

中國同輻股份有限公司

China Isotope & Radiation Corporation

(於中華人民共和國註冊成立的股份有限公司)





ANNUAL REPORT 年度報告

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CORPORATE INFORMATION

LEGAL NAME OF THE COMPANY

中國同輻股份有限公司(Abbreviation: 中國同輻)

ENGLISH NAME OF THE COMPANY

China Isotope & Radiation Corporation*

REGISTERED OFFICE

Room 418, South 4th Floor

Building 1, No. 66 Changwa Middle Street

Haidian District

Beijing

PRC

HEAD OFFICE IN THE PRC

No. 66

Changwa Middle Street

Haidian District

Beijing

PRC

PRINCIPAL PLACE OF BUSINESS IN HONG KONG

Level 54, Hopewell Centre 183 Queen's Road East

Hong Kong

BOARD OF DIRECTORS

Executive Directors

Mr. Meng Yanbin (Chairman of the Board)

Mr. Wu Jian (resigned on 25 February 2021)

Mr. Wang Suohui (appointed on 25 February 2021)

Mr. Du Jin

Non-executive Directors

Mr. Zhou Liulai (resigned on 25 February 2021)

Mr. Liu Zhonglin (appointed on 25 February 2021)

Mr. Chen Shoulei

Ms. Chang Jinyu

Ms. Liu Xiuhong

Independent Non-executive Directors

Mr. Guo Qingliang (resigned on 25 February 2021)

Mr. Meng Yan (resigned on 25 February 2021)

Mr. Hui Wan Fai

Mr. Tian Jiahe

Ms. Chen Jingshan (appointed on 25 February 2021)

Mr. Lu Chuang (appointed on 25 February 2021)

THE COMMITTEES UNDER THE BOARD

Audit and Risk Management Committee

Mr. Hui Wan Fai (Chairman)

Mr. Meng Yan (resigned on 25 February 2021)

Mr. Zhou Liulai (resigned on 25 February 2021)

Mr. Liu Zhonglin (appointed on 25 February 2021)

Mr. Lu Chuang (appointed on 25 February 2021)

Nomination Committee

Ms. Chen Jingshan (Chairman)

(appointed on 25 February 2021)

Mr. Meng Yanbin (Chairman)

(resigned on 25 February 2021)

Mr. Guo Qingliang (resigned on 25 February 2021)

Mr. Hui Wan Fai

Mr. Lu Chuang (appointed on 25 February 2021)

Remuneration and Appraisal Committee

Mr. Meng Yan (Chairman)

(resigned on 25 February 2021)

Mr. Lu Chuang (Chairman)

(appointed on 25 February 2021)

Mr. Guo Qingliang (resigned on 25 February 2021)

Ms. Liu Xiuhong

Ms. Chen Jingshan (appointed on 25 February 2021)

Strategy Committee

Mr. Meng Yanbin (Chairman)

Mr. Wu Jian (resigned on 25 February 2021)

Mr. Zhou Liulai (resigned on 25 February 2021)

Mr. Wang Suohui (appointed on 25 February 2021)

Mr. Liu Zhonglin (appointed on 25 February 2021)

Mr. Chen Shoulei

Mr. Tian Jiahe

CORPORATE INFORMATION (CONTINUED)

Legal Affairs Committee

Mr. Meng Yanbin (Chairman)

Mr. Guo Qingliang (resigned on 25 February 2021)

Mr. Liu Zhonglin (appointed on 25 February 2021)

Ms. Liu Xiuhong

Ms. Chen Jingshan (appointed on 25 February 2021)

Mr. Hui Wan Fai

LEGAL REPRESENTATIVE

Mr. Meng Yanbin

AUTHORISED REPRESENTATIVES

Mr. Meng Yanbin (Chairman of the Board)

Mr. Gui Youquan

Ms. Kam Mei Ha Wendy

(as the alternate representative of Mr. Meng Yanbin)

SUPERVISORS

Mr. Zhang Qingjun

Mr. Liu Zhonglin (resigned on 25 February 2021)

Mr. Zhang Guoping

Mr. Li Zhenhua

Mr. Zhang Jian

Mr. Zhao Nanfei (appointed on 25 February 2021)

JOINT COMPANY SECRETARIES

Mr. Gui Youquan

Ms. Kam Mei Ha Wendy

AUDITOR

KPMG

Public Interest Entity Auditor registered

in accordance with the

Financial Reporting Council Ordinance

LEGAL ADVISORS

As to Hong Kong Law

Herbert Smith Freehills

23/F, Gloucester Tower

15 Queen's Road Central

Central

Hong Kong

As to PRC Law

Zhong Lun Law Firm

11th Floor

Tower 1, Office Building

Grand Gateway 66

No. 1 Hongqiao Road

Xuhui District

Shanghai

PRC

CORPORATE INFORMATION (CONTINUED)

PRINCIPAL BANKS

Industrial and Commercial Bank of China, Chang'an Branch No. Yi 6, Xuannei Street Xicheng District Beijing PRC

H SHARE REGISTRAR

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STOCK CODE

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INVESTORS' ENQUIRIES

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LISTING DATE

6 July 2018

FINANCIAL HIGHLIGHTS

	Year ended 31 December	Year ended 31 December
(RMB' 000)	2021	2020
Revenue	5,143,694	4,274,183
Gross profit	3,241,904	2,615,987
Profit from operations	777,821	614,775
Profit before taxation	802,678	596,163
Profit attributable to equity shareholders of the Company	335,751	213,582
Basic/diluted earnings per share (RMB)	1.05	0.67
Profitability		
Gross profit margin	63.0%	61.2%
Operating profit margin	15.1%	14.4%
Net profit margin	13.1%	11.1%
	Year ended	Year ended
	31 December	31 December
	2021	2020
Total assets	10,473,968	9,185,292
Total liabilities	4,442,580	3,679,682
Net assets	6,031,388	5,505,610

GROUP PROFILE

As a leader in the isotopes and irradiation technology application industry in the PRC, CIRC tapped into the field of isotopes and irradiation technologies since it was established in 1983, and tilled the nuclear technology application industry for over 30 years. The businesses of the Company have basically covered the entire nuclear technology application industry. Given the high entry qualification and complex technological barriers, CIRC has huge space for business expansion in addition to its existing business.

CIRC focuses on research and development, manufacturing, and sales of pharmaceuticals, and is also engaged in radioactive sources, irradiation, nuclear medical equipment and independent clinical laboratory services. The Company derives 73.0% of its revenue and 83.2% of its gross profit from the pharmaceuticals segment in the nuclear medicine industry. As a leading enterprise in the PRC nuclear medicine industry featured with huge potential, high entry barriers and strong profitability, CIRC is the largest manufacturer of imaging diagnostic and therapeutic radiopharmaceuticals, UBT kits and analyzers, and RIA kits in the PRC. CIRC's products have high market presence. CIRC is the largest radioactive source products manufacturer with most comprehensive product portfolio in the PRC, and is the only radioactive source product manufacturer in the PRC with manufacturing capability to produce various products, such as cobalt-60 for irradiation service and cobalt-60 for medical applications. In terms of the irradiation service, CIRC is the third largest provider for irradiation service, and is the only provider which provides the services of the upstream production as well as the downstream design and installation of irradiation facilities. Two subsidiaries of CIRC are among the three qualified EPC service providers approved by the Ministry of Ecology and Environment to engage in the design, manufacturing and installation of irradiation facilities in China.

As an important member of isotopes and irradiation technology industry of CNNC, CIRC has achieved the domestication of radioisotope raw materials production and research and development of irradiation products by leveraging on the availability of CNNC's nuclear reactors, cyclotrons and resources on professional and technical staff.

CHAIRMAN'S STATEMENT

Dear Shareholders,

On behalf of the Board, I am pleased to present you with the annual report of the Company for the Reporting Period.

2021 was the beginning year of the "14th Five-Year Plan" and was also a critical year for the nuclear technology application industry to ride the momentum and accelerate its development. As a leader in the industry, we, with a strong sense of mission and urgency, defy hardships, face up to challenges, forge ahead bravely and make continued efforts, taking new steps and opening up new prospects in advancing marketing, technological innovation, reform and adjustment, project construction, capital operation, lean management and other various work to achieve a solid and good start of the "14th Five-Year Plan".

This year, we effectively responded to risks and challenges and achieved a rapid growth in financial performance, reaching the best level in history. We achieved an operating income of RMB5,143.7 million for the entire year, representing a year-on-year increase of 20.3%. Profit before tax was recorded at RMB802.7 million, representing a year-on-year increase of 34.6%. Total assets amounted to RMB10,474.0 million, net assets totaled RMB6,031.4 million, and the gearing ratio stood at 42.4%.

During the year, we comprehensively promoted the deepening of reforms to further improve the market-oriented operating mechanism. CIRC and its secondary units implemented tenure system and contractual management covering all managerial level personnel, and many member units completed their market-based recruitment of professional managers and senior managerial personnel. Medium- and long-term incentive packages and toolboxes were continuously enriched, and the endogenous power of the enterprise was constantly stimulated.

This year, we stood firm on maintaining technology-led development and saw the continuous emergence of R&D achievements and a steady improvement in scientific research capabilities. Our therapeutic sodium iodine I-131 capsules obtained the drug registration certificate, becoming the first new domestic radioactive drug approved since 2005. We released the first domestic single-photon drug dispensing system "Radiation Smart Equipment" and a fully automated radiopharmaceutical dispensing and injection system, which has continuously enriched the supporting product system of the nuclear medicine department. Our new-generation TomoTherapy system and Cyber Knife were officially launched, continuing to consolidate our advantages in the high-end radiotherapy market. The first batch of our new integrated GMP-grade lutetium (Lu-177) chloride solution for diagnosis and treatment was successfully supplied to clinics. We accelerated the iterative upgrade of the 85Kr radioactive source product, fully securing the domestic demand for thickness gauge sources, and supporting the "carbon peaking and carbon neutrality" strategy. We successfully developed the 137Cs isotope radioactive source assembly which is conducive to major manned spaceflight missions. In 2021, we had a total of 115 patents applied, and a total of 168 patents licensed. We won six provincial and ministerial-level awards for our scientific research achievements. The CNNC Radiopharmaceutical Engineering Technology Research Centre was inaugurated, and the construction of the R&D platform was continuously strengthened. We established a joint laboratory of radiopharmaceutical research and development with Shanghai Institute of Materia Medica of the Chinese Academy of Sciences, and a joint laboratory of radiopharmaceutical innovation and transformation with China Pharmaceutical University, further deepening the cooperation among the industry, universities and research institutes.

CHAIRMAN'S STATEMENT (CONTINUED)

During the year, we vigorously put the "CIRC speed" into practice, accelerating the construction of projects and continuously optimizing the industrial layout. The Shanghai medical base and the North China medical base progressed in an orderly manner. We implemented the radioactive source R&D and production base project in Jiajiang, Sichuan, and completed the company establishment and the project approval procedures for the Qinshan isotope production base project. The stable isotope industrial base project completed the nodal tasks on schedule. The three pharmaceuticals centers in Shantou, Qingdao and Kunming were completed and put into production, and the cumulative number of pharmaceuticals centers in production reached 20. With seven pharmaceuticals centers entering into the production certification stage and five pharmaceuticals centers under construction, a nationwide network layout covering 32 major cities has taken shape.

During the year, we actively developed markets and continued to strengthen external cooperation, fully capitalizing on markets and resources both at home and abroad. Seizing the development opportunity brought by "One County, One Department", we vigorously developed the "overall nuclear medicine solutions" market. We actively promoted the export of COVID-19 detection reagents, breath tests, industrial cobalt sources, etc., and made another success in Malaysia with our total solution for irradiation application. Our sodium iodine (I-131) oral liquid was exported to Indonesia for the first time. We also reached a strategic partnership with GE Healthcare to co-facilitate clinical trials of a Novel Radioactive Tracer Injection. We signed a supply and distribution agreement with two major global suppliers of yttrium (Y-90) microspheres, making every effort to ensure the smooth implementation of China's first clinical treatment of liver cancer using yttrium (Y-90) microspheres, and thus further enhancing our social influence.

This year, we took lean and benchmarking management as the starting points in continuously promoting management reform, which further improved our management efficiency. We established and implemented a "decay" lean management model with the characteristics of CIRC. The net profit margin of the irradiation business jumped by 12 percentage points; the per capita production efficiency of the breath diagnosis business increased by 37%; and the production efficiency of the radioactive pharmaceutical business of HTA rose by 14%. We intensively implemented actions for improvement while benchmarking world-class management, and comprehensively introduced benchmarking management concepts and methods to construct a top-down linkage benchmarking management system, setting, establishing, achieving and creating benchmarks in an integrated manner, as a result of which the core capabilities of the enterprise was further strengthened.

CHAIRMAN'S STATEMENT (CONTINUED)

The journey is long and striving hard is the only way forward. As the main force of CNNC's technological advancement oriented towards people's lives and health and the main channel for the transformation of advanced nuclear scientific and technological achievements, CIRC shoulders the dual responsibility of building a "a strong nuclear power" and a "healthy China". We will definitely keep our mission in mind, deeply cultivate lean, standardization, reform and efficiency concepts, practice the CIRC speed characterized by "immediate action and rapid completion", and continue to promote the implementation of the "14th Five-Year Plan" planning tasks, contributing the efforts of CIRC to the development of the nuclear technology industry to make it bigger, stronger and better!

Mr. Meng Yanbin

Executive Director and Chairman of the Board

Hong Kong, 19 April 2022

MANAGEMENT DISCUSSION AND ANALYSIS

The Group is primarily engaged in the research, development, manufacturing and sale of diagnostic and therapeutic radiopharmaceuticals and radioactive source products for medical and industrial applications, the provision of irradiation service for sterilisation purpose and EPC service for the design, manufacturing and installation of gamma ray irradiation facilities and the provision of independent clinical medical and laboratory services and medicine equipment to hospitals and other medical institutions.

BUSINESS REVIEW

For the year ended 31 December 2021, we operated five business segments, namely pharmaceuticals, radioactive source products, irradiation, independent clinical medical and laboratory services and other business and radiation therapy equipments and related services. In 2021, we will continue to increase our market development efforts and achieve faster growth in economic benefits. Revenue achieved for 2021 was RMB5,143.7 million, representing a year-on-year increase of 20.3%. Net profit for the year was RMB673.0 million, representing a year-on-year increase of 41.5%, and net profit attributable to equity shareholders of the Company was RMB335.8 million, representing a year-on-year increase of 57.2%.

BUSINESS SEGMENTS

1. Pharmaceuticals

The Group is a leading manufacturer of diagnostic and therapeutic radiopharmaceuticals in China, primarily engaged in the research, development, manufacturing and sale of a wide range of imaging diagnostic and therapeutic radiopharmaceuticals, UBT kits and analyzers and in vitro diagnostic reagents and kits in the domestic market.

During the Reporting Period, the Group adhered to the strategic development plan of each business segment. In respect of pharmaceutical segment, our subsidiary HTA obtained the drug registration certificate for "therapeutic sodium iodine-131 capsule" in April 2021. It was China's first new radiopharmaceutical preparations (the first generic drug of its kind), which was a generic drug of listed drug abroad, to obtain a registration certificate since 2005. It was the HTA's first product whose application has been successfully filed upon the promulgation of the new drug registration regulation and also the first product offering as an oral solid preparation being regarded as having passed the consistency evaluation. The approval of this product offering will provide a new option for the clinical treatment of thyroid cancer and hyperthyroidism in China. With its continuous promotion in clinical applications, it will help improve the life quality of patients with thyroid cancer and hyperthyroidism. The Group continues to promote the one-stop solution for brachytherapy and implement the entire digital supply chain to enhance the precision of treatment. The Group's integration of key products for brachytherapy has ensured the successful implementation of the first clinical treatment of hepatocellular carcinoma in China with the use of the licensed Y-90 resin microspheres, which is a landmark achievement in the history of hepatocellular carcinoma treatment in China and will benefit the widest range of hepatocellular carcinoma patients in China in the future.

During the Reporting Period, we recorded RMB3,753.4 million of revenue from sales of pharmaceuticals, representing a year-on-year increase of 26.0%. As for the imaging diagnostic and therapeutic radiopharmaceuticals, we recorded RMB1,453.1 million of revenue, representing an increase of 10.6% from the corresponding period in 2020. As for breath test, we recorded RMB2,153.4 million of revenue, representing a year-on-year increase of 39.9%.

2. Radioactive source products

The Group is a major manufacturer of medical and industrial radioactive source products in China and also a radioactive source producer with a most complete range of radioactive source product offerings in China, primarily engaged in the research, development, manufacturing and sale of various medical and industrial radioactive sources products as well as provision of related technical services.

During the Reporting Period, the radioactive source segment faced the downward pressure of the economy in the post-epidemic era, and the impact of "Carbon Neutrality" and "Peak Carbon Dioxide Emissions" on traditional high energy-consuming industries, so we actively sought breakthroughs, with the steady progress of domestic substitution. The medical gamma knife source maintained its absolute leading position in the domestic market, and industrial applications such as non-destructive testing radioactive sources rose against the trend, with increase in sales of the non-destructive testing radioactive sources. Krypton-85 thickness gauge sources were upgraded and relaunched into the market after 8 years of production suspension and were recognized by lithium battery giants. Several breakthroughs have been made in the localization of well logging sources. With the advantage of the Company's radioactive source products, the overall service has developed rapidly and effectively.

As for the export of radioactive sources, the Group has successfully solved various difficulties such as container and transportation faced by the export of independent cobalt-60 radioactive sources, and realized the independent export of cobalt-60 radioactive sources for the first time on 17 December 2021, possessing the ability to supply cobalt-60 radioactive sources to international customers independently, and realized export sales revenue of RMB46.0 million for the year.

During the Reporting Period, the Group recorded RMB520.2 million of revenue from sales of radioactive source products, representing a year-on-year increase of 15.1%.

Irradiation

In the field of irradiation processing, the Group mainly aimed at providing the manufacturers of medical devices, food, traditional Chinese medicine and cosmetics for sterilisation in China, and meanwhile EPC services related to the design, manufacturing and installation of irradiation facilities is also accessible.

The Group actively promoted the irradiation product market and achieved record sales of new irradiation products, with sales of radiant cross-linked floor heating pipes reaching RMB11.0 million and revenue from testing services reaching RMB6.4 million. Overcoming the impact of the COVID-19, BINE, a subsidiary of the Company, commenced the installation and commissioning of the Malaysian irradiation station project as scheduled and signed another EPC contract for the export of cobalt-60 radioactive sources irradiation facilities.

During the Reporting Period, the Group recorded RMB144.1 million of revenue from irradiation-related business, representing a year-on-year increase of 40.4%.

4. Radiation therapy equipments and related services

During the Reporting Period, the National Health Commission issued 28 permits for high-end radiation therapy equipment, and the Group's two products in the medical equipment business received a total of 26 permits, accounting for 93%. Revenue for the year was RMB390.0 million, representing a year-on-year increase of 69.3%. The Group accelerated the nationalization of Tomo C, a tomotherapy system, and is undergoing NMPA registration inspection by the State Food and Drug Administration. The self-developed radiotherapy management software system-ICS2.0 and Ruizhi Cloud System (鋭智雲系統) were officially released in November.

5. Independent clinical medical and laboratory services and other businesses

Our Group's independent clinical medical and laboratory services, as a downstream extension of our in vitro diagnostic reagents sales of the Company, are mainly being offered to medical institutions. We offer independent clinical medical and laboratory services with respect to hepatitis, endocrine, bone metabolism, cardiovascular disease, diabetes and other diseases.

During the Reporting Period, the Group's medical testing centres were at the forefront of the fight against the COVID-19, actively carrying out work related to nucleic acid testing of COVID-19. Nucleic acid testing sampling sites have been set up in Beijing, Chengdu, Wuhan and Hefei to provide nucleic acid sampling services for individuals and to provide door-to-door sampling services. We have also provided the nucleic acid testing services for some personnel of the Winter Olympic Games. In addition to the nucleic acid business, we have also increased the promotion of blood test business, actively developed the medical examination market, and signed cooperation agreements with some medical examination centers.

During the Reporting Period, revenue from independent clinical medical and laboratory services and other businesses of the Group was RMB336.0 million, representing a year-on-year decrease of 34.1%, of which revenue from our independent clinical medical and laboratory services recorded RMB227.8 million, representing a year-on-year increase of 77.0%.

The table below sets forth our revenue by business segment in 2021 and 2020:

	2021		202	0
(RMB in million, except for				
percentage)	Amount	%	Amount	%
Pharmaceuticals	3,753.4	73.0	2,979.6	69.7
Radioactive source	520.2	10.1	452.1	10.6
Irradiation	144.1	2.8	102.6	2.4
Radiation therapy equipments and				
related services	390.0	7.6	230.4	5.4
Independent clinical medical and				
laboratory services and other				
businesses	336.0	6.5	509.5	11.9
Total	5,143.7	100.0	4,274.2	100.0

MARKETING

During the Reporting Period, the Group continued to push brand building work. Brand is one of the most important intangible assets of an enterprise. The Group is committed to deeply plowing the field of nuclear technology application and creating value for customers through products and services in a mutually successful way. In 2021, the Group will continue to optimize the brand structure system and standardize the brand image, and implement brand strategies that are more suitable for the current development stage to help realize the two-way transmission of brand assets, accumulation of brand assets and continuous improvement of brand value.

Meanwhile, the Group actively promoted the marketing of strontium-89 chloride injections, sodium iodine-131 capsules, radiant cross-linked floor heating pipes and other products. Strontium-89 chloride injection was innovatively promoted through academic demonstration bases. Throughout the year, the Group promoted the academic demonstration base work of two key hospitals through scientific research support, academic salons and clinical observation studies to boost sales growth.

The "Demonstration base construction projects for the promotion of nuclear medicine application for medical diagnosis" was launched in 5 medical institutions throughout the year, and the project acceptance and awarding work was completed in five other medical institutions. As of 31 December 2021, the Group and the Nuclear Medicine Branch of the Chinese Medical Association commenced the project start-up work for 63 hospitals, accelerating the popularisation of nuclear medicine with the applications in clinical diagnosis and treatment, which effectively helped us to expand the market for our products.

With the project "Overall Nuclear Medicine Solutions" created by the Group, we are now capable of undertaking the whole cycle of business such as planning and design, construction, equipment support and operation services, and started construction of 8 projects in 2021, creating a sample project of nuclear medicine department design and construction. Going forward, the project will continuously enhance our market service capacity and increase the revenue from new business.

SCIENTIFIC RESEARCH AND INNOVATION

The Group has strong research and development strengths. Our scientific research team comprising 471 research and development personnel and assistants focuses on extensive researching and optimizing production technologies, the development of new products and the safety and efficacy upgrading of existing products. To prevent and control the COVID-19 pandemic and resolve the issue of lacking standards for irradiation and sterilization of medical protective clothing, the Group has commenced research on the irradiation and sterilization process standards for medical protective clothing materials, and has established the "Irradiation and Sterilization Process Specification for Medical Protective Clothing Materials" 《醫用防護服材料輻照滅菌工藝規範》). To prevent and control the COVID-19 in cold chain foods, the Group has carried out research on the COVID-19 irradiation and disinfection dosage and design on the COVID-19 inactivation process, preventing and controlling the COVID-19 in imported cold chain foods making use of irradiation technology. We have always actively conducted research and development work on various types of imaging diagnosis and therapeutic pharmaceuticals to fill the void of various fields of medical treatment and meet the medical needs of China. The therapeutic sodium iodine-131 capsule has been approved on 7 April 2021 for market launch. As of 31 December 2021, we had seven types of imaging diagnosis and therapeutic radiopharmaceuticals under research and development. Among them, two types of radiopharmaceuticals (i.e. iodine-131-MIBG injection and sodium fluorine-18 injection) were in clinical trial phase, two types of therapeutic radiopharmaceutical (i.e. palladium-103 sealed source and Ga-68-Dotatate injection) was awaiting approval for the clinical trial phase, and three types of imaging diagnosis and therapeutic radiopharmaceuticals were in various phases of research and development.

During the Reporting Period, the Group achieved remarkable results in the work on intellectual properties, with a total of 115 patents applied, 168 patent authorizations obtained. As of 31 December 2021, we had 503 active licensed patents, including 82 invention patents, continuously strengthening our business strength in China. The Group has established a complete research and development system and was awarded the "International Atomic Energy Agency (IAEA) Collaborating Center for Radioisotope Products" (國際原子能機構 (IAEA)放射性同位素製品協作中心); the Research and Development Centre for radiopharmaceuticals of HTA was awarded the "National Atomic Energy Agency Research and Development Centre for Nuclear Technology (Radiopharmaceutical Engineering Transformation)". Headway has been approved as "Carbon Isotope Exhalation Engineering Innovation Laboratory" (碳同位素呼氣工程創新實驗室) in Shenzhen, and set up a joint laboratory for radiopharmaceutical innovation and transformation with Shanghai Institute of Materia Medica, Chinese Academy of Sciences (中科院上海藥物研究所) and China Pharmaceutical University. We will continue to work with foreign and domestic outstanding enterprises to carry out innovations of the operational system and mechanism, and gradually establish a high-level enterprise research and development centre covering various nuclear technology application fields.

INTERNATIONAL BUSINESS

During the Reporting Period, the Group actively explored the international market and exported cobalt sources, breath test kits, radioimmunity kits, COVID-19 test kits, oxygen generators, ventilators and other anti-epidemic materials to dozens of countries and regions such as Indonesia, Thailand, Bangladesh, Singapore, South Korea, Peru, Italy, Germany, India, United Arab Emirates and Uzbekistan, realizing a total export revenue of RMB106.6 million. Although the demand for anti-epidemic medical supplies decreases in 2021 compared to 2020, the international revenue of our regular products still achieved significant growth. During this period, breakthroughs were made in our international business: following the export of a cobalt source irradiation station in 2013, we exported an overall solution for irradiation stations to Malaysia for the third times, bringing about a good brand effect in the irradiation industry in Southeast Asia; sodium iodine-131 oral solution was successfully exported to Indonesia for the first time, which opened the channel for exporting domestic short half-life radiopharmaceuticals to overseas and laid the foundation for the large-scale operation of the radiopharmaceuticals. As the world's third largest supplier of cobalt sources, the Group continued to carry out the cobalt-60 radioactive source export business. Domestic CN-101 type cobalt-60 radioactive source was successfully exported to Vietnam, marking that the Group initially has the ability to export domestic cobalt sources independently. The Group signed an exclusive agency agreement on the export of industrial radioactive sources and continued to export equipment containing radioactive sources to South Asia. The Group supplied anti-epidemic medical materials to relevant United Nations organizations in addition to exporting the coronavirus test kits listed in the white list of the Ministry of Commerce. In addition, the Group actively promoted internal and external business synergies, expanded international channels, sent staff to work at IAEA, improved export risk management mechanisms, conducted business training, and continued to strengthen internal management and business system construction, which helped the Group to further improve its internationalized operation.

CAPITAL OPERATION

During the Reporting Period, the Group has entered into agreements to acquire two enterprises with a total planned investment of RMB86.36 million.

S/N	Acquired enterprise	Agreement signature date	Acquisition completion date	Acquisition amount (RMB in million)	Principal businesses	Shareholding percentage
1	Suzhou CNNC Huadong Radiation Co., Ltd.	2021.8.24	2021.12.30	57.43	irradiation service for sterilisation purpose and third-party testing	Acquired 48.41% of the entire equity of minority shareholders (100% shareholding after
2	Guangzhou Zhongda Zhongshan Medical Technology Development Co., Ltd.	2021.11.10		28.93	Science and technology information consulting services; technology project agency services; medical research and experimental development; pharmaceutical research and development; chemical products wholesale (except hazardous chemicals); instrument wholesale; electronic components wholesale; chemical products retail (except hazardous chemicals); electronic components retail;	acquisition) 49.892%

As of 31 December 2021, the Company's actual amount paid to Tongfu Fund was RMB480 million, and the total actual amount paid to the Fund was RMB1.6 billion, so the Company's proportion accounted for 30%. After evaluation, the net assets of Tongfu Fund measured at fair value as of 31 December 2021 are RMB1,655.7 million. The value of the Company's share of Tongfu Fund's net asset was RMB493.9 million, accounted for 4.7% of the Group's total assets. In 2021, the Company's investment income in Tongfu Fund was RMB26.2 million, and the Company received dividends of RMB12.2 million.

PRODUCTION CAPACITY

The manufacturing and production facilities of the Group have a wide geographical coverage in China. In 2021, we will make concerted efforts to pursue the "CIRC speed" in order to accelerate the construction of projects, with the completion of three pharmaceutical centers in Shantou, Qingdao and Kunming, bringing the cumulative number of centers to 20. The production lines of positronic drugs in Shantou, Xuzhou, Jinan, Shijiazhuang and Chengdu have been certified, and there are 12 medical centers that can supply positron drugs. 7 pharmaceuticals centers have entered the production certification stage and 5 are under construction, forming a network layout across 32 major cities nationwide.

The diagnostic and therapeutic radiopharmaceuticals manufacturing bases were mainly located in four regions (i.e. Beijing, Ningbo, etc.), and the medical bases in North China and Shanghai that are newly planned and laid out were progressing in an orderly manner. The UBT diagnostic kits and test analyzers manufacturing bases were located in two regions (i.e. Shenzhen and Tongcheng). The stable isotope industry base project completed the nodal tasks on schedule. The radioactive source manufacturing bases were located in two regions (i.e. Beijing and Leshan). The newly planned research, development and production base for radioactive sources is also being actively promoted. The in vitro immunoassay diagnostic reagents and kits manufacturing bases were located in Beijing and other regions.

The designed capacity for the year 2021 is set out in the table below:

Imaging diagnostic and therapeutic radiopharmaceuticals:

	Year ended
	31 December
	2021
	Annual
	designed
	capacity
Fluorine-18-FDG injections (Ci)	22,953
Molybdenum-99/technetium-99m generators (Ci)	32,445
Technetium-99m labeled injections (vial)	1,183,950
Sodium iodine-131 oral solution (Ci)	22,036
lodine-125 sealed sources (unit)	1,000,000
Strontium-89 chloride injections (vial)	67,400

UBT kits and analyzers:

	Year ended 31 December 2021 Annual designed
Carbon-13/14 UBT kits (unit)	100,000,000
Carbon-13/14 UBT analyzers (unit)	8,500

In vitro immunoassay reagents and kits:

	Year ended
	31 December
	2021
	Annual designed
	capacity
RIA kits (unit)	200,000
EIA reagents, CLIA reagents and TRFIA reagents (unit)	100,000

Radioactive source products:

Americium-241/Beryllium neutron sources (Ci)

Selenium-75 non-destructive testing radioactive source (Ci)

Year ended
31 December
2021
Annual designed
capacity

Cobalt-60 source for gamma knife (Ci)
110,000
Iridium-192 brachytherapy sources (Ci)
10,000
Cobalt-60 radioactive source for irradiation service (Ci)
11,500,000
Caesium-137 radioactive sources (Ci)
59,000

1,000

150,000

FUTURE DEVELOPMENT

Today, the world is quickening its evolution on rapid changes unseen in a century, and the external environment has become increasingly complex and difficult. Although China's economic development is facing the triple pressure of shrinking demand, supply shocks, and weakening expectations, the Chinese economy is resilient, stable and improving, and the fundamentals of long-term improvement remain unchanged. As a leading enterprise in the industry, the Group will comprehensively, accurately and dialectically seize changes in the internal and external environment, face up to multiple practical difficulties, become aware of multiple evolution possibilities, grasp hold of multiple opportunities, effectively respond to multiple challenges, always maintain strategic focus, further strengthen awareness towards the main business, the main battlefield and the main direction of attack, unswervingly do our own work well, and give top priority to development and resolve issues in development by means of development, thus allowing the foundation of stability becoming more solid and the momentum of progress continuing to strengthen.

In terms of market development, the "Medium and Long-term Development Plan for Medical Isotopes (2021-2035)" (《醫用同位素中長期發展規劃(2021-2035年)》) jointly issued by eight ministries and commissions including the China Atomic Energy Authority proposes to promote the establishment of a nuclear medicine department, with the aim of achieving the full coverage of nuclear medicine in tertiary general hospitals by 2025 and implementing "One County, One Department" nationwide by 2035. Taking this opportunity, we will speed up the innovation of business models, and formulate and implement a CNNC solution of the national plan for "One County, One Department", striving to achieve nationwide promotion by the end of the "14th Five-Year Plan" period. We will also continue to innovate the marketing model to promote an increase in the sales of the Company's key products in the fields such as radiopharmaceuticals, radioactive sources, nuclear medicine equipment and irradiation applications through multiple channels. At the same time, we are deeply aware of the importance of industrial internationalization for the future development of the Company. To this end, the Company will actively explore the international market, make every effort to promote the globalization of nuclear technology application products and services, and continuously increase the international market share through independent establishment of overseas localized institutions, overseas mergers and acquisitions and other means.

In terms of deepening reform, we fully recognize that there is an urgent need to continuously deepen reform based on the actual situation of the Group to accelerate development. In the past few years, we took the initiative to seek changes and fully promoted the deepening of reforms, making positive progress in corporate governance, recruitment and employment, and incentive mechanisms. Currently, CIRC was enrolled in the list of companies in the "Scientific Reform Demonstration Action" of the State-owned Enterprise Leading Group of the State Council, therefore, more reform tools will be available. We will stay committed to our belief in reform, make every effort to promote the Company to complete the issuance and listing of A shares on the Science and Technology Innovation Board, focus on promoting the implementation of the "Three Systems" reform in enterprises at all levels, accelerate the improvement of the market-oriented operating mechanism, continue to expand the scope of pilot units for professional managers, actively and solidly promote the reform of mixed ownership, further optimize and adjust the organizational structure, and continuously enrich and optimize the medium and long-term incentive mechanism, resolving the root causes and deep-seated problems that restrict enterprise development through a series of reform measures, thus providing institutional guarantee for the high-quality development of the Group.

In terms of scientific and technological R&D, we are deeply aware of the fact that scientific and technological innovation is the first driving force to lead the development of enterprises. Unswervingly putting the building of scientific and technological innovation capabilities and the transformation of scientific research achievements at the core position of the overall development of the "14th Five-Year Plan", we continue to step up investments in scientific research. In future development, we will adhere to the "Small Core, Big Collaboration" R&D model in deepening the industry-education-research integration to perfect and optimize the scientific and technological innovation ecology. We will actively participate in the construction of national laboratories and strengthen international scientific and technological cooperation, effectively stimulate all kinds of talents to innovate to create vitality, accelerate the creation of sources of original technology, and fully promote key projects to achieve nodal results.

In terms of industrial layout, we will vigorously put the "CIRC speed" into practice and quicken the construction of projects, such as the North China medical base, the Shanghai medical base, the Sichuan radioactive source R&D and production base and the CNNC Qinshan isotope production base, to accelerate improvement of the nationwide medical center network layout, promoting larger industrial scale with an increase in production capacity and consolidating competitive advantages with economies of scale. At the same time, we will actively promote the construction of a world-class project on securing R&D conditions for radiopharmaceuticals and radioactive sources, fully supporting the high-standard operation of the CIRC Branch Center of the National Research Center of Isotope Engineering and Technology, the CNNC Radiopharmaceuticals Engineering and Technology Research Center and the Joint Laboratory of China Pharmaceutical University.

In terms of management improvement, we will take CNNC's "Year of Lean Management" as an opportunity to deepen the lean management and iteratively upgrade the lean management system based on the "decay" characteristics of products, thus building a lean benchmarking demonstration workshop for business modules such as radioactive pharmaceuticals, radioactive sources and irradiation applications. We will promote the improvement of various market competitiveness indicators such as quality, safety, and cost with lean management. We will focus on safety production. We will fully complete the "Three-Year Action for Special Rectification of Safety Production" and the "Consolidation and Improvement Year" plan tasks, and promote the delivery and storage of the waste radioactive sources to ensure that the last group company in CIRC with Class Il safety and environmental protection risk is eliminated on schedule. In accordance with the requirements of the Group's "Three-Year Action Plan for Improving Nuclear Safety Culture", we will establish CIRC safety culture system emphasizing on radiation safety. We will make efforts to promote the establishment of safety production standardization in units such as CNGT and BNIBT. We will plan and establish a mechanism for the management of R&D investments and intellectual property rights with the aim of creating a high and new technology enterprise. We will further optimize the organizational structure, operating mechanism and institutional flow to improve work efficiency and promote the modernization of our corporate governance system and governance capabilities. At the same time, we will accelerate the digital and intelligent transformation, and fully promote the construction of projects such as financial shared service centers, integrated management systems for irradiation operations and smart factories in the Guangdong medical base, gradually realizing reform in management that are supported by digitalization.

The "14th Five-Year Plan" is a period of strategic opportunity for the development of the nuclear technology application industry. For this reason, we have formulated the "17520" planning goals. "1" refers to the building of an internationally renowned supplier of isotopes and radiation technology application products and services in an all-round way. "7" refers to the leap of seven business units to a new level. "5" refers to the comprehensive improvement of the "Five Top" core capabilities. "20" refers to the accomplishment of twenty landmark achievements. In future development, we will unify our thinking and understanding, maintain strategic focus and practice the "CIRC speed" with focus on this goal, going all out to promote the implementation of the key tasks of the "14th Five-Year Plan", fully promoting the accelerated development of the nuclear technology application industry, thus further consolidating the Group's leading position in the industry.

IMPACT OF POLICY AND UNCERTAINTIES

During the Reporting Period, the State Administration of Science, Technology and Industry for National Defense, together with organs such as the Ministry of Science and Technology, the Ministry of Public Security, the Ministry of Ecology and Environment, the Ministry of Transport, the National Health Commission, the National Healthcare Security Administration and the National Medical Products Administration, officially promulgated the "Medium and Long-term Development Plan for Medical Isotopes (2021-2035)", which was the first special plan issued by China for a single field of nuclear technology application. It was also the first major policy introduced to encourage the development of the nuclear medicine industry in recent years. It is an important signal for expanding the popularity of nuclear medicine, enabling an industrial chain which is self-contained and controllable as well as speeding up the R&D of innovative nuclear medicines and equipment. It is expected to address the issue that the regulatory authorities pay insufficient attention to the subdivision of nuclear medicine.

Looking at the status of development of domestic medical isotopes, there are currently more than 30 radioisotopes used for diagnosis and treatment in the world, and eight of them are quite commonly used. Among the commonly used medical isotopes for reactor irradiation, there are three kinds that China can produce and supply independently. Although there is a corresponding system for the management of medical isotopes, the implementation standards of the system are not uniform and perfect. In terms of the R&D of drugs with isotopes, there are few domestic first-in-class drugs, and the speed of R&D is relatively slow. Despite the release of the "Medium and Long-term Development Plan for Medical Isotopes (2021-2035)", there is still a gap between domestic radiopharmaceuticals and those of developed countries in terms of the overall level of production, R&D and application, and long-term efforts are still necessary for the popularity of nuclear medicine and the training of talents. In addition, policies supporting the development of the industry are not perfect.

In summary, from the perspective of the development status of the medical isotope industry, the favorable impact of policy factors on the nuclear medicine industry will not be significant in the short term. Going forward, with the continuous development of the industry, the relevant constraints will be solved, and the medical isotope industry and even the nuclear medicine industry may usher in rapid development. The Group will cope with changes in the industry, seize the opportunity period, and increase investments in the R&D and supply of key nuclides, the building of production capacity and the promotion of the nuclear medicine industry to maintain high-quality development.

IMPACT OF THE COVID-19

Currently, the global COVID-19 pandemic is still spreading. In China, local sporadic COVID-19 outbreaks have occurred but the overall situation remains stable. The Group coordinated the alignment of epidemic prevention and control with production and operation, with the business developments trending well and the economic performance indicators exceeding the pre-epidemic level in an all-round way. At the same time, we fully fulfilled the responsibilities of a central enterprise. Giving full play to our independent medical testing advantages, we actively participated in the prevention and control of the epidemic. We provided urgent assistance to Shijiazhuang in January, helped out Nanjing in July and supported Jiayuguan in October, and completed millions of nucleic acid tests throughout the year, which has further enhanced our social influence and reputation.

In the long run, the COVID-19 pandemic has also brought opportunities for the development of the nuclear technology application industry. Irradiation technology has played an irreplaceable role in fighting against the pandemic, which has been fully affirmed by all sectors of society, and China has further increased its emphasis on the nuclear technology application industry. The outbreak of the COVID-19 pandemic has prompted the country to pay more attention to health issues, and people's demand for living in good health and preventing and treating disease has grown day by day, providing an important opportunity for the development of industries such as radiopharmaceuticals, medical diagnosis and high-end nuclear medical equipment. The Company will fully grasp the opportunities brought by the pandemic, and taking the planning initiative and following the trend, make every effort to promote the accelerated development of related industries.

FINANCIAL REVIEW

Revenue

We derived our revenue mainly from five major business segments: (1) pharmaceuticals; (2) radioactive source products; (3) irradiation; (4) radiation therapy equipments and related services; and (5) independent clinical medical and laboratory services and other businesses.

Our revenue increased by 20.3% from RMB4,274.2 million in 2020 to RMB5,143.7 million in 2021, which was mainly due to an increase in revenue from our pharmaceuticals, radioactive source products segment and radiation therapy equipments and related services segment.

COST OF SALES, GROSS PROFIT AND GROSS MARGIN

Our cost of sales increased by 14.7% from RMB1,658.2 million in 2020 to RMB1,901.8 million in 2021, which was mainly due to an increase in cost of sales of our pharmaceuticals segment.

Our gross profit increased by 23.9% from RMB2,616.0 million in 2020 to RMB3,241.9 million in 2021 and our gross margin increased from 61.2% to 63.0%. The increase in gross profit was primarily due to the increase in gross profit of the pharmaceuticals segment with higher revenue.

OTHER INCOME

Our other income decreased by 8.9% from RMB67.6 million in 2020 to RMB61.6 million in 2021, mainly due to the decrease in government subsidies in 2021.

SELLING AND DISTRIBUTION EXPENSES

Our selling and distribution expenses increased by 26.2% from RMB1,442.6 million in 2020 to RMB1,820.5 million in 2021. This is mainly due to the increase in sales of the pharmaceuticals segment resulting from the improving pandemic situation. Therefore, the corresponding sales service fees have increased significantly.

As a percentage of revenue, selling and distribution expenses increased from 33.8% in 2020 to 35.4% in 2021.

ADMINISTRATIVE EXPENSES AND CREDIT IMPAIRMENT LOSSES

Our administrative expenses and credit impairment losses increased by 12.6% from RMB626.3 million in 2020 to RMB705.2 million in 2021, mainly due to (i) the increased research and development expense resulting from more investments in research and development, and (ii) the increased employee compensation.

As a percentage of revenue, administrative expenses decreased from 14.7% in 2020 to 13.7% in 2021.

FINANCE COSTS

Our finance costs increased 2.4% from RMB35.0 million in 2020 to RMB35.8 million in 2021, mainly due to the increase in the interest expense from lease liabilities in 2021.

SHARE OF PROFITS LESS LOSSES OF ASSOCIATES AND SHARE OF PROFITS OF JOINT VENTURES

Our share of profits less losses of associates increased from negative RMB12.0 million in 2020 to positive RMB7.0 million in 2021, mainly due to the stop-losses of our associate, Shenzhen CICAM Manufacturing Co., Ltd. resulting from its liquidation. Our share of profits of joint ventures increased by 89.1% from RMB28.4 million in 2020 to RMB53.7 million in 2021, mainly due to the appreciation of the investment projects of our joint venture Tongfu Innovation Fund (同輻創新基金).

PROFIT BEFORE TAX

As a result of the foregoing, our profit before tax increased by 34.6% from RMB596.2 million in 2020 to RMB802.7 million in 2021.

INCOME TAX

Our income tax increased by 7.5% from RMB120.6 million in 2020 to RMB129.6 million in 2021.

Our effective tax rate was 20.2% and 16.2% in 2020 and 2021, respectively.

PROFIT FOR THE YEAR

As a result of the foregoing, our profit for the year increased by 41.5% from RMB475.5 million in 2020 to RMB673.0 million in 2021.

FINANCIAL POSITION

Overview

For the year ended 31 December 2021, the total assets of the Group increased slightly. The total assets, the total liabilities and the total equity were RMB10,474.0 million, RMB4,442.6 million and RMB6,031.4 million, respectively.

NET CURRENT ASSETS

The table below sets forth our current assets, current liabilities and net current assets as at the dates indicated:

	RMB in	
	31 December	31 December
	2021	2020
Inventories	691.9	590.0
Contract assets	29.4	-
Trade and bill receivables	2,821.2	2,368.5
Deposits and other receivables	153.7	142.2
Prepayments	212.4	113.9
Cash at bank and on hand	2,748.2	2,556.5
Total Current Assets	6,656.8	5,771.1
Bank loans	118.1	90.2
Corporate bond	500.0	_
Trade payables	337.9	199.5
Accruals and other payables	2,816.4	2,327.4
Lease liabilities	53.4	29.9
Provisions	76.5	73.9
Income tax payable	69.4	51.3
Total Current Liabilities	3,971.7	2,772.2
Net Current Assets	2,685.1	2,998.9

Our net current assets decreased by 10.5% from RMB2,998.9 million as of 31 December 2020 to RMB2,685.1 million as of 31 December 2021, which was mainly due to the increase in the Company's corporate bond and other payables.

ADJUSTED NET GEARING RATIO AND QUICK RATIO

Our adjusted net gearing ratio (adjusted net debt (interest-bearing debt plus unaccrued proposed dividends) divided by adjusted equity (all components of equity less unaccrued proposed dividends)) was 14.8% and 16.5% as of 31 December 2020 and 31 December 2021, respectively.

Our quick ratio (total current assets excluding inventories divided by total current liabilities as of the same date) was 1.9 times and 1.5 times as of 31 December 2020 and 31 December 2021, respectively.

ANALYSIS OF CASH FLOWS

The following table sets forth the cash flows of the Group:

		RMB in million
	2021	2020
Net cash generated from operating activities	794.3	291.9
Net cash used in investing activities	(907.3)	(423.9)
Net cash (used in)/generated from financing activities	(97.4)	(156.2)
Net (decrease)/increase in cash and cash equivalents	(210.4)	(288.2)
Cash and cash equivalents at the beginning of the year	2,351.6	2,640.3
Effect of changes in foreign exchange rate	0.3	(0.5)
Cash and cash equivalents at the end of the year	2,141.5	2,351.6

TRADE AND OTHER RECEIVABLES

Trade and other receivables are stated at amortised cost using the effective interest method less allowance for credit losses. As of 31 December 2021, our trade and other receivables (net of bad debt allowance of RMB165.2 million) were RMB3,187.2 million.

TRADE AND OTHER PAYABLES

Our trade and other payables mainly consist of trade payables and accruals and other payables, which include receipts in advance, other taxes payables, deposits from distributors, payables to distributors, payables for staff-related costs, dividends payables and other accruals and payables. As of 31 December 2021, our trade and other payables were RMB3,154.3 million.

BANK LOANS AND PLEDGE OF ASSETS

As of 31 December 2021, the unsecured long-term bank loans mainly included:

- (i) A loan principal of RMB0.6 million borrowed by a subsidiary of the Group in 2021 at an interest rate of 4.40%.
- (ii) A loan principal of RMB7.4 million borrowed by a subsidiary of the Group in 2021 at an interest rate of 4.40%.

As of 31 December 2021, the secured long-term bank loans mainly included:

- (i) A loan principal of RMB124.9 million borrowed by a subsidiary of the Group at an interest rate of 4.15%, for which was jointly guaranteed by the shareholders of the subsidiary.
- (ii) A loan principal of RMB5.0 million borrowed by a subsidiary of the Group at an interest rate of 4.05%, for which certain of the Group's properties with total carrying amount of RMB56.0 million and right of use assets with total carrying amount of RMB6.9 million were pledged.

- (iii) A loan principal of RMB6.9 million borrowed by a subsidiary of the Group at an interest rate of 5.44%, for which certain of the Group's properties with total carrying amount of RMB8.3 million and right of use assets with total carrying amount of RMB0.9 million were pledged.
- (iv) A loan principal of RMB5.9 million borrowed by a subsidiary of the Group at an interest rate of 4.80%, for which was jointly guaranteed by the shareholders of the subsidiary.

As of 31 December 2021, the short-term bank loans mainly included:

- (i) A loan principal of RMB5.0 million borrowed by a subsidiary of the Group in 2021 at an interest rate of 4.00%, for which was guaranteed by Beijing Capital Investment & Guarantee Co., Ltd. (北京首創融資擔保有限公司).
- (ii) A loan principal of RMB107.0 million borrowed by a subsidiary of the Group in 2021 at an interest rate of 3.40%, with an amount of RMB107.0 million remaining as at 31 December 2021.

CAPITAL EXPENDITURES

Our capital expenditures mainly comprise additions to plant and equipment and intangible assets. In 2021, our capital expenditures were RMB472.3 million.

CONTINGENT LIABILITIES

As of 31 December 2021, we did not have any material contingent liabilities.

FOREIGN EXCHANGE AND FOREIGN EXCHANGE RISK

During the year ended 31 December 2021, the Group was exposed to currency risk primarily through bank deposits denominated in foreign currency, which were primarily Hong Kong dollars. The Group monitors foreign exchange movements and determines exchange when necessary. The Group currently has no foreign exchange hedging policy.

CREDIT RISK

In order to minimise the credit risk, we have policies in place to monitor the exposures to these credit risks on an ongoing basis. Before accepting any new customer requiring credit over a certain credit amount, we carry out research into their creditability and assess their credit quality and define credit limits for that customer. Our individual credit evaluations focus on the customer's historical payment records, and take into account information specific to the customer as well as pertaining to the economic environment in which the customer operates.

We normally do not require collateral from customers. Therefore, our exposure to credit risk is influenced mainly by the individual characteristics of each customer rather than the industry in which the customer operates. The significant concentration of credit risk primarily arises when we rely heavily on individual customers. We will, however, perform periodic credit evaluation on our customers and monitor the compliance of credit terms by them. We believe we do not have any significant concentration of credit risk as the trade and bill receivables involve a large number of customers across diverse industries and geographical areas.

LIQUIDITY RISK

Our policy is to regularly monitor current and expected liquidity requirements, and furthermore we issued small public corporate bonds in 2019 to raise funds for liquidity requirements from the Company's business expansion, to ensure that we maintain sufficient reserves of cash and adequate commitment funds from major financial institutions to meet both short-term and long-term liquidity requirements. Our Directors believe that there is no significant liquidity risk, as we have sufficient monetary capital to fund our operations.

DIVIDEND POLICY

When the Board recommends the declaration of cash dividends to shareholders at a general meeting, the decision to declare any dividends and the amount of dividends will depend on, among other things:

- our results of operations and cash flows;
- our financial position;
- overall performance;
- our future prospects;
- statutory, regulatory and contractual restrictions on the payment of dividends by us; and
- other factors that the Board deems relevant.

NO MATERIAL ADVERSE CHANGE

The Directors have confirmed that there was no material adverse change in our financial and trading position or prospects as of 31 December 2021.

SUBSEQUENT EVENTS

Save as disclosed above, no significant subsequent events take place after the Reporting Period to the date of this announcement.

USE OF PROCEEDS FROM THE INITIAL PUBLIC OFFERING

On 6 July 2018, H shares of the Company became listed on the Main Board of the Stock Exchange (stock code: 1763). Based on the offer price of HKD21.60 per H share and upon the partial exercise of the over-allotment option (100 Shares), the net proceeds that the Group received from the Global Offering were approximately HKD1,690.0 million after deduction of the underwriting commissions and other estimated expenses in relation to the Global Offering. As at 31 December 2021, current assets of approximately RMB268.1 million were used and approximately RMB536.1 million was used in selective mergers and acquisitions.

In accordance with the requirements of paragraph 11(8) of Appendix 16 of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "**Listing Rules**"), the use of proceeds will be updated to provide the use of proceeds from the initial public offering for 2021 (including the expected timeline of full utilisation of the balance), which is set out below:

RMB in million

Use	Initial allocation of the net proceeds	Revised allocation of the net proceeds	Amount utilised as of 31 December 2018	Amount utilised as of 31 December 2019	Amount utilised as of 31 December 2020	Amount utilised as of 31 December 2021	Balance as of 31 December 2021	Expected time of full utilisation of balance
Investment in imaging diagnostic and therapeutic radiopharmaceuticals manufacturing and research and								
development bases	597.3	460.0	0.0	29.5	200.0	251.5	208.5	In 2022
Establishment of production and								
distribution subsidiaries	67.3	0.0	0.0	0.0	0.0	0.0	0.0	
Establishment of new production								
facilities	84.5	50.0	0.0	50.0	50.0	50.0	0.0	
Investment in the research and development of various imaging diagnostic and therapeutic radiopharmaceuticals, raw materials of radioactive source products,								
medical radioisotopes, and UBT								
products and related raw materials	253.6	118.3	0.0	76.6	101.2	105.4	12.8	In 2022
Investments/selective (mergers)								
acquisitions	286.5	536.1	51.4	529.9	536.1	536.1	0.0	
Working capital and								
general corporate purposes	143.3	268.1	71.7	232.5	268.1	268.1	0.0	
Total	1,432.5	1,432.5	123.1	918.5	1,155.4	1,211.2	221.3	

Note: The investment in the research and development in the use of proceeds is under preparation due to certain research and development projects to be newly launched. There may be differences between the actual and expected timeline for utilising the proceeds for investment in research and development. The specific timeline of utilisation of the proceeds for the investment in the research and development is subject to the actual timeline of utilisation of the projects. The Company will fullfill the disclosure obligations in accordance with the relevant requirements according to the progress of the projects.

EMPLOYEES AND REMUNERATION POLICY

The Group had a total of 3,120 employees as at 31 December 2021. During the year ended 31 December 2021, our staff costs were approximately RMB663.4 million. The remuneration policy of the Group is to motivate and retain excellent staff so as to realise the long-term enterprise goals and objectives of the Group. The employee remuneration policy of the Group is determined after taking into account the overall salary level in the industry, employees' performance and other factors. The management regularly reviews the employee remuneration policy and arrangement of the Group.

We provide our employees with salaries and bonuses, as well as employee benefits, including employee retirement benefit schemes, medical and vocational injury insurance schemes and housing provident fund schemes. Our employees located in China are covered by the mandatory social security schemes defined by PRC local practice and regulations, which are essentially defined contribution schemes.

We provide training to all of our employees to have them equipped with the necessary skills to perform their jobs competently and to give them the opportunities to realise their personal career goals and aspirations. We are also committed to providing individuals with management and leadership training that will improve our capability to achieve our vision, mission and growth objectives. We realise the importance of developing individual career paths that will help employees develop their full potential. Development opportunities are provided as a result of on-the-job training and formal training programs.

HEDGING ACTIVITIES

During the year ended 31 December 2021, the Group had not entered into any hedging transaction in relation to foreign exchange risks or interest risks.

FUTURE PLANS FOR MATERIAL INVESTMENTS OR CAPITAL ASSETS

The Group will actively explore investment opportunities in and outside the PRC to diversify its source of income, which may or may not include any acquisition or disposal of assets and/or business by the Group. Any such plans will comply with the applicable requirements under the Listing Rules (where appropriate).

CORPORATE GOVERNANCE REPORT

The Board of Directors (the "**Board**") is pleased to report to the shareholders on the corporate governance of the Company for the year ended 31 December 2021.

CORPORATE GOVERNANCE PRACTICES

The Board of the Company is committed to maintaining high corporate governance standards.

The Board believes that high corporate governance standards are essential in providing a framework for the Group to safeguard the interests of shareholders, enhance corporate value, formulate its business strategies and policies, and enhance its transparency and accountability.

The Company has adopted the principles and code provisions of the Corporate Governance Code (the "CG Code") set out in Appendix 14 of Listing Rules as the basis of the Company's corporate governance practices.

The Company has in place a corporate governance framework and has established a set of policies and procedures based on the CG Code. Such policies and procedures provide the infrastructure for enhancing the Board's ability to implement governance and exercise proper oversight on business conduct and affairs of the Company.

The Board is of the view that throughout the year ended 31 December 2021, the Company has complied with all the code provisions as set out in the CG Code.

The Company has also put in place certain recommended best practices as set out in the CG Code.

MODEL CODE FOR SECURITIES TRANSACTIONS

The Group has adopted a set of code with the standard no less favorable than that of the Model Code for Securities Transactions by Directors of Listed Issuers as set out in Appendix 10 of the Listing Rules (the "Customised Code") as its own code of conduct regarding securities transaction by all Directors, supervisors and the relevant employees of the Company.

Having made specific enquiry by the Directors and Supervisors, all Directors and Supervisors confirmed that they had complied with the required standards as set out in the Customised Code during the Reporting Period. No incident of non-compliance with the Customised Code by such employees was noted by the Company.

BOARD OF DIRECTORS

The Company is headed by an effective Board which oversees the Group's businesses, strategic decisions and performance and takes decisions objectively in the best interests of the Company.

The Board should regularly review the contributions required from a Director to perform his responsibilities to the Company, and whether the Director is spending sufficient time performing them.

Board Composition

The Board currently comprises 11 Directors, consisting of three executive Directors, namely Mr. Meng Yanbin, Mr. Wang Suohui and Mr. Du Jin; four non-executive Directors, namely Mr. Liu Zhonglin, Mr Chen Shoulei, Ms. Chang Jinyu and Ms. Liu Xiuhong; four independent non-executive Directors, namely Mr. Hui Wan Fai, Mr. Tian Jiahe, Ms. Chen Jingshan and Mr. Lu Chuang.

The biographical information of the Directors are set out in the section headed "Biographical Details of Directors, Supervisors and Senior Management" on pages 48 to 58 of this annual report.

Save as disclosed in the biographies of Directors set out in the section "Biographical Details of Directors, Supervisors and Senior Management" in this annual report, none of the Directors had any personal relationships (including financial, business, family or other material/relevant relationships) with any other Directors, Supervisors or senior management members.

Attendance Records of Directors and Board Committee Members

The attendance records of each Director at the Board and Board committee meetings and the general meeting of the Company held during the year ended 31 December 2021 is set out below:

			A ⁻	ttendance/Num	ber of Meeting	S		
		Audit and		Remuneration				
		Risk		and		Legal	Annual	Extraordinary
		Management	Nomination	Appraisal	Strategy	Affairs	General	General
Directors	Board	Committee	Committee	Committee	Committee	Committee	Meeting	Meeting
Mr. Meng Yanbin	9/9				1/1	0/1	1/1	2/2
Mr. Wang Suohui ¹	8/9				1/1		1/1	1/2
Mr. Du Jin	9/9						1/1	2/2
Mr. Wu Jian ²	1/9						0/1	0/2
Mr. Liu Zhonglin ³	8/9	4/4			1/1	1/1	1/1	1/2
Mr. Chen Shoulei	9/9				1/1		1/1	2/2
Ms. Chang Jinyu	9/9						1/1	2/2
Ms. Liu Xiuhong	9/9			2/2		1/1	1/1	2/2
Mr. Zhou Liulai ⁴	1/9						0/1	0/2
Mr. Hui Wan Fai	9/9	4/4	2/2			1/1	1/1	2/2
Mr. Tian Jiahe	9/9				1/1		1/1	2/2
Ms. Chen Jingshan⁵	8/9		2/2	2/2		1/1	1/1	1/2
Mr. Lu Chuang ⁶	8/9	4/4	2/2	2/2			1/1	1/2
Mr. Guo Qingliang ⁷	1/9						0/1	0/2
Mr. Meng Yan ⁸	1/9						0/1	0/2

Mr. Wang Suohui was appointed as an executive Director on 25 February 2021

Mr. Wu Jian resigned as an executive Director on 25 February 2021

Mr. Liu Zhonglin was appointed as a non-executive Director on 25 February 2021

- 4 Mr. Zhou Liulai resigned as a non-executive Director on 25 February 2021
- Ms. Chen Jingshan was appointed as an independent non-executive Director on 25 February 2021
- ⁶ Mr. Lu Chuang was appointed as an independent non-executive Director on 25 February 2021
- 7 Mr. Guo Qingliang resigned as an independent non-executive Director on 25 February 2021
- Mr. Meng Yan resigned as an independent non-executive Director on 25 February 2021

Apart from regular Board meetings, the Chairman also held a meeting with the independent non-executive Directors without the presence of other directors on 15 September 2021. All the relevant Directors attended this meeting.

Chairman and Chief Executive Officer

Mr. Meng Yanbin, an executive Director, is the Chairman of the Board while Mr. Wang Suohui, an executive Director and general manager, assumes the role of the Chief Executive Officer of the Company. The Chairman provides leadership and is responsible for the effective functioning and leadership of the Board. The Chief Executive Officer focuses on the Company's business development and daily management and operations generally.

Independent Non-executive Directors

During the year ended 31 December 2021, the Board at all times met the requirements of the Listing Rules relating to the appointment of at least three independent non-executive Directors, representing one-third of the Board, with one of whom possessing appropriate professional qualifications or accounting or related financial management expertise.

The Company has received written annual confirmation from each of the independent non-executive Directors in respect of his independence in accordance with the independence guidelines set out in Rule 3.13 of the Listing Rules. The Company is of the view that all independent non-executive Directors are independent.

Appointment and Re-election of Directors

Pursuant to the Articles of Association, the Directors shall be elected at the general meetings with a term of office of three years, renewable upon re-election. The Company has implemented a set of effective procedures for appointment of new Directors. Nomination of new Directors shall be first considered by the nomination committee whose recommendations will then be put forward to the Board for consideration. All newly nominated Directors are subject to election and approval at general meetings.

The Company has entered into service contracts with each of the Directors (including non-executive Directors). Such service contracts are for a term commencing from the date of appointment to the expiry of the current session of the Board.

Responsibilities, Accountabilities and Contributions of the Board and Management

The Board should assume responsibility for leadership and control of the Company, and is collectively responsible for directing and supervising the Company's affairs.

The Board directly, and indirectly through its committees, leads and provides direction to management by laying down strategies and overseeing their implementation, monitors the Group's operational and financial performance, and ensures that sound internal control and risk management systems are in place.

All Directors, including non-executive Directors and independent non-executive Directors, have brought a wide spectrum of valuable business experience, knowledge and professionalism to the Board for its efficient and effective functioning. The independent non-executive Directors are responsible for ensuring a high standard of regulatory reporting of the Company and providing a balance in the Board for bringing effective independent judgement on corporate actions and operations.

All Directors have full and timely access to all the information of the Company and may, upon request, seek independent professional advice in appropriate circumstances at the Company's expenses for discharging their duties to the Company.

The Directors shall disclose to the Company details of other offices held by them.

The Board reserves for its decision all major matters relating to policy matters, strategies and budgets, internal control and risk management, material transactions (in particular those that may involve conflict of interests), financial information, appointment of directors and other significant operational matters of the Company. Responsibilities relating to implementing decisions of the Board, directing and co-ordinating the daily operation and management of the Company are delegated to the management.

Continuous Professional Development of Directors

Directors shall keep abreast of regulatory developments and changes in order to effectively perform their responsibilities and to ensure that their contribution to the Board remains informed and relevant.

Every newly appointed Director has received a formal and comprehensive induction on the first occasion of his/her appointment to ensure appropriate understanding of the business and operations of the Company and full awareness of Director's responsibilities and obligations under the Listing Rules and relevant statutory requirements. Such induction shall be supplemented by visits to the Company's key plant sites and meetings with senior management of the Company.

Directors should participate in appropriate continuous professional development to develop and refresh their knowledge and skills. Internally-facilitated briefings for Directors would be arranged and reading material on relevant topics would be provided to Directors where appropriate.

The Company will organize relevant training courses for all Directors in due course at the Company's expenses.

During the year ended 31 December 2021, the Company organized training sessions conducted by the legal advisers for all Directors. The training sessions covered a wide range of relevant topics including directors' duties and responsibilities, corporate governance and regulatory updates. In addition, relevant reading materials including compliance manual/legal and regulatory updates/seminar handouts have been provided to the Directors for their reference and studying.

The training records of the Directors during the year ended 31 December 2021 are summarized as follows:

Directors	Type of Training Note
Executive Directors	
Mr. Meng Yanbin	A, B
Mr. Wang Suohui (appointed on 25 February 2021)	А, В
Mr. Du Jin	A, B
Mr. Wu Jian (resigned on 25 February 2021)	А, В
Non-executive Directors	
Mr. Liu Zhonglin (appointed on 25 February 2021)	A, B
Mr. Chen Shoulei	A, B
Ms. Chang Jinyu	A, B
Ms. Liu Xiuhong	A, B
Mr. Zhou Liulai (resigned on 25 February 2021)	A, B
Independent Non-executive Directors	
Mr. Hui Wan Fai	A, B
Mr. Tian Jiahe	A, B
Ms. Chen Jingshan (appointed on 25 February 2021)	А, В
Mr. Lu Chuang (appointed on 25 February 2021)	A, B
Mr. Guo Qingliang (resigned on 25 February 2021)	A, B
Mr. Meng Yan (resigned on 25 February 2021)	A, B

Note:

Type of Training

- A: Attending training sessions, including but not limited to, briefings, seminars, conferences and workshops
- B: Reading relevant news alerts, newspapers, journals, magazines and relevant publications

BOARD COMMITTEES

The Board has established five committees, namely, the Audit and Risk Management Committee, Nomination Committee, Remuneration and Appraisal Committee, Strategy Committee and Legal Affairs Committee for overseeing particular aspects of the Company's affairs. All Board committees of the Company are established with specific written terms of reference which deal clearly with their authority and duties. The terms of reference of the Audit and Risk Management Committee, Nomination Committee, Remuneration and Appraisal Committee, Strategy Committee and Legal Affairs Committee are posted on the Company's website and/or the Stock Exchange's website and are available to shareholders upon request.

The list of the chairman and members of each Board committee is set out under "Corporate Information" on page 2.

Audit and Risk Management Committee

The Audit and Risk Management Committee consists of two independent non-executive Directors and one non-executive Director, namely Mr. Hui Wan Fai (Chairman), Mr. Lu Chuang and Mr. Liu Zhonglin.

The terms of reference of the Audit and Risk Management Committee are of no less exacting terms than those set out in the CG Code. The main duties of the Audit and Risk Management Committee are to assist the Board in reviewing the financial information and reporting process, risk management and internal control systems, effectiveness of the internal audit function, scope of audit and appointment of external auditors, and arrangements to enable employees of the Company to raise concerns about possible improprieties in financial reporting, internal control or other matters of the Company.

During the year ended 31 December 2021, the Audit and Risk Management Committee held four meetings to review, in respect of the year ended 31 December 2021, the interim and annual financial results and reports and significant issues on the financial reporting, operational and compliance controls, the effectiveness of the risk management and internal control systems and internal audit function, appointment of external auditors and relevant scope of works and arrangements for employees to raise concerns about possible improprieties.

The Audit and Risk Management Committee also met the external auditors twice without the presence of the executive Directors.

The attendance of the Audit and Risk Management Committee meetings is set out under "Attendance Records of Directors and Board Committee Members" on page 31.

Nomination Committee

The Nomination Committee consists of three independent non-executive Directors, namely Ms. Chen Jingshan (Chairman), Mr. Hui Wan Fai and Mr. Lu Chuang.

The terms of reference of the Nomination Committee are of no less exacting terms than those set out in the CG Code. The principal duties of the Nomination Committee include reviewing the Board composition, developing and formulating relevant procedures for the nomination and appointment of Directors, making recommendations to the Board on the appointment and succession planning of Directors, and assessing the independence of independent non-executive Directors.

In assessing the Board composition, the Nomination Committee would take into account various aspects as well as factors concerning Board diversity as set out in the Company's Board Diversity Policy. The Nomination Committee would discuss and agree on measurable objectives for achieving diversity on the Board, where necessary, and recommend them to the Board for adoption.

In identifying and selecting suitable candidates for directorships, the Nomination Committee would consider the candidate's relevant criteria as set out in the Director Nomination Policy that are necessary to complement the corporate strategy and achieve Board diversity, where appropriate, before making recommendation to the Board.

During the year ended 31 December 2021, the Nomination Committee held two meetings to review the structure, size and composition of the Board and the independence of the independent non-executive Directors and to consider and recommend to the Board on the appointment of non-executive and independent non-executive Directors. The Nomination Committee considered an appropriate balance of diversity perspectives of the Board is maintained.

The attendance records of the Nomination Committee are set out under "Attendance Records of Directors and Board Committee Members" on page 31.

Board Diversity Policy

The Company has adopted a Board Diversity Policy which sets out the approach to achieve diversity of the Board. The Company recognizes and embraces the benefits of having a diverse Board and sees increasing diversity at the Board level as an essential element in maintaining the Company's competitive advantage.

Pursuant to the Board Diversity Policy, the Nomination Committee will review annually the structure, size and composition of the Board and where appropriate, make recommendations on changes to the Board to complement the Company's corporate strategy and to ensure that the Board maintains a balanced diverse profile. In relation to reviewing and assessing the Board composition, the Nomination Committee is committed to achieving diversity at all levels and will consider a number of aspects, including but not limited to gender, age, cultural and educational background, ethnicity, professional experience, skills, knowledge and term of service. The above factors are all the consideration factors of measurable objectives. In addition, the consideration factors of measurable objectives also include the rich experience in different business areas of a Director with technical, legal, financial, managerial and audit background. Meanwhile, the Company will consider the above factors according to its own business model and specific needs and finally determine a candidate by combination of his or her specialties, value and the contribution that can be made to the Board.

The Company aims to maintain an appropriate balance of diversity perspectives that are relevant to the Company's business growth and is also committed to ensuring that recruitment and selection practices at all levels (from the Board downwards) are appropriately structured so that a diverse range of candidates are considered.

The Board has set measurable objectives to implement the Board Diversity Policy and will review such objectives from time to time to ensure their appropriateness and ascertain the progress made towards achieving those objectives.

At present, the Nomination Committee considered that the Board is sufficiently diverse and confirmed that the measurable objectives have been achieved.

The Nomination Committee will review the Board Diversity Policy, as appropriate, to ensure its effectiveness.

Director Nomination Policy

The Board has delegated its responsibilities and authority for selection and appointment of Directors to the Nomination Committee of the Company.

The Company has adopted a Director Nomination Policy which sets out the selection criteria and process and the Board succession planning considerations in relation to nomination and appointment of Directors of the Company and aims to ensure that the Board has a balance of skills, experience and diversity of perspectives appropriate to the Company and the continuity of the Board and appropriate leadership at Board level.

The Director Nomination Policy sets out the factors for assessing the suitability and the potential contribution to the Board of a proposed candidate, including but not limited to the following:

- Character and integrity;
- Qualifications including professional qualifications, skills, knowledge and experience that are relevant to the Company's business and corporate strategy;
- Diversity in all aspects, including but not limited to gender, age (18 years or above), cultural and educational background, ethnicity, professional experience, skills, knowledge and length of service;
- Requirements of Independent Non-executive Directors on the Board and independence of the proposed Independent Non-executive Directors in accordance with the Listing Rules; and
- Commitment in respect of available time and relevant interest to discharge duties as a member of the Board and/or Board committee(s) of the Company.

The Director Nomination Policy also sets out the procedures for the selection and appointment of new Directors and re-election of Directors at general meetings. During the year ended 31 December 2021, there was additional appointment of non-executive director in the composition of the Board.

The Nomination Committee will review the Director Nomination Policy, as appropriate, to ensure its effectiveness.

Remuneration and Appraisal Committee

The Remuneration and Appraisal Committee consists of two independent non-executive Directors and one non-executive Director, namely Mr. Lu Chuang (Chairman) and Ms. Chen Jingshan and Ms. Liu Xiuhong.

The terms of reference of the Remuneration and Appraisal Committee are of no less exacting terms than those set out in the CG Code. The primary functions of the Remuneration and Appraisal Committee include reviewing and making recommendations to the Board on the remuneration packages of individual Directors and senior management, the remuneration policy and structure for all Directors and senior management; and establishing transparent procedures for developing such remuneration policy and structure to ensure that no Director or any of his/her associates will participate in deciding his/her own remuneration.

During the year ended 31 December 2021, the Remuneration and Appraisal Committee held two meetings during the year to review and make recommendation to the Board on the remuneration policy and the remuneration packages of the Directors and senior management.

Details of the emoluments of Directors for the Reporting Period are set out in note 9 in the Notes to the Audited Financial Statements for the year ended 31 December 2021.

The emoluments of senior management (exclusive of Directors) for the Reporting Period are within the following bands:

	2021	2020
	Number of	Number of
Emoluments Band (RMB)	Individuals	Individuals
Less than 500,000	_	_
500,000 - 800,000	2	_
More than 800,000	1	3
Total	3	3

The Remuneration Committee also made recommendations to the Board on the terms of service contracts or letters of appointment of the new Directors appointed during the year.

The attendance records of the Remuneration and Appraisal Committee are set out under "Attendance Records of Directors and Board Committee" on page 31.

Strategy Committee

The Strategy Committee consists of two executive Directors, two non-executive Directors and one independent non-executive Director, namely Mr. Meng Yanbin (Chairman), Mr. Wang Suohui, Mr. Liu Zhonglin, Mr. Chen Shoulei and Mr. Tian Jiahe.

The principal duties of the Strategy Committee include considering various special development strategies and plans of the Company and to make recommendations to the Board and assisting with other matters specified by laws, administrative rules, regulations and the rules of the securities supervision and administration authority of the place where the shares of the Company are listed and authorized by the Board.

During the year ended 31 December 2021, the Strategy Committee held one meeting.

Legal Affairs Committee

The Legal Affairs Committee consists of one executive Director, two non-executive Directors and two independent non-executive Directors, namely Mr. Meng Yanbin (Chairman), Mr. Liu Zhonglin, Ms. Liu Xiuhong, Mr. Hui Wan Fai and Ms. Chen Jingshan.

The principal duties of the Legal Affairs Committee include performing the duties and responsibilities of promoting the law-based and law-compliant construction, researching and formulating the plan for implementing the law-based and law-compliant construction and reporting it to the Board for consideration and approval, considering the overall objectives for the law-based administration and law-compliant administration and the basic system of the Company, and to advise thereon, considering the system of the law-based and law-compliant administration, the setup of authorities and their duties and responsibilities and to advise thereon, supervising and evaluate the law-based and law-compliant administration of the Company, and to check the implementation by the Company in the compliance with laws and regulatory requirements and assisting other matters specified by the Articles of Association and authorized by the Board.

During the year ended 31 December 2021, the Legal Affairs Committee held one meeting.

BOARD OF SUPERVISORS

The Board of Supervisors is responsible for supervising the legality of the performance of duties by the Directors and senior management members of the Company, thus to protect the overall benefits of the Company and shareholders.

As at 31 December 2021, the Board of Supervisors comprised 5 Supervisors, namely Mr. Zhang Qingjun, Mr. Zhao Nanfei, Mr. Zhang Guoping, Mr. Li Zhenhua and Mr. Zhang Jian. The biographical information of the Supervisors are set out in the section headed "Biographical Details of Directors, Supervisors and Senior Management" on pages 48 to 58 of this annual report.

Mr. Liu Zhonglin has resigned as Supervisor with effect from 25 February 2021. Mr. Zhao Nantei was appointed as Supervisor on 25 February 2021 for a term of office until the date on which the term of office of the second session of the Board of Supervisors of the Company expires.

Save as disclosed in the biographies of Supervisors set out in the section "Biographical Details of Directors, Supervisors and Senior Management" in this annual report, none of the Supervisors had any personal relationships (including financial, business, family or other material/relevant relationships) with any other Directors, Supervisors or senior management members.

The Board of Supervisors held five meetings during the year to consider and approve the interim and annual results announcement, the interim and annual report and other resolutions.

The attendance records of the members of the Board of Supervisors are as follows:

	Number of meetings
Supervisors	attended
Mr. Zhang Qingjun	5/5
Mr. Zhao Nanfei (appointed on 25 February 2021)	4/5
Mr. Zhang Guoping	5/5
Mr. Li Zhenhua	5/5
Mr. Zhang Jian	5/5
Mr. Liu Zhonglin (resigned on 25 February 2021)	1/5

RISK MANAGEMENT AND INTERNAL CONTROLS

The Board acknowledges its responsibility for the risk management and internal control systems and reviewing their effectiveness. Such systems are designed to manage rather than eliminate the risk of failure to achieve business objectives and can only provide reasonable and not absolute assurance against material misstatement or loss. The Board has the overall responsibility for evaluating and determining the nature and extent of the risks it is willing to take in achieving the Company's strategic objectives, and establishing and maintaining appropriate and effective risk management and internal control systems. The Audit and Risk Management Committee assists the Board in leading the management and overseeing their design, implementation and monitoring of the risk management and internal control systems.

The Company has developed and adopted various risk management procedures and guidelines with defined authority for implementation by key business processes and office functions, including project management, sales and leasing, financial reporting, human resources and information technology.

The Company's risk management and internal control systems have been developed with the following principles, features and processes:

The principles of the overall risk management work of CIRC: the strategy-oriented principle, the principle of significance and importance, the principle of participation by all, the internal control principle, the principle of comprehensiveness, the principle of significance and the principle of objectiveness.

All departments conducted internal control assessment regularly to identify risks that potentially impact the business of the Group and various aspects including key operational and financial processes, regulatory compliance and information security.

Self-evaluation has been conducted annually to confirm that control policies are properly complied with by each department.

The management, in coordination with department heads, assessed the likelihood of risk occurrence, provided treatment plans, and monitored the risk management progress, and reported to the Audit and Risk Management Committee and the Board on all findings and the effectiveness of the systems.

The management has confirmed to the Board and the Audit and Risk Management Committee on the effectiveness of the risk management and internal control systems from the Listing Date to 31 December 2021.

The Board, as supported by the Audit and Risk Management Committee as well as the management report and the internal audit findings, reviewed the risk management and internal control systems, including the financial, operational and compliance controls, during the year ended 31 December 2021, and considered that such systems are effective and adequate. The annual review also covered the financial reporting and internal audit function and staff qualifications, experiences and relevant resources.

The Company has developed its disclosure policy which provides a general guide to the Company's Directors, Supervisors, senior management and relevant employees in handling confidential information, monitoring information disclosure and responding to enquiries. Control procedures have been implemented to ensure that unauthorized access and use of inside information are strictly prohibited.

The Company has an internal audit function to carry out independent reviews of the adequacy and effectiveness of its risk management and internal control systems. The risk management and internal controls are self-assessed by the management and reviewed by the Board on an on-going basis.

DIRECTORS' RESPONSIBILITY IN RESPECT OF THE FINANCIAL STATEMENTS

The Directors acknowledge their responsibility for preparing the financial statements of the Company for the year ended 31 December 2021.

The Directors are not aware of any material uncertainties relating to events or conditions that may cast significant doubt upon the Company's ability to continue as a going concern.

The statement of the independent auditors of the Company about their reporting responsibilities on the financial statements is set out in the Independent Auditor's Report on pages 89 to 93.

AUDITORS' REMUNERATION

The remuneration payable to the Company's external auditors in respect of audit services and non-audit services for the year ended 31 December 2021 amounted to RMB2.20 million, and RMB0.88 million is outstanding. An analysis of the remuneration paid to the external auditors of the Company, KPMG, in respect of audit services and non-audit services for the year ended 31 December 2021 is set out below:

Service Category	Fees Paid
	RMB
Audit Services	1,320,000
Non-audit Services	-
Total	1,320,000

JOINT COMPANY SECRETARIES

Mr. Gui Youquan and Ms. Kam Mei Ha Wendy have been appointed as the Company's joint company secretaries. Ms. Kam Mei Ha Wendy is an executive director of the Corporate Services Division of Tricor Services Limited, a global professional services provider specializing in integrated business, corporate and investor services. She is a fellow member of The Hong Kong Chartered Governance Institute and The Chartered Governance Institute in the United Kingdom.

All Directors have access to the advice and services of the joint company secretaries on corporate governance and board practices and matters. Mr. Gui Youquan, the chief accountant and joint company secretary of the Company, has been designated as the primary contact person at the Company which would work and communicate with Ms. Kam Mei Ha Wendy on the Company's corporate governance and secretarial and administrative matters.

For the year ended 31 December 2021, Mr. Gui Youquan and Ms. Kam Mei Ha Wendy have undertaken not less than 15 hours of relevant professional training respectively in compliance with Rule 3.29 of the Listing Rules.

GENERAL MEETING

In 2021, the Company convened three general meetings.

On 25 February 2021, an extraordinary general meeting of the Company was held on-site and Shareholders holding an aggregate of 266,760,862 Shares, representing 83.40% of the Company's total issued shares, attended the meeting.

On 12 May 2021, the 2021 annual general meeting was convened on-site and Shareholders holding an aggregate of 264,551,070 Shares, representing 82.70% of the Company's total issued shares, attended the meeting.

On 27 July 2021, an extraordinary general meeting of the Company was held on-site and Shareholders holding an aggregate of 264,411,116 Shares, representing 82.66% of the Company's total issued shares, attended the meeting.

The convening, notifying, holding and voting procedures of the meetings are in compliance with the relevant provisions of the Company Law and the Articles of Association.

SHAREHOLDERS' RIGHTS

The Company engages with shareholders through various communication channels.

To safeguard shareholder interests and rights, separate resolution should be proposed for each substantially separate issue at general meetings, including the election of individual Director. All resolutions put forward at general meetings will be voted on by poll pursuant to the Listing Rules and poll results will be posted on the websites of the Company and of the Stock Exchange after each general meeting.

Convening a General Meeting

According to the Articles of Association, to convene an extraordinary general meeting or a shareholders' class meeting, the shareholders shall follow the following procedures:

- (I) The shareholders individually or jointly holding more than 10% of the voting shares at the meeting sought to be held (hereinafter referred to as the "Proposing Shareholders") may sign one or several written requests of identical form of content requesting the Board of Directors to convene an extraordinary general meeting or a class meeting and stating the subject of the meeting. The abovementioned shareholding shall be calculated as of the day on which the written request is made. The Board of Directors shall, in accordance with laws, administrative regulations and the Articles, provide a written feedback on whether to agree or not to convene such extraordinary general meeting within ten (10) days upon receipt of such proposal.
- (II) In the event that the Board of Directors agrees to convene the extraordinary general meeting, a notice on the convocation of such meeting shall be given within five (5) days after the resolution being made by the Board of Directors. Changes made to the original proposal in the notice shall be approved by relevant shareholders.
- (III) In the event that the Board of Directors refuses to convene the extraordinary general meeting, or gives no feedback within ten (10) days after receiving the proposal, the proposing shareholders shall have the right to propose, in written form, the convocation of an extraordinary general meeting to the Board of Supervisors.
- (IV) In the event that the Board of Supervisors agrees to convene the extraordinary general meeting, a notice on the convocation of such meeting shall be given within five (5) days after receiving the proposal. Changes made to the original proposal in the notice shall be approved by relevant shareholders.
- (V) If the Board of Supervisors fails to give a notice on the convocation of extraordinary general meeting within time limit, it shall be deemed having no intention to convene and preside over the meeting. In this case, the shareholders individually or jointly holding more than 10% of the Company's shares for more than ninety consecutive days shall have the right to convene and preside over the meeting by themselves. The convocational procedure shall, to the extent possible, be identical to procedures according to which meeting is to be convened by the Board of Directors.

All reasonable expenses incurred for such meeting convened by the shareholders as a result of the failure of the Board of Directors and the Board of Supervisors to convene a meeting at the above requests shall be borne by the Company and deducted from the amount owned by the Company to the delinquent directors and supervisors.

Putting Forward Proposals at General Meetings

According to the Articles of Association, to convene the shareholders' general meeting, the shareholders individually or jointly holding more than 3% of the total voting shares shall be entitled to propose new resolutions in writing to the Company. The Company shall incorporate the matters falling within the scope of duties of the shareholders' general meeting into the agenda of such meeting for the consideration.

The contents of the aforesaid proposal shall be in conformity with relevant laws, administrative regulations and the Articles, within the scope of duties of the shareholders' general meeting and with a clear agenda and specific resolutions.

Putting Forward Enquiries to the Board

For putting forward any enquiries to the Board of the Company, Shareholders may send written enquiries to the Company. The Company will not normally deal with verbal or anonymous enquiries.

Contact Details

Shareholders may send their enquiries or requests as mentioned above to the following:

Address: Room 418, South 4th Floor, Building 1, No. 66 Changwa Middle Street, Haidian District, Beijing,

China (For the attention of the Joint Company Secretary)

Fax: +86 10 68512374 Email: ir@circ.com.cn

For the avoidance of doubt, shareholder(s) must deposit and send the original duly signed written requisition, notice or statement, or enquiry (as the case may be) to the above address and provide their full name, contact details and identification in order to give effect thereto. Shareholders' information may be disclosed as required by law.

INVESTOR RELATIONS

The Company considers that effective communication with Shareholders is essential for enhancing investor relations and investor understanding of the Group's business performance and strategies.

The Company endeavours to maintain an on-going dialogue with shareholders and in particular, through annual general meetings and other general meetings. At the annual general meeting, directors (or their delegates as appropriate) are available to meet shareholders and answer their enquiries.

Policies relating to Shareholders

The Company has in place a Shareholders' Communication Policy to ensure that shareholders' views and concerns are appropriately addressed. The policy is regularly reviewed to ensure its effectiveness.

The Company has adopted a Dividend Policy on payment of dividends. The Company does not have any predetermined dividend payout ratio. Depending on the financial conditions of the Company and the Group and the conditions and factors as set out in the Dividend Policy, dividends may be proposed and/or declared by the Board during a financial year and any final dividend for a financial year will be subject to the Shareholders' approval. Such details have been disclosed in the section "Management Discussion and Analysis – Dividend Policy" of the annual report of the Company.

EXECUTIVE DIRECTORS

Mr. Meng Yanbin (孟琰彬), aged 53, is currently an executive Director, chairman of the Board, party committee secretary and legal representative of the Company. Before joining the Company, from August 1990 to November 2011, Mr. Meng worked as a technical cadre at Faculty 5, assistant director and deputy director of the institution office, director and assistant to the president of the foreign trade office, and manager of the foreign trade company and vice president of Research Institute of Physical and Chemical Engineering of Nuclear Industry ("IPCE"). From November 2011 to January 2017, he served as the general manager and deputy secretary of the party committee of China Nuclear (Tianjin) Machinery Co., Ltd. Mr. Meng has served as secretary of the party committee of the Company since January 2017, has served as executive Director, chairman of the Board and legal representative of the Company since February 2017, has served as chairman of the Board and secretary of the party committee of China Baoyuan Investment Co., Ltd. since September 2019, and has served as general manager assistant of China National Nuclear Corporation since August 2021.

Mr. Meng received a Bachelor's Degree in Mechanical Design and Manufacturing at the Mechanical Engineering Department II of the Northeastern University (previously known as Northeastern Institute of Technology) in August 1990, and a master's degree in business administration from Tianjin University in July 2002. Mr. Meng qualified as a senior engineer in May 2001. He was awarded the Tianjin Patent Excellence Award (Mobile Radioactive Wastewater Treatment Equipment) and the IPCE Science and Technology Award (First Class) (Mobile Radioactive Wastewater Treatment Equipment) in July 2009 and September 2009, respectively. Mr. Meng was awarded the Special Allowance Expertise Award from the State Council in May 2011 and was selected to participate in the New Entrepreneurs Training Project in Tianjin in January 2014. He was granted Labor Medals by the Tianjin Municipal Defense Industry and Tianjin Government in March 2015 and April 2015, respectively. Mr. Meng has served as a tutor for the student innovative entrepreneurial practice at the Mechanical Engineering Department of Tsinghua University since September 2015. Since August 2016, 2018 and July 2019, he has been a council member of Tianjin Institute of Industrial Engineering (天津市工業工程學會理事), a council member of Chinese Nuclear Society and a vice president of the Precision Radiotherapy and Brachytherapy Branch of Chinese Nuclear Society (中國核學會精準放療與近距離治療分會), respectively. He has served as a director of China Nuclear Energy Association (中國核能行業協會) since May 2020.

Mr. Wang Suohui (王鎖會), aged 47, is the executive director, general manager and deputy secretary of the party committee of the Company. Before joining the Company, from July 1997 to March 1999, Mr. Wang served as assistant engineer of the Fourth Research and Design Engineering Corporation of CNNC. From March 1999 to June 2002, he served as supervising engineer of CNNC Star Construction Project Management Co., Ltd. From June 2002 to December 2007, he successively served as a designer, director of the equipment room of the medical office and general manager assistant of the equipment supervision department of the Fourth Research and Design Engineering Corporation of CNNC. From October 2006 to March 2008, he worked at the construction division of the Comprehensive Planning Department of CNNC (中核集團公司綜合計劃部建設處) (on secondment). From March 2008 to March 2011, he served as the principal staff member of construction division of the Comprehensive Planning Department of CNNC and from March 2011 to January 2017, he served as a deputy chief of the ability construction session and chief of business planning session of division of plan and development of CNNC. Mr. Wang served as deputy general manager of the Company from January 2017 to October 2020. He has been serving as the deputy general manager of China Isotope & Radiation Corporation (presiding over the work) from October 2020 to December 2020. Since December 2020, Mr. Wang worked as deputy secretary of the party committee of China Isotope & Radiation Corporation. Mr. Wang was the chairman of the board of directors of CNNC Tongxing (Beijing) Nuclear Technology Co., Ltd. (中核同興(北京)核技術有限公 司) from May 2017 to January 2021. From May 2017 to April 2019, he also served as the chairman of the board of directors of BINE High-Tech Co., Ltd.(中核比尼(北京)核技術有限公司). From January 2018 to April 2019, he served as a director of CNNC (Taizhou) Irradiation Technology Co. Ltd. (中核(泰州)輻照科技有限公司). Since May 2018, he has been serving as the director and vice chairman of CNNC Nuclide Medical Investment Co., Ltd. (中 核核素醫療投資有限公司). In March 2019, he has also served as the director and chairman of CNNC Accuray (Tianjin) Medical Technology Co., Ltd. (中核安科鋭(天津)醫療科技有限責任公司).Mr. Wang has been concurrently serving as the director and vice chairman of Nanjing Clinical Nuclear Medicine Center since March 2021, and has been serving as the executive vice president of the Seventh Council of the China Isotope & Radiation Association since June 2021. Mr. Wang has served as the general manager and executive director of the Company since February 2021.

Mr. Wang obtained a Bachelor's Degree in Chemical Equipment and Mechanisms from College of Mechanical Engineering of Hebei University of Science and Technology in June 1997. He received a Master's Degree in Nuclear Energy and Nuclear Technology Engineering from Tsinghua University in December 2009. Mr. Wang is a professorship senior engineer. Since May 2019, he has been serving as the deputy chairman of the Radioactive Medicine and Radiation Protection Branch (放射醫學與輻射防護分會) (the Radioactive Medicine and Radiation Protection Alliance (放射醫學與輻射防護聯盟)) of China Isotope and Radiation Industry Association. Mr. Wang has been serving as the executive vice president of the Seventh Council of the China Isotope & Radiation Association since June 2021 and the legal representative of the Seventh Council of the China Isotope & Radiation Association since November 2021. Since November 2021, Mr. Wang has been the chairman of the board of directors of CNNC Radiopharmaceutical Engineering and Technology Research Center (放射性藥物工程技術研究中心) and since December 2021, Mr. Wang has been the chairman of the standardization working committee of China Isotope and Radiation Industry Association (中國同位素與輻射行業協會).

Mr. Du Jin (杜進), aged 56, is currently an executive Director and chief engineer of the Company. Before joining the Company, from August 1986 to May 1997, Mr. Du served as engineer and deputy director of Section 51 of the Isotope Department of CIAE. From May 1995 to August 1995, he studied at MAP Medical Technologies, Finland. From March 1996 to September 1996, as a visiting scholar, he worked at the Radioisotope Department of Japan Atomic Energy Research Institute. From June 1997 to January 2002, Mr. Du worked as senior researcher at MAP Medical Technologies Oy, Finland. From February 2002 to June 2006, he served as researcher at the Isotope Department of CIAE, and as a professor of the Joint Radiopharmaceutical Laboratory of Peking University Health Science Center. Mr. Du served as researcher, deputy chief engineer and manager of the technical development division of the Company and its predecessor, China Isotope, from June 2006 to May 2016. He has served as the chief engineer of the Company since May 2016, and served as executive director of the Company since February 2017. From January 2017 to June 2018, Mr. Du served as a director of Shanghai GMS Pharmaceutical, and a director of HTA from April 2016 to April 2019. Since April 2021, Mr. Du has been a director and the chairman of the Board of HTA.

Mr. Du received a Bachelor's Degree in Organic Chemistry Engineering from Wuhan Institute of Technology in July 1986 and a master's degree in inorganic and analytical chemistry from University of Jyvaskyla in Finland in December 1998. He received a doctorate in inorganic and analytical chemistry from University of Jyvaskyla in Finland in August 2001. Mr. Du worked as a senior researcher at MAP Medical Technologies in Finland from June 1996 to January 2002. Mr. Du was awarded second prize in the National Defense Science and Technology Award in November 2002. In 2016, he was awarded the Special Allowance Expertise from the State Council. Mr. Du has been the deputy director of the Isotope Specialty Committee of the China Isotopes and Radiation Industry Association since June 2012 and an adjunct researcher with the Isotope Institute of China Nuclear Energy Science Academy since January 2013. He has been a member of the Eighth Committee and a standing committee member of the Ninth Committee of the Nuclear Chemistry and Radiochemistry Chapter of the Chinese Nuclear Society from March 2013 to August 2018 and since September 2018 respectively. Mr. Du has been a member of the Editorial Board of Nuclear Chemistry and Radiochemistry since November 2013 and has served as deputy editor-in-chief of the Fifth and Sixth Editorial Board of Isotope since October 2014. Since October 2014, he has also served as deputy director of the Sixth Council of the Isotope Branch of China Nuclear Society. From May 2015 to November 2017, Mr. Du served as the deputy leader of the radiopharmaceutical group of the 10th Committee of the Chinese Society Nuclear Medicine. Since December 2015, he has been a standing member of the First and Second Cancer Nuclear Medicine Professional Committee of Chinese AntiCancer Association. He has also been a member of the National Committee for Nuclear Energy Standardization (SAC/ TC58) and vice committee director of the Radioisotope Technical Committee (SAC/TC58/SC4) since July 2015. From December 2016 to January 2021, he has been a member of the Fourth Committee on Science and Technology of CNNC and a deputy director of the Specialized Committee of Nuclear Technology Industrialization. Since January 2021, he has served as a committee member of the Fifth Committee on Science and Technology of CNNC. Since September 2018, he has been a vice president of the first Council of the Radiopharmaceuticals Branch of China Nuclear Society. Since January 2019, he has been a deputy leader of the nuclear professional group of the nuclear technology application of the China Commission of Science, Technology and Industry for National Defense (中國國防科技工業科學技術委員會核領域核技術應用專業組). Since April 2019, he has been a member of the tenth Editorial Board of the Chinese Journal of Nuclear Medicine and Molecular Imaging. Since November 2021, he has served as the a vice president of the Council of CNNC Radiopharmaceutical Engineering Technology Research Center.

NON-EXECUTIVE DIRECTORS

Mr. Liu Zhonglin (劉忠林), aged 53, is currently a non-executive director and vice chairman of the Company. Before joining the Company, Mr. Liu served as accountant, deputy chief, chief of the finance division, director of finance and auditing division, deputy chief accountant and chief accountant of the Sixth Design and Research Institute of China Weapon Industry from July 1990 to December 2010. From December 2010 to July 2012, he served as the chief accountant of China Weapon Industry Northern Engineering Design Institute Co., Ltd. (中國兵器工業北方工程設計研究院有限公司). From July 2012 to July 2015, he served as the chief accountant of Shandong Special Industrial Group. From July 2015 to May 2021, he served as chief accountant of CIAE. From May 2021 to March 2022, Mr. Liu served as a member of the Party Committee of CIAE. Mr. Liu has been a Supervisor of the Company since February 2017 to February 2021. From February 2021, he has been a Director of the Company.

Mr. Liu received a Bachelor's Degree in financial accounting from Shenyang Institute of Technology in July 1990. Mr. Liu is a senior accountant at researcher level, and a PRC certified public accountant. Mr. Liu was awarded the title of "New Long March Pioneer in North Design Research Institute" (北方設計研究院新長徵突擊手) in April 1993. He participated in the Knowledge Contest of Accounting Rules in Hebei Province on behalf of the State Commission of Science and Technology for National Defense Industry (國防科工委) and obtained third prize in June 1995, and was awarded the title of "Outstanding Communist Party Member in North Design Research Institute" in 1999 and 2000.

Mr. Chen Shoulei (陳首雷), aged 56, is currently a non-executive director and vice chairman of the Company. Before joining the Company, from October 1986 to December 2007, Mr. Chen served as assistant accountant, accountant of the finance division, vice section chief of the finance section, acting deputy chief, deputy chief, chief of the finance division, and director of the financial assets division in the Fifth Institute of the Nuclear Industry. From January 2008 to January 2013, Mr. Chen served as deputy director and senior accountant in the financial division of China Nuclear Power Engineering. From January 2013 to March 2016, Mr. Chen served as director of the supervision and audit division of China Nuclear Power Engineering. From March 2016 to May 2021, Mr. Chen has been the chief accountant of Nuclear Power Institute of China. From May 2021, he has served as chief accountant of CIAE. From February 2017 to March 2019, Mr. Chen was a shareholder representative supervisor of the Company. Since June 2019, he has been a Director of the Company.

Mr. Chen received a Bachelor's Degree in Auditing (Accounting) from Wuhan University in July 1986. Mr. Chen was qualified as an assistant accountant in October 1989 and was certified as an accountant in November 1993 and a senior accountant on March 2000.

Ms. Chang Jinyu (常晉峪), aged 50, is a non-executive Director of the Company. She served as an engineer of the Structural Design Department of Hangzhou Dongfang Communication Metalworking Factory (杭州東方通信金工分廠) from July 1994 to January 1997. She acted as the deputy general manager of the Project Department of Shanghai Galaxy Digital Investment Co., Ltd. (上海星河數碼投資有限公司) from June 2000 to April 2005. She was the senior manager of the Investment Planning Department of SIIC (上實集團) from April 2005 to April 2006, the assistant supervisor and supervisor of the Business Administration Department of SIIC Management (Shanghai) Limited (上實管理(上海)有限公司) from April 2010, the supervisor of the Investment Department of SIIC Management (Shanghai) Limited (上實管理(上海)有限公司) from April 2010 to March 2013, and the assistant general manager of SIIC Management (Shanghai) Limited (上實管理(上海)有限公司) from March 2013 to March 2014. Since March 2014, she has been the executive deputy general manager (part-time) of Shanghai Road and Bridge Development Co., Ltd. (上海路橋發展有限公司). Since August 2017, she has been the deputy general manager (part-time) of SIIC Management (Shanghai) Limited (上實管理(上海)有限公司). Since September 2018, she has been the deputy general manager of Shanghai Galaxy Digital Investment Co., Ltd. (上海星河數碼投資有限公司) as well as the chairperson of SIIC Hangtai Galaxy Energy Co., Ltd. (上實航太星河能源有限公司).

In July 1994, Ms. Chang graduated from Shanghai Jiao Tong University majoring in mechanical design and process and obtained a bachelor's degree in Engineering. In June 2000, she graduated from Shanghai University of Finance and Economics majoring in money and banking and obtained a master's degree in Finance.

Ms. Liu Xiuhong (劉修紅), aged 54, is currently a non-executive director of the Company. From 1997 to 1999, she served as deputy chief of the infrastructure finance section of the finance bureau of the headquarters of CNNC. From 1999 to December 2004, she served as chief of the financial management section and deputy director of the finance division of China Nuclear Engineering and Construction Corporation (CNEC). From January 2005 to September 2014, she served as chief financial officer of China Nuclear Energy Technology Corporation Limited. From October 2014 to July 2018, she served as director of the audit division of CNEC. From August 2018 to November 2019, she served as secretary and deputy director of the system engineering division of CNNC. Since November 2019, she has been serving as full-time director of CNNC, and director of China National Nuclear Power Co., Ltd. (Shanghai Stock Exchange: 601985) and CNNC SUFA Technology Industry Co., Ltd. (Shenzhen Stock Exchange: 000777). Since June 2020, She has been the director of China Nuclear Mining Science and Technology Corporation.

Ms. Liu graduated from the Department of Investment Economics of the Dongbei University of Finance and Economics and obtained a bachelor's degree in infrastructure finance and credit in July 1989. In June 2011, she graduated from the School of Economics and Management of the Tsinghua University with a master's degree in business administration for senior management.

INDEPENDENT NON-EXECUTIVE DIRECTORS

Mr. Hui Wan Fai (許雲輝), aged 46, is currently an independent non-executive Director of the Company. Before joining the Company, Mr. Hui acted as a auditor in PricewaterhouseCoopers from 1998 to 2000; a global management trainee in Hutchison Whampoa Limited from 2000 to 2001; bond market manager of ICEA FINANCE Capital Limited (工商東亞資本有限公司) from 2001 to 2003; head of specific investment division (China) of Mellon HBV Alternative Strategies LLC from 2005 to 2006. From August 2006 to July 2010, Mr. Hui served as a managing director of Pacific Alliance Group, and from June 2010 to March 2012, he served as a managing director of The Blackstone Group (HK) Limited. Mr. Hui has been an independent non-executive director of the Greentown China Holdings Limited (Hong Kong Stock Exchange Stock Code: 3900) since April 2012. Mr. Hui has been the managing partner of PAG Consulting Ltd since March 2012. Mr. Hui obtained a Bachelor's Degree in Business Administration from The University of Hong Kong in 1998 and a Master's Degree in International and Public Affairs from The University of Hong Kong in 2002. He also obtained a Master's Degree in Business Administration from Institut Européen d'Administration des Affaires (INSEAD) in 2004.

Mr. Hui is a member of the Association of Chartered Certified Accountants, United Kingdom and holds the qualifications of the Chartered Financial Analyst from the Association for Investment Management and Research as well as the Associate of HKICS from the Hong Kong Institute of Company Secretaries. Mr. Hui is a permanent resident of Hong Kong and is now ordinarily resident in Hong Kong.

Mr. Tian Jiahe (田嘉禾), aged 71, is an independent non-executive Director of the Company. Before joining the Company, he was a resident physician of the Radiology Department of The General Hospital of the People's Liberation Army (解放軍總醫院) from January 1976 to October 1976, a physician-in-charge and associate chief physician of the Isotopes Office of the Radiology Department of The General Hospital of the People's Liberation Army (解放軍總醫院) from October 1976 to June 1987, a chief physician and professor of the Nuclear Medicine Department of The General Hospital of the People's Liberation Army (解放軍總醫院) from June 1987 to November 2000, and a chief physician of the Medical Imaging Centre of The General Hospital of the People's Liberation Army (解放軍總醫院) from November 2000 to December 2017. Since December 2017, he has been a deputy chief of the Professor Board of the Nuclear Medicine Department, member of the Party Committee and head of the Medical Imaging Centre of The General Hospital of the People's Liberation Army (解放軍總醫院).

In December 1975, Mr. Tian Jiahe graduated from School of Radiology of the Medical School of Jilin University (吉林醫科大學) and obtained a bachelor's degree in Medicine. In December 1980, he graduated from The University of New South Wales, Australia (澳大利亞新南威爾士大學) with a master's degree in Medicine.

Ms. Chen Jingshan (陳景善), aged 52, is an independent non-executive Director of the Company. Before joining the Company, Ms. Chen was a staff in Beijing Foreign Trade Import and Export Corporation from October 1992 to December 1995; from January 1996 to February 1998, she was a legal assistant in Beijing Jingrong Law Company (北京市京融律師事務所); from April 2005 to November 2007, she acted as tutor in Law School of Waseda University in Japan; from October 2007 to August 2014, she acted as an assistant professor in China University of Political Science and Law; since September 2014, she has been acting as a professor and PhD Tutor in China University of Political Science and Law.

Ms. Chen obtained a Bachelor's Degree in Law Profession from Law School of China University of Political Science and Law in July 1992, a Master's Degree in Law Profession in Law School of Waseda University in Japan in April 2002, and a PhD in Law Profession in Law School of Waseda University in Japan in November 2007.

Mr. Lu Chuang (盧陽), aged 42, is an independent non-executive Director of the Company. Before joining the Company, Mr. Lu was a teacher in the School of Accounting of Central University of Finance and Economics from July 2007 to March 2008; from March 2008 to May 2010, he was a teacher in the School of Accounting and a laboratory director in the School of Accounting of Central University of Finance and Economics; from May 2010 to November 2015, he acted as the deputy director of Finance Department of Central University of Finance and Economics; since November 2015, he has been acting as a professor of the School of Accounting, Central University of Finance and Economics.

In June 2001, Mr. Lu obtained a Bachelor's Degree in Specialization of Certified Public Accountants from the School of Accounting of Beijing Technology and Business University; in June 2004, he obtained a Master's Degree in Accounting from the Department of Accounting of Renmin University of China; in June 2007, he obtained a PhD in Financial Management from the Department of Finance of Renmin University of China.

SUPERVISORS

Chairman of the Board of Supervisors

Mr. Zhang Qingjun (張慶軍), aged 52, is a Supervisor and chairman of the Board of Supervisors of the Company. Before joining the Company, from August 1991 to October 2010, Mr. Zhang served as an accountant, assistant director, deputy director, and director in the finance division of the Fourth Research and Design Engineering Corporation of CNNC. From August 2005 to February 2007, he worked at the audit division of CNNC on secondment. From October 2010 to June 2012, he worked as deputy director of the finance division of CNNC. From May 2011 to October 2012, Mr. Zhang served as the Supervisor of the Company. From June 2012 to March 2015, he worked as chief accountant of Sichuan Environmental Protection Engineering (821 Plant), and he has served as deputy director of the finance division of CNNC since March 2015 to June 2021. From June 2021, he has been the chief accountant of China Baoyuan. Mr. Zhang has also served as a Supervisor and chairman of the Board of Supervisors since February 2017.

Mr. Zhang graduated from the Shijiazhuang Management Officer Academy in June 1998. He graduated from the Renmin University of China in July 2009. Mr. Zhang is a senior accountant, certified public accountant and certified asset appraiser. He has also served as a supervisor of Hualong Pressurized Water Reactor Technology Corporation, Ltd. since January 2016 and the chairman of the board of supervisors of Zhonghe New Energy Company Limited (中核新能源有限公司) from September 2017 to September 2019, and has also been serving as a director of CNNC Finance Company Limited since December 2020 to date. Mr. Zhang won second prize in the 2013 National Defense Science and Technology Industry Enterprise Management Innovation Achievement Award (中國國防科技工業企業管理創新成果二等獎) and second prize in the CNNC Management Innovation Achievement Award (中核集團管理創新成果二等獎).

Supervisors

Mr. Zhang Guoping (張國平), aged 50, is a Supervisor of the Company. Before joining the Company, Mr. Zhang graduated from Zhejiang University in July 1992 with a bachelor's degree in thermal energy and power engineering. Since then until April 2001, he worked with the Second Institution of Nuclear Power Institute of China (中國核動力研究設計院二所), specialising in the experiment and research of power equipment. From May 2001 to September 2017, Mr. Zhang worked at the scientific technology office of the Second Institution of Nuclear Power Institute of China (中國核動力研究設計院二所), specialising in the management of scientific research projects, and as director of the scientific technology office from June 2009 to September 2017. From October 2017 to November 2020, Mr. Zhang has been the deputy director of the asset operation and management office of Nuclear Power Institute of China. He has been the deputy director of Business Development Division of Nuclear Power Institute of China since November 2020.

Mr. Zhao Nanfei (趙南飛), aged 43, is currently a Supervisor of the Company. Before joining the Company, Mr. Zhao worked in Beijing Chaoneng Yuheng Group Co., Ltd. from 2001 to 2007; from 2007 to 2008, he worked in HTA Co., Ltd.; from 2009 to 2018, he acted as chief officer of Project Section of Industrial Development Division in China Institute of Atomic Energy; from 2018 to April 2021, he has worked as deputy chief of Industrial Development Division in China Institute of Atomic Energy. Since April 2021, he has served as the director of the Industrial Development Department in China Institute of Atomic Energy. Mr. Zhao obtained a bachelor's degree in Materials Physics Profession from Beijing University of Science and Technology in 2001. Mr. Zhao is a senior engineer.

Mr. Li Zhenhua (李振華), aged 37, is an employee representative Supervisor of the Company and being appointed as an employee representative Supervisor of the Company on 26 January 2021. Before joining the Company, he worked as an assistant engineer in the second medical department of HTA Co., Ltd. from August 2007 to October 2011; an engineer in the ionization chamber of Beijing Radiation Safety Technology Center (北京市輻照安全技術中心) from October 2011 to December 2012; a supervisor and senior engineer in the chemical environmental protection department of Yangjiang Nuclear Power Co., Ltd. from December 2012 to July 2018; a supervisor in the Company's technology development department from July 2018 to December 2020, and a senior supervisor in the Company's Technology and Information Department since December 2020. Mr. Li graduated from Sichuan University majoring in chemistry and obtained a bachelor's degree in science in July 2007. Mr. Li is also a senior engineer.

Mr. Zhang Jian (張建), aged 37, is an employee representative Supervisor of the Company and being appointed as an employee representative Supervisor of the Company on 26 January 2021. Before joining the Company, he was mainly responsible for financial management of overseas projects at China Petroleum Pipeline Engineering Co., Ltd. from July 2007 to December 2017. He served as the finance supervisor in Beijing Mineral Resources Development Co., Ltd. (北京城市礦產資源開發有限公司) from December 2017 to June 2018, has been the supervisor of the Company's financial management department since June 2018, and has been serving as the chief financial officer of China Nuclear High Energy (Tianjin) Equipment Co., Ltd. since March 2021. Mr. Zhang graduated from Renmin University of China majoring in accounting and obtained a bachelor's degree in management in July 2007. Mr. Zhang is also a senior accountant.

SENIOR MANAGEMENT

Mr. Wang Suohui (王鎖會), aged 47, was appointed as the executive director and general manager of the Company on 25 February 2021. Please refer to the section above headed "Biographical Details of Directors, Supervisors and Senior Management – Executive Directors" for details of his biography.

Mr. Du Jin (杜進), aged 56, is an executive Director and chief engineer of the Company. Please refer to the section above headed "Biographical Details of Directors, Supervisors and Senior Management – Executive Directors" for details of his biography.

Mr. Fan Guomin (范國民), aged 51, is a deputy general manager of the Company. Before joining the Company, Mr. Fan served as the team leader of the fire source team in Section 52 at the Isotope Department of CIAE from July 1995 to July 2001. He served as director of the sales division in the Isotope Department of CIAE from July 2001 to March 2003, and as the director of the marketing division, assistant president and vice president of Isotope Division of HTA from March 2003 to June 2012. He also served as the deputy general manager of Headway from June 2012 to September 2012. From September 2012 to May 2016, he served as the general manager of Headway. Mr. Fan has served as the deputy general manager of the Company since May 2016. Mr. Fan served as the chairman of the board of directors of HTA from June 2017 to April 2019, and the chairman of the board of directors of Headway. From March 2017 to March 2018, he served as the chairman of the board of directors of Headway. From March 2016 to April 2020, he has been the deputy chairman of Beijing Clae-riar Rediosotope Technique Co., Ltd. Since January 2017, he has been the deputy chairman of Shanghai GMS Pharmaceutical. Since April 2017, he has been the deputy chairman of Beijing Clae-riar Rediosotope Technique Co., Ltd. Since October 2021, he has served as the chairman of CNNC Qinshan Isotope Co., Ltd.

Mr. Fan received a Bachelor's Degree in Science (Radiochemistry) from College of Chemistry of Sichuan University (formerly known as Sichuan United University) in July 1995. Mr. Fan is a senior engineer. Since May 2018, he has been the vice president of Beijing Radiation Safety Research Association (北京市輻射安全研究會). Since November 2020, he has been a council member of Nuclear Medicine of Chinese Nuclear Society. Since June 2021, he has been a director of the Nuclear Environmental Protection Branch of the China Nuclear Society (中國核學會核環保分會).

Mr. Gui Youquan (桂友泉), aged 47, is the chief accountant, chief legal officer and joint company secretary of the Company. Before joining the Company, Mr. Gui worked in the audit section of Nuclear Power Qinshan Joint Venture Company Limited from July 1996 to May 2001. From May 2001 to August 2001, he worked in the finance division of Ningbo Bird Co., Ltd. From June 2004 to January 2008, he served as project manager and supervisor of the general system section of the finance division of China Netcom Group Corporation Limited. From January 2008 to October 2008, he served as senior supervisor (deputy-section-head level) and assistant manager of the general system section of the finance division of China Netcom Group Corporation Limited. From October 2008 to June 2009, he served as assistant manager (deputy-section-head level) of the general budget section of the finance division of China United Network Communications Corporation Limited. From June 2009 to July 2014, he served as deputy chief and chief of the finance section of Hainan Nuclear Power Co., Ltd. From July 2014 to February 2017, he served as chief accountant of Jiangsu Nuclear Power Corporation. From February 2017 to November 2020, he served as chief accountant of CNNC Medical Industry Management Company. Mr. Gui has served as the Company's chief accountant and joint company secretary since November 2020 and served as the chief legal officer of the Company since March 2021.

Mr. Gui obtained a master's degree in accounting from the Renmin University of China in June 2004. Mr. Gui is a senior accountant, CPA, and ACCA. Since November 2020, he has been a member of the investment decision committee of Beijing Tongfu Innovation Industrial Investment Fund Partnership Enterprise (Limited Partnership).

Mr. Li Chao (李超), aged 39, is the deputy general manager of the Company. Before joining the Company, Mr. Li was engaged in postdoctoral research in the Department of Chemistry of the University of Cambridge in the UK from October 2008 to September 2009. From September 2009 to March 2011, he was engaged in postdoctoral research in the Department of Genetics of the Harvard University in the US. From March 2011 to September 2013, he worked as researcher at Harvard University's WYSS Institute of Bioinspired Engineering. From September 2013 to July 2016, he served as deputy general manager of Eastern Air Logistics Co., Ltd. From July 2016 to November 2020, he served as deputy general manager of CNNC Investment Co., Ltd. During this period from July 2017 to August 2020, he was appointed as deputy director of the management committee of Ganjiang New District in Jiangxi Province. Mr. Li has been the deputy general manager of the Company since August 2020.

Mr. Li obtained a bachelor's degree in computer science from the University of Birmingham in the UK in July 2005, and a doctorate degree in chemistry from the University of Cambridge in October 2008. Mr. Li has been the director and chairman of CNNC Tongxing (Beijing) Nuclear Technology Co., Ltd. since December 2020. Since June 2021, he has served as a director and the chairman of Zhongshan Yibigu New Material Technology Co. (中山易必固新材料科技有限公司).

DIRECTORS' REPORT

1. PRINCIPAL BUSINESS

The Group is primarily engaged in the research, development, manufacturing and sale of diagnostic and therapeutic radiopharmaceuticals and radioactive source products for medical and industrial applications. The Group provides irradiation service for sterilisation purpose and EPC service for the design, manufacturing and installation of gamma ray irradiation facilities and independent clinical laboratory services to hospitals and other medical institutions.

2. BUSINESS REVIEW

The business review of the Group is set out in the section headed "Management Discussion and Analysis" in this annual report.

3. SUBSEQUENT EVENTS

The subsequent events of the Group is set out in the section headed "Management Discussion and Analysis" in this annual report.

4. FINANCIAL PERFORMANCE

The profits for the year ended 31 December 2021 of the Company and the financial position of the Company then ended are set out in the "Consolidated Statement of Profit or Loss and Other Comprehensive Income" and the "Consolidated Statement of Financial Position" in this annual report, respectively.

5. MAJOR RISKS AND OUTLOOK

The operation of the Group is subject to certain risks and uncertainties, some of which are beyond the control of the Group. These risks and uncertainties include domestic and foreign economic trends, the PRC credit policy and foreign exchange policy, movements in relevant laws, rules and law enforcement policies, etc, together with some uncertainties that are unknown and immaterial but will be proved to be material in the future. The discussion and analysis as required by Schedule 5 to the Companies Ordinance (Cap. 622 of the Laws of Hong Kong), including a fair review of the business of the Group, a discussion of the principal risks and uncertainties facing the Group, and an indication of likely future development in the Group's business, can be found in the "Chairman's Statement", "Management Discussion and Analysis" and "Notes to the Financial Statements" sections of this annual report respectively. The above sections form part of this report.

6. DIVIDEND

The Board resolved to declare a final dividend of RMB0.3779 per Share (inclusive of tax) for 2021 (the "2021 Final Dividend") to Shareholders whose names appear on the register of members of the Company on 2 June 2022, with a total cash dividend to be distributed of RMB120,880,724.71. The 2021 Final Dividend is expected to be paid in RMB to holders of Domestic Shares and in Hong Kong dollars to holders of H Shares denominated in RMB before 23 July 2022. The exchange rate between RMB and Hong Kong dollars is the arithmetic mean of the median of the exchange rate of Hong Kong dollars against RMB as quoted by the PBOC for the five business days preceding the date of the dividend payment (inclusive). The above dividend distribution proposal is subject to the review and approval by Shareholders at the AGM to be held on 23 May 2022. Details of the dividend distribution will be published after the AGM.

The AGM will be convened by the Company on 23 May 2022. The register of members of the Company will be closed from Wednesday, 18 May 2022 to Monday, 23 May 2022 (both dates inclusive) and from Friday, 27 May 2022 to Thursday, 2 June 2022 (both dates inclusive). Shareholders whose names appear on the register of members of the Company on 23 May 2022 will be entitled to attend and vote at the AGM. Shareholders whose names appear on the register of members of the Company on 2 June 2022 will be entitled to receive the 2021 Final Dividend. In order to be qualified as Shareholders to attend and vote at the AGM, Shareholders of the Company must lodge all transfers of shares with the Company's H Share Registrar, Computershare Hong Kong Investor Services Limited, at Shops 1712-1716, 17th Floor, Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong (for holders of H Shares) or the Company's registered office at Room 418, South 4th Floor, Building 1, No. 66, Changwa Middle Street, Haidian District, Beijing, China (for holders of Domestic Shares) for registration no later than 4:30 p.m. on Tuesday, 17 May 2022. In order to be qualified as Shareholders to receive the 2021 Final Dividend (subject to the approval by Shareholders at the AGM), Shareholders of the Company must lodge all transfers of shares with the Company's H Share Registrar (see the address above) (for holders of H Shares) or the Company's registered office (see the address above) (for holders of Domestic Shares) for registration no later than 4:30 p.m. on Thursday, 26 May 2022.

According to the Enterprise Income Tax Law of the PRC and its implementing rules, which came into effect on 1 January 2008, and other relevant rules, the Company is required to withhold 10% enterprise income tax before distributing the proposed Final Dividend to non-resident enterprise Shareholders whose names appear on the register of members of the Company. Any H Shares registered in the name of non-individual registered Shareholders, including HKSCC Nominees Limited, other nominees, trustees or other groups and organisations, will be treated as being held by non-resident enterprise Shareholders and therefore will be subject to the withholding of enterprise income tax.

According to a circular (Guo Shui Han [2011] No. 348) issued by the state administration of taxation on 28 June 2011, and relevant laws and regulations, if individual holders of H Shares are residents of Hong Kong or Macau or countries which have entered into a tax treaty with the PRC stipulating a dividend tax rate of 10%, the Company will withhold and pay individual income tax at the rate of 10% on behalf of such Shareholders. If individual holders of H Shares are residents of countries which have entered into a tax treaty with the PRC stipulating a dividend tax rate of less than 10%, the Company will nonetheless withhold and pay individual income tax at the rate of 10% on behalf of such Shareholders. In such a case, if the relevant Shareholders would like a refund of the additional amount withheld, the Company will apply

for the agreed preferential tax treatment provided that data required by the applicable tax treaty notice(s) is submitted to the Company's H Share registrar in Hong Kong, Computershare Hong Kong Investor Services Limited. If individual holders of H Shares are residents of countries which have entered into a tax treaty with the PRC stipulating a dividend tax rate of more than 10% but less than 20%, the Company will withhold and pay individual income tax at the actual tax rate stipulated in the relevant tax treaty. If individual holders of H Shares are residents of countries which have entered into a tax treaty with the PRC stipulating a dividend tax rate of 20%, or countries which have not entered into any tax treaty with the PRC, or under any other circumstances, the Company will withhold and pay individual income tax at the rate of 20% on behalf of such Shareholders.

7. PROPERTY, PLANT AND EQUIPMENT

Details of the changes in the property, plant and equipment of the Company are set out in Note 12 to the "Financial Statements" in this annual report.

8. SHARE CAPITAL

At the end of the Reporting Period, the total number of Shares of the Company was 319,874,900 Shares, comprising 239,906,100 Domestic Shares, representing 75.00% of the issued Shares, and 79,968,800 H Shares, representing 25.00% of the issued Shares.

On 6 July 2018, the Company issued 79,968,700 H Shares with par value of RMB1.00 per share at a price of HK\$21.6 per share by way of initial public offering to Hong Kong and overseas investors. On 3 August 2018, the over-allotment option granted by the Company was partially exercised. The Company issued and allotted an aggregate of 100 H Shares at HK\$21.6 each. After the issuance and allotment of these H Shares, the registered and issued ordinary Shares of the Company increased to 319,874,900 Shares.

9. RESERVES

Details of the changes in the reserves of the Company during the year are set out in the "Consolidated Statement of Changes in Equity" in this annual report.

10. DISTRIBUTABLE RESERVES

As of 31 December 2021, we had RMB1,510.4 million in retained profits, as determined under IFRS, available for distribution.

11. USE OF PROCEEDS FROM THE INITIAL PUBLIC OFFERING

Details of the use of proceeds from the initial public offering of the Group are set out in the section headed "Management Discussion and Analysis" in this annual report.

12. MAJOR CUSTOMERS AND SUPPLIERS

The Group understands the importance of maintaining good relationship with its employees, customers and suppliers so as to meet its current or long-term business goals. During the year ended 31 December 2021, there were no material and substantive disputes between the Group and its employees, customers and suppliers.

During the year ended 31 December 2021, revenue from our sales to the five largest customers of the Company accounted for approximately 0.9%, 0.8%, 0.7%, 0.7% and 0.7% of the total revenue of the Company, respectively, totally representing 3.8% of the total revenue of the Company. For the year ended 31 December 2021, the purchase amount from the five largest suppliers of the Company accounted for approximately 6.8%, 6.4%, 5.9%, 5.5% and 4.9% of the aggregate amount of goods procurement and subcontracting purchase and other costs of the Company, respectively, totally representing 29.5% of the total cost of the Company. None of the Shareholders (other than CNNC), which, to the best knowledge of the Company, own more than 5% of the share capital of the Company, has any interest in the above five largest customers or five largest suppliers. The Company does not constitute a dependence on minority customers and suppliers.

13. SUBSIDIARIES, JOINT VENTURES AND ASSOCIATES

Details of the major subsidiaries, joint ventures and associates of the Company for the year ended 31 December 2021 are set out in Notes 14, 16 and 15 to the "Financial Statements" in this annual report, respectively.

14. DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

The biographical details of the current Directors, Supervisors and senior management of the Company is set out in the section headed "Biographical Details of Directors, Supervisors and Senior Management" in this annual report.

15. INTERESTS OF DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT IN CONTRACTS

Save as the service contracts, no Directors, Supervisors and senior management or entities connected with Directors, Supervisors and senior management of the Company have material interests, either directly or indirectly, in any transaction, arrangement or contract of significance to the Company to which the Company, any of its subsidiaries or fellow subsidiaries or its holding company is a party during the Reporting Period based on the information available to the Company.

16. REMUNERATIONS OF DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

In 2021, the total amount of fees, salaries, allowances, discretionary bonuses, retirement scheme contributions and other benefits in kind (if applicable) paid to Directors by the Company was RMB2.751 million.

In 2021, the total amount of fees, salaries, allowances, discretionary bonuses, retirement scheme contributions and other benefits in kind (if applicable) paid to Supervisors by the Company was RMB0.929 million.

In 2021, the total amount of fees, salaries, allowances, discretionary bonuses, retirement scheme contributions and other benefits in kind (if applicable) paid to senior management by the Company was RMB2.455 million.

In 2021, the total amount of fees, salaries, allowances, discretionary bonuses, retirement scheme contributions and other benefits in kind (if applicable) received by five highest-paid individuals was RMB4.699 million.

During the Track Record Period, no incentive payment for joining or having joined the Company was paid or payable to any Directors, Supervisors or the five highest paid individuals by the Company. During the Track Record Period, no remuneration was paid or payable by the Company to any Directors, former Directors, Supervisors, former Supervisors or the five highest paid individuals as compensation for termination of their management positions in any subsidiaries of the Company.

During the Track Record Period, none of the Directors or Supervisors gave up or agreed to give up any remuneration or benefits-in-kind. Save as disclosed above, during the Track Record Period, no other amounts were paid or payable to any Directors, Supervisors or the five highest paid individuals by the Company or any of its subsidiaries.

According to our remuneration policies, the Remuneration and Appraisal Committee will take into account various factors in evaluating the remuneration amount payable to Directors, Supervisors and the relevant employees, including salaries paid by comparable companies, and the term, commitment, duties and performance of the Directors, Supervisors and senior management (as the case may be). In accordance with the arrangements currently in effect, the aggregate amounts of remuneration (excluding any discretionary bonus) paid by the Company to the Directors and Supervisors are approximately RMB2.751 million and RMB0.929 million for the year ended 31 December 2021, respectively.

17. DIRECTORS', SUPERVISORS' AND SENIOR MANAGEMENT'S RIGHTS TO ACQUIRE SHARES OR DEBENTURES

As of 31 December 2021, none of the Company, controlling Shareholders of the Company or the companies under the same controlling Shareholders with the Company was a party to any arrangement to entitle the Company's Directors, Supervisors and senior management or their respective minor children to acquire benefits by means of the acquisition of shares or debentures of the Company or any other body corporate.

18. DIRECTORS' AND SUPERVISORS' SERVICE CONTRACTS

Each of executive Director, non-executive Director and independent non-executive Director has entered into a service contract with the Company for a fixed term of three years commencing from the Listing Date. These service agreements may be terminated pursuant to their respective terms and may be renewed in accordance with the Articles of Association and applicable laws, rules and regulations.

Supervisors have entered into contracts with the Company in respect of, among other things, compliance with relevant laws and rules, the Articles of Association and the arbitration provisions.

None of the Directors and Supervisors has a service contract with the Company or any of its subsidiaries which is not determinable within one year without the payment of compensation (other than statutory compensation).

19. DIRECTORS', SUPERVISORS' AND SENIOR MANAGEMENT'S INTEREST AND SHORT POSITIONS IN SHARES, UNDERLYING SHARES AND DEBENTURES

As of 31 December 2021, based on the information available to the Company and to the best knowledge of the Directors, none of the Directors, Supervisors and chief executive of the Company had any interest and short position in the shares, underlying shares or debentures of the Company or its associated corporations (within the meaning of Part XV of the SFO) which will have 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 are taken or deemed to have under such provisions of the SFO), or which will be required, pursuant to section 352 of the SFO, to be entered in the register of interests referred to therein or which will be required to be notified to the Company and the Stock Exchange pursuant to the Model Code.

20. APPROVED INDEMNITY PROVISIONS

During the year ended 31 December 2021, the Company had arranged Directors', Supervisors' and officers' liability insurance for all Directors, Supervisors and senior management. These insurances provided protection to the liability incurred from related cost, fees, expense and legal actions resulting from corporate activities. Except for such insurances, the Company has no valid indemnity provisions (as defined in Companies (Directors' Report) Regulation (Chapter 622D of the Laws of Hong Kong) approved during the Reporting Period and at the time of approval of this report.

21. MANAGEMENT CONTRACTS

No contracts concerning the management and/or administration of the whole or any substantial part of the business of the Company were entered into or existed during the Reporting Period, except for the employment contracts.

22. SUBSTANTIAL SHAREHOLDERS' AND OTHER PERSONS' INTERESTS AND SHORT POSITIONS IN SHARES AND UNDERLYING SHARES

Substantial Shareholders' Interests and Short Positions in Shares and Underlying Shares

To the best knowledge of the Company, as of 31 December 2021, the following persons (other than the Directors, Supervisors and chief executive of the Company) had interests or short positions in the Shares or underlying Shares of our Company which are required to be disclosed to our Company and the Stock Exchange pursuant to the provisions of Divisions 2 and 3 of Part XV of the SFO, or interests or short positions which are required to be entered in the register pursuant to Section 336 of SFO, or, directly or indirectly, be interested in 5% or more of the nominal value of any class of our share capital:

Shareholder	Class of Shares	Nature of interest	Number of Shares held ⁽⁶⁾	Approximate percentage of shareholding in the relevant class of Shares	Approximate percentage of shareholding in the total share capital of our Company (%)
CNNC ⁽¹⁾	Domestic Shares	Beneficial owner/Interest of controlled corporation	236,150,233(L)	98.43(L)	73.83
CIAE ⁽¹⁾	Domestic Shares	Beneficial owner	58,534,835(L)	24.40(L)	18.30
NPIC ⁽¹⁾	Domestic Shares	Beneficial owner	46,994,835(L)	19.59(L)	14.69
CNNC Fund ⁽¹⁾	Domestic Shares	Beneficial owner	18,779,342(L)	7.83(L)	5.87
Shanghai Industrial Investment (Holdings) Company Limited ("SIIC") ^[2]	H SHARES	Interest of controlled corporation	8,906,400(L)	11.14(L)	2.78
Shanghai Industrial Investment Treasury Company Limited ⁽²⁾	H SHARES	Interest of controlled corporation	8,906,400(L)	11.14(L)	2.78
Shanghai Investment Holdings Limited ⁽²⁾	H SHARES	Interest of controlled corporation	8,906,400(L)	11.14(L)	2.78
Shanghai Industrial Holdings Limited ("SIHL") ²⁾	H SHARES	Interest of controlled corporation	8,906,400(L)	11.14(L)	2.78
S.I. Infrastructure (Holdings) Limited ⁽²⁾	H SHARES	Interest of controlled corporation	8,906,400(L)	11.14(L)	2.78
Sure Advance Holdings Limited ("Sure Advance") ²⁾	H SHARES	Beneficial owner	8,906,400(L)	11.14(L)	2.78
Lianwen Ltd(3)	H SHARES	Beneficial owner	13,621,600(L)	17.03(L)	4.26
Li Hongbo ⁽³⁾	H SHARES	Interest of controlled corporation	13,621,600(L)	17.03(L)	4.26
China Structural Reform Fund Corporation Limited	H SHARES	Beneficial owner	2,155,800(L)	2.70(L)	0.67
Serenity Capital Management, Ltd. (4)	H SHARES	Investment manager	4,801,600(L)	6.00(L)	1.50
Serenity Investment Master Fund Limited ⁽⁴⁾	H SHARES	Beneficial owner	4,801,600(L)	6.00(L)	1.50
The Bank of New York Mellon Corporation	H SHARES	Interest of controlled	11,756,600(L)	14.70(L)	3.68(L)
		corporation	11,756,400(P)	14.70(P)	3.68(P)

Shareholder	Class of Shares	Nature of interest	Number of Shares held ⁽⁶⁾	Approximate percentage of shareholding in the relevant class of Shares	Approximate percentage of shareholding in the total share capital of our Company (%)
Invesco Advisers, Inc.	H SHARES	Investment manager	8,812,000(L)	11.01(L)	2.75
Invesco Corporate Class Inc.	H SHARES	Person having security interest in shares	7,197,600(L)	9.00(L)	2.25
UBS Group AG	H SHARES	Interest of controlled corporation	4,284,300(L)	5.36(L)	1.34

Notes:

- 1. CNNC directly holds 106,676,903 Domestic Shares of the Company, representing approximately 44.47% of the domestic share capital of our Company. Each of CIAE and NPIC is a public institute controlled and managed by CNNC and holds 58,534,835 and 46,994,835 Domestic Shares, representing approximately 24.40% and 19.59% of the domestic share capital of our Company, respectively. CNNC Fund is a non-wholly-owned subsidiary of CNNC and holds 18,779,342 Domestic Shares, representing approximately 7.83% of the domestic share capital of our Company. Each of CNNC 404 Company Limited ("404 Company") and China Baoyuan Investment Co., Ltd. ("China Baoyuan") is a wholly-owned subsidiary of CNNC and holds 3,755,868 Domestic Shares and 1,408,450 Domestic Shares, respectively, representing approximately 1.57% and 0.59% of the domestic share capital of our Company, respectively. By virtue of the SFO, CNNC is deemed to be interested in the Domestic Shares held by CIAE, NPIC, CNNC Fund, 404 Company and China Baoyuan, which in aggregate representing approximately 98.43% of the domestic share capital of our Company.
- 2. By virtue of the SFO, SIIC is deemed to be interested in the 8,906,400 H Shares held by Sure Advance a controlled corporation of SIIC. SIIC holds 100% equity interest in Shanghai Industrial Investment Treasury Company Limited, while Shanghai Industrial Investment Treasury Company Limited directly held 100% equity interest in Shanghai Investment Holdings Limited, which in turn holds approximately 55.13% equity interest in SIHL. SIHL directly holds 100% equity interest in S.I. Infrastructure (Holdings) Limited, which directly held 100% equity interest in Sure Advance.
- 3. Lianwen Ltd is 100% controlled by Li Hongbo. By virtue of the SFO, Li Hongbo is deemed to be interested in the 13,621,600 H shares held by Lianwen Ltd.
- 4. Serenity Investment Master Fund Limited is 100% controlled by Serenity Capital Management, Ltd. By virtue of the SFO, Serenity Capital Management, Ltd. is deemed to be interested in the 4,801,600 H Shares held by Serenity Investment Master Fund Limited.

Save as disclosed herein, as of 31 December 2021, the Company is not aware of any other person (other than the Directors, Supervisors and chief executive of the Company) who has an interest or short position, which would be required to be disclosed to our Company and the Stock Exchange under the provisions of Divisions 2 and 3 of Part XV of the SFO, or interests or short positions registered on the register pursuant to Section 336 of SFO, or, directly or indirectly, be interested in 5% or more of the nominal value of any class of our Company's share capital.

23. INTEREST OF DIRECTORS IN COMPETING BUSINESSES

None of the Directors and their associates directly or indirectly has any interest in the businesses which constitute or may constitute competition with the business of the Company.

24. COMPETING BUSINESSES

CNNC, the controlling Shareholder of the Group, (for the purpose of the descriptions in this sub-section, excluding the Group), is principally engaged in the scientific research and development, construction and production operations in nuclear power, nuclear power generation, nuclear fuel, natural uranium, nuclear environmental protection, non-nuclear civilian products, new energy sources, etc. Although some of the retained businesses of CNNC constitute competition with the Company, such competition is limited.

CNNC's Interests in Certain Excluded Entities

As of 31 December 2021, CNNC was entitled to exercise, or control the exercise of, 10% or more of the voting power at the general meeting of the following entities carrying out business which competes, or is likely to compete, directly or indirectly with our principal businesses (the "**Excluded Entities**"):

E	ame of the xcluded ntities	Equity interest held by CNNC (as of 31 December 2021)	Principal business	Excluded business	Reason for exclusion
fo Pr	hina Institute or Radiation rotection CIRP")	Not applicable, CIRP is a public institute directly controlled and managed by CNNC	Research, development and application in aspects of radiation protection, nuclear emergency and safety, radiological medicine and environmental medicine, nuclear environmental science, radioactive waste management and nuclear facility decommissioning, irradiation technology, environmental protection technology, nuclear electronic information technology, biological material technology, diagnosis and treatment of occupational disease and also provides technical support to national functional departments with respect to radiation protection and nuclear safety.	Irradiation services	The excluded business involves non-operating state-owned assets, which is impractical to be isolated

	Name of the				
	Excluded Entities	Equity interest held by CNNC (as of 31 December 2021)	Principal business	Excluded business	Reason for exclusion
2	CIAE	Not applicable, CIAE is a public institute directly controlled and managed by CNNC	Nuclear physics research, reactor engineering research and design, radiochemical research, fast reactor research and design, isotope research, nuclear technology application and research, radiation safety research	Radioactive sources and reactor irradiation services	The excluded business involves non-operating state-owned assets, which is impractical to be isolated
3	NPIC	Not applicable, NPIC is a public institute directly controlled and managed by CNNC	Nuclear power engineering design, integrated	Isotope, reactor irradiation services and sales of	The excluded business involves non-operating state-owned assets, which is impractical to be isolated
			applied research, reactor engineering experimental research, nuclear fuel and materials research, isotope production and nuclear technology services and applications	radioactive source-based instruments	
4	404 Company	100%	Nuclear research and production, uranium conversion, reprocessing of spent fuel, decommission of nuclear facilities and radioactive waste treatment	Radioactive sources and recycling of radioactive sources	404 Company is mainly engaged in the scientific research and production in the military industry, and the excluded business is not the
			and disposal		principal business of 404 Company and is impractical to be isolated
5	China Nuclear Energy Industry Corporation ("CNEIC")	100%	Import and export trade of uranium products, nuclear fuel cycling equipment and nuclear power technologies and equipment	Import agency services for radioactive isotopes, radioactive	CNEIC is an integrated platform for the import and export of nuclear power equipment of CNNC, the excluded
				therapeutic apparatus	business is not the principle business of CNEIC and is impractical to be isolated

	Name of the				
	Excluded	Equity interest held by CNNC		Excluded	
	Entities	(as of 31 December 2021)	Principal business	business	Reason for exclusion
6	Yunke Pharm	47.89%	Technical research of	lodine-125	The controlling
			radiopharmaceuticals,	sealed source	shareholder of Yunke
			product development,	and Yunke	Pharm is a listed
			production and sales,	injection	company which is an
			technical consultancy and		Independent Third Party.
			technical services		CNNC has no control
					over its decision-making
					process
7	China Baoyuan	100%	Nuclide therapy services	Independently establishing	CIRC does not have the capacity or resources
				hospitals	to establish hospitals by
				to provide	itself
				nuclide therapy	
				services.	
				However,	
				CIRC can	
				choose internal	
				and external	
				hospitals	
				of CNNC	
				according to	
				the situation,	
				with China	
				Baoyuan (as	
				the controlling	
				shareholder)	
				and CIRC	
				(as other	
				shareholder)	
				operating	
_				cooperatively	

Production and Sale of the Raw Materials of Isotopes

Each of CIAE, NPIC and 404 Company is capable of producing the raw materials of isotopes by using its respective nuclear reactors and other facilities. However, as of the Latest Practicable Date, none of CIAE, NPIC and 404 Company produces or plans to produce isotope raw materials. To avoid the potential competition between us and CIAE, NPIC and 404 Company, each of CIAE, NPIC and 404 Company has undertaken to us that if it starts to produce isotope raw materials, the Company will be the exclusive sales agent for such isotope raw materials. The Company will fully comply with the relevant requirements of the Listing Rules (including but not limited to Chapter 14A of the Listing Rules) when it enters into transactions with CIAE, NPIC and/or 404 Company.

Save as disclosed above, neither our controlling Shareholder nor any of our Directors was, as of 31 December 2021, interested in any business which competes or is likely to compete, directly or indirectly, with the Group's principal business and would otherwise require disclosure under Rule 8.10 of the Listing Rules.

Non-competition Undertaking

To avoid the potential competition between CNNC and the Group, CNNC issued a non-competition undertaking (the "Non-competition Undertaking") to the Company on 16 June 2018, pursuant to which CNNC shall not, and shall procure that its associates (excluding the Group and Yunke Pharm) not to, engage in any business which, directly or indirectly, competes with the business of the Company, including nuclear medicine products and application service, radioactive source products and application service, irradiation and irradiation facilities related services, independent clinical laboratory services, etc. (the "Restricted Business") within the period during which (i) the H Shares of the Company are listed on the Stock Exchange (including the circumstances under which trading of our H Shares is suspended in accordance with the Listing Rules), and (ii) CNNC and its associates (excluding the Group and Yunke Pharm) may, individually or collectively, exercise or control the exercise of not less than 30% of the voting rights or are deemed as the controlling Shareholders of the Group.

The above Non-competition Undertaking does not apply in the following circumstances:

- (i) CNNC having interests in any member of the Group; and
- (ii) CNNC having interests in a company other than the Group, provided that:
 - (a) any business (or its related assets) carried out or engaged by such company accounts for less than 10% of the Group's consolidated income and consolidated assets as shown in the most recent audited accounts of the Group;
 - (b) CNNC and its associates (excluding the Group) have no right to appoint majority of the directors of such company. In addition, there must be at least one shareholder of such company holding more interest than the total interest held by CNNC and its associates, or the company is controlled by a third party; and
 - (c) CNNC and its associates (excluding the Group) have not controlled the Board.
- (iii) To the extent that CNNC and/or its associates do not control Yunke Pharm, CNNC and/or its associates directly or indirectly holding the equity interests of Yunke Pharm.

In addition, each of CIRP, CIAE, NPIC, 404 Company, CNEIC and China Baoyuan entered into non-competition undertaking with the Company on 12 August 2016, 1 August 2016, 5 August 2016, 18 August 2016, 18 August 2016 and 5 July 2016, respectively.

The independent non-executive Directors of the Company have reviewed the compliance and execution of the Non-competition Undertaking and consider that, other than the Company, the above all parties to the Non-competition Undertaking had complied with their respective non-competing undertakings during the Reporting Period.

25. CONNECTED TRANSACTIONS

Connected Persons

As of 31 December 2021, the following entities with whom we have entered into certain transactions in our ordinary and usual business are our connected persons:

a. CNNC

CNNC directly and indirectly through CIAE, NPIC, CNNC Fund, 404 Company and China Baoyuan, holds 73.83% equity interests of our total issued share capital. Therefore, CNNC and its associates will constitute our connected persons under Chapter 14A of the Listing Rules.

b. CNNC Tongxing

The Company and CNNC (through one of its subsidiary) hold 51% and 49% equity interests in CNNC Tongxing, respectively. CNNC is our controlling Shareholder. Therefore, CNNC Tongxing and its associates will constitute our connected subsidiary under Chapter 14A.16 of the Listing Rules.

c. Headway

The Company and CNNC hold 54.1% and 27.9% equity interests in Headway, respectively. CNNC is our controlling Shareholder. Therefore, Headway is a connected subsidiary of the Company under Rule 14A.16(1) of the Listing Rules, and Headway and its subsidiaries will constitute our connected persons under Chapter 14A of the Listing Rules.

d. CNNC Finance Company Limited ("CNNCFC")

CNNCFC was established on 21 July 1997 by CNNC and CNNC's 25 member units, with a registered capital of RMB2,009.6 million. CNNCFC is a non-bank financial institution which strengthens the centralised management of fund within the CNNC group, improves the fund utilisation efficiency and the financial management services for CNNC groups' member units. The business scope includes: (i) providing financial and financing consultancy, credit certification and related consultancy and agency services to members of the CNNC group; (ii) assisting members of the CNNC group in collection and payment of transaction funds; (iii) providing guarantees to members of the group; (iv) providing entrusted loan and entrusted investment services to members of the CNNC group; (vi) processing the settlement of internal fund transfers among members of the CNNC group and providing solution plans for relevant settlement and clearing; (vii) taking deposits from members of the CNNC group; (viii) providing loan and finance leases to members of the CNNC group; (ix) conducting inter-borrowings among finance companies; (x) issuing corporate bonds; (xi) underwriting the corporate bonds issued by members of the CNNC group; (xiii) equity investments in financial institutions; and (xiiii) investments in negotiable securities.

e. CNNC Financial Leasing Co., Ltd. ("CNNC Financial Leasing Company")

CNNC Financial Leasing Company was established in Pilot Free Trade Zone (Shanghai) on 22 December 2015. It is a sino-foreign leasing company, jointly established by CNNC and other 10 companies, including CNNC Shenzhen Xie He Kong Co. Ltd. (Hong Kong), with registered capital of RMB1 billion. The business scope of CNNC Financial Leasing Company includes: (i) financial leasing; (ii) leasing; (iii) purchase of leased property from domestic and overseas sellers; (iv) treatment of residual value of, and maintenance of, leased property; (v) consultation and guarantee for leasing transactions; and (vi) factoring business associated with principal businesses.

f. CIAE

CIAE is one of the Shareholders of the Company, and a second-level entity actually controlled and managed by CNNC as the Company. It is mainly engaged in nuclear physics research, reactor engineering research and design, radiochemical research, fast reactor research and design, isotope research, nuclear technology application and research, radiation safety research.

g. Beijing Yuanke Technology Development Co., Ltd.

Beijing Yuanke Technology Development Co., Ltd. is a company incorporated in the PRC with limited liability, and a platform company engaged in the transfer use of research result and foreign investment management by CIAE.

h. Hynergy Industrial Funds Management Co., Ltd. ("Hynergy Industrial Funds")

Hynergy Industrial Funds was established on 18 November 2016 with a registered capital of RMB200 million. It is registered with the Asset Management Association of China as a private equity fund manager. Hynergy Industrial Funds was initiated by CNNC Capital Holdings Limited ("CNNC Capital") and jointly funded and established by China Aerospace Science and Technology Corporation (中國航天科技集團公司) (a joint strategic alliance partner), China Development Bank, China Life Insurance (Group) Company (中國人壽保險(集團)公司) and Agricultural Bank of China. It is held as to 35% by CNNC Capital, as to 20% by China Development Bank Capital Corporation Ltd. (國開金融有限責任公司) and as to 15% by each of China Life Asset Management Company Limited (中國人壽資產管理有限公司), China Aerospace Investment Holdings Ltd. (航天投資控股有限公司) and ABCI Corporate Management Co., Ltd (農銀國際企業管理有限公司).

i. CNNC Capital

CNNC Capital was established in July 2016 and is a wholly-owned subsidiary of CNNC, with a registered capital of RMB7.08 billion. As a specialised management platform for the financial sector of CNNC, CNNC Capital is positioned as a center of industrial finance risk control, industrial finance investment control, industrial financial resource allocation and industrial finance business collaboration of CNNC.

j. CNNC SUFA Technology Industry Co., Ltd. ("CNNC Technology")

CNNC Technology was established in 1952 as a technology-based manufacturing company engaged in research, development, design, manufacture and sales of industrial valves. It provides valve system resolutions to players in sectors of oil, natural gas, oil refining, nuclear power, electricity power, metallurgy, chemical engineering, shipbuilding, papermaking and medicine. It was listed on Shenzhen Stock Exchange in 1997, making itself the first listed company as a subsidiary of CNNC in the valve industry in China. Currently, CNNC is the de facto controlling person of CNNC Technology.

k. Guizhou Nuclear Industry Xinyuan Industry Co., Ltd. ("Xinyuan Industry")

Xinyuan Industry was established on 29 March 2000 and is mainly engaged in the development and application of chemical products, mineral resource (uranium), metallurgical products, rare metal and non-ferrous metal. CNNC, the controlling Shareholder, holds 100% equity interest in Xinyuan Industry through its wholly-owned subsidiary China National Uranium Co., Ltd. ("CNUC"). Therefore, Xinyuan Industry is a connected person of the Company.

I. Xinjiang Mining and Metallurgy Bureau of Nuclear Industry ("XMMB")

XMMB was established in October 1964. It is a public institution directly under CNNC, and is principally responsible for managing the uranium mining and metallurgy enterprises in Xinjiang, with its businesses controlled and managed by CNUC, a wholly-owned subsidiary of CNNC. Therefore, XMMB is a connected person of the Company.

m. CNNC Nuclear Power Operation Management Co., Ltd. ("CNNC Nuclear")

CNNC Nuclear Power Operation Management Co., Ltd. was established in September 2010, mainly engaged in nuclear power operation and management and related technical services. China National Nuclear Power Co., Ltd. holds 100% of its shares, while CNNC holds 64.11% shares of China National Nuclear Power Co., Ltd. Therefore, CNNC Nuclear Power Operation Management Co., Ltd. is a connected person of the Company.

Connected Transactions in 2021

A. Non-exempt Continuing Connected Transactions undertaken during the Reporting Period

The property, equipment leasing and related services framework agreement with CNNC ("2020 Leasing Agreement") dated 30 November 2020, the Products and Services Supply Framework Agreement with CNNC (the "2020 Supply Agreement") dated 30 November 2020, the Products and Services Purchase Framework Agreement with CNNC (the "Purchase Agreement") dated 30 November 2020, the Cobalt-60 Radioactive Sources Supply and Related Services Framework Agreement with CNNC Tongxing (the "2020 Cobalt-60 Supply Agreement") dated 30 November 2020, the consulting services fee framework agreement (the "2020 Consulting Agreement") with CNNC Tongxing dated 30 November 2020, the Carbon-14 Raw Materials Supply Framework Agreement with Headway (the "2020 Carbon-14 Supply Agreement") dated 30 November 2020, the Financial Services Framework Agreement with CNNC (the "2020 Financial Services Agreement") dated 22 April 2020 and the Engineering Construction Services Agreement") dated 22 April 2020 constitute continuing connected transactions of the Group.

The above-mentioned agreements were entered into in the ordinary and usual course of business of the Group, the pricing policies of which are determined through arm-length's negotiation based on production costs and current market prices, and the specific terms are concluded on normal commercial terms and fair and reasonable, and in the interests of the Company and the Shareholders as a whole. In addition, the Company has established (1) the reporting, approval and, if necessary, selection & verification procedures, to ensure that the agreed prices and terms of the continuing connected transactions are no less favourable than those that may be granted by the relevant members of the Group to independent third parties or be granted by independent third parties to the relevant members of the Group (if applicable), and are in compliance with the pricing policies; and (2) the procedures and policies for the purpose of identifying the connected persons and monitoring the annual caps of continuing connected transactions, and strictly followed internal control measures to manage connected transactions.

The annual caps and actual amount of continuing connected transactions incurred in 2021 are as follows:

			Actual amount
		Annual caps	incurred for
		for the year ended	the year ended
		31 December 2021	31 December 2021
		(RMB' 000)	(RMB' 000)
1	Property & equipment leasing and related services	70,000	32,129
2	Products and services supply	100,000	83,516
3	Products and services purchase	170,000	110,069
4	Cobalt-60 radioactive sources supply and related services	30,000	27,576
5	Consulting services fee	25,000	19,817
6	Carbon-14 raw materials supply	22,000	12,098
7	Financial Services Agreement		
	Deposit services		
	(a) Maximum daily outstanding balance	3,082,666	2,031,668
	(b) Interest income	45,778	21,379
	Settlement, entrusted loans and other financial services		
	(a) Maximum daily outstanding balance of entrusted loans		
	provided by our Group through CNNCFC	500,000	367,727
	(b) Service fees for settlement, entrusted loans and other		
	financial services	150	39
	Finance leasing services	248,980	16,342
8	Engineering construction services	140,000	6,751

1. 2020 Leasing Agreement

Parties: CNNC (the lessor and service provider); and the Company (the lessee

and service recipient).

Principal Terms: The Company entered into a leasing agreement with CNNC on 30

November 2020, pursuant to which we will rent or use a number of properties and equipment from CNNC and/or its associates, and CNNC and/or its associates will provide us with supporting services relating to the properties and equipment and other services. Such properties and equipment are mainly used for our production, operation and management, including but not limited to: (i) office buildings, land and office facilities; (ii) production plants (mainly used to produce technetium-99m labeled injections, fluorine-18-FDG injections and iodine-125 sealed source etc.); (iii) production facilities in relation to waste liquid and gas emissions and treatment services and others; (iv) production equipment (mainly high-power accelerator); (v) common areas and facilities (including kindergarten, water and electricity facilities and other facilities); and (vi) services associated with employee education, safety production and research and development of technologies. The term of the Leasing Agreement commenced on 1 January 2021 and will expire on 31 December 2023, subject to renewal as may be agreed upon by both parties.

2. 2020 Supply Agreement

Parties: CNNC (the purchaser); and the Company (the supplier).

Principal Terms: The Company entered into a supply agreement with CNNC on 30

November 2020, pursuant to which CNNC and/or its associates would purchase the following products from the Group: radioactive source products, radioactive instruments and pharmaceuticals. The Group will also provide detection, recycling, transportation, reloading and other ancillary services related to the sales of such products and research and development services related to research and development projects. The term of the Supply Agreement commenced on the 1 January 2021 and will expire on 31 December 2023, subject to renewal

as may be agreed upon by both parties.

3. 2020 Purchase Agreement

Parties: The Company (the purchaser); and CNNC (the supplier).

Principal Terms: The Company entered into a purchase agreement with CNNC on 30

November 2020, pursuant to which CNNC and/or its associates will provide the Group: (i) various types of raw and auxiliary materials, production equipment and other products; (ii) transportation containers (including related design and manufacturing services); (iii) technical testing services; (iv) encapsulation and processing services of cobalt-60 radioactive sources; and (v) scientific research services related to highend irradiation research and development. The term of the Purchase Agreement commenced on the 1 January 2021 and will expire on 31 December 2023, subject to renewal as may be agreed upon by

both parties.

4. 2020 Cobalt-60 Supply Agreement

Parties: The Company (the purchaser); and CNNC Tongxing (the supplier).

Principal Terms: The Company entered into a cobalt-60 supply agreement with

CNNC Tongxing on 16 June 2018, pursuant to which the Group will purchase cobalt-60 radioactive sources from CNNC Tongxing and/or its associates, and CNNC Tongxing and/or its associates will provide related services such as transportation and reloading in connection with the sales of cobalt-60 radioactive sources. The term of the Cobalt-60 Supply Agreement commenced on the 1 January 2021 and will expire on 31 December 2023, subject to renewal as may be agreed upon by

both parties.

5. 2020 Consulting Agreement

Parties: CNNC Tongxing (the service receiver); and the Company (the service

provider).

Principal Terms: The Company entered into a consulting agreement with CNNC

Tongxing on 16 June 2018, pursuant to which the Company will provide technical support and consulting services to CNNC Tongxing and/or its associates relating to the distribution channels and customer resources of cobalt-60 radioactive sources, and CNNC Tongxing and/or its associates will pay us consultation service fees. The term of the Consulting Agreement commenced on the 1 January 2021 and will expire on 31 December 2023, subject to renewal as may be agreed

upon by both parties.

6. 2020 Carbon-14 Supply Agreement

Parties: Headway (the purchaser); and the Company (the supplier).

Principal Terms: The Group entered into a carbon-14 supply agreement with Headway

on 16 June 2018, pursuant to which the Group will provide Headway and/or its associates with carbon-14 as the raw materials for production of carbon-14 breath-testing medicine boxes. The Group will also provide ancillary services such as packaging and transportation relating to provision of the carbon-14 raw materials. The term of the Carbon-14 Raw Materials Supply Agreement commenced on the 1 January 2021 and will expire on 31 December 2023, subject to renewal as may be

agreed on by both parties.

7. 2020 Financial Services Agreement

Parties: The Company (service recipient); and CNNC (service provider).

Principal Terms: The Company renewed the Financial Services Agreement with CNNC

on 28 June 2019, pursuant to which CNNC and/or its associates will provide the Group with, among other things, (i) deposits and related services (the "Deposit Services"); (ii) entrusted loan, settlement, foreign exchange and other services (the "Settlement, Entrusted Loan and Other Financial Services"); and (iii) financial leasing service (the "Financial Leasing Service") for certain assets used in the operation of the Group. The 2020 Financial Services Agreement commenced on 30 June 2020, and expired on the date of 2022 AGM of the Company

convened in early 2023.

8. 2020 Engineering Construction Services Agreement

Parties: CNNC (the supplier), and the Company (the purchaser).

Principal Terms: The Company and CNNC agreed that CNNC and/or its associates

will provide engineering construction services to the Company and its Subsidiaries according to the Engineering Construction Services Framework Agreement and on normal commercial terms, including: (i) EPC services and construction services ("Construction Services"); (ii) equipment procurement, manufacturing and installation services ("Equipment Services"); and (iii) engineering consultation services such as engineering consultation, management and supervision services and survey and design services ("Consultation Services"). The 2020 Engineering Construction Services Agreement will be effective from the signing date and expire on 31 December 2022, subject to renewal as

may be agreed on by both parties.

B. Non-exempt Continuing Connected Transactions entered during the Reporting Period

During the Reporting Period, the Group has no non-exempt continuing connected transactions

C. Non-exempt Discontinued Connected Transactions

Entering into the Investment Agreement regarding the Establishment of CNNC Qinshan Isotope Co., Ltd.

On 31 December 2021, the Company entered into the Investment Agreement ("Investment Agreement") regarding the establishment of CNNC Qinshan Isotope Co., Ltd. with CNNC Nuclear Power and Haiyan State-owned Assets Investment Company, pursuant to which the parties will jointly establish CNNC Qinshan Isotope Co., Ltd. (the final name shall be the name approved by the registration authority) ("Joint Venture Company").

Investment Agreement

Parties: The Company; CNNC Nuclear Power; Haiyan State-owned Assets

Investment Company

Principal Terms: The registered capital of the Joint Venture Company is RMB200 million,

of which, the Company contributes RMB94 million, accounting for 47% of the registered capital; CNNC Nuclear Power contributes RMB90 million, accounting for 45% of the registered capital; and Haiyan State-owned Assets Investment Company contributes RMB16 million, accounting for 8% of the registered capital. All shareholders shall make contribution to the Joint Venture Company in RMB in cash. The paid-in capital contribution shall be made synchronously and proportionally by 31 December 2023 based on the production and operation needs of the Joint Venture Company. The initial 20% of the capital contribution shall be paid within 45 days after the establishment of the Joint Venture Company, and the following 30% of the capital contribution shall be

paid before 31 December 2022.

Annual Review of Continuing Connected Transactions

The independent non-executive Directors have reviewed the aforesaid continuing connected transactions for the year ended 31 December 2021 and confirmed that such transactions were entered into:

- (i) in the ordinary and usual course of business of the Company;
- (ii) on normal commercial terms or better and in the interests of the Shareholders of the Company as a whole; and
- (iii) according to the proposed annual caps that are fair and reasonable and in the interests of the Company and the Shareholders as a whole.

Confirmation from the Independent Auditor

Pursuant to Chapter 14A.56 of the Listing Rules, the Company's auditor was engaged by the Board to report on the Group's continuing connected transactions in accordance with Hong Kong Standard on Assurance Engagements 3000 (Revised) "Assurance Engagements Other than Audits or Reviews of Historical Financial Information" and with reference to Practice Note 740 "Auditor's Letter on Continuing Connected Transactions under the Hong Kong Listing Rules" issued by the Hong Kong Institute of Certified Public Accountants. Based on the work performed, the auditor of the Company confirmed to the Board of Directors of the Company that the aforesaid continuing connected transactions:

- (1) have been approved by the Board of Directors of the Company;
- (2) involving the provision of goods and services by the Group were priced in accordance with the pricing policies of the Group stipulated under the relevant agreements governing such transactions;
- (3) have been entered into in accordance with the relevant agreements governing such transactions; and
- (4) have not exceeded the relevant annual cap as disclosed in the Prospectus.

The auditor has issued his unqualified letter containing his findings and conclusions in respect of the continuing connected transactions disclosed by the Group in pages 71 to 80 of this annual report in accordance with rule 14A.56 of the Listing Rules. A copy of the auditor's letter has been provided by the Company to the Stock Exchange.

26. PURCHASE, SALE AND REDEMPTION OF THE LISTED SECURITIES OF THE COMPANY

Neither the Company nor any of its subsidiaries has purchased, sold or redeemed any of the Company's listed securities for the year ended 31 December 2021.

27. EQUITY-LINKED AGREEMENT

During the Reporting Period, the Company and its subsidiaries did not enter into any agreements in relation to equity-linked products or participate in any arrangement to purchase equity-linked financial products.

28. ARRANGEMENT FOR PRE-EMPTIVE RIGHT AND SHARE OPTION SCHEME

According to the Articles of Association and relevant laws of China, Shareholders of the Company have no pre-emptive right. During the Reporting Period, the Company has no arrangement for pre-emptive right or share option scheme.

29. BANK BORROWINGS

Details of the bank borrowings of the Company are set out in Note 23 to the "Financial Statements" in this annual report.

30. REMUNERATION AND EQUITY-INCENTIVE POLICY

The review of the Group's employee and remuneration policy is set out in the section headed "Management Discussion and Analysis" in this annual report.

On 9 November 2021, the Group held the sixth meeting of the Board of Directors in 2021, and considered and passed the "Resolution Regarding Termination of the H Share Appreciation Rights Scheme", in which the Board resolved to terminate the Share Appreciation Rights Incentive Scheme and the Participants would no longer be entitled to the share appreciation rights already granted after the termination.

31. EMPLOYEE RETIREMENT BENEFITS

Details of the employee retirement benefits of the Company are set out in Note 28 to the "Financial Statements" in this annual report.

32. DONATIONS

The Group extended a helping hand to the disaster-stricken area in Zhengzhou, Henan Province, with a total donation of RMB200,000 to support flood prevention and relief and post-disaster reconstruction in the disaster-stricken area. The Group actively consolidated the achievements in poverty alleviation and launched free breath testing for Helicobacter pylori with Xunyang People's Hospital for 300 people. In addition, Anhui Young-Hearty donated RMB83,000 to charitable organizations and poor families in Anhui Province. The Group actively carried out assistance activities in poverty-stricken areas and purchased RMB346,000 of agricultural products from Tibet, Ningxia, Shaanxi, Chongqing and other poverty-stricken areas for the distribution of staff holiday gifts.

33. COMPLIANCE WITH THE CORPORATE GOVERNANCE CODE

The Company has complied with all applicable code provisions set out in the Corporate Governance Code during the Reporting Period. Details are set out in the "Corporate Governance Report" of this annual report.

34. INDEPENDENT AUDITOR

As resolved at the second extraordinary general meeting of 2021 of the Company held on 27 July 2021, KPMG was appointed as the international auditor of the Company for the year 2021, to provide relevant overseas audit and review services under the IFRSs. The resolutions regarding appointment of auditors of the Company for the 2022 financial report will be proposed at the forthcoming AGM for consideration and approval.

35. COMPLIANCE WITH RELEVANT LAWS

After the listing on the main board of the Stock Exchange, the Company is subject to the Company Law, the Listing Rules, the SFO and other related laws and regulations at home and abroad. The Company complies with the following key regulatory requirements:

The State-owned Assets Supervision and Administration Commission of the State Council, the Supervisory Board for Key Large State-Owned Enterprises and other Chinese government departments (including but not limited to Ministry of Finance, State Administration of Taxation, National Audit Office of the People's Republic of China, State Administration for Market Regulation of the People's Republic of China, People's Bank of China, State Administration of Foreign Exchange, Ministry of Human Resources and Social Security of the People's Republic of China and subsidiary organs thereof) have made inquiries and onsite inspection or off-site survey to the Company's compliance with Chinese laws and regulations in terms of state-owned assets management, financial condition and business operation, solvency status, tax payment, foreign exchange management, labour and social welfare, etc.

Compliance with the Listing Rules and the SFO, including but not limited to fulfilling the followings: safe-keeping the register of interests in shares and short positions and the register of interests and short positions of Directors, Supervisors and chief executives, disclosure of inside information etc. The Company has implemented internal control to ensure its compliance with such laws and regulations. To the best of our knowledge, there are not any legal or regulatory procedures or issues that may, in the opinion of the Directors, have material adverse effects on the business, financial condition, business performance or prospects of the Company as of the end of Reporting Period.

36. ENVIRONMENTAL POLICIES AND PERFORMANCE

The Group recognises the importance of environmental protection and has adopted stringent measures for environmental protection in order to ensure our compliance to the prevailing environmental protection laws and regulations. Adhering to the concept of green environmental protection, the Group has also promoted green operations and advocated the concept of green office. Environmental protection, energy conservation and emissions reduction and reasonable and efficient utilisation of resources have been consistently implemented in the daily operation activities of the Group. The Group has also been working on reducing its energy use, consumption and wastage by actively promoting recycling concept, including using less paper and saving electric power and use of water. Going forward, the Group will continue to develop sustainable policies and designs to reduce its environmental impact not only internally within its offices but also externally in the regions it operates in. Discussion on the environmental policies and performance of the Group set out in the "Environmental, Social and Governance Report" for 2021 will be published before 31 May 2022.

37. COMPLIANCE WITH THE OFAC UNDERTAKINGS

During the Reporting Period, the Company has requested its subsidiaries to conduct overseas business in accordance with the Detailed Rules on the Work of the Overseas Risk Management Committee of China Isotope & Radiation Corporation. The Company has kept the relevant OFAC undertakings in the Reporting Period and will continue doing so in the future daily operation.

38. PUBLIC FLOAT

As of the date of this annual report, the shares of the Company held by the public accounted for 25% of the total shares of the Company, which complied with the requirements of the Listing Rules as the capital structure of the Company maintained sufficient public float.

39. REVIEW OF ANNUAL REPORT

The Audit and Risk Management Committee of the Company has reviewed the Company's annual results of 2021, and the financial statements for the year ended 31 December 2021 prepared in accordance with International Financial Reporting Standards.

40. INFORMATION ON TAX REDUCTION AND EXEMPTION FOR HOLDERS OF H SHARES

40.1 Individual investors

According to the Notice on the Management of Personal Income Tax Imposed after the Abolition of Guo Shui Fa [1993] No. 045 Document issued by the State Administration of Taxation (Guo Shui Han [2011] No. 348) 《國家税務總局關於國税發[1993]045號文件廢止後有關個人所得税徵管問 題的通知》(國税函[2011]348號)), the dividend received by foreign resident individual shareholders from the issuance of shares in Hong Kong by domestic non-foreign invested enterprises is subject to the payment of individual income tax according to the items of "interests, dividend and bonus income", which shall be withheld by the withholding agents according to the relevant laws. The foreign resident individual shareholders who hold the shares issued by domestic non-foreign invested enterprises in Hong Kong are entitled to the relevant preferential tax treatment pursuant to the provisions in the tax agreements signed between the countries where they reside and China or the tax arrangements between Mainland and Hong Kong (Macau). The tax rate for dividends under the relevant tax agreements and tax arrangements is generally 10%, and for the purpose of simplifying tax administration, domestic non-foreign invested enterprises issuing shares in Hong Kong may, when distributing dividends, generally withhold individual income tax at the rate of 10%, and are not obligated to file an application. If the tax rate for dividends is not equal to 10%, the following provisions shall apply: (1) for citizens from countries which have entered into tax agreements/arrangements stipulating a tax rate of lower than 10%, the withholding agents will file applications on their behalf to seek entitlement of the relevant agreed preferential treatments, and upon approval by the tax authorities, the excess tax amounts withheld will be refunded; (2) for citizens from countries which have entered into tax agreements/arrangements stipulating a tax rate of higher than 10% but lower than 20%, the withholding agents will withhold the individual income tax at the agreed-upon effective tax rate when distributing dividends, and are not obligated to file an application; (3) for citizens from countries without tax agreements or are under other situations, the withholding agents will withhold the individual income tax at a tax rate of 20% when distributing dividends.

According to the Arrangements for the Avoidance of Double Taxation and Prevention of Tax Evasion in Mainland China and Hong Kong (Guo Shui Han [2006] No. 884) 《內地和香港特別行政區關於對所得避免雙重徵税和防止偷漏税的安排》(國稅函[2006]884號)) signed on 21 August 2006 in relation to income tax, the Chinese government may impose tax on dividends payable by the Chinese companies to Hong Kong residents, but the tax should not exceed 10% of the total dividend payable; if Hong Kong residents directly hold at least 25% equity interest in the Chinese company, the relevant tax shall not exceed 5% of the total dividend payable by the Chinese company.

40.2 Enterprise

According to the Enterprise Income Tax law of the People's Republic of China《中華人民共和國企業所得税法》 and the Regulations on the Implementation of the Enterprise Income Tax Law of the People's Republic of China《中華人民共和國企業所得税法實施條例》 effective on 1 January 2008, if non-resident enterprises establish no organisations and sites within the territory of China, or though they have established certain organisations and sites but the dividends and bonuses received have actually not correlated to the organisations and sites established, such enterprises shall pay the corporate income tax at the rate of 10% of its income from the Chinese territory. The withholding tax may be relieved under an applicable double taxation treaty.

According to the Notice on the Withholding Corporate Income Tax on the Dividends Distributed by the Chinese Resident Enterprise to Foreign H Share Non-resident Enterprise Shareholders (Guo Shui Han [2008] No. 897) (《關於中國居民企業向境外H股非居民企業股東派發股利代扣代繳企業所得税有關問題的通知》(國稅函[2008]897號)) issued by the State Administration of Taxation and effective on 6 November 2008, when the Chinese resident enterprises distribute dividends of 2008 and subsequent years to foreign H share non-resident enterprise shareholders, they shall pay the withholding enterprise income tax at the unified rate of 10%. Such withholding tax may be reduced pursuant to applicable tax avoidance under the double taxation treaty.

Pursuant to the provisions in the Notice on Tax Policy Regarding Shanghai-Hong Kong Stock Connect Pilot Programs (Cai Shui [2014] No. 81) 《關於滬港股票市場交易互聯互通機制試點有關税收政策的通知》(財稅[2014]81號)) issued by the Ministry of Finance, the State Administration of Taxation and CSRC, for the dividends obtained by mainland individual investors from investing in H-shares listed in Hong Kong Stock Exchange through Shanghai-Hong Kong Stock Connect, such H-share companies shall withhold individual income tax at the tax rate of 20%. For the dividends obtained by mainland securities investment funds by investing in shares listed in Hong Kong Stock Exchange through Shanghai-Hong Kong Stock Connect, the individual income tax will be levied pursuant to the provisions mentioned above. For the dividends obtained by mainland enterprise investors from investing in shares listed in Hong Kong Stock Exchange through Shanghai-Hong Kong Stock Connect, such H-share companies shall not withhold and pay any income taxes on the dividends, as the income taxes shall be reported and paid by the investing enterprises on their own. Meanwhile, for the dividends obtained by mainland resident enterprises from holding relevant H shares for consecutive 12 months, the corporate income taxes shall be exempted according to laws.

Pursuant to the current practices of Inland Revenue Department of Hong Kong, no taxes shall be levied for the dividends distributed by the Company. The Shareholders of the Company shall pay the relevant taxes and/or be entitled to tax relieves pursuant to the above provisions.

By order of the Board of Directors

Meng Yanbin

Chairman of the Board

19 April 2022

SUPERVISORS' REPORT

1. BASIC COMPOSITION OF THE BOARD OF SUPERVISORS

1.1 Basic information

As of 31 December 2021, the Board of Supervisors consists of five members, namely Mr. Zhang Qingjun, Mr. Zhao Nanfei, Mr. Zhang Guoping, Mr. Zhang Jian and Mr. Li Zhenhua, among whom Mr. Zhang Qingjun is the chairman of the Board of Supervisors, Mr. Li Zhenhua and Mr. Zhang Jian are employee representative supervisors. The term of office of supervisors is three years. Supervisors can be re-appointed upon re-election after the term of office expires.

1.2 Changes in supervisors

The Company held an employee meeting on 26 January 2021 and elected Mr. Li Zhenhua and Mr. Zhang Jian as the employee representative supervisors of the third session of the board of supervisors of the Company. On February 25, 2021, the first extraordinary general meeting of CIRC approved Mr. Zhao Nanfei as a non-employee representative supervisor of the Company and Mr. Liu Zhonglin has retired as as a non-employee representative supervisor.

2. MEETINGS OF THE BOARD OF SUPERVISORS

In 2021, the Board of Supervisors convened five meetings. The convening, holding and voting procedures of the meetings and the contents of the resolutions are in compliance with the laws and regulations and the Articles of Association. The details of the meetings are as follows:

- The first meeting of the second session of the Board of Supervisors for 2021 was held on 29
 January 2021. Mr. Zhang Qingjun, the chairman of the Board of Supervisors, served as the
 convener. A resolution was considered and passed at the meeting, which is General Election of the
 Board of Supervisors of CIRC and Nomination of Candidates for Supervisors of the Third session of
 the Board of Supervisors.
- 2. The first meeting of the third session of the Board of Supervisors for 2021 was held on 25 February 2021 and elected Supervisor Mr. Zhang Qingjun to preside over the meeting. Two resolutions were considered and approved at the meeting, including the Waiver of Advance Notice of the Meeting of the Board of Supervisors and Election of the Chairman of the Third Session of the Board of Supervisors of CIRC.
- 3. The second meeting of the third session of the Board of Supervisors of CIRC for 2021 was held on 30 March 2021. Supervisor Mr. Zhang Guoping served as the convener. Ten resolutions were considered and approved at the meeting, including the 2020 Work Report of the Board of Supervisors of CIRC, the 2020 Work Report of the Board of Directors of CIRC, the Announcement of Annual Results for 2020 of CIRC, the 2020 final accounts of the Company, the 2021 Financial Budget Plan of the Company, the Proposed Declaration and Distribution of Final Dividend for the Year Ended 31 December 2020, the 2020 Internal Control Construction and Evaluation Report of CIRC, the 2021 Comprehensive Risk Control Report of CIRC, 2020 Annual Report of CIRC and the Environmental, Social and Governance Report of CIRC for 2020. Zhang Xiaohui of the System Construction Department of the Audit and Legal Affairs Department of CNNC conducted training for the members of the Board of Supervisors on the "Regulations on the Construction of the Board of Supervisors and the Performance of Supervisory Duties by the Board of Supervisors of China National Nuclear Corporation" (《中國核工業集團有限公司監事會建設及派出監事履職管理辦法》) (Edition: 3).

SUPERVISORS' REPORT (CONTINUED)

- 4. The third meeting of the third session of the Board of Supervisors of CIRC for 2021 was held on 27 August 2021. Mr. Zhang Qingjun, the chairman of the Board of Supervisors, served as the convener. Five resolutions were considered and approved at the meeting, including the Announcement of Interim Results of CIRC for 2021, the Interim Report of CIRC for 2021, Proposal on the Amendments to the Rules and Procedures of the Board of Supervisors, Proposal on Appointing an Audit Firm for the Initial Public Offering and Listing of A Shares of the Company and Proposal on Appointing an Audit Firm for the Domestic Annual Audit of the Company.
- 5. The fourth meeting of the third session of the Board of Supervisors of CIRC for 2021 was held on 9 November 2021. Mr. Zhang Qingjun, the chairman of the Board of Supervisors, served as the convener. Two resolutions were considered at the meeting, of which Termination of H-Share Appreciation Rights Incentive Plan was approved. The Board of Supervisors was unable to form a valid resolution on the "Proposal on Recognition of Related Party Transactions of the Company During the Reporting Period (2018, 2019, and 2020 and January-June 2021)", which was submitted directly to the general meeting of the Company for consideration.

3. BOARD OF SUPERVISORS' PRESENCE ON OTHER MEETINGS

In 2021, the Supervisors of the Company attended nine Board meetings, the 2020 AGM, the first and the second 2021 extraordinary general meeting.

4. BASIC EVALUATION OF THE BOARD OF SUPERVISORS ON PERFORMANCE OF THE BOARD AND SENIOR MANAGEMENT

During the Reporting Period, with the supervision on the Directors and senior management of the Company, the Board of Supervisors was of the view that the Board of the Company was able to duly perform its duties in strict compliance with the requirements under the Company Law, Securities Law, the Articles of Association and the relevant laws and regulations, and to operate in accordance with laws. The major business decision making procedures of the Company were legitimate and effective. The Directors and senior management of the Company performed their duties in strict accordance with the State laws and regulations, the Articles of Association and resolutions of the general meeting and the Board. The Board of Supervisors was not aware of any irregularities of Directors and senior management that are not in the interests of the Company and the Shareholders or have violated laws and regulations.

5. INDEPENDENT OPINIONS OF THE BOARD OF SUPERVISORS ON OPERATION OF THE COMPANY

5.1 Independent opinions on the financial position of the Company

The financial report of the year is prepared in accordance with International Financial Reporting Standards with sound internal control system on financial and audit aspects and no material omission or false statement in the accounting, and has been audited by KPMG, which reflected the financial position and operation results of the Company in a true and objective manner.

5.2 Independent opinions on disclosure of information by the Company

During the Reporting Period, the Board of Supervisors attended the general meeting and the Board meeting and listened to the report about information disclosure. The Board of Supervisors believed that the information disclosure procedures were in compliance with the Administrative Measures on Information Disclosure of CIRC 《中國同輻信息披露管理辦法》) and complied with the regulatory requirements of the Stock Exchange.

SUPERVISORS' REPORT (CONTINUED)

5.3 Independent opinions on the connected transactions of the Company

During the Reporting Period, the Board of Supervisors conducted supervision on the connected transactions of the Company and was of the view that the approval and disclosure procedure of the connected transactions of the Company were in compliance with the relevant laws and regulations such as the Listing Rules and requirements of the Articles of Association, and the pricing of which was fair and reasonable.

5.4 Independent opinions on the management and use of proceeds of the Company

During the Reporting Period, the Board of Supervisors conducted supervision on the management and use of proceeds of the Company. The Board of Supervisors believed that the Company managed and used the proceeds in strict compliance with the Listing Rules.

6. WORKING PLAN

In 2022, the Board of Supervisors will strictly comply with the relevant requirements under the Company Law, Securities Law of the PRC, Listing Rules and Articles of Association to further perfect the corporate governance structure of the Company as a legal person and improve the standard of corporate governance. The Board of Supervisors will continually strengthen the implementation of supervision and conduct effective supervision with focus on procuring the implementation of the resolutions passed at the general meeting and the Board meeting, major operational decisions of the Company and financial inspection. It will step up its efforts in supervision of major acquisition of assets, external investment, management and use of proceeds and disclosure of information so as to better safeguard the interests of Shareholders.

By order of the Board of Supervisors **Zhang Qingjun**Chairman of the Board of Supervisors

19 April 2022

INDEPENDENT AUDITOR'S REPORT

INDEPENDENT AUDITOR'S REPORT TO THE SHAREHOLDERS OF CHINA ISOTOPE & RADIATION CORPORATION

(Incorporated in the People's Republic of China with limited liability)

OPINION

We have audited the consolidated financial statements of China Isotope & Radiation Corporation ("the Company") and its subsidiaries ("the Group") set out on pages 94 to 188, which comprise the consolidated statement of financial position as at 31 December 2021, the consolidated statement of profit or loss, the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of changes in equity and the consolidated cash flow statement for the year then ended and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2021 and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards ("IFRSs") issued by the International Accounting Standards Board ("IASB") 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 Hong Kong Institute of Certified Public Accountants ("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 People's Republic of China, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

KEY AUDIT MATTERS

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

KEY AUDIT MATTERS (CONTINUED)

Revenue recognition

Refer to Note 4 to the consolidated financial statements and the accounting policies in Note 2(w)(i).

The Key Audit Matter

The Group is principally engaged in research, development, manufacturing and sale of a broad range of pharmaceuticals and radioactive source products, and also design, manufacturing, construction and installation of gamma ray irradiation facilities, provision of irradiation service for sterilisation purpose as well as independent clinical laboratory services.

The amount of sales of goods recognised for the year ended 31 December 2021 is RMB4,427 million and accounted for 86% of total revenue. The revenue from sales of goods is recognised when the customer obtains control of the promised goods in the contract.

We identified the recognition of revenue as a key audit matter because the revenue is one of the key performance indicators of the Group and the Group's business is diversified and from different segments. Therefore, there is inherent risk of material misstatement in revenue recognition.

How the matter was addressed in our audit

Our audit procedures to assess the timing of revenue recognition included the following:

- obtaining an understanding of and assessing the design, implementation and operating effectiveness of management's key internal controls in relation to revenue recognition;
- inspecting the terms of sales contracts with customers from each segment, on a sample basis, and evaluating the conditions of goods acceptance as to whether control over the goods has been passed and performance obligation is satisfied when the Group recognises the revenue, and assessing the Group's timing and value of recognition of revenue with reference to the requirements of the prevailing accounting standards;
- inspecting goods delivery notes and logistics records, on a sample basis, to assess whether revenue transactions recorded just before and after the financial year end date had been recognised in the appropriate financial period on the basis of the terms of sale as set out in the sales contracts;
- comparing revenue transactions, on a sample basis, with invoices, goods delivery notes and other relevant underlying documentation as applicable;
- inspecting underlying documentation for manual journal entries relating to revenue which were recorded during the year and which met specific risk-based criteria.

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

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

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

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

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

RESPONSIBILITIES OF THE DIRECTORS FOR THE CONSOLIDATED FINANCIAL STATEMENTS

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

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

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

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

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

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

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

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- 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.

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

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements.
 We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

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

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

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

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

KPMG

Certified Public Accountants

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

19 April 2022

CONSOLIDATED STATEMENT OF PROFIT OR LOSS

for the year ended 31 December 2021 (Expressed in Renminbi ("RMB"))

		2021	2020
	Note	RMB'000	RMB'000
Revenue	4	5,143,694	4,274,183
Cost of sales		(1,901,790)	(1,658,196)
Gross profit		3,241,904	2,615,987
Other income	5	61,569	67,615
Selling and distribution expenses		(1,820,458)	(1,442,556)
Administrative expenses		(497,984)	(451,567)
Research and development costs		(196,214)	(152,531)
Impairment losses on trade and other receivables		(10,996)	(22,173)
Profit from operations		777,821	614,775
Finance costs	6(a)	(35,803)	(34,977)
Share of profits less losses of associates		6,962	(12,028)
Share of profits of joint ventures		53,698	28,393
Profit before taxation	6	802,678	596,163
Income tax	7	(129,641)	(120,640)
Profit for the year		673,037	475,523
Attributable to:			
Equity shareholders of the Company		335,751	213,582
Non-controlling interests		337,286	261,941
Profit for the year		673,037	475,523
Earnings per share	8		
Basic and diluted (RMB)		1.05	0.67

The notes on page 102 to 188 form part of these financial statements. Details of dividends payable to equity shareholders of the Company attributable to the profit for the year are set out in Note 32(b).

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

for the year ended 31 December 2021 (Expressed in RMB)

		2021	2020
	Note	RMB'000	RMB'000
Profit for the year		673,037	475,523
Other comprehensive income for the year			
(after tax and reclassification adjustments):	11		
Item that may be reclassified subsequently to profit or loss:			
Exchange differences on translation of share of profits less			
losses of an associate		(2,623)	(1,805)
Items that will not be reclassified to profit or loss:			
Remeasurement of net defined benefit liability		(1,469)	(513)
Equity investments at FVOCI-net movement in fair value			
reserve (non-recycling)		10,047	(10,858)
Other comprehensive income for the year		5,955	(13,176)
Total comprehensive income for the year		678,992	462,347
Attributable to:			
Equity shareholders of the Company		341,921	200,517
Non-controlling interests		337,071	261,830
Total comprehensive income for the year		678,992	462,347

The notes on page 102 to 188 form part of these financial statements.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

at 31 December 2021 (Expressed in RMB)

		2021	2020
	Note	RMB'000	RMB'000
Non-current assets			
Property, plant and equipment	12	2,512,947	2,210,150
Investment property		19,670	20,768
Intangible assets	13	156,496	148,363
Goodwill	17	44,036	43,875
Interests in associates	15	52,500	65,263
Interests in joint ventures	16	594,252	552,748
Long-term receivables	31(c)	37,176	35,440
Unquoted equity investments	18	150,410	137,014
Deferred tax assets	30(b)	214,445	200,556
Other non-current assets		35,255	-
		3,817,187	3,414,177
Current assets			
Inventories	19	691,923	590,025
Contract assets		29,424	_
Trade and bill receivables	20	2,821,153	2,368,502
Deposits and other receivables	21(a)	153,733	142,185
Prepayments	21(b)	212,358	113,910
Cash at bank and on hand	22	2,748,190	2,556,493
		6,656,781	5,771,115
Current liabilities			
Bank loans	23(b)	118,084	90,220
Corporate bond	24	499,996	_
Trade payables	25	337,856	199,503
Accruals and other payables	26	2,816,406	2,327,407
Lease liabilities	27	53,368	29,907
Provisions	31	76,554	73,906
Income tax payable	30(a)	69,398	51,226
		3,971,662	2,772,169
Net current assets		2,685,119	2,998,946
Total assets less current liabilities		6,502,306	6,413,123

CONSOLIDATED STATEMENT OF FINANCIAL POSITION (CONTINUED)

at 31 December 2021 (Expressed in RMB)

		2021	2020
	Note	RMB'000	RMB'000
Non-current liabilities			
Bank loans	23(a)	144,680	72,762
Corporate bond	24	_	499,784
Deferred income		43,875	59,146
Lease liabilities	27	40,500	56,971
Defined benefit retirement obligation	28(a)	49,898	53,503
Deferred tax liabilities	30(b)	17,347	14,186
Provisions	31	131,706	125,861
Other long-term payables		42,912	25,300
		470,918	907,513
Net assets		6,031,388	5,505,610
Capital and reserves	32		
Share capital		319,875	319,875
Reserves		3,859,415	3,571,323
Total equity attributable to equity shareholders			
of the Company		4,179,290	3,891,198
Non-controlling interests		1,852,098	1,614,412
Total equity		6,031,388	5,505,610

Approved and authorised for issue by the board of directors on 19 April 2022.

Name: Gui Youquan Name: Meng Yanbin Position: chairman of the board Position: chief accountant

The notes on page 102 to 188 form part of these financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

for the year ended 31 December 2021

(Expressed in RMB)

				Attributa	Attributable to equity shareholders of the Company	holders of the Cor	npany				
				PRC	Fair value					Non-	
		Share	Capital	statutory	reserve	Other	Exchange	Retained		controlling	Total
	Note	capital RMB'000	reserve RMB'000	reserve RMB'000	(non-recycing) RMB'000	reserve RMB'000	reserve RMB'000	profits RMB'000	Sub-total RMB'000	interests RMB'000	equity RMB'000
		Note32(c)	Note32(d)(i)	Note32(d)(ii)	Note32(d)(iii)	Note32(d)(iv)	Note32(d)(v)				
Balance at 31 December 2019 and 1 January 2020		319,875	2,138,171	125,676	40,201	33,130	4,428	1,097,865	3,759,346	1,244,087	5,003,433
Changes in equity for 2020:											
Profit for the year		1	1	ı	1	ı	ı	213,582	213,582	261,941	475,523
Other comprehensive income		1	1	1	(10,858)	ı	(1,805)	(402)	(13,065)	(111)	(13,176)
Total comprehensive income		1	1	1	(10,858)	1	(1,805)	213,180	200,517	261,830	462,347
Capital injections from non-controlling equity owners											
of subsidiaries		1	ı	ı	ı	1	ı	ı	1	182,029	182,029
Capital injection in a subsidiary		1	(24,594)	ı	ı	360	ı	ı	(24,234)	24,234	1
Appropriation of maintenance and production funds		1	ı	ı	ı	22,292	ı	(22,292)	1	1	ı
Utilisation of maintenance and production funds		1	1	ı	ı	(11,869)	ı	11,869	1	1	I
Appropriation to reserves		1	ı	12,918	ı	ı	ı	(12,918)	1	ı	ı
Dividends	32(b)	1	1	ı	ı	ı	ı	(44,431)	(44,431)	1	(44,431)
Distributions by subsidiaries to non-controlling equity owners		ı	1	1	I	ı	1	1	ı	(97,768)	(97,768)
Balance at 31 December 2020		319,875	2,113,577	138,594	29,343	43,913	2,623	1,243,273	3,891,198	1,614,412	5,505,610

The notes on page 102 to 188 form part of these financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY (CONTINUED)

for the year ended 31 December 2021

(Expressed in RMB)

				Attributa	Attributable to equity shareholders of the Company	eholders of the	Company				
	•		:	PRC .	Fair value	;				Non-	
	ऊ	Share	Capital	statutory	reserve	Other	Exchange	Retained		controlling	Total
	~	capital MR'000	reserve RMB'000	reserve RMB'000	(non-recycing)	reserve RMB'000	reserve RMB'000	profits RMR/000	Sub-total RMB'000	interests RMB'000	equity RMR'000
	_		Note32(d)(i)	Note32(d)(ii)	Note32(d)(iii)	Note32(d)(iv)	Note32(d)(v)				
Balance at 31 December 2020 and 1 January 2021	319,875		2,113,577	138,594	29,343	43,913	2,623	1,243,273	3,891,198	1,614,412	5,505,610
Changes in equity for 2021:											
Profit for the year		í	1	1	•	1	•	335,751	335,751	337,286	673,037
Other comprehensive income			1	1	10,047	•	(2,623)	(1,254)	6,170	(215)	5,955
Total comprehensive income		1	1	1	10,047	1	(2,623)	334,497	341,921	337,071	678,992
Capital contributions from non-controlling equity owners											
of subsidiaries		ï	•	1	•	1	•	•	•	20,465	20,465
Capital injections in subsidiaries		i	16,857	1	•	1	•	1	16,857	1,218	18,075
Acquisition of non-controlling interest in a subsidiary		í	(12,977)	•	•	•	•	•	(12,977)	(44,454)	(57,431)
Disposal of interest in an associate		í	(36)	•	•	•	٠	•	(36)	•	(36)
Acquisition of subsidiaries		í	•	•	•	•	٠	•	•	20,008	20,008
Appropriation of maintenance and production funds		í	i.	1	•	22,080	•	(22,080)	•	•	1
Utilisation of maintenance and production funds		i	1	1	•	(18,023)	•	18,023		•	•
Appropriation to reserves		í	•	5,624	•	•	٠	(2,624)	•	٠	•
Dividends 32(b)	(q.	í	•	•	•	•	٠	(57,673)	(57,673)	٠	(57,673)
Distributions by subsidiaries to non-controlling equity owners			1	•	•	-	•	•	•	(96,622)	(96,622)
Balance at 31 December 2021	319,	319,875	2,117,421	144,218	39,390	47,970	-	1,510,416	4,179,290	1,852,098	6,031,388

The notes on page 102 to 188 form part of these financial statements.

CONSOLIDATED CASH FLOW STATEMENT

for the year ended 31 December 2021 (Expressed in RMB)

	2021	2020
Note	RMB'000	RMB'000
Operating activities		
Profit before taxation	802,678	596,163
Adjustments for:	ŕ	
Depreciation and amortisation 6(c)	197,236	171,825
Impairment losses on property, plant and equipment 6(c)	_	4,152
Government grants 5	(14,220)	(23,634)
Interest income 5	(3,078)	(27,479)
Finance costs 6(a)	35,803	34,977
Dividend income on unquoted equity investments 5	(4,739)	(7,792)
Net loss on disposal of property, plant and equipment 5	683	1,113
Share of profits less losses of associates	(6,962)	12,028
Share of profits of joint ventures	(53,698)	(28,393)
Changes in working capital:		
Increase in inventories 19	(101,898)	(145,661)
Increase in trade and bill receivables 20	(463,276)	(180,756)
Increase in prepayments, deposits and other receivables	(109,996)	(10,501)
Increase in trade payables 25	138,353	25,947
Increase/(decrease) in accruals and other payables	489,548	(42,952)
Decrease in defined benefit retirement obligation 28	(6,836)	(880)
Increase in provisions	2,648	4,756
Increase in other long-term payables	17,612	12,722
Cash generated from operations	919,858	395,635
Income tax paid 30(a)	(125,546)	(103,722)
Net cash generated from operating activities	794,312	291,913
Investing activities		
Increase in deposits with banks 22	(1,076,002)	(255,210)
Withdrawal of deposits with banks 22	655,920	157,636
Payments for purchase of investment property, plant and		
equipment, lease prepayments and intangible assets	(427,723)	(409,923)
Payments for purchase of interests in associates	(22,930)	(21,640)
Disposal of interest in an associate	14,033	-
Payments for acquisition of subsidiaries	(85,977)	-
Proceeds from disposal of property, plant and equipment	810	3,660
Dividends received from associates	4,461	21,173
Dividends received from joint ventures 16	12,193	5,041
Dividends received from unquoted equity investments	4,739	13,163
Government grants received	10,042	27,696
Interests received	3,078	34,507
Net cash used in investing activities	(907,356)	(423,897)

The notes on page 102 to 188 form part of these financial statements.

CONSOLIDATED CASH FLOW STATEMENT (CONTINUED)

for the year ended 31 December 2021 (Expressed in RMB)

		2021	2020
	Note	RMB'000	RMB'000
Financing activities			
Capital injections from non-controlling equity owners of			
subsidiaries		20,465	182,029
Proceeds from bank loans	22(b)	194,900	149,210
Repayments of bank loans	22(b)	(102,758)	(274,678)
Capital element of lease rentals paid	22(b)	(28,791)	(26,583)
Interest element of lease rentals paid	22(b)	(5,649)	(4,297)
Interest paid on corporate bond	22(b)	(18,893)	(19,000)
Other finance costs paid	22(b)	(9,697)	(21,310)
Dividends paid by the Company to equity shareholders		(57,673)	(44,431)
Dividends paid by subsidiaries to non-controlling equity owners		(89,340)	(97,188)
Net cash used in financing activities		(97,436)	(156,248)
Net decrease in cash and cash equivalents		(210,480)	(288,232)
Cash and cash equivalents at 1 January	22	2,351,602	2,640,314
Effect of foreign exchange rate changes		328	(480)
Cash and cash equivalents at 31 December	22	2,141,450	2,351,602

The notes on page 102 to 188 form part of these financial statements.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(Expressed in RMB unless otherwise indicated)

1 ORGANISATION

China Isotope & Radiation Corporation (the "Company") was established on 4 December 2007 in the People's Republic of China (the "PRC") as a state-owned enterprise with limited liability. The Company was converted into a joint stock company with limited liability on 6 December 2011(the "Conversion"). China National Nuclear Corporation ("CNNC"), China Institute of Atomic Energy ("CIAE") and Nuclear Power Institute of China ("NPIC") held 51.93%, 26.92% and 21.15% equity interests in the Company, respectively, immediately after the Conversion. On 14 March 2017, the Company issued 39,906,000 ordinary shares to CNNC, five related parties under CNNC, Beijing Aerospace Industry Investment Fund LLP and China Aerospace Investment Co., Ltd. (collectively as "Shareholders before listing") at an aggregated consideration of RMB850,000,000.

On 6 July 2018, the Company issued 79,968,700 H shares with par value of RMB1.00 per share at a price of HKD21.6 per share by way of initial public offering to Hong Kong and overseas investors. On 3 August 2018, the over-allotment option granted by the Company was partially exercised. The Company issued and allotted an aggregate of 100 H shares at HKD21.6 each. After the issuance and allotment of these shares, the registered and issued ordinary shares of the Company increased to 319,874,900 shares with 79,968,800 H shares being listed on The Stock Exchange of Hong Kong Limited (the "Stock Exchange").

2 SIGNIFICANT ACCOUNTING POLICIES

(a) Statement of compliance

These financial statements have been prepared in accordance with all applicable International Financial Reporting Standards ("IFRSs"), which collective term includes all applicable individual International Financial Reporting Standards, International Accounting Standards ("IASs") and Interpretations issued by the International Accounting Standards Board ("IASB") and the applicable disclosure requirements of the Hong Kong Companies Ordinance. These financial statements also comply with the applicable disclosure provisions of the Rules Governing the Listing of Securities on the Stock Exchange. Significant accounting policies adopted by the Group are disclosed below.

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

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(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 as the "Group") and the Group's interest in associates and joint ventures.

The measurement basis used in the preparation of the financial statements is the historical cost basis except that the equity investments (see Note 2(g)) are stated at their fair value.

The preparation of financial statements in conformity with IFRSs 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 IFRSs that have significant effect on the financial statements and major sources of estimation uncertainty are discussed in Note 3.

Changes in accounting policies (c)

The Group has applied the following amendments to IFRSs issued by the IASB to these financial statements for the current accounting period:

- Amendments to IFRS 9, IFRS 7, IFRS 4 and IFRS 16, Interest rate benchmark reform phase 2
- Amendments to IFRS 16, Covid-19-related rent concessions beyond 30 June 2021

None of these developments have had a material effect on how the Group's results and financial position for the current or prior years have been prepared or presented in this financial report. The Group has not applied any new standard or interpretation that is not yet effective for the current accounting period.

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(d) Subsidiaries and non-controlling interests

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

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

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

Non-controlling interests are presented in the consolidated statement of financial position within equity, separately from equity attributable to the equity shareholders of the Company. Non-controlling interests in the results of the Group are presented on the face of the consolidated statement of profit or loss and 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.

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 or, when appropriate, the cost on initial recognition of an interest in an associate and a joint venture (see Note 2(e)).

In the Company's statements of financial position, an investment in a subsidiary is stated at cost less impairment losses (see Note 2(I)), unless the investment is classified as held for sale.

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(e) Associates and joint ventures

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.

A joint venture is an arrangement whereby the Group or Company and other parties contractually agree to share control of the arrangement and have rights to the net assets of the arrangement.

An investment in an associate or a joint venture is accounted for in the consolidated financial statements under the equity method unless it 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 or joint venture that forms part of 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 2(f) and 2(l)). 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 or the joint venture, 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 the Group's long-term interests that in substance form part of the Group's net investment in the associate or the joint venture (after applying the ECL model to such other long-term interests where applicable (see Note 2(l)(i)).

Unrealised profits and losses resulting from transactions between the Group and its associates and joint ventures 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.

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(e) Associates and joint ventures (continued)

In all other cases, when the Group ceases to have significant influence over an associate or joint control over a joint venture, 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 or joint control is lost is recognised at fair value and this amount is regarded as the fair value on initial recognition of a financial asset.

(f) Goodwill

Goodwill represents the excess of

- (i) the aggregate of the fair value of the consideration transferred, the amount of any noncontrolling 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 2(I)).

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

(g) Other investments in equity securities

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

Investments in equity securities are recognised/derecognised on the date the Group commits to purchase/sell the investment. The investments are initially stated at fair value plus directly attributable transaction costs, except for those investments measured at fair value through profit or loss (FVPL) for which transaction costs are recognised directly in profit or loss. For an explanation of how the Group determines fair value of financial instruments, see Note 34(d). These investments are subsequently accounted for as follows, depending on their classification.

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Other investments in equity securities (continued) (g)

Equity investments:

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

(h) Investment property

Investment property are land and/or buildings which are owned or held under a leasehold interest (see Note 2(k)) to earn rental income and/or for capital appreciation. Investment property are stated at cost less accumulated depreciation and impairment losses (see Note 2(I)). The investment property is depreciated in accordance with the accounting policy set out in Note 2(i). Rental income from investment property are accounted for as described in Note 2(w)(iv).

(i) Property, plant and equipment

The following items of property, plant and equipment are stated at cost less accumulated depreciation and impairment losses (see Note 2(I)):

- interests in leasehold land and buildings where the Group is the registered owner of the property interest;
- right-of-use assets arising from leases over leasehold properties where the Group is not the registered owner of the property interest; and
- items of plant and equipment, including right-of-use assets arising from leases of underlying plant and equipment (see Note 2(k)).

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

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(i) Property, plant and equipment (continued)

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 or valuation of items of property, plant and equipment, less their estimated residual value, if any, using the straight-line method over their estimated useful lives as follows:

Buildings and plants 10 – 45 years

Machinery and equipment 3 – 20 years

Office equipment 3 – 15 years

Motor vehicles and others 1 – 20 years

Leasehold improvement 2 – 20 years

Right-of-use assets Over the term of lease

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

No depreciation is provided in respect of construction in progress until it is completed and ready for its intended use.

(j) Intangible assets (other than goodwill)

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

Other Intangible assets that are acquired by the Group are stated at cost less accumulated amortisation (where the estimated useful life is finite) and impairment losses (see Note 2(I)).

Subsequent expenditure is capitalised only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure, including expenditure on internally generated goodwill and brands, is recognised in profit or loss as incurred.

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(i) Intangible assets (other than goodwill) (continued)

Amortisation of intangible assets with finite useful lives is charged to profit or loss on a straightline basis over the assets' estimated useful lives. The following intangible assets with finite useful lives are amortised from the date they are available for use and their estimated useful lives are as follows:

Patents and know-how 10 - 20 years Royalty 10 years Software and others 3 - 12 years Customer relationship 7 years

Both the period and method of amortisation are reviewed annually.

Leased assets (k)

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

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

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

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(k) Leased assets (continued)

(i) As a lessee (continued)

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

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.

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 IFRS16 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.

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(k) Leased assets (continued)

(ii) As a lessor

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

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

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

(I) Credit losses and impairment of assets

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

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

- financial assets measured at amortised cost (including cash and cash equivalents, trade and bill receivables and other receivables); and
- contract assets as defined in IFRS15 (see Note 2(n)).

Other financial assets measured at fair value, including equity and debt securities measured at FVPL and equity securities designated at FVOCI (non-recycling) are not subject to the ECL assessment.

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).

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

- (I) Credit losses and impairment of assets (continued)
 - (i) Credit losses from financial instruments and contract assets. (continued)

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

- fixed-rate financial assets, trade and other receivables: effective interest rate determined at initial recognition or an approximation thereof;
- variable-rate financial assets: current effective interest rate;

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

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

ECLs are measured on either of the following bases:

- 12-month ECLs: these are losses that are expected to result from possible default events within the 12 months after the reporting date; and
- lifetime ECLs: these are losses that are expected to result from all possible default events over the expected lives of the items to which the ECL model applies.

Loss allowances for trade receivables 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.

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

- (I) Credit losses and impairment of assets (continued)
 - (i) Credit losses from financial instruments and contract assets. (continued)

Significant increases in credit risk

In assessing whether the credit risk of a financial instrument has increased significantly since initial recognition, the Group compares the risk of default occurring on the financial instrument assessed at the reporting date with that assessed at the date of initial recognition. In making this reassessment, the Group considers that a default event occurs when 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). 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;
- 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, except for investments in debt securities that are measured at FVOCI (recycling), for which the loss allowance is recognised in other comprehensive income and accumulated in the fair value reserve (recycling).

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

- (I) Credit losses and impairment of assets (continued)
 - (i) Credit losses from financial instruments and contract assets. (continued)

Basis of calculation of interest income

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

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

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

- significant financial difficulties of the debtor;
- a breach of contract, such as a default or delinquency in interest or principal payments;
- 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 lease receivable 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.

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

- (I) Credit losses and impairment of assets (continued)
 - (ii) Credit losses from financial guarantees issued

Financial guarantees are contracts that require the issuer (i.e. the guarantor) to make specified payments to reimburse the beneficiary of the guarantee (the "holder") for a loss the holder incurs because a specified debtor fails to make payment when due in accordance with the terms of a debt instrument.

Financial guarantees issued are initially recognised at fair value, which is determined by reference to fees charged in an arm's length transaction for similar services, when such information is obtainable, or to interest rate differentials, by comparing the actual rates charged by lenders when the guarantee is made available with the estimated rates that lenders would have charged, had the guarantees not been available, where reliable estimates of such information can be made. Where consideration is received or receivable for the issuance of the guarantee, the consideration is recognised in accordance with the Group's policies applicable to that category of asset. Where no such consideration is received or receivable, an immediate expense is recognised in profit or loss.

Subsequent to initial recognition, the amount initially recognised as deferred income is amortised in profit or loss over the term of the guarantee as income from financial guarantees issued.

The Group monitors the risk that the specified debtor will default on the contract and recognises a provision when ECLs on the financial guarantees are determined to be higher than the carrying amount in respect of the guarantees (i.e., the amount initially recognised, less accumulated amortisation).

To determine ECLs, the Group considers changes in the risk of default of the specified debtor since the issuance of the guarantee. A 12-month ECL is measured unless the risk that the specified debtor will default has increased significantly since the guarantee is issued, in which case a lifetime ECL is measured. The same definition of default and the same assessment of significant increase in credit risk as described in Note 2(I)(i) apply.

As the Group is required to make payments only in the event of a default by the specified debtor in accordance with the terms of the instrument that is guaranteed, an ECL is estimated based on the expected payments to reimburse the holder for a credit loss that it incurs less any amount that the Group expects to receive from the holder of the guarantee, the specified debtor or any other party. The amount is then discounted using the current risk-free rate adjusted for risks specific to the cash flows.

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

- (I) Credit losses and impairment of assets (continued)
 - (iii) Impairment of other non-current assets

Internal and external sources of information are reviewed at 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, associates and joint ventures in the Company's statement of financial position.

If any such indication exists, the asset's recoverable amount is estimated. In addition, for goodwill and intangible assets that are not yet available for use, 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). A portion of the carrying amount of a corporate asset (for example, head office building) is allocated to an individual cash generating unit if the allocation can be done on a reasonable and consistent basis, or to the smallest group of cash-generating units if otherwise.

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 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).

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(I) Credit losses and impairment of assets (continued)

Impairment of other non-current assets (continued) (iii)

Reversals of impairment losses

In respect of assets other than goodwill, an impairment loss is reversed if there has been a favorable 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.

(iv) Interim financial reporting and impairment

Under the Rules Governing the Listing of Securities on the Stock Exchange, the Group is required to prepare an interim financial report in compliance with IAS 34, Interim financial reporting, in respect of the first six months of the financial year. At the end of the interim period, the Group applies the same impairment testing, recognition, and reversal criteria as it would at the end of the financial year (see Notes 2(I)(i) and (ii)).

Impairment losses recognised in an interim period in respect of goodwill are not reversed in a subsequent period. This is the case even if no loss, or a smaller loss, would have been recognised had the impairment been assessed only at the end of the financial year to which the interim period relates.

Inventories and other contract costs (m)

(i) Inventories

Inventories are assets which are held for sale in the ordinary course of business, in the process of production for such sale or in the form of materials or supplies to be consumed in the production process or in the rendering of services.

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

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

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

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(m) Inventories and other contract costs (continued)

(i) Inventories (continued)

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

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

(ii) Other contract costs

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

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

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

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

Amortisation of capitalised contract costs is charged to profit or loss when the revenue to which the asset relates is recognised. The accounting policy for revenue recognition is set out in Note 2(w).

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(n) Contract assets and contract liabilities

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

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

Trade and other receivables (o)

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

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 2(I)(i)).

Insurance reimbursement is recognised and measured in accordance with note 2(u)(i).

Cash and cash equivalents (p)

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. Cash and cash equivalents are assessed for ECL in accordance with the policy set out in Note 2(I)(i).

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(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 2(y)).

(s) Employee benefits

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

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

(ii) Defined benefit retirement plan obligations

The Group's net obligation in respect of defined benefit retirement plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine the present value and the fair value of any plan assets is deducted. The calculation is performed by a qualified actuary using the projected unit credit method. When the calculation results in a benefit to the Group, the recognised asset is limited to the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan.

Service cost and net interest expense (income) on the net defined benefit liability (asset) are recognised in profit or loss and allocated to "administrative expenses". Current service cost is measured as the increase in the present value of the defined benefit obligation resulting from employee service in the current period. When the benefits of a plan are changed, or when a plan is curtailed, the portion of the changed benefit related to past service by employees, or the gain or loss on curtailment, is recognised as an expense in profit or loss at the earlier of when the plan amendment or curtailment occurs and when related restructuring costs or termination benefits are recognised. Net interest expense (income) for the period is determined by applying the discount rate used to measure the defined benefit obligation at the beginning of the reporting period to the net defined benefit liability (asset). The discount rate is the yield at the end of the reporting period on high quality corporate bonds that have maturity dates approximating the terms of the Group's obligations.

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(s) Employee benefits (continued)

Defined benefit retirement plan obligations (continued) (ii)

When the benefits of a plan are changed, or when a plan is curtailed, current service cost for the portion of the changed benefit related to past service by employees, or the gain or loss on curtailment, is recognised as an expense in profit or loss at the earlier of when the plan amendment or curtailment occurs and when related restructuring costs or termination benefits are recognised.

Remeasurements arising from defined benefit retirement plans are recognised in other comprehensive income and reflected immediately in retained earnings. Remeasurements comprise actuarial gains and losses, the return on plan assets (excluding amounts included in net interest on the net defined benefit liability (asset)) and any change in the effect of the asset ceiling (excluding amounts included in net interest on the net defined benefit liability (asset)).

(iii) Cash-settled share-based payments arrangement

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 profit or loss for the year of the review. On vesting date, the amount recognised as an expense is adjusted to reflect the actual number of options that vest.

(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. Current tax and movements in deferred tax assets and liabilities are recognised in profit or loss except to the extent that they relate to business combinations, items recognised in other comprehensive income or directly in equity, in which case the relevant amounts of tax are recognised in other comprehensive income or directly in equity, respectively.

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

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(t) Income tax (continued)

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 purpose, 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.

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

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

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(t) Income tax (continued)

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

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

(u) Provisions, contingent liabilities and onerous contracts

Provisions and contingent liabilities (i)

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.

Where some or all of the expenditure required to settle a provision is expected to be reimbursed by another party, a separate asset is recognised for any expected reimbursement that would be virtually certain. The amount recognised for the reimbursement is limited to the carrying amount of the provision.

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(u) Provisions, contingent liabilities and onerous contracts (continued)

(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.

(v) Obligations for reclamation

The Group's obligations for reclamation consist of estimated expenditures for retirement of its radioactive production facilities in accordance with the relevant rules and regulations in the PRC. The Group estimates its liabilities for reclamation based on detailed calculations of the amount and timing of the future expenditures to perform the required work. Estimated expenditures have taken into account of inflation, then discounted at a discount rate that reflects current market assessments of the time value of money and the risks specific to the liability such that the amount of provision reflects the present value of the expenditures expected to be required to settle the obligation. The Group records a corresponding asset associated with the liability for reclamation of radioactive production facilities, which is included in property, plant and equipment. The obligation and corresponding asset are recognised in the period in which the liability is incurred. The asset is depreciated using the straight-line method over the expected useful life of radioactive production facilities and the liability is accreted to the projected spending date. As changes in estimates occur (such as changes in estimated costs or changes in timing of the performance of reclamation activities), the revisions to the obligation and the corresponding asset are remeasured at the appropriate discount rate and any gain or loss on remeasurement is recognised in profit or loss.

(w) Revenue and other income

Income is classified by the Group as revenue when it arises from the sale of goods, the rendering 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.

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(w) Revenue and other income (continued)

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 IFRS 15 and does not adjust the consideration for any effects of a significant financing component if the period of financing is 12 months or less

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

(i) Sale of goods

Revenue is recognised when the customer takes possession of and accepts the products. If the products are a partial fulfilment of a contract covering other goods and/or services, then the amount of revenue recognised is an appropriate proportion of the total transaction price under the contract, allocated between all the goods and services promised under the contract on a relative stand-alone selling price basis.

(ii) Construction contracts

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

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

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

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

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

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(w) Revenue and other income (continued)

(iii) Rendering of services

Revenue from irradiation services and other services rendered is recognised upon the delivery or performance of the services.

(iv) Rental income from operating leases

Rental income receivable under operating leases is recognised in profit or loss in equal installments 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. Lease incentives granted are recognised in profit or loss as an integral part of the aggregate net lease payments receivable. Contingent rentals are recognised as income in the accounting period in which they are earned.

(v) Dividends

- Dividend income from unlisted investments is recognised when the shareholder's right to receive payment is established.
- Dividend income from listed investments is recognised when the share price of the investment goes ex-dividend.

(vi) 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 or FVOCI (recycling) that are not credit-impaired, the effective interest rate is applied to the gross carrying amount of the asset. For credit-impaired financial assets, the effective interest rate is applied to the amortised cost (i.e., gross carrying amount net of loss allowance) of the asset (see Note 2(I)(i)).

(vii) Government grants

Government grants are recognised in the statement of financial position initially when there is reasonable assurance that they will be received and that the Group will comply with the conditions attaching to them. Grants that compensate the Group for expenses incurred are recognised as income in profit or loss on a systematic basis in the same periods in which the expenses are incurred. Grants that compensate the Group for the cost of an asset are initially recognised as deferred income and are subsequently recognised in profit or loss over the useful life of the asset.

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(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.

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 recognizes such non-monetary assets or liabilities.

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

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

(y) Borrowing costs

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

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

Related parties (z)

- A person, or a close member of that person's family, is related to the Group if that person: (a)
 - has control or joint control over the Group; (i)
 - (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.

(Expressed in RMB unless otherwise indicated)

2 SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(z) Related parties (continued)

- (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.
 - (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).
 - (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.

(aa) Segment reporting

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

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

(Expressed in RMB unless otherwise indicated)

3 **ACCOUNTING JUDGMENTS AND ESTIMATES**

Note 34(d) contains information about the assumptions and their risk factors relating to fair value of financial instruments. Other key sources of estimation uncertainty are as follows:

(a) Depreciation

Property, plant and equipment and investment property are depreciated on a straight-line basis over their estimated useful lives, after taking into account the estimated residual values, if any. The Group reviews the estimated useful lives and residual values, if any, of the property, plant and equipment and investment property regularly in order to determine the amount of depreciation expense to be recorded during any reporting period. The determination of useful lives and residual values, if any, are based on the historical experience with similar assets and taking into account anticipated technological changes. The depreciation expense for future periods is adjusted if there are significant changes from previous estimates.

(b) Recognition of deferred tax assets

Deferred tax assets in respect of unused tax losses and deductible temporary differences are recognised and measured based on the expected manner of realisation or settlement of the carrying amount of the assets, using tax rates enacted or substantively enacted at the end of reporting period. In determining the carrying amounts of deferred assets, expected taxable profits are estimated which involves a number of assumptions relating to the operating environment of the Group and require a significant level of judgment exercised by the directors. Any change in such assumptions and judgment would affect the carrying amounts of deferred tax assets to be recognised and hence the net profit in future years.

(c) Obligation for reclamation

The estimation of the liabilities for reclamation and disposal of the radioactive production facilities involves the estimates of the amount and timing of future expenditures as well as rate of inflation and the discount rate used for reflecting current market assessments of the time value of money and the risks specific to the liability. The Group considers the factors including future production plan, useful life of relevant assets, and level of radioactivity to determine the scope, amount and timing of reclamation and disposal of the radioactive production facilities to be performed. Determination of the effect of these factors involves judgments from the Group and the estimated liabilities may turn out to be different from the actual expenditure to be incurred. The discount rate used by the Group may also be altered to reflect the changes in the market assessments of the time value of money and the risks specific to the liability, such as change of the borrowing rate and inflation rate in the market. As changes in estimates occur (such as changes in estimated costs, or changes in timing of the performance of reclamation activities), the revisions to the obligation will be remeasured at the appropriate discount rate and any gain or loss on remeasurement is recognised in profit or loss.

(Expressed in RMB unless otherwise indicated)

4 REVENUE AND SEGMENT REPORTING

(a) Revenue

The Group is principally engaged in research, development, manufacturing and sale of a broad range of pharmaceuticals and radioactive source products, also design, manufacturing, construction and installation of gamma ray irradiation facilities, provision of irradiation service for sterilisation purpose, and sale of radiation therapy equipment as well as independent clinical laboratory services.

(i) Disaggregation of revenue

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

	2021	2020
	RMB'000	RMB'000
Revenue from contracts with customers within		
the scope of IFRS 15		
Disaggregated by major products of service lines		
 sales of pharmaceuticals 	3,742,267	2,970,402
 sales of radioactive source products 	488,772	412,300
 sales of radiation therapy equipment 	195,726	136,366
- sales of medical device	39,917	246,973
- irradiation services	135,870	96,351
- technical services	168,997	142,927
- revenue from construction contracts	47,569	6,271
- independent clinical laboratory services	227,800	129,375
- others	96,776	133,218
	5,143,694	4,274,183

Disaggregation of revenue from contracts with customers by the timing of revenue recognition is disclosed in Note 4(b).

The Group's customer base is diversified and there is no customer with whom transactions have exceeded 10% of the Group's revenue in 2021 and 2020. Details of the concentration of credit risk arising from the Group's customers are set out in Note 34(a).

(Expressed in RMB unless otherwise indicated)

REVENUE AND SEGMENT REPORTING (CONTINUED)

(a) Revenue (continued)

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

As at 31 December 2021, the aggregated amount of the transaction price allocated to the remaining performance obligations under the Group's existing contracts is RMB4,283,000 (2020: RMB10,746,000). This amount mainly represents revenue expected to be recognised in the future from construction contracts entered into by the customers with the Group. The Group will recognise the expected revenue in future when or as the work is completed, which is expected to occur within the next 12 months.

The Group has applied the practical expedient in paragraph 121 of IFRS 15 to its sales contracts such that the above information does not include information about revenue that the Group will be entitled to when it satisfies the remaining performance obligations under the sales contracts that had an original expected duration of one year or less.

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

(b) Segment reporting

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

- Pharmaceuticals: manufacturing and sale of a range of imaging diagnostic and therapeutic radio pharmaceuticals imaging, UBT diagnostic kits and test analyzers, in vitro immunoassay diagnostic reagents and kits and other products.
- Radioactive source products: sale of medical and industrial radioactive source products and technical services.

(Expressed in RMB unless otherwise indicated)

4 REVENUE AND SEGMENT REPORTING (CONTINUED)

(b) Segment reporting (continued)

- Irradiation: provision of irradiation services to manufacturers of medical facilities, pharmaceuticals, cosmetics and food in the PRC for sterilization purposes, and also design, manufacturing and installation of gamma ray irradiation facilities to irradiation service providers.
- Radiation therapy equipments and related services: sale of radiation therapy equipments and provision of related maintenance services.
- Independent clinical laboratory services and other businesses: provision of independent clinical laboratory services for customers, sale of radiation therapy equipment and other miscellaneous services.

(i) Segment results, assets and liabilities

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

Revenue and expenses are allocated to the reportable segments with reference to revenue generated by those segments and the expenses incurred by those segments. The measure used for reporting segment profit is gross profit. The Group's other income and expense items, such as other income, selling and distribution expenses, administrative and other operating expenses, and assets and liabilities, are not measured under individual segments. Accordingly, neither information on segment assets and liabilities nor information concerning capital expenditure, interest income and interest expenses is presented.

(Expressed in RMB unless otherwise indicated)

REVENUE AND SEGMENT REPORTING (CONTINUED)

(b) Segment reporting (continued)

(i) Segment results, assets and liabilities (continued)

Disaggregation of revenue from contracts with customers by timing of revenue recognition, as well as information regarding the Group's reportable segments as provided to the Group's most senior executive management for the purposes of resource allocation and assessment of segment performance for the years ended 31 December 2021 and 2020 is set out below.

			Year ended 31 D	ecember 2021		
	Pharmaceuticals RMB'000	Radioactive source products RMB'000	Irradiation RMB'000	Radiation therapy equipments and related services RMB'000	Independent clinical medical and laboratory services and other businesses RMB'000	Total RMB'000
Disaggregated by timing						
of revenue recognition						
Point in time	3,753,365	520,167	135,870	224,189	336,030	4,969,621
Over time	-	-	8,260	165,813	-	174,073
Revenue from external						
customers	3,753,365	520,167	144,130	390,002	336,030	5,143,694
Inter-segment revenue	1,677	34,661	116	14,222	1,687	52,363
Reportable segment revenue	3,755,042	554,828	144,246	404,224	337,717	5,196,057
Reportable segment profit						
(gross profit)	2,696,586	232,355	73,748	127,029	135,549	3,265,267

_	Year ended 31 December 2020					
					Independent	
				Radiation	clinical medical	
				therapy	and laboratory	
		Radioactive		equipments and	services and	
	Pharmaceuticals	source products	Irradiation	related services	other businesses	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Disaggregated by timing						
of revenue recognition						
Point in time	2,979,582	452,058	96,351	136,366	509,566	4,173,923
Over time	-	-	6,271	93,989	-	100,260
Revenue from external customers	2,979,582	452,058	102,622	230,355	509,566	4,274,183
Inter-segment revenue	614	19,307	59	3,493	1,777	25,250
Reportable segment revenue	2,980,196	471,365	102,681	233,848	511,343	4,299,433
Reportable segment profit						
(gross profit)	2,159,867	214,106	49,346	71,708	128,888	2,623,915

(Expressed in RMB unless otherwise indicated)

4 REVENUE AND SEGMENT REPORTING (CONTINUED)

(b) Segment reporting (continued)

(ii) Reconciliations of reportable segment profit (gross profit)

	2021	2020
	RMB'000	RMB'000
Reportable segment profit (gross profit)	3,265,267	2,623,915
Elimination of inter-segment profit (gross profit)	(23,363)	(7,928)
Consolidated gross profit	3,241,904	2,615,987

(iii) Geographic information

All of the Group's operations are carried out and most of the Group's customers are located in the PRC. The Group's non-current assets, including property, plant and equipment, investment property, lease prepayments and intangible assets are all located or allocated to operations located in the PRC.

5 OTHER INCOME

	2021	2020
	RMB'000	RMB'000
Interest income	26,254	27,479
Government grants	14,220	23,634
Dividend income on unquoted equity investments	4,739	7,792
Rental income from operating leases	7,794	6,555
Net foreign exchange loss	(1,649)	(1,710)
Net loss on disposal of property, plant and equipment	(683)	(1,113)
Disposal of interest in an associate	4,548	_
Others	6,346	4,978
	61,569	67,615

(Expressed in RMB unless otherwise indicated)

PROFIT BEFORE TAXATION 6

Profit before taxation is arrived at after charging/(crediting):

(a) Finance costs

	2021	2020
	RMB'000	RMB'000
Interest on bank loans	8,852	9,695
Interest on corporate bond	19,105	19,102
Interest on lease liabilities	5,649	4,297
Less: interest expense capitalised into construction in progress	(5,127)	(5,619)
	28,479	27,475
Interest accretion on reclamation obligations, net	3,511	3,963
Interest cost on defined benefit retirement plans (Note 28)	1,762	1,776
Interest cost on long-term payables	2,051	1,763
	35,803	34,977

The borrowing costs have been capitalised at 4.44% per annum (2020: 4.75%).

Staff costs # (b)

	2021	2020
	RMB'000	RMB'000
Salaries, wages and other benefits	591,134	472,865
Cash settled share-based payment expenses (Note 29)	-	12,738
Contributions to defined contribution retirement plans	71,391	6,090
Expenses recognised in respect of defined benefit		
retirement plans (Note 28)	894	1,049
	663,419	492,742

Employees of the Company's subsidiaries in the PRC are required to participate in a defined contribution retirement scheme administered and operated by the local municipal government. The Company's subsidiaries in the PRC contribute funds which are calculated on certain percentages of the average employee salary as agreed by the local municipal government to the scheme to fund the retirement benefits of the employees. To reduce the impact of the COVID-19 pandemic on enterprises, governments in certain regions in the PRC had gradually reduced or exempted the social insurance contributions in 2020.

(Expressed in RMB unless otherwise indicated)

6 PROFIT BEFORE TAXATION (CONTINUED)

(c) Other items

	2021	2020
	RMB'000	RMB'000
Depreciation #		
- property, plant and equipment (Note 12)	178,477	151,808
 investment property 	1,097	1,241
Amortisation #		
- intangible assets (Note 13)	17,662	18,776
Recognise/(reverse) impairment losses		
- trade and bill receivables (Note 20)	15,547	19,565
- prepayments, deposits and other receivables	(4,551)	2,608
- property, plant and equipment (Note 12)	_	4,152
Auditors' remuneration		
- audit services	3,736	3,418
Increase in provisions for reclamation obligations	7,191	4,347
Cost of inventories #(Note 19(b))	1,703,554	1,477,564

Cost of inventories includes RMB340,712,000 (2020: RMB310,985,000) relating to staff costs, depreciation and amortisation expenses, which are also included in the respective total amounts disclosed separately above or in Note 6(b) for each of these types of expenses.

7 INCOME TAX IN THE CONSOLIDATED STATEMENT OF PROFIT OR LOSS

(a) Taxation in the consolidated statement of profit or loss represents:

	2021	2020
	RMB'000	RMB'000
Current tax		
Provision for the year	141,232	75,382
Under/(over) provision in respect of prior years	2,486	(18,654)
	143,718	56,728
Deferred tax		
Origination and reversal of temporary differences (Note 30(b))	(14,077)	63,912
	129,641	120,640

(Expressed in RMB unless otherwise indicated)

INCOME TAX IN THE CONSOLIDATED STATEMENT OF PROFIT OR LOSS 7 (CONTINUED)

Reconciliation between tax expense and accounting profit at applicable tax rates:

	2021	2020
	RMB'000	RMB'000
Profit before taxation	802,678	596,163
National tax on profit before taxation at PRC statutory tax rate	200,670	149,041
Tax effect of non-deductible expenses	8,867	7,507
Tax effect of non-taxable income	(17,487)	(6,039)
Tax effect of unused tax losses and temporary differences		
not recognised	50,314	27,318
Tax concessions (Note (ii))	(109,725)	(50,614)
Tax effect of unused tax losses and temporary differences		
not recognised in previous year but utilised in current year	(5,228)	(4,134)
Under/(over) provision in respect of prior years	2,486	(18,654)
Tax effect of changes in tax rate	1,145	17,041
Others	(1,401)	(826)
Actual tax expense	129,641	120,640

Notes:

- (i) The Company and its subsidiaries established in the PRC are subject to PRC Corporate Income Tax rate of 25% (2020: 25%).
- (ii) Certain subsidiaries of the Group are approved High and New Technology Enterprises and subject to a preferential PRC Corporate Income Tax rate of 15% during the approved period, subject to fulfillment of recognition criteria.

8 **EARNINGS PER SHARE**

The calculation of basic earnings per share is based on the profit attributable to ordinary equity shareholders of the Company of RMB335,751,000 (2020: RMB213,582,000) and the weighted average of 319,874,900 ordinary shares (2020: 319,874,900 ordinary shares), calculated as follows:

Weighted average number of ordinary shares

	2021	2020
Ordinary shares at 1 January	319,874,900	319,874,900
Effect of issue of ordinary shares	-	
Weighted average number of ordinary shares at 31 December	319,874,900	319,874,900

The Company did not have any potential dilutive shares in existence during the years ended 31 December 2021 and 2020. Accordingly, diluted earnings per share is the same as basic earnings per share.

(Expressed in RMB unless otherwise indicated)

9 DIRECTORS' AND SUPERVISORS' EMOLUMENTS

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

	Year ended 31 December 2021				
	Directors' and supervisors' fees RMB'000	Salaries, allowances and benefits in kind RMB'000	Discretionary bonuses RMB'000	Retirement scheme contributions RMB'000	Total RMB'000
Executive directors					
Mr Meng Yanbin	-	-	-	-	-
Mr Wu Jian					
(resigned on 25 February 2021)	-	82	-	25	107
Mr Du Jin	-	441	528	133	1,102
Mr Wang Suohui					
(appointed on 25 February 2021)	-	461	546	135	1,142
Non-executive directors					
Ms. Liu Xiuhong	-	_	_	-	_
Mr. Zhou Liulai					
(resigned on 25 February 2021)	-	_	_	-	_
Mr. Chen Shoulei	-	_	_	-	_
Ms. Chang Jinyu	-	_	_	-	_
Mr. Liu Zhonglin					
(appointed on 25 February 2021)	-	-	-	-	-
Independent non-executive directors Mr Meng Yan					
(resigned on 25 February 2021)	25	-	-	-	25
Mr. Xu Yunhui	149	-	-	-	149
Mr. Chen Jingshan					
(appointed on 25 February 2021)	113	-	-	-	113
Mr. Lu Chuang					
(appointed on 25 February 2021)	113	-	-	-	113
Mr. Guo Qingliang					
(resigned on 25 February 2021)	-	-	-	-	-
Mr. Tian Jiahe	-	-	-	-	-
Supervisors					
Mr Li Zhenhua	-	285	108	77	470
Mr Zhang Jian	-	273	103	83	459
Mr. Zhang Qingjun	-	-	-	-	-
Mr. Zhao Nantei					
(appointed on 25 February 2021)	-	-	-	-	-
Mr. Zhang Guoping	-	-	_	-	-
Total	400	1,542	1,285	453	3,680

(Expressed in RMB unless otherwise indicated)

Mr. Zhang Guoping

Total

DIRECTORS' AND SUPERVISORS' EMOLUMENTS (CONTINUED) 9

311

1,392

2,282

187

			Year ended 31 E	December 2020		
-		Salaries,			Cash settled	
	Directors' and	allowances		Retirement	share based	
	supervisors'	and benefits	Discretionary	scheme	payment	
	fees	in kind	bonuses	contributions	expenses	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Executive directors						
Mr. Meng Yanbin	_	_	762	18	182	962
Mr. Wu Jian	-	419	774	61	182	1,436
Mr. Du Jin	-	402	535	55	164	1,156
Non-executive directors						
Ms. Liu Xiuhong						
(appointed on 30 November 2020)	-	_	-	-	-	-
Mr. Chen Zongyu						
(resigned on 30 November 2020)	-	-	-	_	-	-
Mr. Zhou Liulai	_	_	-	_	-	_
Mr. Chen Shoulei	_	_	-	_	-	-
Ms. Chang Jinyu	-	-	-	-	-	-
Independent non-executive						
directors						
Mr. Meng Yan	150	_	-	-	-	150
Mr. Xu Yunhui	161	-	-	-	-	161
Mr. Guo Qingliang	-	-	-	-	-	-
Mr. Tian Jiahe	-	-	-	-	-	-
Supervisors						
Mr. Li Zhenhua						
(appointed on 26 March 2020)	-	190	108	16	-	314
Mr. Zhang Jian						
(appointed on 26 March 2020)	-	199	103	18	-	320
Mr. Li Guoxiang						
(resigned on 26 March 2020)	-	79	-	10	-	89
Mr. Zhang Yiming						
(resigned on 26 March 2020)	-	103	-	9	-	112
Mr. Zhang Qingjun	-	-	-	-	-	-
Mr. Liu Zhonglin	_	-	_	-	_	-

528

4,700

(Expressed in RMB unless otherwise indicated)

10 INDIVIDUALS WITH HIGHEST EMOLUMENTS

Of the five individuals with the highest emoluments, 2021 two (2020: two) are directors whose emoluments are disclosed in Note 9. The aggregate of the emoluments in respect of the other 2021 three (2020: three) individuals are as follows:

	2021	2020
	RMB'000	RMB'000
Salaries and other emoluments	1,251	1,087
Retirement scheme contributions	398	161
Discretionary bonuses	806	1,669
Cach settled-share based payment expenses	_	492
Total	2,455	3,409

The emoluments of the individuals with the highest emoluments are within the following band:

	2021	2020
	Number of	Number of
	individuals	individuals
Nill to HKD1,000,000	2	_
HKD1,000,000 - HKD1,500,000	1	3
Total	3	3

11 OTHER COMPREHENSIVE INCOME

(a) Tax effects relating to each component of other comprehensive income:

		2021			2020	
	Before-tax amount RMB'000	Tax Expense RMB'000	Net-of-tax amount RMB'000	Before-tax amount RMB'000	Tax benefit RMB'000	Net-of-tax amount RMB'000
Exchange differences on						
translation of share of						
profits less losses of						
an associate	(2,623)	-	(2,623)	(1,805)	-	(1,805)
Remeasurement of net						
defined benefit liability	(1,469)	-	(1,469)	(513)	-	(513)
Equity investments at FVOCI-						
net movement in fair value						
reserve (non-recycling)	13,396	(3,349)	10,047	(14,477)	3,619	(10,858)
Other comprehensive income	9,304	(3,349)	5,955	(16,795)	3,619	(13,176)

(Expressed in RMB unless otherwise indicated)

	2 : C	- + 4 5 i O	Machinery	Office	Motor	700000	acitorities and	
	and plants RMB'000	use assets RMB'000	equipment RMB'000	equipment RMB'000	and others RMB'000	Improvement RMB'000	in progress RMB'000	Total RMB'000
Cost:								
At 1 January 2020	773,034	245,351	688,229	77,779	122,166	69,270	713,105	2,688,934
Additions	1,993	40,852	71,896	9,763	14,573	6,274	246,574	391,925
Disposals	(45)	(16,605)	(27,534)	(2,608)	(3,947)	1	I	(50,739)
Transfer out to investment property	459	I	I	ı	ı	I	I	459
Transfer in from/(to) construction								
in progress	94,203	1	137,851	1,518	691	8,205	(242,468)	ı
At 31 December 2020	869,644	269,598	870,442	86,452	133,483	83,749	717,211	3,030,579
At 1 January 2021	869,644	269,598	870,442	86,452	133,483	83,749	717,211	3,030,579
Additions	18,292	60,377	46,415	10,007	42,889	25,519	279,483	482,982
Disposals	(383)	(16,773)	(14,883)	(2,565)	(4,661)	1	1	(39,265)
Transfer in from/(to) construction								
in progress	78,955	1	59,775	1	112	1	(138,842)	1
At 31 December 2021	966,508	313,202	961,749	93,894	171,823	109,268	857,852	3,474,296
Accumulated depreciation								
and impairment losses:								
At 1 January 2020	(109,425)	(38,551)	(421,438)	(38,969)	(56,943)	(36,571)	I	(701,897)
Charge for the year	(36,395)	(30,080)	(55,409)	(9,576)	(17,274)	(9,074)	I	(151,808)
Impairment loss	(4,148)	I	ı	1	(4)	I	I	(4,152)
Written back on disposals	27	8,067	23,949	2,492	2,893	I	ı	37,428
At 31 December 2020	(143,941)	(60,564)	(452,898)	(46,053)	(71,328)	(45,645)	1	(820,429)
At 1 January 2021	(143,941)	(60,564)	(452,898)	(46,053)	(71,328)	(45,645)	ı	(820,429)
Charge for the year	(31,994)	(32,469)	(82,661)	(4,890)	(12,522)	(13,941)	1	(178,477)
Written back on disposals	293	16,720	14,178	2,439	3,927	1	ı	37,557
At 31 December 2021	(175,642)	(76,313)	(521,381)	(48,504)	(79,923)	(59,586)	-	(961,349)
Net book value:								
At 31 December 2021	790,866	236,889	440,368	45,390	91,900	49,682	857,852	2,512,947
At 31 December 2020	725,703	209,034	417,544	40,399	62,155	38,104	717,211	2,210,150

The Group's property, plant and buildings are all allocated in the PRC.

PROPERTY, PLANT AND EQUIPMENT

(Expressed in RMB unless otherwise indicated)

12 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Notes:

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

	At	At
	31 December	31 December
	2021	2020
	RMB'000	RMB'000
Property leased for own use, carried at depreciation cost:		
- ownership interests in leasehold land held for own use,		
with remaining lease terms between 10 and 50 years	136,854	124,116
- buildings and plants	47,213	44,855
- equipment and others	52,822	40,063
	236,889	209,034

During the year, additions to right-of-use assets were RMB60,377,000 (2020: RMB40,852,000). This amount included the purchase of leasehold equipment of RMB18,646,000 (2020: RMB22,036,000), and the remainder primarily related to buildings and plants.

(ii) The analysis of expense items in relation to leases recognised in profit or loss are as follows:

	2021	2020
	RMB'000	RMB'000
Depreciation charge of right of use assets		
by class of underlying assets:		
- ownership interests in leasehold land held for own use	3,661	3,304
– buildings and plants	22,954	24,039
- equipment and others	5,854	2,737
	32,469	30,080
Interest on lease liabilities (Note 6(a))	5,649	4,297
Expense relating to short-term leases	2,912	3,213

Details of total cash outflow for leases, the maturity analysis of lease liabilities and the future cash outflows arising from lease that are not yet commenced are set out in Note 22(c), Note 34(b) and Note 27, respectively.

(Expressed in RMB unless otherwise indicated)

13 **INTANGIBLE ASSETS**

	Patents and know-how RMB'000	Royalty RMB'000	Software and others RMB'000	Customer relationship RMB'000	Total RMB'000
Cost:					
At 1 January 2020	72,427	9,480	27,121	23,300	132,328
Additions	51,132	_	7,625		58,757
At 31 December 2020	123,559	9,480	34,746	23,300	191,085
At 1 January 2021	123,559	9,480	34,746	23,300	191,085
Additions	20,091	-	13,150	-	33,241
At 31 December 2021	143,650	9,480	47,896	23,300	224,326
Accumulated amortisation					
and impairment losses:					
At 1 January 2020	(7,283)	(4,492)	(9,397)	(2,774)	(23,946)
Charge for the year	(10,064)	(798)	(4,863)	(3,051)	(18,776)
At 31 December 2020	(17,347)	(5,290)	(14,260)	(5,825)	(42,722)
At 1 January 2021	(17,347)	(5,290)	(14,260)	(5,825)	(42,722)
Charge for the year	(7,350)	(798)	(6,185)	(3,329)	(17,662)
Impairment loss	-	-	-	(7,446)	(7,446)
At 31 December 2021	(24,697)	(6,088)	(20,445)	(16,600)	(67,830)
Net book value:					
At 31 December 2021	118,953	3,392	27,451	6,700	156,496
At 31 December 2020	106,212	4,190	20,486	17,475	148,363

The amortisation charges are included in "cost of sales" in the consolidated statement of profit or loss.

14 **INVESTMENTS IN SUBSIDIARIES**

	2021	2020
<u> </u>	RMB'000	RMB'000
Unlisted shares, at cost	1,234,864	1,159,686
Listed shares, at cost	606,085	606,085
	1,840,949	1,765,771
Less: impairment loss	32,590	3,700
	1,808,359	1,762,071

The following list contains only the particulars of subsidiaries as at 31 December 2021 which principally affected the results, assets or liabilities of the Group.

(Expressed in RMB unless otherwise indicated)

INVESTMENTS IN SUBSIDIARIES (CONTINUED)

	Proportion of ownership interest					
Name of the company	Place of establishment	Issued and fully paid-up capital RMB	The Group's effective interest	Held by the Company	Held by subsidiaries	Principal activities
Beijing North Institute of Biological Technology Co., Ltd. 北京北方生物技術研究所有限公司	The PRC	69,305,800	100%	100%	-	Production and sale of bio-pharmaceuticals
Beijing Clae-riar Rediosotope Technique Co., Ltd. (Note (ii)) 北京雙原同位素技術有限公司	The PRC	11,000,000	34.75%	-	50%	Production and sale of radioactive sources
Shanghai Yuanzi Kexing 上海原子科興藥業有限公司	The PRC	84,320,000	48.64%	-	70%	Sale of radioactive medicine
Shenzhen Zhonghe Headway Bio-Sci & Tech Co., Ltd. 深圳市中核海得威生物科技有限公司	The PRC	200,000,000	48.00%	34.10%	20%	Production and sale of bio-pharmaceuticals
HTA (Guangzhou) Isotope Pharmaceutical Co., Ltd. 廣州市原子高科同位素醫藥有限公司	The PRC	16,800,000	55.59%	-	80%	Production and sale of radioactive medicine
HTA Co., Ltd. (Note (iii)) 原子高科股份有限公司	The PRC	161,784,136	69.49%	69.49%	-	Application of nuclear technology
Anhui Young-Hearty Medical Appliance & Equipment Co., Ltd. 安徽養和醫療器械設備有限公司	The PRC	7,750,000	48.00%	-	100%	Medical diagnostic equipment manufacturing
Chengdu Gaotong Isotope Co., Ltd. (Note (iii)) 成都中核高通同位素股份有限公司	The PRC	70,583,407	93.15%	93.15%	-	Application of nuclear technology
CNNC Tongxing (Beijing) Nuclear Technology Co., Ltd. 中核同興(北京) 核技術有限公司	The PRC	30,000,000	51%	51%	-	Application of nuclear technology
Beijing CIC Clinical Laboratory 北京中同藍博臨床檢驗所有限公司	The PRC	103,600,000	100%	100%	-	Independent clinical laboratory services
Ningbo Junan Pharmaceuticals Technology Co., Ltd. 寧波君安蔡業科技有限公司	The PRC	80,000,000	100%	100%	-	Production and sale of radioactive medicine
CNNC Accuray (Tianjin) Medical Technology Co.,Ltd. 中核安科鋭 (天津) 醫療科技 有限責任公司	The PRC	193,700,990	51%	-	51%	Production and sale of radiation therapy equipments

(Expressed in RMB unless otherwise indicated)

14 **INVESTMENTS IN SUBSIDIARIES (CONTINUED)**

Notes:

- The official names of all these entities are in Chinese. The English translation of these entities are for identification only.
- (ii) The Group is exposed, or has rights, to variable returns from its involvement with these companies and has the ability to affect those returns through its power over these companies since their establishments.
- These subsidiaries represent companies limited by shares established in the PRC. Other subsidiaries are companies with limited liability established in the PRC.

The following table lists out the information relating to subsidiaries of the Group which have material non-controlling interests ("NCI"). The summarised financial information presented below represents the amounts before any intercompany elimination.

HTA Co., Ltd.	2021	2020
	RMB'000	RMB'000
NCI percentage	30.51%	30.51%
Current assets	973,919	1,050,565
Non-current assets	1,459,517	1,189,934
Current liabilities	(563,495)	(517,114)
Non-current liabilities	(131,892)	(134,542)
Net assets	1,738,049	1,588,843
Carrying amount of NCI	530,279	484,756
	2021	2020
	RMB'000	RMB'000
Revenue	826,551	799,838
Profit for the year	218,941	179,972
Other comprehensive income for the year	(167)	(364)
Total comprehensive income for the year	218,774	179,608
Total comprehensive income for the year allocated to NCI	66,748	55,748
Dividend paid to NCI	21,225	22,607
Cash flows from operating activities	69,082	143,240
Cash flows from investing activities	(168,373)	(193,067)
Cash flows from financing activities	(53,726)	483,107

(Expressed in RMB unless otherwise indicated)

14 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Shenzhen Zhonghe Headway Bio-Sci & Tech Co., Ltd.	2021 RMB'000	2020 RMB'000
NCI percentage	52.00%	52.00%
Current assets Non-current assets Current liabilities Non-current liabilities	2,434,757 423,961 (1,552,251) (6,391)	1,891,662 419,814 (1,269,278) (8,222)
Net assets	1,300,076	1,033,976
Carrying amount of NCI	676,040	537,668
	2021 RMB'000	2020 RMB'000
Revenue	2,001,550	1,398,433
Profit and total comprehensive income for the year	360,508	290,505
Profit and total comprehensive income for the year allocated to NCI	187,464	151,063
Dividend paid to NCI	49,092	58,662
Cash flows from operating activities Cash flows from investing activities Cash flows from financing activities	387,923 5,330 (95,077)	14,291 25,243 (224,900)
Anhui Young-Hearty Medical Appliance & Equipment Co., Ltd.	2021 RMB'000	2020 RMB'000
NCI percentage	52.00%	52.00%
Current assets Non-current assets Current liabilities Net assets	312,750 38,655 (85,037) 266,368	285,871 39,552 (106,916) 218,507
Carrying amount of NCI	138,511	113,624
	2021 RMB'000	2020 RMB'000
Revenue	228,393	186,855
Profit and total comprehensive income for the year	102,663	80,481
Profit and total comprehensive income for the year allocated to NCI	53,384	41,850
Dividend paid to NCI	28,497	26,000
Cash flows from operating activities Cash flows from investing activities Cash flows from financing activities	97,386 (16,164) (54,802)	63,984 (94,708) (50,000)

(Expressed in RMB unless otherwise indicated)

15 **INTERESTS IN ASSOCIATES**

The following list contains only the particulars of a material associate of the Group, which is an unlisted entity whose quoted market price is not available:

		Issued and	Group's	
	Place of	fully paid-up	effective	
Name of the company	establishment	capital	interest	Principal activities
Shenzhen CICAM Isotope Co., Ltd.	The PRC	USD1,000,000	49%	Production and sale
深圳西卡姆同位素有限公司*				of fire detector

The English translation of the name is for identification only. The official name of the entity is in Chinese.

The Group's associates are accounted for using the equity method in the consolidated financial statements.

On 14 December 2020, the directors of the associate decided to liquidate Shenzhen CICAM Isotope Co., Ltd. and its financial statements are prepared on non-going concern basis. Management of the associate considers enough provision have been accrued or provided based on best estimation when preparing its financial statements. The Group's share of Shenzhen CICAM Isotope Co., Ltd.'s loss and total comprehensive income in 2020 was RMB13,811,460. The liquidation was finished in 2021.

Aggregate information of associates of the Group that are not individually material:

	2021	2020
	RMB'000	RMB'000
Aggregate carrying amount of individually immaterial associates		
in the consolidated financial statements	52,500	49,999
	2021	2020
	RMB'000	RMB'000
Aggregate amounts of the Group's share of those associates'		
profit and total comprehensive income	6,962	1,783

(Expressed in RMB unless otherwise indicated)

INTERESTS IN JOINT VENTURES 16

Details of the Group's interest in the joint ventures, which is accounted for using the equity method in the consolidated financial statements, are as follows:

Name of the company	Place of establishment	lssued and fully paid-up capital	Group's effective interest	Principal activities
Shanghai GMS Pharmaceutical Co., Ltd. 上海欣科醫藥有限公司*	The PRC	USD1,530,000	49%	Production and sales of bio-pharmaceuticals
Beijing Tongfu Innovation Industrial Investment Fund Partnership	The PRC	RMB2,500,000,000	30%	The application areas of nuclear technology
(Limited Partnership) 北京同輻創新產業投資基金合夥企業 (有限合夥)*				investments

The English translation of the name is for identification only. The official name of the entity is in Chinese.

The Group's joint ventures are accounted for using the equity method in the consolidated financial statements.

accounting policies, and reconciled to the carrying amounts in the consolidated financial statements, are disclosed below:

Shanghai GMS Pharmaceutical Co., Ltd. 20		2020
	RMB'000	RMB'000
Current assets	285,023	231,362
Non-current assets	28,641	21,552
Current liabilities	(107,347)	(103,297)
Non-current liabilities	(1,483)	(834)
Net assets	204,834	148,783

(Expressed in RMB unless otherwise indicated)

INTERESTS IN JOINT VENTURES (CONTINUED) 16

	2021 RMB'000	2020 RMB'000
Gross amounts		
Revenue	264,859	235,488
Profit and total comprehensive income	56,052	47,975
Dividend received	_	_
Reconciled to the Group's interest		
Gross amounts of net assets	204,834	148,783
The Group's effective interest	49%	49%
The Group's share of net assets	100,369	72,904
Carrying amount in the consolidated financial statements	100,369	72,904
Partnership (Limited Partnership) Current assets	2021 RMB'000 524,815	2020 RMB'000 976,458
Non-current assets	1,130,928	231,022
Current liabilities	-	(7,871)
Net assets	1,655,743	1,199,609
	2021 RMB'000	2020 RMB'000
Gross amounts		
Revenue	110,927	34,705
Profit and total comprehensive income Dividend received	87,441 12,193	10,177 5,041
Reconciled to the Group's interests	12,193	3,041
Gross amounts of net assets of the associate	1,655,743	1,199,609
Group's effective interest	30%	40%
Group's share of net assets	496,723	479,844
Carrying amount in the consolidated financial statements	493,883	479,844

(Expressed in RMB unless otherwise indicated)

17 GOODWILL

	RMB'000
Cost:	
At 31 December 2020	43,875
Acquisition of subsidiaries under non-common control	4,474
At 31 December 2021	48,349
Accumulated impairment losses:	
At 31 December 2020	_
addition	(4,313)
At 31 December 2021	(4,313)
Carrying amount:	
At 31 December 2020	43,875
At 31 December 2021	44,036

Goodwill is allocated to the Group's cash-generating units identified according to operation and operating segment as follows:

	2021	2020
	RMB'000	RMB'000
Pharmaceuticals	38,478	42,791
Irradiation	1,084	1,084
Radiation therapy equipment and related services	4,474	_
	44,036	43,875

The recoverable amounts of the cash-generating units were determined based on value-in-use calculations. These calculations use cash flow projections based on financial budgets approved by management covering a five-year period. These cash flow projections adopted annual sales growth rates, which are based on the Group's historical experience with these operations and adjusted for other factors that are specific to each cash-generating unit. Cash flows beyond the five-year period are extrapolated using an estimated growth rate. The discount rates used are pre-taxed and reflect specific risks relating to the respective cash generating units.

(Expressed in RMB unless otherwise indicated)

17 **GOODWILL (CONTINUED)**

The key assumptions used in the value-in-use calculations for the above two cash-generating units are as follows:

	2021	2020
Pharmaceuticals		
Annual sales growth rate for the first five-year period	1%~19%	8%~15%
Annual sales growth rate beyond five-year period	0%	0%
Discount rate	7.9%, 11.0%	7.9%, 14.3%
Irradiation		
Annual sales growth rate for the first five-year period	1%~5%	13%
Annual sales growth rate beyond five-year period	0%	0%
Discount rate	7.9%	7.9%
Radiation therapy equipment and related services		
Annual sales growth rate for the first five-year period	1%~50%	_
Annual sales growth rate beyond five-year period	0%	_
Discount rate	14.3%	_

UNQUOTED EQUITY INVESTMENTS 18

	2021	2020
	RMB'000	RMB'000
Equity securities designated at FVOCI (non-recycling)		
- Unquoted equity investments	150,410	137,014

Note:

The unquoted equity investments are shares in CNNC Financial Leasing Co., Ltd. ("CNNC Financial Leasing Company"), CNNC Finance Co., Ltd. ("CNNC Finance Company") and Tongchuang Investment Partnership (Limited Partnership) ("Tongchuang Investment Partnership"), three related parties under CNNC.

The Group designated its unquoted equity investments at FVOCI (non-recycling), as the investments are held for strategic purposes. The Group received dividends of RMB2,708,000 (2020: RMB11,427,000), RMB1,942,000 (2020: RMB1,699,000) and RMB90,000 (2020: RMB37,000) from CNNC Financial Leasing Company, CNNC Finance Company and Tongchuang Investment Partnership during the year, respectively.

(Expressed in RMB unless otherwise indicated)

19 INVENTORIES

(a) Inventories comprise:

	2021	2020
	RMB'000	RMB'000
Raw materials	199,053	222,494
Work in progress	87,229	73,187
Finished goods	394,612	273,193
Others	12,364	24,367
	693,258	593,241
Less: write-down of inventories	1,335	3,216
	691,923	590,025

(b) The analyses of the amounts of inventories recognised as expenses and included in the consolidated statement of profit or loss are as follows:

	2021	2020
	RMB'000	RMB'000
Carrying amount of inventories sold	1,700,338	1,473,963
Write-down of inventories	3,216	3,601
	1,703,554	1,477,564

(Expressed in RMB unless otherwise indicated)

TRADE AND BILL RECEIVABLES 20

	2021	2020
	RMB'000	RMB'000
Bill receivables	90,876	53,197
Trade receivables due from		
- related parties under CNNC	37,867	17,516
- associates and joint ventures	29,943	57,038
- third parties	2,819,517	2,382,279
	2,978,203	2,510,030
Less: loss allowance	157,050	141,528
	2,821,153	2,368,502

All of the trade and bill receivables, net of allowance for doubtful debts, are expected to be recovered within one year.

Aging analysis

The aging analyses of trade and bill receivables, based on the invoice dates and net of loss allowance, are as follows:

	2021	2020
	RMB'000	RMB'000
Within 1 year	2,520,825	2,073,272
1 to 2 years	231,773	256,320
2 to 3 years	54,667	26,997
Over 3 years	13,888	11,913
	2,821,153	2,368,502

Trade and bill receivables are required to be settled in accordance with contract terms and are generally due immediately without credit period.

Further details on the Group's credit policy and credit risk arising from trade debtors are set out in Note 34(a).

As at 31 December 2021, bill receivables amounting to RMB7,987,000 (2020: RMB3,996,000) was measured at FVOCI. The fair value of bill receivables was at a level 2 fair value measurement which has been calculated by discounting the expected future cash flows using rates currently available for instruments with similar terms, credit risk and remaining maturities.

During the year, there was no transfer between level 1 and level 2 fair value hierarchy or transfer into or out of level 3 (2020: Nil).

(Expressed in RMB unless otherwise indicated)

21 PREPAYMENT, DEPOSITS AND OTHER RECEIVABLES

(a) Deposits and other receivables:

	2021	2020
	RMB'000	RMB'000
Receivables from sale of property, plant and equipment		
- CNNC	_	8,814
- related parties under CNNC	-	4,258
Advance to		
- CNNC	4	8
 related parties under CNNC 	1,649	1,353
- associates and a joint venture	_	55
Deposits (Note (ii))		
 related parties under CNNC 	3,828	2,310
- third parties	36,795	35,217
Staff advance	2,214	3,570
others	28,742	30,260
Dividends receivables		
- associates and joint venturesand unquoted equity investments	2,579	2,579
Interest receivables	-	5,997
	75,811	94,421
Less: allowance for doubtful debts	8,135	12,918
Financial assets measured at amortised cost	67,676	81,503
Deductible input VAT	86,057	60,682
	153,733	142,185

(b) Prepayment:

	2021 RMB'000	2020 RMB'000
	THE COO	T IIVID 000
Prepayments for purchase of inventories from		
- related parties under CNNC	14,983	8,988
- associates and a joint venture	30	601
- third parties	197,345	104,321
	212,358	113,910

Notes:

- (i) All of the deposits and other receivables are expected to be recovered or recognised as expenses within one year.
- (ii) Deposits mainly represent rental deposit, deposits made to obtain land use rights and deposits for bidding.

(Expressed in RMB unless otherwise indicated)

22 CASH AT BANK AND ON HAND AND OTHER CASH FLOW INFORMATION

(a) Cash at bank and on hand comprised:

	2021	2020
	RMB'000	RMB'000
Cash on hand	17	21
Cash at bank	519,456	1,108,980
Cash at CNNC Finance Company	2,228,717	1,447,492
	2,748,190	2,556,493
Representing:		
Cash and cash equivalents	2,141,450	2,351,602
Time deposits with original maturity over three months	573,002	190,920
Restricted deposits (Note)	33,738	13,971
	2,748,190	2,556,493

Note:

Restricted deposits mainly represent deposits for guarantee of letters of credit.

Reconciliation of liabilities arising from financing activities (b)

The table below details changes in the Group's liabilities arising from financing activities. Liabilities arising from financing activities are liabilities for which cash flows were, or future cash flows will be, classified in the Group's consolidated cash flow statement as cash flows from financing activities.

	Bank loans RMB'000	Corporate bond RMB'000	Interest payable RMB'000	Lease liabilities RMB'000	Total RMB'000
At 31 December 2020 and 1 January 2021	162,982	499,784	845	86,878	750,489
Changes from financing cash flows:					
Proceeds from new bank loans	194,900	-	-	-	194,900
Repayment of bank loans	(102,758)	-	-	-	(102,758)
Interest paid on corporate bond	-	(18,893)	-	-	(18,893)
Borrowing costs paid	-	-	(9,697)	-	(9,697)
Capital element of lease rentals paid	-	-	-	(28,791)	(28,791)
Interest element of lease rentals paid	-	-	-	(5,649)	(5,649)
Total changes from financing cash flows	92,142	(18,893)	(9,697)	(34,440)	29,112
Other changes: Increase in bank loans from the acquisition of					
a subsidiary during the year Increase in lease liabilities from entering	7,640	-	-	-	7,640
into new leases during the year	-	-	-	35,781	35,781
Interest expenses (Note 6(a))	_	19,105	8,852	5,649	33,606
Total other changes	7,640	19,105	8,852	41,430	77,027
At 31 December 2021	262,764	499,996	-	93,868	856,628

(Expressed in RMB unless otherwise indicated)

22 CASH AT BANK AND ON HAND AND OTHER CASH FLOW INFORMATION (CONTINUED)

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

		Corporate	Interest	Lease	
	Bank loans	bond	payable	liabilities	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
At 31 December 2019 and 1 January					
2020	288,450	499,682	781	85,468	874,381
Changes from financing cash flows:					
Proceeds from new bank loans	149,210	-	_	_	149,210
Repayment of bank loans	(274,678)	-	_	-	(274,678)
Interest paid on corporate bond	_	(19,000)	_	_	(19,000)
Borrowing costs paid	-	-	(21,310)	-	(21,310)
Capital element of lease rentals paid	-	-	-	(26,583)	(26,583)
Interest element of lease rentals paid		_	_	(4,297)	(4,297)
Total changes from financing cash flows	(125,468)	(19,000)	(21,310)	(30,880)	(196,658)
Other changes:					
Increase in lease liabilities from entering					
into new leases during the year	-	-	-	27,993	27,993
Interest expenses (Note 6(a))	_	19,102	21,374	4,297	44,773
Total other changes		19,102	21,374	32,290	72,766
At 31 December 2020	162,982	499,784	845	86,878	750,489

(c) Total cash outflow for leases

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

	2021	2020
	RMB'000	RMB'000
Within operating cash flows	2,912	3,213
Within financing cash flows	34,440	30,880
	37,352	34,093

There amounts relate to the following:

	2021	2020
	RMB'000	RMB'000
Lease rentals paid	37,352	34,093
	37,352	34,093

(Expressed in RMB unless otherwise indicated)

23 **BANK LOANS**

The long-term bank loans comprised: (a)

	2021	2020
	RMB'000	RMB'000
Bank loan		
- secured (Note)	17,752	23,302
- unsecured	132,911	50,000
	150,663	73,302
Less: current portion of long-term bank loans	(5,983)	(540)
	144,680	72,762

Note:

At 31 December 2021, the aggregate carrying value of the secured property, plant and equipment and investment property for the Group's bank loans is RMB189,370,000 (31 December 2020: RMB196,052,000).

(b) The short-term bank loans comprised:

	2021	2020
	RMB'000	RMB'000
Bank loan		
- secured (Note)	5,000	6,200
- unsecured	107,101	83,480
	112,101	89,680
Add: current portion of long-term bank loans	5,983	540
	118,084	90,220

Note:

As of 31 December 2021, the Group had the short-term loans guaranteed by a third-party guarantee company.

(c) The long-term bank loans are repayable as follows:

	2021	2020
	RMB'000	RMB'000
After 1 year but within 2 years	8,408	9,270
After 2 years but within 5 years	79,142	40,192
Over 5 years	57,130	23,300
	144,680	72,762

(Expressed in RMB unless otherwise indicated)

24 **CORPORATE BOND**

	2021	2020
	RMB'000	RMB'000
Public issuance of corporate bond	499,996	499,784
Less: current portion of corporate bond	(499,996)	_
	-	499,784

In December 2019, the Group issued a 3-year corporate bond of RMB500,000,000 with an interest rate of 3.80% per annum.

25 **TRADE PAYABLES**

	2021	2020
	RMB'000	RMB'000
Trade payables due to		
- related parties under CNNC	43,675	21,602
 associates and joint ventures 	3,711	3,994
- third parties	290,470	173,907
	337,856	199,503

(a) Aging analysis

As of the end of the reporting period, the aging analyses of trade payables, based on the invoice dates, are as follows:

	2021	2020
	RMB'000	RMB'000
Within 1 year	311,583	164,610
1 to 2 years	18,777	29,250
2 to 3 years	7,496	5,643
	337,856	199,503

All of the trade payables are expected to be settled within one year or are repayable on demand.

(Expressed in RMB unless otherwise indicated)

26 **ACCRUALS AND OTHER PAYABLES**

	2021	2020
	RMB'000	RMB'000
Deposits from distributors (Note (i))	514,372	549,788
Payables to distributors (Note (ii))	1,568,682	1,292,385
Payables for staff related costs	133,806	125,114
Dividends payables	14,505	7,895
Other accruals and payables:		
- CNNC	4,885	8,628
 related parties under CNNC 	7,621	8,223
– An associate	100	1
- third parties	139,460	142,055
Total financial liabilities measured at amortised cost	2,383,431	2,134,089
Other taxes payables	92,199	59,742
Contract liabilities		
- related parties under CNNC	16,351	22,323
- third parties	324,425	111,253
	2,816,406	2,327,407

Notes:

- The balances represent deposits from distributors for ordering goods which will be repaid to distributors after the trade receivables have been paid by customers. These deposits are unsecured, interest-free and have no fixed repayment terms.
- (ii) The balances represent service fee and commission payables to distributors.
- (iii) Movements in contract liabilities:

	2021	2020
	RMB'000	RMB'000
At 1 January	133,576	122,478
Decrease in contract liabilities as a result of recognising revenue during		
the year that was included in the contract liabilities at the beginning		
of the year	(148,120)	(137,926)
Increase in contract liabilities as a result of receipt in advance of		
transferring goods	355,320	149,024
At 31 December	340,766	133,576

All of the accruals and other payables are expected to be settled or recognised as revenue within one year or are repayable on demand.

(Expressed in RMB unless otherwise indicated)

27 LEASE LIABILITIES

At 31 December 2021, the lease liabilities were repayable as follows:

	2021	2020
	RMB'000	RMB'000
Within 1 year	53,368	29,907
After 1 year but within 2 years	16,803	40,192
After 2 years but within 5 years	14,433	16,779
After 5 years	9,264	_
	40,500	56,971
	93,868	86,878

28 EMPLOYEE RETIREMENT BENEFITS

(a) Defined benefit retirement plans

In addition to the government-mandated basic pension and medical program, the Group provides defined retirement benefits to civil retirees, current retirees and certain eligible active employees (the "Plan"), which covers 32% of the Group's employees as at 31 December 2021 (2020: 34%). The Plan is administered by the Group and funded by the working capital of the Group.

Under the Plan, the qualified retirees and/or employees are entitled to fixed supplemental post-retirement pension benefits, fixed death benefits and supplemental post-retirement medical benefits.

The independent actuarial valuations of the defined benefit retirement obligation at 31 December 2021 were prepared by qualified staff of Towers Watson Management Consulting (Shenzhen) Co., Ltd., Beijing Branch, who are members of the American Academy of Actuaries, using the projected unit credit method.

The Plan exposes the Group to actuarial risks, such as interest rate risk and longevity risk.

Information about the Plan disclosed below:

(i) The amounts recognised in the consolidated statement of financial position are as follows:

	2021	2020
	RMB'000	RMB'000
Present value of obligations	49,898	53,503

A portion of the above liability is expected to be settled after more than one year. However, it is not practicable to segregate this amount from the amounts payable in the next twelve months. The Group expects the amount of RMB3,187,000 of the defined benefit retirement obligation to be paid in the next twelve months.

(Expressed in RMB unless otherwise indicated)

28 **EMPLOYEE RETIREMENT BENEFITS (CONTINUED)**

- Defined benefit retirement plans (continued)
 - (ii) Movements in the present value of the defined benefit retirement obligation were as follows:

	2021	2020
	RMB'000	RMB'000
At 1 January	53,503	52,094
Remeasurements:		
- actuarial losses arising from changes in financial		
assumptions	1,469	513
Benefits paid by the plans	(3,231)	(2,836)
Current service cost	894	1,049
Effect of change of participants and payment rates	(1,312)	907
Interest expenses	1,762	1,776
	53,085	53,503
Less: due within one year	(3,187)	
At 31 December	49,898	53,503

The effect of change of participants and payment rates is the change in the present value of the defined benefit obligation resulting from expanding the employee groups covered by the Plan and increasing the benefits that are payable after retirement.

(iii) Amounts recognised in the consolidated statement of profit or loss and the consolidated statement of profit or loss and other comprehensive income are as follows:

	2021	2020
	RMB'000	RMB'000
Service cost	894	1,049
Net interest on net defined benefit liability	1,762	1,776
Total amounts recognised in profit or loss	2,656	2,825
Total amounts recognised in other comprehensive income		
- Actuarial losses	1,469	513
Total defined benefit costs	4,125	3,338

The service cost and the net interest on net defined benefit liability are recognised in the following line items in the consolidated statement of profit or loss:

	2021	2020
	RMB'000	RMB'000
Finance costs	1,762	1,776
Administrative expenses	894	1,049
	2,656	2,825

(Expressed in RMB unless otherwise indicated)

28 EMPLOYEE RETIREMENT BENEFITS (CONTINUED)

(a) Defined benefit retirement plans (continued)

(iv) Significant actuarial assumptions (expressed as weighted averages) are as follows:

	2021	2020
	RMB'000	RMB'000
Discount rates	3.25%	3.5%
Future salary increases	6.0%	6.0%
Annual turnover rates of active employees	5.0%	5.0%

The below analyses show how the defined benefit obligation would have increased (decreased) as a result of 1% change in the significant actuarial assumptions:

	Increase	e by 1%
	2021	2020
<u> </u>	RMB'000	RMB'000
Discount rates	(6,796)	(7,099)
Future salary increases	4,368	4,167
Annual turnover rates of active employees	(1,446)	(1,890)

	Decreas	e by 1%
	2021	2020
	RMB'000	RMB'000
Discount rates	8,870	9,286
Future salary increases	(3,208)	(3,062)
Annual turnover rates of active employees	1,681	2,183

The above sensitivity analyses is based on the assumption that changes in actuarial assumptions are not correlated and therefore it does not take into account the correlations between the actuarial assumptions.

(b) Defined contribution retirement plan

Pursuant to the relevant laws and regulations of the PRC, the Company and its subsidiaries participate in defined contribution retirement benefit schemes managed by government organisations. The Group makes contributions to basic pension insurance plans based on the applicable benchmarks and rates stipulated by the government authorities, whereby these entities are required to contribute to the schemes at a rate of 19% of the employees' basic salaries. Employees of these entities are entitled to retirement benefits, calculated based on a percentage of the average salaries level in the PRC, from the above-mentioned retirement schemes at their normal retirement. During the year ended 31 December 2021, the entities established in the PRC have been granted certain exception on the contributions to defined contribution retirement plans by the local government authority as a result of the COVID-19 impact for the period from February 2021 to December 2021.

(Expressed in RMB unless otherwise indicated)

29 CASH SETTLED SHARE-BASED TRANSACTION

The Group has a share option scheme which was adopted on 30 June 2020, whereby the directors of the Group are authorised, at their discretion, to invite senior management talents and high-level technicians of the Group. Pursuant to the share option scheme, each share option is related to a share, and share option will be settled in cash, and thus there will be no influence on the total number of issued shares or dilution effect on shares.

The total number of share option is 8,607,700. The share options will be vested upon the achievement of performance conditions of the Group, service conditions and personal performance conditions agreed by the scheme.

One third of the total number of share option will vest after two years from the date of grant, another one third of the total number of share option will vest after three years from the date of grant, and the remaining one third of the total number of share option will vest after four years from the date of grant.

The terms and conditions of the options granted are as follows: (a)

Share options granted to directors

	Number of		Contractual life
	instruments	Vesting conditions	of share options
- on 30 June 2020	119,900	Two years from the date of grant	6 years
- on 30 June 2020	119,900	Three years from the date of grant	6 years
- on 30 June 2020	119,900	Four years from the date of grant	6 years

Share options granted to employees

	Number of		Contractual life
	instruments	Vesting conditions	of share options
- on 30 June 2020	2,749,333	Two years from the date of grant	6 years
- on 30 June 2020	2,749,333	Three years from the date of grant	6 years
- on 30 June 2020	2,749,333	Four years from the date of grant	6 years

(b) Measurement of fair value

The fair value of the cash settled share (see Note 2(s)(iii)) has been measured using the Black-Scholes formula. Service and non-market performance conditions attached to the arrangements were not taken into account in measuring fair value. The inputs used in the measurement of the fair values at grant date and measurement date of the cash-settled shares were as follow:

	Grant date
	30 June 2020
Fair value (HKD)	7
Share price (HKD)	22
Exercise price (HKD)	22
Expected volatility (weighted-average)	38.76%
Expected life (weighted-average)	5
Expected dividends	0%
Risk-free interest rate (based on government bonds)	1.63%
Risk-free interest rate (based on government bonds)	1.63%

(Expressed in RMB unless otherwise indicated)

29 CASH SETTLED SHARE-BASED TRANSACTION (CONTINUED)

(c) Reconciliation of outstanding share options

	20	21	202	20
	Weighted		Weighted	
	average		average	
	exercise	Number	exercise	Number
	price	of share	price	of share
	HKD	options	HKD	options
Outstanding at the beginning of the year	22	8,607,700	_	_
Granted during the year	_	-	22	8,607,700
Exercised during the year	_	-	_	_
Terminated during the year	(22)	(8,607,700)	_	_
Expired during the year	-	_	_	
Outstanding at the end of the year	-	-	22	8,607,700
Exercisable at the end of the year	-	-	_	_

According to the latest requirements of relevant laws and regulations of China and the actual situation of the Company, the Board of Directors of the Company has decided to terminate the share appreciation right incentive plan on 9 November 2021. After the termination, the participants will cease to be entitled to the share appreciation rights that have been granted.

(d) Expense recognised in profit or less

For details of the related employee benefit expenses, see Note 6(b).

30 INCOME TAX IN THE CONSOLIDATED STATEMENT OF FINANCIAL POSITION

(a) Current taxation in the consolidated statement of financial position represents:

	2021	2020
	RMB'000	RMB'000
At 1 January	51,226	98,220
Provision for the year	143,718	56,728
Income tax paid	(125,546)	(103,722)
At 31 December	69,398	51,226

(Expressed in RMB unless otherwise indicated)

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

INCOME TAX IN THE CONSOLIDATED STATEMENT OF FINANCIAL POSITION (CONTINUED)

Deferred tax assets and liabilities recognised

9

								Fair value	
					Fair value			adjustments	
					adjustments			on inventories,	
				0	on inventories,			property, plant	
					property, plant		•••	and equipment,	
				ਲ	and equipment,			intangible	
					intangible	Fair value		assets and	
					assets and	change in		related	
		Provision for	Provision for		related	undnoted	Depreciation	depreciation	
		impairment of	reclamation		depreciation	ednity	and	and	
	Accruals	assets	obligations	Tax losses a	Tax losses and amortisation	investments	amortisation	amortisation	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
At 1 January 2020	204,139	26,561	29,743	1,215	3,387	(13,400)	(926)	(4,057)	246,662
(Credited)/charged to profit or loss									
(Note 7(a))	(57,902)	(63)	(5,091)	(1,202)	(231)	ı	24	553	(63,912)
Charged to reserves	I	ı	ı	1	1	3,620	ı	ı	3,620
At 31 December 2020	146,237	26,498	24,652	13	3,156	(08,780)	(305)	(3,504)	186,370
At 1 January 2021	146,237	26,498	24,652	13	3,156	(9,780)	(305)	(3,504)	186,370
Charged/(credited) to profit or loss									
(Note 7(a))	12,157	4,617	(20)	327	(3,156)	•	122	99	14,077
Charged to reserves		•	•	1	1	(3,349)	1	•	(3,349)
At 31 December 2021	158,394	31,115	24,596	340	•	(13,129)	(780)	(3,438)	197,098

(Expressed in RMB unless otherwise indicated)

30 INCOME TAX IN THE CONSOLIDATED STATEMENT OF FINANCIAL POSITION (CONTINUED)

(c) Deferred tax assets not recognised

In accordance with the accounting policy set out in Note 2(t), the Group has not recognised deferred tax assets in respect of tax losses of RMB322,944,000 (2020: RMB181,535,000), as it is not probable that future taxable profits against which the losses can be utilised will be available in the relevant tax jurisdiction and entity. The tax losses can be carried forward for five years from the year incurred.

The remaining unused tax losses at 31 December 2021 will expire on or before financial period ending 31 December 2031.

31 PROVISIONS

(a) The balance of provisions comprised:

	2021	2020
	RMB'000	RMB'000
Reclamation obligations (Note (b))	208,260	195,217
Others	_	4,550
	208,260	199,767
Less: current provision	76,554	73,906
	131,706	125,861

(b) The movements of the provision for reclamation obligations are as follows:

	2021	2020
	RMB'000	RMB'000
At 1 January	195,217	185,271
Increase in estimated cost	7,191	4,347
Interest expenses	5,852	5,599
At 31 December	208,260	195,217

The obligations for reclamation consist of estimated expenditures for retirement of its radioactive production facilities in accordance with the relevant rules and regulations in the PRC. The provision is therefore determined based on management's best estimates. The estimate of the associated costs may be subject to change in the near term when the reclamation on the disposal of the radioactive production facilities becomes apparent in future periods. At the end of the reporting period, the Group reassessed the estimated costs and adjusted the accrued reclamation obligations, where necessary.

(c) Long-term receivables

Long-term receivable represents present value of a part of reclamation obligations which is due from CIAE according to the commitment agreement between a subsidiary of the Group and CIAE.

(Expressed in RMB unless otherwise indicated)

32 SHARE CAPITAL, RESERVES AND DIVIDENDS

Movements in components of equity (a)

The reconciliation between the opening and closing balances of each component of the Group's consolidated equity is set out in the consolidated statement of changes in equity. Details of the changes in the Company's individual components of equity between the beginning and the end of the year are set out below:

			PRC	Fair value			
	Share	Capital	statutory	reserve (non-	Other	Retained	Total
	capital	reserve	reserve	recycling)	reserve	profits	equity
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
	(Note 32(c))	(Note 32(d)(i))	(Note 32(d)(ii))	(Note 32(d)(iii))	(Note 32(d)(iv))		
Balance at 1 January 2020	319,875	2,239,808	125,676	40,201	4,192	130,589	2,860,341
Changes in equity for 2020:							
Total comprehensive income for the year	-	-	-	(10,858)	-	127,857	116,999
Appropriation to reserves	-	-	12,918	-	-	(12,918)	-
Dividends (Note 32(b))	-	-	-	-	-	(44,431)	(44,431)
Balance at 31 December 2020							
and 1 January 2021	319,875	2,239,808	138,594	29,343	4,192	201,097	2,932,909
Changes in equity for 2021:							
Total comprehensive income for the year	-	-	-	10,047	-	53,862	63,909
Appropriation of maintenance and							
production funds	-	-	-	-	32	(32)	-
Utilisation of maintenance and production funds	-	-	-	-	(1,288)	1,288	-
Appropriation to reserves	-	-	5,624	-	-	(5,624)	-
Dividends (Note 32(b))	-	-	-	-	-	(57,673)	(57,673)
Balance at 31 December 2021	319,875	2,239,808	144,218	39,390	2,936	192,918	2,939,145

(b) Dividends

(i) Dividends payable to equity shareholders of the Company attributable to the year

	2021	2020
	RMB'000	RMB'000
Final dividend proposed after the end of the reporting		
period of RMB37.79 cents per ordinary share (2020:		
RMB18.03 cents per ordinary share)	120,881	57,673
	120,881	57,673

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.

(Expressed in RMB unless otherwise indicated)

32 SHARE CAPITAL, RESERVES AND DIVIDENDS (CONTINUED)

(b) Dividends (continued)

(ii) Dividends payable to equity shareholders of the Company attributable to the previous financial year, approved and paid during the year

	2021	2020
	RMB'000	RMB'000
Final dividend in respect of the previous financial year,		
approved and paid during the year, of RMB18.03		
cents per share (2020: RMB13.89 cents per share)	57,673	44,431

(c) Share capital

	2021		2020	
	No. of shares		No. of shares	
	'000	RMB'000	'000	RMB'000
Ordinary shares issued				
At 1 January	319,875	319,875	319,875	319,875
Shares issued	-	_	_	_
At 31 December	319,875	319,875	319,875	319,875

All shareholders are entitled to receive dividends as declared from time to time and are entitled to one vote per share at shareholders' meetings of the Company. All shares rank equally with regard to the Company's residual assets.

On 6 July 2018, the Company issued 79,968,700 H shares with par value of RMB1.00 per share at a price of HKD21.6 per share by way of initial public offering to Hong Kong and overseas investors. On 3 August 2018, the over-allotment option granted by the Company was partially exercised. The Company issued and allotted an aggregate of 100 H shares at HKD21.6 each. After the issuance and allotment of these shares, the registered and issued ordinary shares of the Company increased to 319,874,900 shares with 79,968,800 H shares being listed on The Stock Exchange.

(Expressed in RMB unless otherwise indicated)

32 SHARE CAPITAL, RESERVES AND DIVIDENDS (CONTINUED)

(d) Nature and purpose of reserves

(i) Capital reserve

Capital reserve represents (i) the proceeds in excess of the par value upon shares issuance received by the Company as disclosed in Note 32(c); and (ii) the amount of carrying amount of the net assets of certain subsidiaries acquired in excess of the consideration paid by the Group, as a result of business combination under common control.

(ii) PRC statutory reserve

In accordance with the relevant PRC laws and regulations and the Company's articles of association, the Company is required to transfer 10% of its net profit as determined in accordance with accounting rules and regulations of the PRC to the statutory PRC reserve until the reserve reaches 50% of the registered capital. The transfer to this reserve must be made before distributions to equity shareholders. This reserve can be utilised in setting off accumulated losses or increase capital and is non-distributable other than in liquidation.

(iii) Fair value reserve (non-recycling)

The fair value reserve (non-recycling) comprises the cumulative net change in the fair value of equity investments designated at FVOCI under IFRS 9 that are held at the end of the reporting period (see Note 2(g)).

(iv) Other reserve

Other reserve represents specific reserve for production and maintenance funds. Pursuant to the relevant PRC regulations, the Group is required to transfer production and maintenance funds at fixed rates of relevant production outputs or revenue. The maintenance and production funds could be utilised when expenses or capital expenditures on production maintenance and safety measures are incurred. The amount of production and maintenance funds utilised would be transferred from the specific reserve back to retained profits.

(v) Exchange reserve

The exchange reserve comprises all foreign exchange differences arising from the translation of the financial statements of an associate. The reserve is dealt with in accordance with the accounting policies as set out in Note 2(x).

(Expressed in RMB unless otherwise indicated)

32 SHARE CAPITAL, RESERVES AND DIVIDENDS (CONTINUED)

(e) Capital 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 actively and regularly reviews and manages its capital structure to maintain a balance between the higher shareholder returns that might be possible with higher levels of borrowings and the advantages and security afforded by a sound capital position, and makes adjustments for the capital structure in light of changes in economic conditions.

The Group monitors its capital structure on the basis of an adjusted net debt-to-capital ratio. For this purpose, adjusted net debt is defined as total debt (which includes interest-bearing borrowings) plus unaccrued proposed dividends. Adjusted capital comprises all components of equity less unaccrued proposed dividends.

During 2021, the Group's strategy, which was unchanged from 2020, was to maintain the adjusted net debt-to-capital ratio at the lower level. In order to maintain or adjust the ratio, the Group may adjust the amount of dividends paid to shareholders, issue new shares, return capital to shareholders, raise new debt financing or sell assets to reduce debt.

The adjusted debt-to-capital ratio at 31 December 2021 and 2020 is as follows:

	At		At
		31 December	31 December
		2021	2020
	Note	RMB'000	RMB'000
Current liabilities:			
Interest-bearing borrowings	23(b) &24	618,080	90,220
Lease liabilities	27	53,368	29,907
		671,448	120,127
Non-current liabilities:			
Interest-bearing borrowings	23(a) &24	144,680	572,546
Lease liabilities	27	40,500	56,971
		185,180	629,517
Total debt		856,628	749,644
Add: proposed dividends	32(b)	120,881	57,673
Adjusted net debt		977,509	807,317
Total equity		6,031,388	5,505,610
Less: proposed dividends	32(b)	120,881	57,673
Adjusted capital		5,910,507	5,447,937
Adjusted debt-to-capital ratio		17%	15%

Neither the Company nor any of its subsidiaries are subject to externally imposed capital requirements.

(Expressed in RMB unless otherwise indicated)

33 **ACQUISITIONS OF SUBSIDIARIES**

Acquisitions of subsidiaries mainly included the acquisition of Hubei Zhongxun Medical Products Industry Co., Ltd. ("Hubei Zhongxun") from a third party.

In February 2021, the Group acquired 51% interest in Hubei Zhongxun at a cash consideration of RMB23,460,000. Hubei Zhongxun is principally engaged in the production and sale of medical equipment related to medical purification and radiation protection in the PRC.

The recognised fair values of the identifiable assets and liabilities of Hubei Zhongxun as at the date of acquisition were set out as follows:

	Hubei Zhongxun
	RMB'000
Property, plant and equipment	16,900
Intangible assets	9,100
Deferred tax assets	219
Other non-current assets	50
Inventories	6,007
Trade and bill receivables	18,256
Prepayments, deposits and other receivables	41
Cash at bank and on hand	512
Bank loans	(7,528)
Trade payables	(1,395)
Accruals and other payables	(3,180)
Income tax payable	(472)
Deferred tax liabilities	(589)
	37,921
Less: non-controlling interests	(18,581)
Total identifiable net assets at fair value	19,340
Satisfied by:	
Cash	23,460
Goodwill	4,120

Since the acquisition, Hubei Zhongxun contributed RMB42,654,000 to the Group's revenue and RMB1,789,000 profit to the consolidated profit for the year ended 31 December 2021.

Had the business combination taken place at the beginning of the period, the revenue of the Group and the profit of the Group for the year ended 31 December 2021 would have been RMB5,145,708,000 and RMB672,268,000.

(Expressed in RMB unless otherwise indicated)

34 FINANCIAL RISK MANAGEMENT AND FAIR VALUES OF FINANCIAL INSTRUMENTS

Exposure to credit, liquidity, interest rate and currency risks arises in the normal course of the Group's business.

The Group's exposure to these risks and the financial risk management policies and practices used by the Group to manage these risks are described below.

(a) Credit risk

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in a financial loss to the Group. The Group's credit risk is primarily attributable to trade receivables. The Group's exposure to credit risk arising from cash and cash equivalents and bill receivables is limited because the counterparties are banks and financial institutions with sound credit standing, for which the Group considers to have low credit risk.

Trade receivables

The Group has established a credit management policy under which individual credit evaluations are performed on all customers requiring credit over a certain amount. These evaluations focus on the customer's past history of making payments when due and current ability to pay and take into account information specific to the customer as well as pertaining to the economic environment in which the customer operates. Trade receivables are due from the invoice date (or date of revenue recognition, if earlier). Normally, the Group does not obtain collateral from customers.

The Group's exposure to credit risk is influenced mainly by the individual characteristics of each customer rather than the industry or country in which the customers operate and therefore significant concentrations of credit risk primarily arise when the Group has significant exposure to individual customers. At the end of the reporting period, 1% (2020: 2%) and 4% (2020: 7%) of the total trade receivables was due from the Group's largest customer and the five largest customers, respectively.

The Group measures loss allowances for trade receivables at an amount equal to lifetime ECLs, which is calculated using a provision matrix. As the Group's historical credit loss experience does not indicate significantly different loss patterns for different customer segments, the loss allowance based on past due status is not further distinguished between the Group's different customer bases.

(Expressed in RMB unless otherwise indicated)

34 FINANCIAL RISK MANAGEMENT AND FAIR VALUES OF FINANCIAL **INSTRUMENTS (CONTINUED)**

Credit risk (continued)

Trade receivables (continued)

The following table provides information about the Group's exposure to credit risk and ECLs for trade receivables as at 31 December 2021:

	Expected loss rate %	Gross carrying amount RMB'000	Loss allowance RMB'000
With 1 year	0.6%	2,526,902	(14,064)
1 – 2 years	4%	242,519	(10,746)
2 – 3 years	28%	76,077	(21,410)
More than 3 years	89%	124,718	(110,830)
		2,970,216	(157,050)
		2020	
	Expected	Gross carrying	Loss
	loss rate	amount	allowance
	%	RMB'000	RMB'000
With 1 year	0.6%	2,081,690	(12,414)
1 – 2 years	5%	269,522	(13,202)
2 – 3 years	30%	38,621	(11,624)
More than 3 years	90%	116,201	(104,288)
		2,506,034	(141,528)

Expected loss rates are based on actual loss experience over the past 3 years. These rates are adjusted to reflect differences between economic conditions during the year over which the historic data has been collected, current conditions and the Group's view of economic conditions over the expected lives of the receivables.

(Expressed in RMB unless otherwise indicated)

34 FINANCIAL RISK MANAGEMENT AND FAIR VALUES OF FINANCIAL INSTRUMENTS (CONTINUED)

(a) Credit risk (continued)

Trade receivables (continued)

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

	2021	2020
	RMB'000	RMB'000
At 1 January	141,528	128,023
Amounts written off during the year	(25)	(6,060)
Impairment losses recognised during the year	15,547	19,565
At 31 December	157,050	141,528

(b) Liquidity risk

Individual operating entities within the Group are responsible for their own cash management, including the short-term investment of cash surpluses and the raising of loans to cover expected cash demands, subject to approval by the parent company's board when the borrowings exceed certain predetermined levels of authority. The Group's policy is to regularly monitor current and expected liquidity requirements to ensure that it maintains sufficient reserves of cash and adequate committed lines of funding from major financial institutions to meet its liquidity requirements in the short and longer term.

(Expressed in RMB unless otherwise indicated)

34 FINANCIAL RISK MANAGEMENT AND FAIR VALUES OF FINANCIAL **INSTRUMENTS (CONTINUED)**

Liquidity risk (continued)

The following table details the remaining contractual maturities at the end of each reporting period of the Group's financial liabilities, which are based on contractual undiscounted cash flows (including interest payments computed using contractual rates or, if floating, based on rates current at the end of each reporting period) and the earliest dates the Group can be required to pay:

		31 December 2021				
		Contractua	l undiscounte	d cash flow		
	Within 1 year					
	or on	or on less than less than More than				Carrying
	demand	2 years	5 years	5 years	Total	amount
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Corporate bond (Note 24)	519,000	-	-	-	519,000	499,996
Lease liabilities (Note 27)	56,613	18,253	17,644	10,518	103,028	93,868
Bank loans (Note 23)	121,601	13,297	80,256	65,368	280,522	262,764
Trade payables (Note 25)	337,856	-	-	-	337,856	337,856
Accruals and other payables						
(Note 26)	2,383,431	-	-	-	2,383,431	2,383,431
Other long-term payables	-	17,000	-	-	17,000	14,614
Total	3.418.501	48.550	97.900	75.886	3.640.837	3.592.529

		31 December 2020				
		Contractual undiscounted cash flow				
	Within	More than	More than			
	1 year	1 year but	2 year but			
	or on	less than	less than	More than		Carrying
	demand	2 years	5 years	5 years	Total	amount
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Corporate bond (Note 24)	19,000	519,000	-	-	538,000	499,784
Lease liabilities (Note 27)	32,767	42,448	18,394	-	93,609	86,878
Bank loans (Note 23)	96,078	9,746	42,463	24,747	173,034	162,982
Trade payables (Note 25)	199,503	-	-	-	199,503	199,503
Accruals and other payables						
(Note 26)	2,134,089	-	-	-	2,134,089	2,134,089
Other long-term payables	_	_	17,000	_	17,000	12,562
Total	2,481,437	571,194	77,857	24,747	3,155,235	3,095,798

21 December 2020

(Expressed in RMB unless otherwise indicated)

34 FINANCIAL RISK MANAGEMENT AND FAIR VALUES OF FINANCIAL INSTRUMENTS (CONTINUED)

(c) Currency risk

The Group is exposed to currency risk primarily through bank deposits denominated in foreign currency. i.e., a currency other than the functional currency of the operations to which the transactions relate. The currencies giving rise to this risk are primarily Hong Kong dollars. The Group manages this risk as follows:

(i) Exposure to currency risk

The following table details the Group's exposure at the end of the reporting period to currency risk arising from recognised assets denominated in a currency other than the functional currency of the entity to which they relate. For presentation purposes, the amounts of the exposure are shown in Hong Kong dollars, translated using the spot rates at the year end date. Differences resulting from the translation of the financial statements of foreign operations into the Group's presentation currency are excluded.

	Exposure to		
	foreign currencies		
	2021 202		
	RMB'000	RMB'000	
Cash and cash equivalents	9,355	8,170	

(ii) Sensitivity analysis

The following table indicates the instantaneous change in the Group's profit after tax and retained profits that would arise if foreign exchange rates to which the Group has significant exposure at the end of the reporting period had changed at that date, assuming all other risk variables remained constant.

	2021		20:	20
		Increase/		Increase/
	Increase/	(decrease)	Increase/	(decrease)
	(decrease)	in profit	(decrease)	in profit
	in foreign	after tax and	in foreign	after tax and
	exchange rates	retained profits	exchange rates	retained profits
		RMB'000		RMB'000
HK Dollars	10%	392	10%	404
	(10%)	(392)	(10%)	(404)
US Dollars	10%	137	10%	116
_	(10%)	(137)	(10%)	(116)

(Expressed in RMB unless otherwise indicated)

FINANCIAL RISK MANAGEMENT AND FAIR VALUES OF FINANCIAL 34 **INSTRUMENTS (CONTINUED)**

Currency risk (continued)

Sensitivity analysis (continued)

Results of the analysis as presented in the above table represent an aggregation of the instantaneous effects on each of the Group entities' profit after tax and retained profits measured in the respective functional currencies, translated into Hong Kong dollars at the exchange rates ruling at the end of the reporting period for presentation purposes.

The sensitivity analysis assumes that the change in foreign exchange rates had been applied to re-measure those financial instruments held by the Group which expose the Group to foreign currency risk at the end of the reporting period, including inter-company receivables within the Group which are denominated in a currency other than the functional currencies of the borrower. The analysis excludes differences that would result from the translation of the financial statements of foreign operations into the Group's presentation currency. The analysis is performed on the same basis for 2020.

(d) Fair values measurement

Financial assets measured at fair value

Fair value hierarchy

The following table presents the fair value of the Group's financial instruments measured at the end of each reporting period on a recurring basis, categorised into the three-level fair value hierarchy as defined in IFRS 13, Fair value measurement. The level into which a fair value measurement is classified is determined with reference to the observability and significance of the inputs used in the valuation technique as follows:

- Level 1 valuations: Fair value measured using only Level 1 inputs i.e., unadjusted quoted prices in active markets for identical assets or liabilities at the measurement date.
- Level 2 valuations: Fair value measured using Level 2 inputs i.e., observable inputs which fail to meet Level 1, and not using significant unobservable inputs. Unobservable inputs are inputs for which market data are not available.
- Level 3 valuations: Fair value measured using significant unobservable inputs.

The Group has a finance manager performing valuations for the trading securities and unquoted equity investments. The manager reports directly to the chief accountant and the audit committee. A valuation report with analysis of changes in fair value measurement is prepared by the manager at each interim and annual reporting date and is reviewed and approved by the chief financial officer. Discussion of the valuation process and results with the chief financial officer and the audit committee is held twice a year, to coincide with the reporting dates.

(Expressed in RMB unless otherwise indicated)

34 FINANCIAL RISK MANAGEMENT AND FAIR VALUES OF FINANCIAL INSTRUMENTS (CONTINUED)

- (d) Fair values measurement (Continued)
 - (i) Financial assets measured at fair value (Continued)

		Fair vait	ie measurement	is as
	_	at 31 Decemb	oer 2021 catego	rised into
	Fair value at 31 December 2021 RMB'000	Level 1 RMB'000	Level 2 RMB'000	Level 3 RMB'000
Recurring fair value				
measurement				
Bill receivables	7,987	-	7,987	-
Unquoted equity				
investments	150,410	-	-	150,410
	158,397	-	7,987	150,410

Fair value measurements as at 31 December 2020 categorised into Fair value at 31 December 2020 Level 1 Level 2 Level 3 RMB'000 RMB'000 RMB'000 RMB'000 Recurring fair value measurement Bill receivables 3,996 3,996 Unquoted equity investments 137,014 137,014 141,010 3,996 137,014

Note: As at 31 December 2017, the unquoted equity investments were classified as available-forsale investments and measured at cost less impairment losses as these investments in unlisted companies do not have a quoted market price in an active market for an identified instruments and whose fair value cannot otherwise be reliably measured. Available-for-sale financial assets were reclassified to financial assets measured at FVPL and those designated at FVOCI (nonrecycling) upon the adoption of IFRS 9 at 1 January 2018.

In 2021, there were no transfers between Level 1 and Level 2, or transfers into or out of Level 3 (2020: nil). The Group's policy is to recognise transfers between levels of fair value hierarchy as at the end of the reporting period in which they occur.

(Expressed in RMB unless otherwise indicated)

FINANCIAL RISK MANAGEMENT AND FAIR VALUES OF FINANCIAL 34 **INSTRUMENTS (CONTINUED)**

Fair values measurement (Continued)

Financial assets measured at fair value (Continued)

The fair value of bill receivables was at a level 2 fair value measurement which has been calculated by discounting the expected future cash flows using rates currently available for instruments with similar terms, credit risk and remaining maturities.

Information about Level 3 fair value measurements

		Significant		
	Valuation	unobservable		Weighted
	techniques	inputs	Range	average
Unlisted equity	Market comparable	Discount for lack		
instruments	companies	of marketability	90%	90%

The fair value of unlisted equity instruments is determined using the price to book ratio of comparable listed companies adjusted for lack of marketability discount. The fair value measurement is negatively correlated to the discount for lack of marketability. As at 31 December 2021, it is estimated that with all other variables held constant, a decrease/ increase in discount for lack of market ability by 1% would have increased/decreased the Group's other comprehensive income by RMB140,000.

The movements during the period in the balance of these Level 3 fair value measurements are as follow:

	2021	2020
	RMB'000	RMB'000
Unlisted equity securities:		
At 1 January	137,014	151,492
Net unrealised gains or losses recognised in other		
comprehensive income during the year	13,396	(14,478)
At 31 December	150,410	137,014

Any gain or loss arising from the remeasurement of the Group's unlisted equity securities held for strategic purposes with amount of RMB10,047,000 (net of tax) are recognised in the fair value reserve (non-recycling) in other comprehensive income. Upon disposal of the equity securities, the amount accumulated in other comprehensive income is transferred directly to retained earnings.

(Expressed in RMB unless otherwise indicated)

34 FINANCIAL RISK MANAGEMENT AND FAIR VALUES OF FINANCIAL INSTRUMENTS (CONTINUED)

(d) Fair values measurement (Continued)

(ii) Fair values of financial liabilities carried at other than fair value

The carrying amounts of the Group's financial instruments carried at cost or amortised cost are not materially different from their values as at 31 December 2020 and 31 December 2021 except for the following financial instruments, for which their carrying amounts and fair value are disclosed below:

	202 ⁻	1	2020)
	Carrying		Carrying	
	amount	Fair value	amount	Fair value
	RMB'000	RMB'000	RMB'000	RMB'000
Bank loans	144,680	148,399	72,762	74,652
Corporate bond	499,996	519,833	499,784	509,921
	644,676	668,232	572,546	584,573

Valuation techniques and inputs used in Level 3 fair value measurements.

The fair value of bank loans and corporate bond is estimated as being the present value of future cash flows, discounted at current market interest rates for similar financial instruments.

The interest rates used are as follows:

	2021	2020
Bank loans	4.53%	4.59%
Corporate bond	3.78%	4.19%

(e) Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Group's interest rate risk arises primarily from long-term borrowings. Borrowings issued at variable rates expose the Group to cash flow interest rate risk.

The Group regularly reviews and monitors the mix of fixed and variable rate borrowings in order to manage its interest rate risks. During the year, however, management of the Group did not consider it is necessary to use interest rate swaps to hedge their exposure to interest.

(Expressed in RMB unless otherwise indicated)

FINANCIAL RISK MANAGEMENT AND FAIR VALUES OF FINANCIAL 34 **INSTRUMENTS (CONTINUED)**

Interest rate risk (Continued)

Interest rate profile

The following table details the interest rate profile of the Group's borrowings at the end of the reporting period.

	2021	2020
	RMB'000	RMB'000
Net fixed rate borrowings:		
Corporate bond (Note 24)	499,996	499,784
Lease liability (Note 27)	93,868	86,878
Bank loans (Note 23)	120,112	89,680
	713,976	676,342
Net floating rate borrowings:		
Bank loans (Note 23)	142,652	73,302
Total net borrowings	856,628	749,644

(ii) Sensitivity analysis

At 31 December 2021, it is estimated that a general increase/decrease of 100 basis point in interest rates of net floating borrowings, with all other variables held constant, the Group's profit after tax would have decrease/increase by approximately RMB1,070,000 (2020: RMB546,000). Other components of consolidated equity would not be affected by the general increase/decrease in interest rates.

The sensitivity analysis above has been determined assuming that the change in interest rates had occurred at the end of the reporting period and had been applied to the exposure to interest rate risk for non-derivative financial instruments in existence at the end of the reporting period. The impact on the Group's profit after tax (and retained profits) and other components of consolidated equity is estimated as an annualized impact on interest expense or income of such a change in interest rates.

The estimated 100 basis points increase or decrease represents management's assessment of a reasonable change in interest rates over the period until the next annual statement of financial position date. The analysis is performed on the same basis for 2020.

(Expressed in RMB unless otherwise indicated)

35 COMMITMENTS

Capital commitments

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

	2021	2020
	RMB'000	RMB'000
Contracted for	957,170	791,672
Authorised but not contracted for	8,000	-
	965,170	791,672

36 MATERIAL RELATED PARTY TRANSACTIONS

(a) Transaction with related parties

The Group is part of a large group of companies under CNNC and has significant transactions and relationships with CNNC and related parties under CNNC.

The principal transactions which were carried out in the ordinary course of business are as follows:

	2021	2020
	RMB'000	RMB'000
Sale of goods to		
CNNC	3,035	_
Related parties under CNNC	75,297	48,668
Associates and joint ventures	26,493	25,630
Service provided to		
Related parties under CNNC	8,219	4,662
Associates and joint ventures	26,916	31,698
Purchase of goods from		
Related parties under CNNC	19,144	17,839
Associates and joint ventures	12,459	14,421
Purchase of property, plant and equipment from		
Related parties under CNNC	11,049	2,782
Service provided by		
CNNC	-	1,602
Related parties under CNNC	116,783	117,620
Associates and joint ventures	700	360

(Expressed in RMB unless otherwise indicated)

MATERIAL RELATED PARTY TRANSACTIONS (CONTINUED) 36

(a) Transaction with related parties (continued)

	2021 RMB'000	2020 RMB'000
Leases from		
Related parties under CNNC		
- right-of-use assets recognised during the year under IFRS16	30,270	698
- lease payments	1,973	1,658
Granting on researching and development project		
CNNC	17,107	_
Related parties under CNNC	2,223	_
Interest expenses		
Related parties under CNNC	7,919	3,874
Granting of loans from Finance Company		
Related parties under CNNC	115,000	_
Net deposits placed with		
Related parties under CNNC	199,353	536,218
Interest income		
Related parties under CNNC	21,379	13,993
Dividend paid to		
CNNC	19,234	14,817
Related parties under CNNC	60,813	61,520
Dividend received from		
Related parties under CNNC	4,739	7,792
Capital investment in		
Associates and joint ventures	-	6,224

(b) Balances with related parties

Details of the outstanding balance with related parties are set out in Notes 20, 21, 22, 25 and 26.

(Expressed in RMB unless otherwise indicated)

36 MATERIAL RELATED PARTY TRANSACTIONS (CONTINUED)

(c) Transactions with other government-related entities in the PRC

The Group is a state-owned entity and operates in an economic regime currently dominated by entities directly or indirectly owned or controlled by the PRC government and numerous government authorities and agencies (collectively referred to as "State-owned Entities").

In 2018, the Group had transactions with State-owned Entities including, but not limited to, sales of goods, deposits and borrowings, purchase of materials and receiving construction work services. The directors consider that the transactions with these State- owned Entities are activities in the ordinary course of the Group's business and that the dealings of the Group have not been significantly or unduly affected by the fact that the Group and these State-owned Entities are ultimately controlled or owned by the PRC government. The Group has also established pricing policies for services and products, and such pricing policies do not depend on whether or not the counterparties are State-owned Entities. Having due regard to the substance of the relationship, the directors are of the opinion that none of these transactions are material related party transactions that require separate disclosure.

(d) Key management personnel remuneration

Key management personnel are those persons holding positions with authority and responsibility for planning, directing and controlling the activities of the Group, directly or indirectly, including the Company's directors.

Remuneration for key management personnel, including amounts paid to the Company's directors as disclosed in Note 9, and certain of the highest paid employees as disclosed in Note 10, is as follows:

	2021	2020
	RMB'000	RMB'000
Salaries and other emoluments	3,225	2,979
Retirement scheme contributions	851	367
Discretionary bonuses	2,091	3,951
Cash settled-share based payment expenses	-	1,020
	6,167	8,317

(e) Applicability of the Listing Rules relating to connected transactions

The related party transactions in respect of the sale of goods, service provided, purchase of goods and service, purchase of property, plant and equipment, leases, interest expense and interest income with related parties under CNNC above constitute connected transactions or continuing connected transactions as defined in Chapter 14A of the Listing Rules. The disclosures required by Chapter 14A of the Listing Rules are provided in section "Connected transactions" of the Directors' Report.

(Expressed in RMB unless otherwise indicated)

STATEMENT OF FINANCIAL POSITION OF THE COMPANY **AT 31 DECEMBER 2021**

(Expressed in RMB)

	2021	2020
	RMB'000	RMB'000
Non-current assets		
Property, plant and equipment	10,135	12,988
Investment property	67	71
Intangible assets	9,002	5,409
Investments in subsidiaries	1,808,359	1,762,071
Interests in associates	28,444	24,337
Interest in joint ventures	594,252	552,747
Unquoted equity investments	150,299	136,903
Deferred tax assets	28,799	22,844
Other non-current assets	4,846	_
	2,634,203	2,517,370
Current assets		
Inventories	87,164	75,691
Trade and bill receivables	163,126	139,760
Prepayments, deposits and other receivables	429,252	315,798
Cash at bank and on hand	373,490	610,578
	1,053,032	1,141,827

(Expressed in RMB unless otherwise indicated)

STATEMENT OF FINANCIAL POSITION OF THE COMPANY AT 31 DECEMBER 2021 (CONTINUED)

(Expressed in RMB)

	2021	2020
	RMB'000	RMB'000
Current liabilities		
Trade payables	39,070	24,154
Accruals and other payables	154,590	145,493
Corporate bond	499,996	_
	693,656	169,647
Net current assets	359,376	972,180
Total assets less current liabilities	2,993,579	3,489,550
Non-current liabilities		
Corporate bond	-	499,784
Defined benefit retirement obligation	25,362	28,172
Deferred tax liabilities	13,130	9,781
Other long-term payables	602	5,061
Other non-current liabilities	15,340	13,843
	54,434	556,641
Net assets	2,939,145	2,932,909
Capital and reserves		
Share capital	319,875	319,875
Reserves	2,619,270	2,613,034
Total equity	2,939,145	2,932,909

(Expressed in RMB unless otherwise indicated)

37 **IMMEDIATE AND ULTIMATE HOLDING COMPANY**

As at 31 December 2021, the directors of the Company consider the immediate and ultimate holding company of the Group to be CNNC, which is a state-owned enterprise established in the PRC. CNNC does not produce financial statements available for public use.

POSSIBLE IMPACT OF AMENDMENTS, NEW STANDARDS AND 38 INTERPRETATIONS ISSUED BUT NOT YET EFFECTIVE FOR THE YEAR ENDED **31 DECEMBER 2021**

Up to date of issue of these financial statements, the IASB has issued a number of amendments and new standards which are not yet effective for the accounting year ended 31 December 2021 and which have not been adopted in these financial statements.

These include the following which may be relevant to the Group.

	accounting periods
	beginning on or after
Amendments to IFRS 3, Reference to the Conceptual Framework	1 January 2022
Amendments to IAS 16, Property, Plant and Equipment:	
Proceeds before Intended Use	1 January 2022
Amendments to IAS37, Onerous Contracts - Cost of Fulfilling a Contract	1 January 2022
Annual Improvements to IFRSs 2018-2020 Cycle	1 January 2022
Amendments to IAS 1, Classification of Liabilities as Current or Non-current	1 January 2023
Amendments to IAS 12, Deferred Tax related to Assets and Liabilities	
arising from a Single Transaction	1 January 2023
Amendments to IAS 8, Definition of Accounting Estimates	1 January 2023
Amendments to IFRS Practice Statement 2, Disclosure of Accounting Policies	1 January 2023
IFRS 17, Insurance Contracts	1 January 2023
Amendments to IFRS 10 and IAS 28, Sale or contribution of assets	
between an investor and its associate or joint venture	To be determined

The Group is in the process of making an assessment of what the impact of these developments is expected to be in the period of initial application. So far it has concluded that the adoption of them is unlikely to have a significant impact on the consolidated financialstatements.

Effective for

(Expressed in RMB unless otherwise indicated)

39 IMPACTS FROM COVID-19 PANDEMIC AND HEIGHTENED GEOPOLITICAL TENSIONS

The Covid-19 pandemic since early 2020 and the heightened geopolitical tensions arising from recent events continues to bring uncertainties to the Group's operating environment and may impact the Group's operations and financial position.

Despite of the gradual easing of the original Covid-19 pandemic in Mainland China, various travel restrictions and preventive measures are still in place to avoid wide-spread of the Covid-19 variants. In addition, the heightened geopolitical tensions arising from recent events across the globe brings additional uncertainties to world economies as these events developed. Accordingly, the Group continues to closely monitor these possible impacts have on the Group's businesses and keep contingency measures in place and under review. The directors of the Company confirm that these contingency measures include but not limited to reassessing the sustainability of existing suppliers and/or expanding the supplier base of some of its raw materials, in ensuring the adequate supply of raw materials.

As far as the Group's businesses are concerned, the Covid-19 related preventive measures and heightened geopolitical tensions may impact the supply of the Group's raw materials, which in turn may result in the decrease in sales of such products and hence the profitability of the Group's operations and the potential impairment of the Group's property, plant and equipment in future periods.

FIVE YEAR SUMMARY

(Expressed in RMB)

Note	2021 RMB'000	2020 RMB'000	2019 RMB'000	2018 RMB'000 (restated)	2017 RMB'000 (restated)
Results					
Revenue 2	5,143,694	4,274,183	3,988,904	3,249,708	2,672,045
Profit from operations 2	777,821	614,775	720,594	676,100	530,053
Finance costs 1	(35,803)	(34,977)	(18,758)	(7,714)	(7,095)
Share of profits less lossess of associates	6,962	(12,028)	2,141	(718)	14,764
Share of profits of joint ventures	53,698	28,393	29,830	24,952	20,242
Profit before taxation	802,678	596,163	733,807	692,620	557,964
Income tax 2,3	(129,641)	(120,640)	(108,882)	(105,490)	(82,326)
Profit for the year	673,037	475,523	624,925	587,130	475,638
Attributable to:					
Equity shareholders of the Company	335,751	213,582	329,030	321,903	271,454
Non-controlling interests	337,286	261,941	295,895	265,227	204,184
Profit for the year	673,037	475,523	624,925	587,130	475,638
Assets and liabilities					
Property, plant and equipment 1	2,512,947	2,210,150	1,987,037	1,339,798	765,845
Investment property	19,670	20,768	22,425	14,526	15,592
Lease prepayments 1	-	_	-	115,925	63,928
Intangible assets	156,496	148,363	108,382	48,928	32,176
Goodwill	44,036	43,875	43,875	5,670	5,670
Interests in associates	52,500	65,263	61,543	85,510	81,425
Interest in joint ventures	594,252	552,748	529,396	42,917	38,774
Long-term receivables	37,176	35,440	33,784	32,206	30,702
Unquoted equity investments 3	150,410	137,014	151,492	125,491	47,251
Other non-current assets	35,255	-	-	-	-
Deferred tax assets	214,445	200,556	265,045	206,263	155,489
Net current assets 2	2,685,119	2,998,946	2,711,220	2,692,296	1,543,703
Total assets less current liabilities	6,502,306	6,413,123	5,914,199	4,709,530	2,780,555
Deferred tax liabilities	(17,347)	(14,186)	(18,383)	(8,347)	(9)
Other non-current liabilities	(453,571)	(893,327)	(892,383)	(362,790)	(334,212)
NET ASSETS	6,031,388	5,505,610	5,003,433	4,338,393	2,446,334

FIVE YEAR SUMMARY (CONTINUED)

(Expressed in RMB)

		2021	2020	2019	2018	2017
	Note	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
					(restated)	(restated)
Capital and reserves						
Share capital		319,875	319,875	319,875	319,875	239,906
Reserves	1,2,3	3,859,415	3,571,323	3,439,471	3,182,178	1,629,038
Total equity attributable to equity shareholders of the Company		4,179,290	3,891,198	3,759,346	3,502,053	1,868,944
Non-controlling interests		1,852,098	1,614,412	1,244,087	836,340	577,390
TOTAL EQUITY		6,031,388	5,505,610	5,003,433	4,338,393	2,446,334
Earnings per share						
Basic and diluted (RMB)		1.05	0.67	1.03	1.15	1.17

Notes to the five year summary

- As a result of the adoption of IFRS 16, *Leases*, with effect from 1 January 2019, the Group has changed its accounting policies in respect of the lessee accounting model. In accordance with the transitional provisions of the standard, the changes in accounting policies were adopted by way of opening balance adjustments to recognise right-of-use assets and lease liabilities as at 1 January 2019. After initial recognition of these assets and liabilities, the Group as a lessee is required to recognise interest expense accrued on the outstanding balance of the lease liabilities, and the depreciation of the right-of-use assets, instead of the previous policy of recognising rental expenses incurred under operating leases on a straight-line basis over the lease terms. Figures in years earlier than 2019 are stated in accordance with the policies applicable in those years.
- As a result of the adoption of IFRS 15, Revenue from contracts with customers, with effect from 1 January 2018, the Group has changed its accounting policies in respect of revenue recognition. In accordance with the transitional provisions of the standard, the changes in accounting policies were adopted by way of opening balance adjustments to equity as at 1 January 2018. Figures in years earlier than 2018 are stated in accordance with the policies applicable in those years.
- The Group adopted IFRS 9, Financial instruments, including the amendments to IFRS 9, Prepayment features with negative compensation, from 1 January 2018. As a result, the Group has changed its accounting policies in relation to financial instruments. As allowed by IFRS 9, the Group has not restated information relating to prior years. Differences in the carrying amounts of the financial assets resulting from the adoption of IFRS 9 were recognised in retained earnings and reserves at 1 January 2018. There was no difference in the carrying amounts of the financial liabilities. Prior to 1 January 2018, figures were stated in accordance with the policies applicable in those years.
- As a result of the business combination under common control in 2019, figures for the years from 2017 to 2018 have been restated for comparison purposes.

DEFINITIONS

"404 Company" CNNC 404 Company Limited

"AGM" the annual general meeting of the Company

"Articles of Association" the Articles of Association of China Isotope & Radiation Corporation

"China Baoyuan" China Baoyuan Investment Co., Ltd.

"Board" or "Board of Directors" the Board of Directors of the Company

"Board of Supervisors" the Board of Supervisors of the Company

"China" or "PRC" the People's Republic of China, for the purpose of this annual report,

excluding Hong Kong, Macau and Taiwan

"CIAE" China Institute of Atomic Energy

"CIRC", "Company", "our Company",

"we" or "us"

China Isotope & Radiation Corporation, a joint stock company

incorporated in the PRC with limited liability

"CNGT" Chengdu Gaotong Isotope Co., Ltd. (CNNC)

"CNNC" China National Nuclear Corporation

"CNNC Fund" Beijing CNNC Industry Investment Fund (LLP)

"CNNC Tongxing" CNNC Tongxing (Beijing) Nuclear Technology Co., Ltd.

"Company Law" the Company Law of the People's Republic of China

"EPC" engineering, procurement and construction

"Group" or "our Group" the Company and its subsidiaries from time to time

"Listing Date" 6 July 2018, being the date on which the H Shares are listed on the

Stock Exchange

"Headway" Shenzhen Zhonghe Headway Bio-Sci & Tech Co., Ltd.

"HTA" HTA Co., Ltd.

"H Share(s)" overseas listed foreign shares in the ordinary share capital of the

> Company with a nominal value of RMB1.00 each, which are to be subscribed for and traded in HK dollars and have been approved for the granting of listing, and permission to deal, on the Stock Exchange

DEFINITIONS (CONTINUED)

"HK\$" or "HK dollars" Hong Kong dollars and cents, respectively, the lawful currency of Hong

Kong

"Hong Kong" or "HK" Hong Kong Special Administrative Region of the PRC

"Listing Rules" the Rules Governing the Listing of Securities on The Stock Exchange of

Hong Kong Limited

"Model Code" the Model Code for Securities Transactions by Directors of Listed

Issuers

"NPIC" Nuclear Power Institute of China

"PBOC" People's Bank of China

"Prospectus" the prospectus of the Company dated 22 June 2018

"Reporting Period" the financial year ended 31 December 2021

"RMB" Renminbi, the lawful currency of the PRC

"Rounding" In this report, where information is presented in hundreds, thousands,

ten thousands, millions or hundred millions, certain amounts of less than one hundred, one thousand, ten thousand, one million or hundred million, as the case may be, have been rounded to the nearest hundred, thousand, ten thousand, million or hundred million, respectively. Amounts presented as percentages have, in certain cases, been rounded to the nearest tenth or hundredth of a percent. Any discrepancies in any table or chart between totals and sums of amounts

listed therein are due to rounding

"SFO" the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong

Kong), as amended, supplemented or otherwise modified from time to

time

"Shareholder(s)" holder(s) of the Share(s) of the Company

"Shenzhen CICAM" Shenzhen CICAM Manufacturing Co., Ltd.

"Stock Exchange" The Stock Exchange of Hong Kong Limited

"Supervisor(s)" supervisor(s) of our Company

"Yunke Pharm" Chengdu Yunke Pharmaceutical Co., Ltd.

"%" per cent

中國同輻股份有限公司

China Isotope & Radiation Corporation