEF EXECUTIVE'S EMOLUMENTS AND EMPLOYEES' EMOLUMENTS (Continued)

Directors and chief executive (Continued)

The emoluments of the directors and chief executive shown above were for their management services rendered to the Group. The emoluments of the non-executive directors and independent non-executive directors were for their services as directors of the Company.

As at 31 December 2021, there are no loans, quasi-loans and other dealing arrangements in favour of the directors, controlled bodies corporate and controlled entities with such directors.

Employees

The five highest paid individuals of the Group included one director for the year ended 31 December 2021 (2020: one director), details of whose emoluments were included in the disclosures above. Details of the remuneration for the year of the remaining four (2020: four) highest paid individuals who are neither a director nor chief executive of the Company for the year ended 31 December 2021 are as follows:

	Year ended 31 December	
	2021	2020
	RMB'000	RMB'000
Employees		
Salaries, allowances and benefits in kind	**6,018**	4,626
Discretionary bonus	**6,081**	5,840
Share-based compensation expenses	**26,672**	71,012
Contribution to retirement benefit scheme	**170**	83
	38,941	81,561

Their top five emoluments fell within the following bands:

	Number of employees Year ended 31 December	
	2021	2020
HK$7,500,001 to HK$8,000,000	**1**	—
HK$8,500,001 to HK$9,000,000	**1**	—
HK$11,500,001 to HK$12,000,000	**—**	1
HK$12,000,001 to HK$12,500,000	**—**	1
HK$14,500,001 to HK$15,000,000	**1**	1
HK$16,000,001 to HK$16,500,000	**1**	—
HK$32,000,001 to HK$32,500,000	**1**	—
HK$58,500,001 to HK$59,000,000	**—**	1
HK$118,000,001 to HK$118,500,000	**—**	1
	5	5

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11. DIRECTORS' AND CHIEF EXECUTIVE'S EMOLUMENTS AND EMPLOYEES' EMOLUMENTS (Continued)

Employees (Continued)

Saved as disclosed above, during the years ended 31 December 2021 and 31 December 2020, no emoluments were paid by the Group to the directors or chief executive of the Company or the five highest paid individuals of the Group as an inducement to join or upon joining the Group or as compensation for loss of office.

None of the directors of the Company and the five highest paid individuals of the Group waived or agreed to waive any emoluments during the year ended 31 December 2021 (2020: nil).

12. PROPERTY, PLANT AND EQUIPMENT

	Buildings	Leasehold improvements	Motor vehicles	Furniture, fixtures and equipment	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
COST					
At 1 January 2020	230,625	110,772	5,285	99,358	446,040
Additions	—	32,474	2,451	14,952	49,877
Disposals	(3,324)	(11,427)	(1,450)	(1,720)	(17,921)
At 31 December 2020	227,301	131,819	6,286	112,590	477,996
Additions	—	18,612	809	9,882	29,303
Disposals	—	(19,758)	(443)	(6,851)	(27,052)
At 31 December 2021	227,301	130,673	6,652	115,621	480,247
ACCUMULATED DEPRECIATION					
At 1 January 2020	(25,852)	(57,912)	(4,046)	(69,969)	(157,779)
Charged for the year	(4,981)	(15,827)	(650)	(11,123)	(32,581)
Eliminated on disposals	444	2,011	1,450	1,683	5,588
At 31 December 2020	(30,389)	(71,728)	(3,246)	(79,409)	(184,772)
Charged for the year	(4,930)	(19,636)	(969)	(11,394)	(36,929)
Eliminated on disposals	—	19,398	443	6,783	26,624
At 31 December 2021	(35,319)	(71,966)	(3,772)	(84,020)	(195,077)
CARRYING VALUES					
At 31 December 2021	191,982	58,707	2,880	31,601	285,170
At 31 December 2020	196,912	60,091	3,040	33,181	293,224

(Expressed in thousands of Renminbi, unless otherwise stated)

12. PROPERTY, PLANT AND EQUIPMENT (Continued)

The above items of property, plant and equipment, taking into account their residual values of the cost, are depreciated on a straight-line basis over their estimated useful lives shown as follows:

Buildings	40 to 47 years
Leasehold improvements	Shorter of the lease term or 5 to 10 years
Motor vehicles	5 years
Furniture, fixtures and equipment	5 to 10 years

13. LEASES

The Group as a lessee

The Group has lease contracts for various properties and buildings used in its operations. Lump sum payments were made upfront to acquire the leased land from the owners with lease periods of 50 years, and no ongoing payments will be made under the terms of these land leases. Leases of properties generally have fixed lease terms between 6 months and 5 years.

There are several lease contracts that include extension and termination options, but do not impose any covenants in the leased assets or include any variable lease payments. Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. In determining the lease term and assessing the length of the non-cancellable period, the Group applies the definition of a contract and determines the period for which the contract is enforceable.

As at 31 December 2021, there were no lease agreements that were entered into but not yet commenced.

i. Right-of-use assets

The carrying amounts of the Group's right-of-use assets and the movements during the year are as follows:

	Buildings RMB'000	**Land use right** RMB'000	**Total** RMB'000
Carrying amount			
At 1 January 2020	85,995	83,470	169,465
Addition	163,872	—	163,872
Decrease due to termination	(11,354)	—	(11,354)
Depreciation charge	(62,430)	(2,019)	(64,449)
At 31 December 2020	176,083	81,451	257,534
Addition	45,334	—	45,334
Decrease due to termination	(2,704)	—	(2,704)
Depreciation charge	(69,795)	(2,019)	(71,814)
At 31 December 2021	148,918	79,432	228,350

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For the year ended 31 December 2021
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13. LEASES (Continued)

The Group as a lessee (Continued)

ii. Lease liabilities

The carrying amounts of the Group's lease liabilities and the movements during the year are as follows:

	Total RMB'000
Carrying amount	
At 1 January 2020	75,587
Addition	163,872
Decrease due to termination	(8,272)
Interest on lease liabilities	7,038
Payment	(74,366)
At 31 December 2020	163,859
Addition	**45,345**
Decrease due to termination	**(2,438)**
Interest on lease liabilities	**9,660**
Payment	**(78,565)**
At 31 December 2021	**137,861**

Lease liabilities payable:

	At 31 December	
	2021 RMB'000	2020 RMB'000
Within one year	**49,239**	46,201
Within a period of more than one year but not more than two years	**29,454**	41,848
Within a period of more than two years but not more than five years	**29,258**	37,766
Within a period of more than five years	**29,910**	38,044
At end of the year	**137,861**	163,859
Less: Amount due for settlement with 12 months shown under current liabilities	**49,239**	46,201
Amount due for settlement after 12 months shown under non-current liabilities	**88,622**	117,658

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13. LEASES (Continued)

The Group as a lessee (Continued)

iii. The amounts recognised in profit or loss in relation to leases are as follows:

	Year ended 31 December	
	2021	2020
	RMB'000	RMB'000
Interest on lease liabilities	**9,660**	7,038
Depreciation charge of right-of-use assets	**71,814**	64,449
Expense relating to short-term leases	**55,749**	68,112

iv. The total cash outflow for leases are as follows:

	Year ended 31 December	
	2021	2020
	RMB'000	RMB'000
Within operating activities	**55,749**	68,112
Within investing activities	**—**	—
Within financing activities	**78,565**	74,366

v. Extension options and termination options:

During the year ended 31 December 2021, the Group terminated contracts amounted to RMB2,438,000 (2020: RMB8,272,000), resulting in decreases in lease liabilities due to early termination from contracts with no termination options.

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14. INTANGIBLE ASSETS

	Customer relationships RMB'000	Core technologies RMB'000	Non-compete agreements RMB'000	Software RMB'000	Memberships RMB'000	Total RMB'000
COST						
At 1 January 2020	779,585	295,512	6,729	13,092	3,400	1,098,318
Additions	—	—	—	3,538	—	3,538
Disposals	—	—	—	—	(2,200)	(2,200)
At 31 December 2020	779,585	295,512	6,729	16,630	1,200	1,099,656
Additions	—	—	—	5,039	—	5,039
Disposals	—	—	—	(11,389)	—	(11,389)
At 31 December 2021	779,585	295,512	6,729	10,280	1,200	1,093,306
AMORTIZATION AND IMPAIRMENT						
At 1 January 2020	(774,400)	(295,512)	(6,729)	(11,769)	(2,200)	(1,090,610)
Charged for the year	(5,185)	—	—	(2,243)	—	(7,428)
Eliminated on disposals	—	—	—	—	2,200	2,200
At 31 December 2020	(779,585)	(295,512)	(6,729)	(14,012)	—	(1,095,838)
Charged for the year	—	—	—	(3,367)	—	(3,367)
Eliminated on disposals	—	—	—	11,196	—	11,196
At 31 December 2021	(779,585)	(295,512)	(6,729)	(6,183)	—	(1,088,009)
CARRYING VALUES						
At 31 December 2021	—	—	—	4,097	1,200	5,297
At 31 December 2020	—	—	—	2,618	1,200	3,818

All intangible assets have finite useful lives and are amortised on a straight-line basis based on their estimated useful lives, except for the customer relationships having finite useful lives and being amortised on an accelerated basis based on their estimated useful lives and the memberships having infinite lives, as follows:

Customer relationships	2 to 10 years
Core technologies	5 to 6 years
Non-compete agreements	2 to 10 years
Software	1 to 6 years

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15. GOODWILL

The goodwill was primarily arisen from the acquisition of Linkage Technologies International Holdings Limited on 1 July 2010. The carrying value was RMB1,932,246,000 as at 31 December 2021 (2020: RMB1,932,246,000), which is related to the Group's software business.

Impairment testing on goodwill

For the impairment testing, goodwill has been allocated to the Group's cash-generating units ("CGU") which are operating in the software business.

The basis of the recoverable amount of the above CGU and the methodology used for the year are summarised below:

The recoverable amount of the Group of CGU has been determined based on a value in use calculation and is assessed by the management with reference to valuations carried out by an independent professional valuer, which has appropriate qualifications and experience in valuation of similar testing.

The calculation uses cash flow projections based on financial budgets approved by management covering a five-year period, and at a pre-tax discount rate of 19.5% for the year ended 31 December 2021 (2020: 19.5%). The cash flows of the CGU beyond the five-year period are extrapolated using a 3.0% growth rate considering the relevant industry growth rate forecast and the economic condition of the market and period which does not exceed the long-term average growth rate for the industry. The Directors believe that the projected growth rates are reasonable. Other key assumptions for the value in use calculations relate to the estimation of cash inflows and/or outflows which include budgeted sales and gross profit margin, with expected gross profit margin for 5-year-period floating up and down within 1% compared with that of the year. Such estimation is based on the past performance of the CGU, industry information and management's expectations for the market development, including the fluctuation in the software products and related services business in the current economic environment.

The recoverable amount of the CGU of software business was RMB11,470,000,000 as at 31 December 2021 (2020: RMB9,270,000,000), which was higher than the carrying amount of the CGU, including the goodwill. Therefore for the year ended 31 December 2021, no impairment loss was recognised (2020: nil).

The table below sets forth a sensitivity analysis of the impact of variations in key assumptions, namely the discount rate and the revenue growth rate, on the recoverable amount of the CGU of software business, where the headroom represents the excess of the recoverable amount over the carrying amount of the CGU of software business. The headroom amounts to RMB5,315,000,000 as at 31 December 2021 (2020: RMB3,715,000,000). The management believes that any reasonably possible change in assumptions would not cause the aggregate carrying amount of the CGU to exceed the recoverable amount.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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15. GOODWILL (Continued)

Impairment testing on goodwill (Continued)

	Headroom At 31 December	
	2021	2020
	RMB'000	RMB'000
Reasonably possible change in discount rate		
+0.5%	**5,015,000**	3,465,000
+1%	**4,735,000**	3,225,000
Reasonably possible change in revenue growth rate		
−0.5%	**5,125,000**	3,555,000
−1%	**4,955,000**	3,405,000

16. INVESTMENTS IN ASSOCIATES

Details of the Group's investments in associates are aggregately presented as follows:

	At 31 December	
	2021	2020
	RMB'000	RMB'000
Cost of unlisted investments in associates	**25,500**	6,000
Share of results and other comprehensive income	**582**	410
Impairment losses on associates	**(6,410)**	(6,410)
	19,672	—

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16. INVESTMENTS IN ASSOCIATES (Continued)

Details of the Group's associates at the end of the years ended 31 December 2021 and 31 December 2020 are as follows, all of which are unlisted corporate entities whose quoted market price is not available:

Name of entity[i]	Place of incorporation/ Registration	Principal place of operation	Proportion of ownership interest and voting rights held by the Group At 31 December				Principal activity
			2021		2020		
			Directly	Voting	Directly	Voting	
Beijing Yangguang Tiannv Information Technology Co., Ltd.[ii] (北京陽光天女信息科技有限公司)	PRC	PRC	**9.0%**	**14.3%**	9.0%	14.3%	Provision of information technology development services
Guangdong New Vision Info-Tech Co., Ltd.[iii] (廣東新視野信息科技股份有限公司)	PRC	PRC	**14.0%**	**14.0%**	N/A	N/A	Provision of smart city solutions and overall operation services

All of the above associates are accounted for using the equity method in the consolidated financial statements.

Notes:

i. The English names of the companies are translated from their registered Chinese names for identification purpose only.

ii. On 23 February 2017, the Group invested RMB6,000,000 into Beijing Yangguang Tiannv Information Technology Co., Ltd. ("**Yangguang Tiannv**") for 10% equity interests. The Group's interest was diluted by an independent third-party non-controlling shareholder with capital injections to 9% in 2018. The Group has the ability to exercise significant influence over the investee through the power to appoint one out of seven seats in the board of directors and has the rights to exercise its voting power throughout any decision-making process of the investee.

Yangguang Tiannv nearly ceased all its business, the investment was fully impaired and an impairment loss of RMB6,410,000 was recognised in profit or loss during 2020.

iii. On 1 November 2021, the Group invested RMB19,500,000 into Guangdong New Vision Info-Tech Co., Ltd. for 14.0% equity interests. Although the proportion of ownership interest held in the investee is less than 20%, pursuant to the articles of associations, the Group has assigned a director in the board of directors, as such, the Group has significant influence over it.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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17. TRADE AND NOTES RECEIVABLES

	At 31 December	
	2021	2020
	RMB'000	RMB'000
Notes receivables	**97,876**	76,562
Trade receivables	**776,551**	913,583
Amounts due from third parties	**370,556**	320,740
Amounts due from related parties	**405,995**	592,843
Less: allowance for credit losses	**(27,854)**	(48,188)
	846,573	941,957

For the purpose of data comparison, the amounts above included the trade and notes receivables from China Mobile Group.

The Group generally grants credit period of 30 days from the dates of acceptance reports when the Group had the right to consideration becoming unconditional. The extension of credit period to the customers may be granted on a discretionary basis by considering customer type, the current creditworthiness and the customer's financial condition and payment history with the Group.

Trade receivables relate to a number of independent customers that have a good track record with the Group. The allowance for doubtful debts of the Group is based on the evaluation of collectability and aging analysis of individual trade debts performed by the management. A considerable amount of judgment is required in assessing the ultimate realisation of these receivables, including the current creditworthiness and the past collection history of each customer.

Notes receivables are bank acceptance notes and commercial acceptance notes issued by large enterprise customers, which management believes that all the counterparties are of high credit quality and the expected credit loss isn't significant.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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17. TRADE AND NOTES RECEIVABLES (Continued)

Aging of trade and notes receivables, net of allowance for credit losses, based on the dates when the Group has the right to bill, at the end of the years ended 31 December 2021 and 31 December 2020 is as follows:

	At 31 December	
	2021	2020
	RMB'000	RMB'000
1–30 Days	**564,318**	689,984
31–90 Days	**155,361**	82,109
91–180 Days	**63,799**	111,407
181–365 Days	**32,250**	45,677
Over 365 Days	**30,845**	12,780
	846,573	941,957

Movements in lifetime ECL that had been recognised for trade receivables in accordance with HKFRS 9 for the years ended 31 December 2021 and 31 December 2020 are as follows:

	Total
	RMB'000
At 1 January 2020	22,716
Allowance for trade receivables, net of reversal	29,621
Written-off as uncollectible	(4,149)
At 31 December 2020	48,188
Allowance for trade receivables, net of reversal	(18,123)
Written-off as uncollectible	(2,211)
At 31 December 2021	27,854

Details of impairment assessment on trade receivables are set out in Note 21.

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18. PREPAYMENTS, DEPOSITS AND OTHER RECEIVABLES

	At 31 December	
	2021	2020
	RMB'000	RMB'000
Receivables from disposal of associates	—	30,000
Project bidding and other deposits	26,436	28,611
Prepayment of value added tax	45,105	20,395
Prepayment for outsourcing system supporting service	14,458	14,356
Prepaid rental expenses[(i)]	7,719	8,471
Interest receivable	4,624	4,176
Prepayment for purchase of shares	29,482	3,576
Advances to suppliers	26,992	2,085
Receivables from exercise of share award scheme	16,733	1,804
Others	17,155	1,489
	188,704	114,963
Less: allowance for credit losses	(5)	(577)
	188,699	114,386

Note:

(i) Prepaid rental expenses mainly represent prepayments for short-term leases and leases of low value assets that were exempted from HKFRS 16.

Movements in lifetime ECL that has been recognised for receivables from disposal of associates, project bidding and other deposits and interest receivable in accordance with the simplified approach set out in HKFRS 9 for the years ended 31 December 2021 and 31 December 2020 is as follows:

	At 31 December	
	2021	2020
	RMB'000	RMB'000
At the beginning of the year	577	1,340
Net reversal of allowance for credit losses	91	(432)
Written-off as uncollectible	(663)	(331)
At the end of the year	5	577

(Expressed in thousands of Renminbi, unless otherwise stated)

19. CONTRACT ASSETS AND CONTRACT LIABILITIES

The Group has rights to considerations from customers for the provision of software business. Contract assets arise when the Group has rights to considerations for completion of such services and not yet billed under the relevant contracts, and their rights are conditioned on factors other than passage of time. Any amount previously recognised as contract assets are transferred to trade receivables when the rights become unconditional. Remaining rights and performance obligations in a particular contract are accounted for and presented on a net basis, as either a contract asset or a contract liability.

	At 31 December	
	2021	2020
	RMB'000	RMB'000
Analysed for reporting purposes as follows:		
Contract assets	**2,230,815**	1,722,485
Contract liabilities	**(290,495)**	(393,371)

For the purpose of data comparison, the amounts included the contract assets and contract liabilities from China Mobile Group.

For the contract liabilities as at 31 December 2021 and 31 December 2020, the majority of the balances were expected to be recognised as revenue during the year ending 31 December 2022 and the year ended 31 December 2021, respectively.

Contract assets and contract liabilities are analysed and classified as current assets and current liabilities due to the contract assets and contract liabilities are expected to be recognised in normal operation cycle.

Movements in lifetime ECL that had been recognised for contract assets in accordance with HKFRS 9 for the year ended 31 December 2021 are as follows:

	RMB'000
At 31 December 2019	29,706
Allowance on contract assets, net of reversal	5,862
At 31 December 2020	35,568
Allowance on contract assets, net of reversal	88,974
At 31 December 2021	124,542

Details of impairment assessment on contract assets are set out in Note 21.

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20. FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS

Financial assets measured at FVPL include the following:

	At 31 December	
	2021	2020
	RMB'000	RMB'000
Wealth management products (Note)	**528,692**	1,103,800

Note:

Wealth management products represented the Group's investments in various wealth management products issued by commercial banks, insurance companies and state-owned financial institutions. These products have no specified maturity and are repayable on demand, or have a term ranging from 3 months to 8 months with variable return rates indexed to the performance of underlying assets. As at 31 December 2021, they were measured at fair values (level 3: RMB528,692,000). They have an expected annual return rate ranging from 1.5% to 4.75%.

The gains were recognised in profits or loss are as follows:

	Year ended 31 December	
	2021	2020
	RMB'000	RMB'000
Changes in fair value of financial assets at FVTPL (Note 4)	**6,896**	7,400
Net gains on disposal of financial assets at FVTPL (Note 4)	**26,597**	23,104
	33,493	30,504

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21. OVERVIEW OF THE GROUP'S EXPOSURE TO CREDIT RISK

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in financial loss to the Group. At the end of the reporting period, the Group's maximum exposure to credit risk which causes a financial loss to the Group due to failure to discharge an obligation by the counterparties is arising from the carrying amount of the respective recognised financial assets as stated in the consolidated statement of financial position.

In order to minimise credit risk, the finance team of the Group has developed and maintained a credit risk grading system to categorise exposures according to their degree of risk of default. Management uses publicly available financial information and the Group's own historical repayment records to rate its major customers and other debtors. The Group's exposure and the credit ratings of its counterparties are continuously monitored and the aggregate value of transactions concluded is spread amongst approved counterparties.

For trade receivables and contract assets, the Group has applied the HKFRS 9 to measure the loss allowance at lifetime ECL. The Group determines the ECL on these items by using a provision matrix, estimated based on the historical credit loss experience based on the past default experience of the debtor, general economic conditions of the industry in which the debtors operate and an assessment of both the current as well as the forecast direction of conditions at the reporting date.

The Group writes off trade receivables and contract assets when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery, e.g. when the debtor has been placed under liquidation or has entered into bankruptcy proceedings.

Based on the Group's historical credit loss experience, different customer types (including strategic and normal risk type) have significant different loss patterns.

Strategic customers	Represent the three largest telecom operators and China Tower Corporation Limited in the PRC (including their headquarters, provincial, municipal and specialised subsidiaries/branches)
Normal risk customers	Represent other enterprises in the PRC except for strategic customers

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21. OVERVIEW OF THE GROUP'S EXPOSURE TO CREDIT RISK (Continued)

As at 31 December 2021

Strategic customers:

For strategic customers, the directors of the Company determines that the ECL rate is relatively low based on the size and operations of the strategic customers. Such customers have good credit rating, limited past default payment history with minimal amount.

The following table provides information about the Group's exposure to credit risk and ECLs for strategic customers as at 31 December 2021:

Strategic customers	Average loss rate %	Gross carrying amount RMB'000	Impairment loss allowance RMB'000
Trade receivables	0.66%	672,097	4,468
Contract assets	0.61%	1,946,741	11,797

Normal risk customers:

The following table provides information about the Group's exposure to credit risk and ECLs for normal risk customers as at 31 December 2021:

Normal risk customers	Average loss rate %	Gross carrying amount RMB'000	Impairment loss allowance RMB'000
Trade receivables	22.39%	104,454	23,386
Contract assets	27.59%	408,616	112,745

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21. OVERVIEW OF THE GROUP'S EXPOSURE TO CREDIT RISK (Continued)

As at 31 December 2020

Strategic customers:

For strategic customers, the directors of the Company determines that the ECL rate is relatively low based on the size and operations of the strategic customers. Such customers have good credit rating, limited past default payment history with minimal amount.

The following table provides information about the Group's exposure to credit risk and ECLs for strategic customers as at 31 December 2020:

Strategic customers	Average loss rate %	Gross carrying amount RMB'000	Impairment loss allowance RMB'000
Trade receivables	0.86%	820,233	7,058
Contract assets	1.37%	1,581,204	21,670

Normal risk customers:

The following table provides information about the Group's exposure to credit risk and ECLs for normal risk customers as at 31 December 2020:

Normal risk customers	Average loss rate %	Gross carrying amount RMB'000	Impairment loss allowance RMB'000
Trade receivables	44.06%	93,350	41,130
Contract assets	7.86%	176,849	13,898

In determining the ECL for other receivables, amounts due from related parties, and other non-current assets, the directors of the Company have taken into account the historical default experience and the future prospects of the industries and/or considering various external sources of actual and forecast economic information, as appropriate, in estimating the probability of default of each of the other receivables, amounts due from related parties, and other non-current assets occurring within their respective loss assessment time horizon, as well as the loss upon default in each case. For the purposes of impairment assessment, other receivables, amounts due from related parties, and other non-current assets are considered to have low credit risk as the counterparties to these financial assets have a high credit rating. Accordingly, the loss allowance is measured at an amount equal to 12-month ECL.

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21. OVERVIEW OF THE GROUP'S EXPOSURE TO CREDIT RISK (Continued)

No allowance has been provided for notes receivables, pledged bank deposits, term deposits and bank balances since the balances are all with the banks which have low credit risks at 31 December 2021.

22. PLEDGED BANK DEPOSITS, TERM DEPOSITS AND BANK BALANCES AND CASH

Pledged bank deposits

Pledged bank deposits represent deposits pledged to banks to secure banking facilities granted to the Group, obtain letters of credits or guarantees. Deposits amounting to RMB178,744,000 had been pledged to secure facilities and short-term bank borrowings, letters of credits or guarantees as at 31 December 2021 (2020: RMB263,067,000), and therefore, were classified as current assets. The deposits amounting to RMB333,000 as at 31 December 2021 had been pledged for a period longer than one year for letters of credits and guarantees and therefore, were classified as non-current assets as at 31 December 2021 (2020: RMB8,737,000).

Pledged bank deposits of the Group carried interests at market rates which range from 0.3% to 2.75% as at 31 December 2021 (2020: 0.01% to 2.75%).

Term deposits

Term deposits represent multiple certificates of deposits with a commercial bank in the PRC that bear fixed interest rates, per annum, ranging from 3.15% to 3.45% (2020: from 0.98% to 3.30%), as at 31 December 2021.

Bank balances and cash

Bank balances and cash of the Group comprised cash and bank balances that bear interest at prevailing market rates, per annum, ranging from 0.00% to 3.00% as at 31 December 2021 (2020: from 0.00% to 3.25%).

(Expressed in thousands of Renminbi, unless otherwise stated)

23. TRADE AND NOTES PAYABLES

	At 31 December	
	2021	2020
	RMB'000	RMB'000
Trade payables	**316,873**	149,454
Notes payables	**6,804**	—
	323,677	149,454

The table below sets forth, as at the end of the reporting period, the aging analysis of the trade and notes payables presented based on the invoice date:

	At 31 December	
	2021	2020
	RMB'000	RMB'000
1–90 days	**223,125**	79,538
91–180 days	**47,752**	13,922
181–365 days	**22,952**	12,171
1–2 years	**12,417**	15,338
Over 2 years	**17,431**	28,485
	323,677	149,454

The average credit period on purchases of goods and services is 90 days. The Group has financial risk management policies in place to ensure that sufficient working capital is maintained to meet its obligations when they fall due.

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24. OTHER PAYABLES, DEPOSITS RECEIVED AND ACCRUED EXPENSES

	At 31 December	
	2021	2020
	RMB'000	RMB'000
Accrued payroll and welfare	**1,901,557**	1,866,996
Accrued liabilities	**83,304**	73,968
Other tax payables	**78,756**	40,390
Accrued expenses	**57,742**	45,727
Employee reimbursement payable	**12,926**	9,924
Other payables	**12,401**	5,630
Advance from customers	**11,726**	16,083
Others	**1,563**	4,500
	2,159,975	2,063,218

25. BANK BORROWINGS

	At 31 December	
	2021	2020
	RMB'000	RMB'000
Analysed as:		
Secured bank borrowings carrying interest at variable rates	**—**	137,023
Analysis of borrowings by currency:		
Denominated in US$	**—**	137,023

The Group had no bank borrowings as at 31 December 2021 (2020: the bank borrowings of RMB137,023,000 denominated in US$). The Group's bank borrowings were secured by the respective pledged bank deposits as at 31 December 2020.

	At 31 December	
	2021	2020
	RMB'000	RMB'000
The carrying amounts of the above borrowings contain a repayment on demand clause (shown under current liabilities)	**—**	137,023

The above bank borrowings denominated in US$ were at variable interest rates based on three-month London Interbank Offered Rate plus 1.11% as at 31 December 2020.

(Expressed in thousands of Renminbi, unless otherwise stated)

26. DEFERRED TAXATION

The following is the analysis of the deferred tax balances for financial reporting purposes:

	At 31 December	
	2021	2020
	RMB'000	RMB'000
Deferred tax assets	**120,930**	133,111
Deferred tax liabilities	**(155,812)**	(123,205)
	(34,882)	9,906

The following are the major deferred tax assets (liabilities) recognised and movements thereon during the years reported:

	Impairment loss	Accrued payroll and welfare	Accrued expense	Right-of-use assets and lease liabilities	Withholding tax on undistributable profits of the PRC subsidiaries (Note 7)	Intangible assets	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
At 1 January 2020	5,326	118,940	11,550	(50)	(122,464)	(519)	12,783
Credited (charged) to profit or loss	3,145	(5,530)	(320)	(691)	—	519	(2,877)
At 31 December 2020	8,471	113,410	11,230	(741)	(122,464)	—	9,906
Credited (charged) to profit or loss	3,993	(12,561)	(3,613)	193	(32,800)	—	(44,788)
At 31 December 2021	12,464	100,849	7,617	(548)	(155,264)	—	(34,882)

Deferred tax assets not recognised

Deferred tax assets are recognised if it is probable that all of the deferred tax assets will be realised through the recovery of taxes previously paid and/or future taxable income. The directors of the Company have reviewed the deferred tax assets of the Group at the end of the reporting period and considered that it is probable that the deferred tax assets of the Group will be realised through future taxable income based on directors' assessment of the probability that taxable profits will be available over the years which the deferred tax assets can be realised or utilised.

As at 31 December 2021, the Group had unused tax losses arising in Mainland China of RMB459,825,000 (2020: RMB327,001,000) available for offset against future profits. These tax losses will expire from 2022 to 2026, and certain subsidiaries of the Group may extend to 2031. No deferred tax assets had been recognised as at 31 December 2021 and 31 December 2020 of such tax losses due to the unpredictability of future profit streams.

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27. RECONCILIATION OF LIABILITIES ARISING FROM FINANCING ACTIVITIES

The table below details changes in the Group's liabilities arising from financing activities, including both cash and non-cash changes. Liabilities arising from financing activities are those for which cash flows were, or further cash flows will be, classified in the Group's consolidated statement of cash flows from financing activities.

	Dividend payables RMB'000	**Bank borrowings** RMB'000	**Lease liabilities** RMB'000	**Total** RMB'000
At January 1, 2020	—	594,372	75,587	669,959
Financing cash flows				
New bank borrowings raised	—	931,647	—	931,647
Repayment of bank borrowings	—	(1,360,914)	—	(1,360,914)
Bank borrowing Interest paid	—	(13,622)	—	(13,622)
Capital element of lease rentals paid	—	—	(67,328)	(67,328)
Interest element of lease rentals paid	—	—	(7,038)	(7,038)
Dividends paid	(167,455)	—	—	(167,455)
Dividends declared	168,936	—	—	168,936
Effect of exchange differences	(1,481)	(28,082)	—	(29,563)
Interest expense	—	12,581	7,038	19,619
Interest payable included in other payables, deposits received and accrued expenses	—	1,041	—	1,041
New additions to leases	—	—	163,872	163,872
Decrease due to termination of lease contacts	—	—	(8,272)	(8,272)
At December 31, 2020	—	137,023	163,859	300,882
Financing cash flows				
Repayment of bank borrowings	—	(134,308)	—	(134,308)
Borrowing Interest paid	—	(912)	—	(912)
Capital element of lease rentals paid	—	—	(68,905)	(68,905)
Interest element of lease rentals paid	—	—	(9,660)	(9,660)
Dividends paid	(264,277)	—	—	(264,277)
Dividends declared	261,334	—	—	261,334
Effect of exchange differences	2,943	(2,708)	—	235
Interest expense	—	905	9,660	10,565
New additions to leases	—	—	45,345	45,345
Decrease due to termination of lease contacts	—	—	(2,438)	(2,438)
At December 31, 2021	—	—	137,861	137,861

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28. SHARE CAPITAL

The Company

Details of the movement of share capital of the Company are as follows:

	Number of shares	Nominal value per share	Share capital
Authorised			
At 1 January 2020, 31 December 2020 and 31 December 2021	800,000,000,000	HK$0.0000000125	HK$10,000.00
Issued			
At 1 January 2020	726,044,916	HK$0.0000000125	HK$9.08
Issue of shares upon the contribution from share holders[(i)]	182,259,893	HK$0.0000000125	HK$2.28
Exercise of share options[(ii)]	3,696,480	HK$0.0000000125	HK$0.04
Vesting of restricted stock units[(iii)]	3,766,144	HK$0.0000000125	HK$0.05
At 31 December 2020	915,767,433	HK$0.0000000125	HK$11.45
Exercise of share options[(ii)]	5,609,917	HK$0.0000000125	HK$0.07
Vesting of restricted stock units[(iii)]	3,567,500	HK$0.0000000125	HK$0.04
At 31 December 2021	924,944,850	HK$0.0000000125	HK$11.56

	At 31 December	
	2021	2020
	RMB'000	RMB'000
Presented as	—	—

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28. SHARE CAPITAL (Continued)

Notes:

(i) On 14 April 2020, the Company and CMI entered into the subscription agreement under which the Company had conditionally agreed to allot and issue, and CMI had conditionally agreed to subscribe for 182,259,893 new shares at the subscription price for HK$7.6 per subscription share. On 2 September 2020, all conditions as set out in the subscription agreement had been fulfilled and the subscription was completed in accordance with the terms and conditions of the subscription arrangement, whereby 182,259,893 new shares were allotted and issued to CMI as paid at the subscription price with the total amount of consideration of HK$1,385,175,000 (equivalent to RMB1,222,099,000).

(ii) During the year ended 31 December 2021, the Company issued and allotted 559,800 shares, 4,141,125 shares and 908,992 shares, respectively, resulting from the exercising of options to certain employees and directors pursuant to the stock share option under the 2011 stock inventive plan ("2011 Plan"), the Pre-IPO Share Option Scheme, and 2019 Share Option Scheme (Note 32).

During the year ended 31 December 2020, the Company issued an aggregate of 2,803,880 shares, resulting from the exercising of share option granted to certain employees and a director pursuant to the Pre-IPO share option scheme, and issued an aggregate of 892,600 shares upon exercising of share option under the 2011 plan (Note 32).

(iii) On 18 January 2021 and 2020, the Company issued and allotted 3,567,500 shares and 2,515,776 shares, respectively, resulting from the vesting of restricted share awards to certain employees and a director pursuant to the Pre-IPO Share Award Scheme approved and adopted on 26 June 2018, granted on 1 August 2018, respectively (Note 32).

On 1 July 2020, the Company issued and allotted 1,250,368 shares, respectively, resulting from the vesting of restricted share awards to certain employees and a director pursuant to the Pre-IPO Share Award Scheme approved and adopted on 26 June 2018, granted on 11 July 2018, respectively (Note 32).

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29. PURCHASE OF SHARES

The following table presents the shares that held by the Company for the purpose of the 2020 Share Award Scheme and the movements due to the allotted shares.

Details	Number of shares	HK$'000	RMB'000
Opening balance 1 January 2021	16,431,103	190,301	163,626
Purchase of Shares for share award scheme	6,996,000	89,403	75,359
Shares vested under share award scheme (Note 32)	(700,000)	(8,515)	(7,482)
Balance 31 December 2021	22,727,103	271,189	231,503

During the year 2021 and 2020, the Company purchased its Shares on The Stock Exchange of Hong Kong Limited as follows:

Month	Number of shares purchased	Highest price paid per share HK$	Lowest price paid per share HK$	Aggregate price paid HK$'000
April 2021	624,400	12.6638	12.2798	7,739
May 2021	1,120,400	12.9887	12.4227	14,239
June 2021	1,581,200	13.4055	12.8827	20,726
July 2021	400,000	12.4967	12.3834	4,982
Aug 2021	1,850,000	12.7838	12.3471	23,348
Sep 2021	1,150,000	12.9930	12.5027	14,745
Oct 2021	270,000	13.7072	13.0824	3,624
				89,403
May 2020	860,000	9.9454	9.7101	8,470
Jun 2020	2,613,600	10.4431	9.5400	26,590
Jul 2020	3,866,400	10.7686	10.4429	41,006
Aug 2020	4,700,000	11.6615	10.8294	52,846
Sep 2020	7,706,000	12.9962	11.6103	94,410
Oct 2020	9,524,000	12.2906	10.7851	111,428
Nov 2020	7,032,000	12.1400	10.9665	80,391
				415,141

The Company purchased Shares through the trustee for the implementation of the 2020 Share Award Scheme in 2021 and 2020 under the instructions of the Company. For the year ended 31 December 2021, the Company paid deposit amounted to HK$120,000,000 (equivalent to RMB101,124,000) to the trustee and has purchased 6,996,000 Shares at a total consideration of HK$89,403,000 (equivalent to RMB75,359,000), 700,000 RSUs were vested by using the shares purchased from the market under the instructions from the Company. For the year ended 31 December 2020, the Company paid deposit amounted to HK$420,000,000 (equivalent to RMB367,860,000) to the trustee and has purchased 36,302,000 Shares at a total consideration of HK$415,141,000 (equivalent to RMB364,284,000).

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30. CAPITAL RISK MANAGEMENT

The Group's primary objectives when managing capital are to safeguard the group's ability to continue as a going concern, so that it can continue to provide returns for shareholders and benefits for other stakeholders, by pricing products and services commensurately with the level of risk and by securing access to finance at a reasonable cost.

The Group manages its capital to ensure entities in the Group will be able to continue as a going concern with maximizing the return to shareholders through the optimization of the debt and equity balance. The Group's overall strategy remains unchanged over the year ended 31 December 2021.

The capital structure of the Group consists of net debt, which includes bank borrowings disclosed in Note 25, net of cash and cash equivalents, and total equity of the Group, comprising share capital and reserves. The Group monitors capital on the basis of the debt-to-capitalisation ratio. This ratio is calculated as interest-bearing debts over interest-bearing debts plus total equity. Interest-bearing debts represent bank borrowings and lease liabilities, as shown in the consolidated statement of financial position.

	At 31 December	
	2021	2020
	RMB'000	RMB'000
Interest-bearing debts:		
Bank borrowings	**—**	137,023
Lease liabilities (non-current portion)	**88,622**	117,658
Lease liabilities (current portion)	**49,239**	46,201
	137,861	300,882
Total equity	**6,151,569**	5,555,448
Interest-bearing debts plus total equity	**6,289,430**	5,856,330
Debt-to-capitalisation ratio	**2.2%**	5.1%

The directors of the Company review the capital structure on a regular basis. As part of this review, the management considers the cost of capital and the risks associated with the capital. Based on recommendations of the directors of the Company, the Group will balance its overall capital structure through raising of new capital, issue of new debt or the redemption of the existing debts.

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31. FINANCIAL INSTRUMENTS

Categories of financial instruments

	At 31 December 2021 RMB'000	2020 RMB'000
Financial assets		
Financial assets at fair value through profit or loss	528,692	1,103,800
Financial assets at amortised cost	4,048,070	3,381,503
	4,576,762	4,485,303

	At 31 December 2021 RMB'000	2020 RMB'000
Financial liabilities		
Financial liabilities measured at amortised cost	347,959	301,261

Financial risk management objectives and policies

The Group's major financial instruments include financial assets at FVTPL, trade and notes receivables, other receivables, other non-current assets, amounts due from related parties, pledged bank deposits, term deposits, bank balances and cash, trade and notes payables, other payables, amounts due to related parties and bank borrowings. Details of these financial instruments are disclosed in respective notes. The risks associated with these financial instruments include market risk (interest rate risk and currency risk), credit risk and liquidity risk. The policies on how to mitigate these risks are set out below. The management manages and monitors these exposures to ensure appropriate measures are implemented on a timely and effective manner.

Market risk

Interest rate risk

The Group is exposed to cash flow interest rate risk in relation to variable-rate pledged bank deposits, bank balances and bank borrowings. The Group keeps it pledged bank deposits, bank balances and bank borrowings at floating rate of interests so as to minimise the fair value interest rate risk. The Group's cash flow interest rate risk is mainly concentrated on the fluctuation of the Benchmark Lending Rates of the London Interbank Offered Rate arising from the Group's US$ denominated borrowings for the years ended 31 December 2021 and 31 December 2020. The Group is also exposed to fair value interest rate risk in relation to financial assets at FVTPL, fixed-rate term deposits (Note 22) and lease liabilities (Note 13). The management monitors interest rate exposure and will consider hedging significant interest rate exposure should the need arise.

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31. FINANCIAL INSTRUMENTS (Continued)

Sensitivity analysis

The sensitivity analysis below has been determined based on the exposure to variable interest rates for pledged bank deposits, bank balances and bank borrowings at the end of the reporting period and assumed that the amount of such balances outstanding at the end of the reporting period was outstanding for the whole year. A 50 basis point increase or decrease is used when reporting interest rate risk internally to key management personnel and represents management's assessment of the reasonably possible change in interest rates.

If interest rates had been 50 basis points higher/lower and all other variables were held constant, the Group's post-tax profit for the year ended 31 December 2021 would increase/decrease by RMB13,909,000 (2020: increase/decrease by RMB10,062,000). This is mainly attributable to the Group's exposure on interest rates on its pledged bank deposits, bank balances and bank borrowings.

Currency risk

The Group has bank balances and term deposits which are denominated in foreign currencies, mainly US$ and HK$, as at 31 December 2021 (2020: US$ and HK$) and bank borrowing balances which are denominated in US$ as at 31 December 2020, that are exposed to currency risk.

The carrying amounts of the Group's foreign currency denominated monetary assets and liabilities, excluded related party borrowings, at the end of the reporting period are set forth as follows:

	At 31 December	
	2021	2020
	RMB'000	RMB'000
Assets		
US$	**64,235**	267,442
HK$	**51,645**	252,201
	115,880	519,643
Liabilities		
US$	**—**	137,023

31. FINANCIAL INSTRUMENTS (Continued)

Foreign currency sensitivity analysis

The sensitivity analysis below has been determined based on the exposure to foreign currency rates and includes only outstanding foreign currency denominated monetary items and adjusts their translation at the period end for a 5% change in foreign currency rates. The sensitivity analysis includes external bank borrowings from the PRC banks' overseas branches. A 5% increase or decrease is used when reporting foreign currency rate risk internally to key management personnel and represents management's assessment of the reasonably possible change in foreign currency rates.

If RMB were appreciated/depreciated 5% against the foreign currency and all other variable were held constant, the Group's post-tax profit for the year ended 31 December 2021 would decrease/increase by RMB5,292,000 (2020: decrease/increase by RMB19,005,000). This is mainly attributable to the Group's exposure to foreign currency rates of US$ (2020: US$) on its bank borrowings and the foreign currency bank balances and term deposits.

Credit risk

The Group's maximum exposure to credit risk which causes a financial loss to the Group due to failure to discharge an obligation by the counterparties is arising from the carrying amount of the respective recognised financial assets as stated in the consolidated statement of financial position.

The Group's credit risk is primarily attributable to its trade and notes receivables, other receivables, other non-current assets, amounts due from related parties and contract assets.

With respect to the credit risk of the Group's treasury operations, management has established internal procedures to monitor the Group's bank balances and cash, term deposits, investments to be placed and entered into with financial institution of good reputation. These internal procedures help to minimise the Group's credit risk exposure.

The credit risk on pledged bank deposits, bank balances and term deposits is limited because the counterparties are banks with high credit rating.

Due to the nature of business of the Group, the Group has significant concentration of credit risk on a number of customers. During the year ended 31 December 2021, the aggregate amount of the Group's revenue amount to the top three customers was RMB6,358,033,000 (2020: RMB5,716,395,000), representing 92.2% (2020: 95.0%) of total revenue of the Group for the year. The aggregated balance of the Group's trade and notes receivables from the top three customers was RMB750,621,000 (2020: RMB817,990,000), representing 85.8% (2020: 86.8%) of the total trade and notes receivables as at 31 December 2021. In addition, the Group's concentration of credit risk by geographical locations is substantially in the PRC. In the opinion of directors of the Company, those customers are mainly large telecommunication companies owned by the PRC government with good financial backgrounds.

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31. FINANCIAL INSTRUMENTS (Continued)

Foreign currency sensitivity analysis (Continued)

Liquidity risk

Ultimate responsibility for liquidity risk management rests with the directors of the Company, who have established an appropriate liquidity risk management framework for the management of the Group's short-, medium- and long-term funding and liquidity management requirements. The Group manages liquidity risk by maintaining adequate reserves and banking facilities, by continuously monitoring forecast and actual cash flows, and by matching the maturity profiles of financial assets and liabilities.

The directors of the Company are of the opinion that taken into account the above plans and measures, the Group will have sufficient working capital to meet its financial liabilities and obligations as and when they fall due and to sustain its operations for the next twelve months from the end of the reporting period. The consolidated financial statements have been prepared on the going concern basis.

The following table details the Group's remaining contractual maturity for its non-derivative financial liabilities. The table has been drawn up based on the undiscounted cash flows of the liabilities based on the earliest date on which the Group can be required to pay.

	Weighted average effective interest rate/ borrowing rate	On demand or within 3 months	3 months to 1 year	1–5 years	Over 5 years	Total undiscounted cash flow	Carrying value
	%	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
At 31 December 2021							
Trade and notes payables		**323,677**	**—**	**—**	**—**	**323,677**	**323,677**
Other payables		**12,401**	**—**	**—**	**—**	**12,401**	**12,401**
Amounts due to related parties		**11,881**	**—**	**—**	**—**	**11,881**	**11,881**
Bank borrowings		**—**	**—**	**—**	**—**	**—**	**—**
Lease liabilities	**5.6%**	**15,540**	**40,945**	**71,006**	**33,722**	**161,213**	**137,861**
		363,499	**40,945**	**71,006**	**33,722**	**509,172**	**485,820**
At 31 December 2020							
Trade and notes payables		149,454	—	—	—	149,454	149,454
Other payables		5,630	—	—	—	5,630	5,630
Amounts due to related parties		9,154	—	—	—	9,154	9,154
Bank borrowings	2.3%	—	137,787	—	—	137,787	137,023
Lease liabilities	5.5%	639	11,770	118,899	86,670	217,978	163,859
		164,877	149,557	118,899	86,670	520,003	465,120

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31. FINANCIAL INSTRUMENTS (Continued)

Fair value measurement

Fair value of the Group's financial assets and financial liabilities that are measured at fair value on a recurring basis

This note provides information about how the Group determines fair values of the following financial assets.

	Fair value as at 31 December		Fair value hierarchy	Valuation technique and key input
	2021	2020		
	RMB'000	RMB'000		
Wealth management products	**528,692**	1,103,800	Level 3	Estimated return rate is key input.

During the years ended 31 December 2020 and 31 December 2021, there were no transfers between Level 1 and Level 2, or transfers into or out of Level 3.

Fair value of the Group's financial assets and financial liabilities that are not measured at fair value on a recurring basis

The directors of the Company consider that the carrying amounts of financial assets and financial liabilities recorded at amortised cost in the consolidated financial statements approximate their fair values due to short maturity, initially recognised close to each reporting date, or with floating interest rates.

32. SHARE-BASED PAYMENTS

Before the year ended 31 December 2017, the Group did not issue its own stock option scheme. The employees of the Company and its subsidiaries are eligible for the 2011 Plan and the 2014 Plan adopted by the then immediate holding company, AsiaInfo Holdings, and the then intermediate holding company, Skipper Holdings, respectively. Accordingly, the Group accounted for such plans by measuring the services received from the grantee in accordance with the requirement applicable to equity-settled share-based payment transactions, and recognised a corresponding increase in equity as a contribution from the parent companies in accordance with HKFRS 2 *Share-based Payment*.

2011 Plan

On 21 April 2011, AsiaInfo Holdings approved a stock incentive plan with the purpose of enhancing the long-term stockholder value by offering employees and directors to participate in the Group's growth and success and to encourage them to remain the service in the Group. The 2011 Plan is valid and effective for 10 years from the grant date. Under the 2011 Plan, AsiaInfo Holdings is authorised to grant participants restricted stock awards, stock options, or other types of equity incentives with a total number of 7,501,752 ordinary shares (being 60,014,016 ordinary shares after taking into account the share subdivision) of AsiaInfo Holdings.

Furthermore, in connection with the privatisation and delisting from the National Association of Securities Dealers Automated Quotations Global Market of the United States of America ("**NASDAQ**") of AsiaInfo Holdings, the share incentives granted under the 2011 Plan were converted into the share incentive issued by Skipper Holdings with granting the equivalent numbers of ordinary shares of Skipper Holdings without any change of terms as stated under the 2011 Plan in 2014.

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32. SHARE-BASED PAYMENTS (Continued)

2011 Plan (Continued)

Stock Options under the 2011 Plan

In December 2011, pursuant to the 2011 Plan, the compensation committee of the board of directors of AsiaInfo Holdings approved to grant options to certain employees and executive officers. The stock options are valid and effective for 10 years from the approval date and have graded vesting terms of four years and vest in different schedules from the grant date, on condition that employees remain in service without any performance requirements. For the stock options granted to employees of the Group, they will be vested on annual basis equally over four years, 25% on each anniversary of the grant date. For the stock options granted to the Chief Executive Officer, 17.5%, 17.5%, 32.5% and 32.5% are vested at each anniversary of the grant date over four years. For the stock options granted to the vice president of AsiaInfo Holdings, 20%, 20%, 30% and 30% are vested at each anniversary of the grant date over four years. For the stock options granted in 2017, 0%, 50%, 25% and 25% are vested at each anniversary of the grant date over four years.

The fair value of each stock option was calculated using the binomial option-pricing model. Option valuation models require the input of highly subjective assumptions, including the option's expected life and the price volatility of the underlying share, and changes in the subjective input assumptions can materially affect the fair value estimate of employee stock options.

The movements of stock options held by the Group's directors and employees under the 2011 Plan are summarised as follows:

	Number of stock options	Weighted average exercise price per option (US$)
Outstanding as at 31 December 2019	1,647,536	0.47
Exercised(i)	(892,600)	0.41
Outstanding as at 31 December 2020	754,936	0.55
Exercised(i)	(559,800)	0.56
Outstanding as at 31 December 2021	195,136	0.54

Note:

(i) The Company issued an aggregated of 559,800 (2020: 892,600) Shares upon exercising of share options under the 2011 Plan in 2021 with the market prices at exercise dates being in a range of HK$11.84 to HK$13.62 (2020: HK$9.10 to HK$13.74).

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32. SHARE-BASED PAYMENTS (Continued)

2014 Plan

On 1 June 2015, the board of directors of Skipper Holdings, the then intermediate holding company of the Company, approved the 2014 Plan with the purpose of enhancing the long-term stockholder value by offering employees and directors to participate in the Group's growth and success and to encourage them to remain in the service in the Group. The 2014 Plan is valid and effective for 10 years from the approval date. Under the 2014 Plan, Skipper Holdings is authorised to grant participants restricted stock awards, stock options, or other types of equity incentives with a total number of 14,733,653 ordinary shares (being 117,869,224 ordinary shares after taking into account the share subdivision) of Skipper Holdings.

Under the 2014 Plan, Skipper Holdings granted certain options to the directors of the Company and the employees of the Group on 1 July 2015. The stock options are valid and effective for 10 years from the approval date and have graded vesting terms of four years. The stock options are vested at 0%, 50%, 25% and 25% on each anniversary of the grant date over four years.

Stock Options under the 2014 Plan

The movements of stock options under the 2014 Plan are summarised as follows:

	Number of stock options	Weighted average exercise price per option (US$)
Outstanding as at 31 December 2019	21,976,272	1.92
Forfeited	(1,303,224)	1.92
Outstanding as at 31 December 2020	20,673,048	1.92
Forfeited	(1,336,896)	1.92
Outstanding as at 31 December 2021	19,336,152	1.92

The Group has used the discounted cash flow method to determine the underlying ordinary share fair value of Skipper Holdings. Based on the fair value of the underlying ordinary shares, the Group has used binomial option-pricing model to determine the fair value of the stock option as of the grant date. Option valuation models require the input of highly subjective assumptions, including the option's expected life and the price volatility of the underlying share, and changes in the subjective input assumptions can materially affect the fair value estimate of employee stock options.

Pre-IPO Share Option Scheme

On 26 June 2018, the Company adopted the Pre-IPO Share Option Scheme. On 11 July 2018 and 1 August 2018, pursuant to the Pre-IPO Share Option Scheme, the Company granted an aggregate of 15,055,107 share options (being 120,440,856 share options after taking into account the share subdivision), representing rights to subscribe for 15,055,107 shares (being 120,440,856 shares after taking into account the share subdivision) to certain grantees who are a director, employees and a consultant.

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32. SHARE-BASED PAYMENTS (Continued)

Pre-IPO Share Option Scheme (Continued)

On 11 July 2018, a total of 5,875 shares (being 47,000 shares after taking into account of share subdivision) were issued to certain grantees of the share options as a result of the exercise of certain share options granted under the Pre-IPO Share Option Scheme.

An aggregate of 11,781,558 shares (being 94,252,464 shares after taking into account the share subdivision) were granted on 11 July and 1 August 2018 under the Pre-IPO Share Option Scheme.

Details of the outstanding share options as at 31 December 2021 under the Pre-IPO Share Option Scheme held by grantees are set out below:

Exercise Price (US$)	Number of shares underlying the share options	Grant date	Vesting date	Option period
1.9225	7,186,496	11 July 2018	11 July 2018, 1 July 2019 and 1 July 2020	10 years from the grant date
0.84	16,000	1 August 2018	50% vested on the 30th day after the listing date (“**First Vesting Date**”); 20% vested on the first anniversary of the First Vesting Date; 30% vested on the second anniversary of the First Vesting Date	10 years from the grant date
0.5525	7,200	1 August 2018	50% vested on the First Vesting Date; 20% vested on the first anniversary of the First Vesting Date; 30% vested on the second anniversary of the First Vesting Date	10 years from the grant date
1.9225	44,278,908	1 August 2018	50% vested on the First Vesting Date; 20% vested on the first anniversary of the First Vesting Date; 30% vested on the second anniversary of the First Vesting Date	10 years from the grant date
1.2725	19,648,743	1 August 2018	50% vested on the First Vesting Date; 20% vested on the first anniversary of the First Vesting Date; 30% vested on the second anniversary of the First Vesting Date	10 years from the grant date

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32. SHARE-BASED PAYMENTS (Continued)

Pre-IPO Share Option Scheme (Continued)

The movements of stock options under the Pre-IPO Share Option Scheme are summarised as follows:

	Number of stock options	Weighted average exercise price per option (US$)
Outstanding as at 31 December 2019	90,488,104	1.72
Forfeited	(5,983,064)	1.77
Exercised	(2,803,880)	1.27
Outstanding as at 31 December 2020	81,701,160	1.73
Forfeited	(6,422,688)	1.88
Exercised[(i)]	(4,141,125)	1.28
Outstanding as at 31 December 2021	71,137,347	1.74

Note:

(i) The Company issued an aggregated of 4,141,125 (2020: 2,803,880) Shares upon exercising of share options under the Pre-IPO Plan in 2021 with the market prices at exercise dates being in a range of HK$10.52 to HK$13.62 (2020: from HK$9.43 to HK$13.74).

Pre-IPO Share Award Scheme

Pursuant to the Pre-IPO Share Award Scheme, on 11 July 2018 and 1 August 2018, the Company granted an aggregate of 2,322,074 RSUs, representing rights to receive 2,322,074 shares (being 18,576,592 shares after completion of the share subdivision), within which a total of 345,819 shares (being 2,766,552 shares after completion of the share subdivision) were issued on the grant date of 11 July 2018 to certain RSU grantees as a result of the vesting of certain RSUs granted under the Pre-IPO Share Award Scheme. All RSUs had been vested already.

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32. SHARE-BASED PAYMENTS (Continued)

Pre-IPO Share Award Scheme (Continued)

The movements of RSUs issued under the Pre-IPO Share Award Scheme are summarised as follows:

	Number of RSUs	Weighted average grant date fair value per RSU of the original awards (US$)
Unvested as at 31 December 2019	7,616,196	1.21
Forfeited	(279,912)	1.21
Vested[(i)]	(3,766,144)	1.21
Unvested as at 31 December 2020	3,570,140	1.21
Forfeited	(2,640)	1.21
Vested[(i)]	(3,567,500)	1.21
Unvested as at 31 December 2021	—	—

Note:

(i) The grantees vested at the vesting date with the market price of HK$10.96 in 2021 (2020: from HK$9.87 to HK$10.20).

Fair Value of Stock Options and RSUs under the Pre-IPO Share Option Scheme and the Pre-IPO Share Award Scheme

The Group has used the discounted cash flow method to determine the underlying share fair value of the Company. Based on the fair value of the underlying share, the Group has used binomial option-pricing model to determine the fair value of the stock option as of the grant dates. Option valuation models require the input of highly subjective assumptions, including the option's expected life and the price volatility of the underlying share, and changes in the subjective input assumptions can materially affect the fair value estimate of employee stock options.

(Expressed in thousands of Renminbi, unless otherwise stated)

32. SHARE-BASED PAYMENTS (Continued)

Pre-IPO Share Award Scheme (Continued)

Fair Value of Stock Options and RSUs under the Pre-IPO Share Option Scheme and the Pre-IPO Share Award Scheme (Continued)

	11 July 2018 and 1 August 2018 Pre-IPO Scheme
Weighted average grant date fair value per option/RSU (US$)	9.64
Grant date share price (US$)	9.64
Weighted average exercise price (US$)	13.75
Expected volatility	51.0%
Contractual life	10 years
Risk-free rate	3.6%
Expected dividend yield	0.0%

The Company recognised a total share-based compensation expenses of RMB3,168,000 in profit or loss during the year ended 31 December 2021 (2020: RMB68,811,000), among which the amount of share-based compensation expense for Mr. Nianshu Gao was RMB176,000 during the year 2021 (2020: RMB4,611,000) in relation to the stock options and RSUs issued under the Pre-IPO Share Option Scheme and the Pre-IPO Share Award Scheme.

2019 Share Option Scheme

On 25 November 2019, the Company adopted the 2019 Share Option Scheme. The participants of the Scheme are directors, employees and consultants. The maximum number of shares in respect of which options may be granted (including shares in respect of which options, whether exercised or still outstanding, have already been granted and shares which shall have been issued under options which have been canceled) under the 2019 Option Scheme shall be 92,058,886 shares, within which an aggregate of 27,774,200 shares were granted on 16 June 2020, 25 March 2021 and 9 June 2021 under the 2019 Share Option Scheme.

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For the year ended 31 December 2021
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32. SHARE-BASED PAYMENTS (Continued)

2019 Share Option Scheme (Continued)

Details of the outstanding share options as at 31 December 2021 under the 2019 Share Option Scheme held by grantees are set out below:

Exercise Price (HK$)	Number of shares underlying the share options	Grant date	Vesting date	Option period
9.56	11,859,400	16 June 2020	50% vested on the first anniversary of the Granting Date 20% vested on the second anniversary of the Granting Date 30% vested on the third anniversary of the Granting Date	10 years from the grant date
12.46	112,000	25 March 2021	50% vested on the first anniversary of the Granting Date 20% vested on the second anniversary of the Granting Date 30% vested on the third anniversary of the Granting Date	10 years from the grant date
12.54	12,926,200	9 June 2021	40% vested on the first anniversary of the Granting Date 30% vested on the second anniversary of the Granting Date 30% vested on the third anniversary of the Granting Date	10 years from the grant date

The movements of stock options under the 2019 Share Option Scheme are summarised as follows:

	Number of stock options	Weighted average exercise price per option (HK$)
Grant on 16 June 2020	14,516,000	9.56
Forfeited	(800,000)	9.56
Outstanding as at 31 December 2020	13,716,000	9.56
Grant on 25 March 2021	112,000	12.46
Grant on 9 June 2021	13,146,200	12.54
Forfeited	(1,167,608)	10.12
Exercised	(908,992)	9.56
Outstanding as at 31 December 2021	24,897,600	11.12

(Expressed in thousands of Renminbi, unless otherwise stated)

32. SHARE-BASED PAYMENTS (Continued)

2019 Share Option Scheme (Continued)

Fair Value of Stock Options under the 2019 Share Option Scheme

The Group has used the closing price of the Company's share to determine the underlying shares' fair value on the vesting date. Based on the fair value of the underlying shares, the Group has used binomial option-pricing model to determine the fair value of the stock option as of the grant dates. Option valuation models require the input of highly subjective assumptions, including the option's exercise price, expected life and the price volatility of the underlying share.

	16 June 2020 under 2019 Scheme
Fair market value per share as at valuation date (HK$)	9.05
Exercise price (HK$ per share)	9.56
Expected volatility	49.0%
Contractual life	10 years
Risk-free rate	0.5%
Forfeiture rate	7.5%
Expected dividend yield	2.5%

	25 March 2021 under 2019 Scheme
Fair market value per share as at valuation date (HK$)	12.46
Exercise price (HK$ per share)	12.46
Expected volatility	49.0%
Contractual life	10 years
Risk-free rate	0.5%
Forfeiture rate	0.0%
Expected dividend yield	2.5%

	9 June 2021 under 2019 Scheme
Fair market value per share as at valuation date (HK$)	12.54
Exercise price (HK$ per share)	12.54
Expected volatility	49.6%
Contractual life	10 years
Risk-free rate	1.1%
Forfeiture rate	10.0%
Expected dividend yield	2.8%

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32. SHARE-BASED PAYMENTS (Continued)

2019 Share Option Scheme (Continued)

Fair Value of Stock Options under the 2019 Share Option Scheme (Continued)

The expected volatility is based on the historical share price movement of comparable companies for the period of time close to the expected time to exercise. The Risk-free rate is based on the market yield rates of Hong Kong Sovereign bond with maturity date close to the life of options as of the Valuation Date. Forfeiture rate is based on the historical ratio of resigning from the Company, whose title is similar with the grantees. Expected dividends are based on the dividend distribution policy of the Company. Changes in the subjective input assumptions could materially affect the fair value estimate.

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

The Company recognised a total share-based compensation expenses of RMB29,547,000 (2020: RMB14,051,000) in profit or loss during the year ended 31 December 2021, among which the amount of share-based compensation expense for Mr. Ming Ge, Mr. Jack Qunyao Gao and Mr. Ya-qin Zhang was RMB156,000, respectively (2020: RMB145,000), Ms. TAO Ping was RMB33,000 (2020: nil) in relation to the stock options issued under the 2019 Share Option Scheme.

2020 Share Award Scheme

On 7 January 2020, the Company adopted the 2020 Share Award Scheme. Pursuant to the 2020 Share Award Scheme, the maximum number of shares in respect of which RSUs may be granted shall be 46,013,946 shares, within which an aggregate of 36,531,346 shares were granted on certain grantees who as a director or certain employees on 30 December 2020 and 26 May 2021. As at 31 December 2021, a total of 20,570,897 treasury shares were delivered to certain RSU grantees as a result of the vesting of certain RSUs granted under the 2020 Share Award Scheme (Note 28). The fair value of 2020 Share Award Scheme was the market closing price on 30 December 2020 and 26 May 2021, amounting to HKD11.00 (equivalent to RMB9.26) and HKD13.44 (equivalent to RMB11.10) per share.

Details of the unvested RSUs as at 31 December 2021 under the 2020 Share Award Scheme held by the grantees are set out below:

Number of shares underlying the RSUs	Grant date	Vesting date
475,000	30 December 2020	30 December 2021, 2022 and 2023
15,260,449	26 May 2021	26 May 2022, 2023 and 2024

(Expressed in thousands of Renminbi, unless otherwise stated)

32. SHARE-BASED PAYMENTS (Continued)

2020 Share Award Scheme (Continued)

The movements of RSUs allotted under the 2020 Share Award Scheme are summarised as follows:

	Number of RSUs	Weighted average grant date fair value per RSU of the original awards (HK$)
Grant on 30 December 2020	21,270,897	11.00
Vested	(19,870,897)	11.00
Unvested as at 31 December 2020	1,400,000	11.00
Grant on 26 May 2021	15,260,449	13.44
Vested	(700,000)	11.00
Forfeited	(225,000)	11.00
Unvested as at 31 December 2021	15,735,449	13.37

The Company recognised a total share-based compensation expenses of RMB74,279,000 (2020: RMB184,780,000) in profit or loss during the year ended 31 December 2021, among which the amount of share-based compensation expense for Mr. Nianshu Gao was RMB20,907,000 during the year 2021 (2020: RMB89,996,000) in relation to the 2020 Share Award Scheme.

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33. RETIREMENT BENEFIT SCHEME

As stipulated by the rules and regulations in the PRC, the Group contributes to state-managed retirement plans for its employees in the PRC. The Group is required to contribute a certain percentage of the basic salaries of its employees to the retirement plans, and has no further obligation for the actual payment of the previous or post-retirement benefits. The relevant state-managed retirement plans are responsible for the entire present obligation to retired employees.

In accordance with the relevant mandatory provident fund laws and regulations of HK, the Group operates a Mandatory Provident Fund ("**MPF**") scheme ("**MPF Scheme**") for all qualifying HK employees. The assets of the scheme are held separately from those of the Group and under the control of an independent MPF service provider. Under the rules of the MPF Scheme, the employer and its employees are each required to make contributions to the scheme at rates specified in the rules. The only obligation of the Group in respect of the MPF Scheme is to make the required contributions under the scheme.

The amounts of contributions made by the Group in respect of the retirement benefit scheme to employees and directors during the years ended 31 December 2021 and 31 December 2020 are disclosed in Note 8 and Note 11.

34. RELATED PARTY BALANCES AND TRANSACTIONS

(a) Related parties of the Group

The directors of the Company consider that the following entities are related parties of the Group:

Name(i)	Relationship
China Mobile Group(ii)	Significant influence over the Company
AsiaInfo Chengdu	Controlled by Mr. Suning Tian
AsiaInfo Long Voyage Software (Beijing) Co., Ltd.	Controlled by Mr. Suning Tian
Guangzhou AsiaInfo Zhihang Technologies Limited ("**Guangzhou AsiaInfo Zhihang**")	Controlled by Mr. Suning Tian
AsiaInfo Innovation Technologies (Nanjing) Co., Ltd.	Controlled by Mr. Suning Tian
AsiaInfo (Guangzhou) Software Service ("**AsiaInfo Guangzhou Software**")	Entity controlled by Skipper Holdings

Notes:

(i) The English name is for identification purpose only and the official names of the companies are in Chinese.

(ii) In order to simplify the disclosure, China Mobile Group represents China Mobile Limited and its subsidiaries.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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34. RELATED PARTY BALANCES AND TRANSACTIONS (Continued)

(b) Balances with related parties

The outstanding balances related to transactions with related parties are included in the following accounts captions summarised as follows:

(i) Balances due from related parties

	At 31 December	
	2021	2020
	RMB'000	RMB'000
Trade and notes receivables:		
— China Mobile Group (note)	**404,267**	588,620
Contract assets:		
— China Mobile Group (note)	**1,054,853**	863,108
Amounts due from related parties:		
Amounts due from fellow subsidiaries:		
— AsiaInfo Chengdu	**6,019**	6,654
— AsiaInfo Guangzhou Software	**—**	378
— AsiaInfo Long Voyage Software (Beijing) Co., Ltd.	**176**	321
— AsiaInfo Innovation Technologies (Nanjing) Co., Ltd.	**47**	96
Amounts due from shareholders:		
— China Mobile Group	**6,290**	2,784
Total:	**1,471,652**	1,461,961

Note: In September 2020, China Mobile Group becomes a related party of the Group. The outstanding balances related to transactions with China Mobile Group as at 31 December 2021 and 31 December 2020 are disclosed above.

The carrying amounts of trade receivables from China Mobile Group as at 31 December 2021 included the original value and the loss allowance amounting to RMB405,995,000 (2020: RMB592,843,000) and RMB1,728,000 (2020: RMB4,223,000), respectively.

The carrying amounts of contract assets from China Mobile Group as at 31 December 2021 included the original value and the loss allowance amounting to RMB1,058,148,000 (2020: RMB875,327,000) and RMB3,295,000 (2020: RMB12,219,000), respectively.

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34. RELATED PARTY BALANCES AND TRANSACTIONS (Continued)

(b) Balances with related parties (Continued)

(i) Balances due from related parties (Continued)

The Group generally grants a credit period of 30 days to its related parties. Aging of amounts due from related parties — trade nature, based on the dates when the Group has the rights to bill is set forth as follows:

	At 31 December	
	2021	2020
	RMB'000	RMB'000
1–90 days	**1,155,893**	1,058,788
91–180 days	**240,679**	282,081
181–365 days	**59,367**	96,470
Over 365 days	**15,713**	24,622
Total:	**1,471,652**	1,461,961

The balances, are unsecured, interest-free and repayable on demand. The balance of non-trade nature related parties was nil as at 31 December 2021 (2020: nil).

(ii) Balances due to related parties

	At 31 December	
	2021	2020
	RMB'000	RMB'000
Contract liabilities:		
— China Mobile Group	**179,924**	295,309
Amounts due to related parties:		
Amounts due to fellow subsidiaries:		
— AsiaInfo Chengdu	**7,772**	7,638
Amounts due to shareholders:		
— China Mobile Group	**4,109**	1,516
Total:	**191,805**	304,463

Note: In September 2020, China Mobile Group becomes a related party of the Group. The balances related to transactions with China Mobile Group as at 31 December 2021 and 31 December 2020 are disclosed above.

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34. RELATED PARTY BALANCES AND TRANSACTIONS (Continued)

(b) Balances with related parties (Continued)

(ii) Balances due to related parties (Continued)

The average credit period granted by the related parties is 90 days. Aging of amounts due to related parties — trade nature are as follows:

	At 31 December	
	2021	2020
	RMB'000	RMB'000
1–90 days	**124,050**	218,758
91–180 days	**30,162**	48,143
181–365 days	**24,779**	25,275
Over 365 days	**12,814**	12,287
	191,805	304,463

(c) The significant transactions with related parties during the years ended 31 December 2021 and 31 December 2020 are listed out below

During the years, the Group had the following major transactions with related companies, other than those disclosed elsewhere in the consolidated financial statement:

	Year ended 31 December 2021	For the period from 2 September 2020 to 31 December 2020
	RMB'000	RMB'000
China Mobile Group:		
— Software business services provided to	**4,434,868**	1,775,532
— Information and telecommunication technology services and products charged by	**12,895**	2,700
— Office rental services charged by	**4,837**	1,579

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34. RELATED PARTY BALANCES AND TRANSACTIONS (Continued)

(c) The significant transactions with related parties during the years ended 31 December 2021 and 31 December 2020 are listed out below (Continued)

	Year ended 31 December	
	2021	2020
	RMB'000	RMB'000
AsiaInfo Chengdu:		
— Technological support services charged by	**2,569**	1,418
— Network security outsourcing services charged by	**—**	370
— Office rental services provided to	**9,615**	9,494
— Management support services provided to	**5,912**	7,027
— Technological support services provided to	**515**	—

(d) Compensation of key management personnel

The remuneration of key management personnel which represents the directors of the Company and key executives of the Group during the years are as follows:

	Year ended 31 December	
	2021	2020
	RMB'000	RMB'000
Salaries, allowances and benefits in kind	**9,819**	8,625
Discretionary bonus	**9,068**	8,747
Contributions to retirement benefits scheme	**210**	145
Share-based compensation expenses	**48,255**	159,168
Total emoluments	**67,352**	176,685

The remuneration of the directors of the Company and key executives of the Group is determined having regard to the performance of individuals and market trends.

Saved as disclosed above, there were no other significant transactions with related parties during the year or other significant balances with them at the end of the reporting period.

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35. COMMITMENTS

(a) Capital commitments

The Group had the following capital commitments outstanding at 31 December 2021 and 31 December 2020 not provided for:

	At 31 December	
	2021	2020
	RMB'000	RMB'000
Capital expenditure contracted for in the consolidated financial statements in respect of acquisition of property, plant and equipment and intangible assets	**4,572**	9,471

(b) Lease commitments as at 31 December 2021

At 31 December 2021, the Group had commitments of RMB23,097,000 (2020: RMB20,798,000) for short-term leases which are exempted from recognition of lease liabilities and fall due within one year.

36. PARTICULARS OF PRINCIPAL SUBSIDIARIES OF THE COMPANY

As at 31 December 2021, the Company has direct and indirect shareholders/equity interest in the following principal subsidiaries:

Name of subsidiary	Place and date of establishment or acquisition/nature of legal entity	Issued and fully paid ordinary share capital/registered capital	Proportion of interest attributable to the Company				Principal activities
			2021		2020		
			Directly	**Indirectly**	Directly	Indirectly	
AsiaInfo China 亞信科技(中國)有限公司 (Previously known as AsiaInfo-Linkage Technologies (China), Inc. 亞信聯創科技(中國)有限公司)	The PRC 2 May 1995 limited liability company	US$26,040,570	**—**	**100%**	—	100%	Provision of software solutions
AsiaInfo Nanjing 亞信科技(南京)有限公司 (Previously known as Linkage AsiaInfo Technologies (Nanjing), Inc. 聯創亞信科技(南京)有限公司)	The PRC 16 February 2004 limited liability company	RMB100,000,000	**—**	**100%**	—	100%	Provision of software solutions

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36. PARTICULARS OF PRINCIPAL SUBSIDIARIES OF THE COMPANY (Continued)

Name of subsidiary	Place and date of establishment or acquisition/nature of legal entity	Issued and fully paid ordinary share capital/registered capital	Proportion of interest attributable to the Company				Principal activities
			2021		2020		
			Directly	Indirectly	Directly	Indirectly	
Hangzhou AsiaInfo Cloud Information Technologies Limited 杭州亞信雲信息科技有限公司 (Previously known as Hangzhou Zhongbo Software Technology Co., Ltd. 杭州中博軟件技術有限公司)	The PRC 25 February 2007 limited liability company	RMB10,000,000	—	100%	—	100%	Provision of software solutions
Nanjing AsiaInfo Software Co., Ltd. 南京亞信軟件有限公司	The PRC 6 February 2015 limited liability company	RMB30,000,000	—	100%	—	100%	Provision of software solutions
Hunan AsiaInfo Software Co., Ltd. 湖南亞信軟件有限公司	The PRC 16 April 2015 limited liability company	RMB30,000,000	—	100%	—	100%	Provision of software solutions
Hangzhou AsiaInfo Software Co., Ltd. 杭州亞信軟件有限公司	The PRC 15 May 2015 limited liability company	RMB50,000,000	—	100%	—	100%	Provision of software solutions
Guangzhou AsiaInfo Technology Co., Ltd. 廣州亞信技術有限公司	The PRC 11 August 2017 limited liability company	RMB200,000,000	—	100%	—	100%	Provision of software solutions

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36. PARTICULARS OF PRINCIPAL SUBSIDIARIES OF THE COMPANY (Continued)

Name of subsidiary	Place and date of establishment or acquisition/nature of legal entity	Issued and fully paid ordinary share capital/registered capital	Proportion of interest attributable to the Company				Principal activities
			2021		2020		
			Directly	Indirectly	Directly	Indirectly	
Beijing AsiaInfo Smart Big Data Co., Ltd. 北京亞信智慧數據科技有限公司	The PRC 21 August 2014 limited liability company	RMB285,200,000	—	100%	—	100%	Provision of software services
Beijing AsiaInfo XingYuan Technology Limited 北京亞信興源科技有限公司	The PRC 11 November 2019 limited liability company	RMB25,000,000	—	100%	—	100%	Provision of software solutions
AsiaInfo Big Data (H.K.) Limited 亞信大數據(香港)有限公司	HK 20 June 2014 limited liability company	US$44,440,417	—	100%	—	100%	Investment holding
Hong Kong AsiaInfo Technologies Limited (Previously known as Hong Kong AsiaInfo-Linkage Technologies Limited) 香港亞信技術有限公司	HK 25 November 1998 limited liability company	HK$20,000	100%	—	100%	—	Investment holding
AsiaInfo Technologies (H.K.) Limited 香港亞信科技有限公司	HK 20 January 1997 limited liability company	HK$12.75	100%	—	100%	—	Investment holding
Chongqing Shuzhiluoji Technology Limited 重慶數智邏輯科技有限公司	The PRC 30 November 2020 limited liability company	RMB30,000,000	—	100%	—	100%	Provision of software solutions

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36. PARTICULARS OF PRINCIPAL SUBSIDIARIES OF THE COMPANY (Continued)

Name of subsidiary	Place and date of establishment or acquisition/nature of legal entity	Issued and fully paid ordinary share capital/registered capital	Proportion of interest attributable to the Company				Principal activities
			2021		2020		
			Directly	Indirectly	Directly	Indirectly	
Hainan AsiaInfo Software Co., Ltd 海南亞信軟件有限公司	The PRC 16 April 2021 limited liability company	RMB1,000,000	—	100%	—	—	Provision of software solutions
AsiaInfo Goods Cloud Beijing Technology Limited 亞信貨雲(北京)科技有限公司	The PRC 20 May 2021 limited liability company	RMB40,000,000	—	57%	—	—	Provision of software solutions
Hubei AsiaInfo Technology Limited 湖北亞信科技有限公司	The PRC 7 June 2021 limited liability company	RMB50,000,000	—	100%	—	—	Provision of software solutions
Guizhou AsiaInfo Huiyu Information Technology Limited 貴州亞信慧域信息技術有限公司	The PRC 7 December 2021 limited liability company	RMB30,000,000	—	100%	—	—	Provision of software solutions

None of the subsidiaries had issued any debt securities at the end of the year.

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37. STATEMENT OF FINANCIAL POSITION AND RESERVES OF THE COMPANY

	2021 RMB'000	2020 RMB'000
Non-current assets		
Unlisted investments in subsidiaries	820,423	713,429
Right-of-use assets	—	536
Property, plant and equipment	193	538
Total non-current assets	820,616	714,503
Current assets		
Amounts due from subsidiaries	1,998,233	1,261,978
Prepayments, deposits and other receivables	28,248	5,400
Bank balances and cash	261,621	267,117
Total current assets	2,288,102	1,534,495
Current liabilities		
Lease liabilities	—	106
Amounts due to subsidiaries	1,164,672	66,877
Other payables, deposits received and accrued expenses	12,353	1,522
Total current liabilities	1,177,025	68,505
Net current assets	1,111,077	1,465,990
Non-current liabilities		
Lease liabilities	—	—
Net assets	1,931,693	2,180,493
Capital and reserves		
Share capital	—	—
Reserves	1,931,693	2,180,493
Total equity	1,931,693	2,180,493

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37. STATEMENT OF FINANCIAL POSITION AND RESERVES OF THE COMPANY (Continued)

The movement in the reserves of the Company is shown as follows:

	Share premium	Other reserves	Accumulated losses	Total
	RMB'000	RMB'000	RMB'000	RMB'000
At 1 January 2020	997,954	280,328	(16,956)	1,261,326
Total comprehensive income for the year	—	—	(66,975)	(66,975)
Recognition of equity-settled share-based payments	—	267,642	—	267,642
Purchase of Shares for share award scheme	(364,284)	—	—	(364,284)
Issue of new shares upon the contribution from shareholders	1,222,099	—	—	1,222,099
Vesting of restricted stock units	215,886	(215,886)	—	—
Exercise of share options	43,972	(14,351)	—	29,621
Dividends approved in respect of the previous year	—	—	(168,936)	(168,936)
At 31 December 2020	2,115,627	317,733	(252,867)	2,180,493
Total comprehensive income for the year	—	—	(62,402)	(62,402)
Recognition of equity-settled share-based payments	—	106,994	—	106,994
Lapse of share options and restricted stock units	—	(18,706)	18,706	—
Dividends approved in respect of the previous year	—	—	(261,334)	(261,334)
Purchase of Shares for share award scheme	(75,359)	—	—	(75,359)
Vesting of restricted stock units	35,990	(35,990)	—	—
Exercise of share options	64,008	(20,707)	—	43,301
At 31 December 2021	2,140,266	349,324	(557,897)	1,931,693

38. SUBSEQUENT EVENTS

(a) Proposed dividend

After the statement of financial position date, the Board of Directors proposed a final dividend for 2021. For detail, please refer to Note 9(i).

(b) The acquisition of equity interests of Shanghai iResearch Marketing Consulting Co., Ltd. ("iResearch Consulting")

On 14 January 2022, the Group entered into the agreement with the then shareholders to acquire approximately 94.23% of the equity interests of iResearch Consulting at a total consideration of RMB 511,780,400. iResearch Consulting is principally engaged in professional industry services such as industry research, user research, data insight, strategy and etc. Up to the date of this report, the Acquisition was completed and iResearch Consulting became an indirect 94.23%-owned subsidiary of the Company, and the relevant valuation of the acquiree's identifiable assets and liabilities was in progress.

FINANCIAL SUMMARY

RESULTS

	For the year ended 31 December				
	2017	2018	2019	2020	**2021**
	RMB'000	RMB'000	RMB'000	RMB'000	**RMB'000**
Continuing operations					
Revenue	4,948,324	5,210,977	5,721,416	6,019,855	**6,894,667**
Cost of sales	(3,277,896)	(3,328,353)	(3,594,411)	(3,716,620)	**(4,249,501)**
Gross profit	1,670,428	1,882,624	2,127,005	2,303,235	**2,645,166**
Other income	114,712	82,172	103,759	143,289	**162,191**
Impairment losses under expected credit loss model, net of reversal	—	2,880	(28,366)	(35,051)	**(68,415)**
Other gains and losses	68,828	(102,706)	(736)	15,956	**(4,434)**
Selling and marketing expenses	(481,831)	(508,402)	(461,997)	(472,786)	**(505,255)**
Administrative expenses	(403,800)	(332,825)	(292,586)	(321,442)	**(296,225)**
R&D expenses	(430,246)	(584,681)	(862,419)	(840,225)	**(1,006,051)**
Share of results of associates	258	(1,242)	(3,983)	(1,567)	**172**
Impairment losses on associates	—	—	—	(6,410)	**—**
Finance costs	(83,986)	(70,594)	(39,907)	(20,672)	**(10,618)**
Listing expenses	(30,603)	(54,096)	—	—	**—**
Profit before tax	423,760	313,130	540,770	764,327	**916,531**
Income tax expenses	(88,584)	(108,896)	(131,955)	(102,224)	**(134,012)**
Profit for the year	335,176	204,234	408,815	662,103	**782,519**
Discontinued operations					
Loss for the year from discontinued operations	(17,233)	(1,279)	—	—	**—**
Profit for the year	317,943	202,955	408,815	662,103	**782,519**

FINANCIAL SUMMARY

ASSETS AND LIABILITIES

	At 31 December				
	2017	2018	2019	2020	**2021**
	RMB'000	RMB'000	RMB'000	RMB'000	**RMB'000**
Property, plant and equipment	262,629	300,869	288,261	293,224	**285,170**
Right-of-use assets	—	—	169,465	257,534	**228,350**
Prepaid lease payments	85,489	83,470	—	—	**—**
Goodwill	1,932,246	1,932,246	1,932,246	1,932,246	**1,932,246**
Term deposits	—	—	170,000	240,000	**370,000**
Total non-current assets	3,314,868	3,229,675	2,822,732	2,885,758	**2,985,239**
Trade and notes receivables	888,445	764,909	841,182	941,957	**846,573**
Prepayments, deposits and other receivables	176,501	135,704	183,706	114,386	**188,699**
Contract assets	1,632,039	1,335,219	1,554,521	1,722,485	**2,230,815**
Financial assets at fair value through profit or loss	—	210,000	—	1,103,800	**528,692**
Amounts due from related parties	246,244	18,934	6,358	10,233	**12,532**
Pledged bank deposits	537,089	481,755	321,246	263,067	**178,744**
Term deposits	—	—	—	140,923	**200,000**
Bank balances and cash	1,450,588	1,821,182	1,810,591	1,690,151	**2,331,821**
Total current assets	4,947,316	4,767,703	4,717,908	5,987,394	**6,520,225**
Trade and notes payables	612,500	356,316	358,048	149,454	**323,677**
Contract liabilities	387,913	300,918	296,945	393,371	**290,495**
Other payables, deposits received and accrued expenses	1,890,500	1,788,004	1,922,837	2,063,218	**2,159,975**
Bank borrowings	1,154,593	1,915,484	594,372	137,023	**—**
Total current liabilities	4,484,998	4,634,318	3,471,080	3,076,841	**3,109,461**
Deferred tax liabilities	130,971	127,541	122,983	123,205	**155,812**
Bank borrowings	592,744	—	—	—	**—**
Lease liabilities	—	—	39,374	117,658	**88,622**
Total non-current liabilities	738,410	127,541	162,357	240,863	**244,434**
Total equity	3,038,776	3,235,519	3,907,203	5,555,448	**6,151,569**

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