



# 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)  
(A joint stock company incorporated in the  
People's Republic of China with limited liability)  
股份代號 Stock Code : 1763

# 2019

## INTERIM REPORT

### 中期報告

# CONTENT

Corporate Information	2
Financial Highlights	4
Group Profile	5
Management Discussion and Analysis	6
Corporate Governance and Other Information	22
Review Report	28
Consolidated Statement of Profit or Loss	29
Consolidated Statement of Profit or Loss and Other Comprehensive Income	30
Consolidated Statement of Financial Position	31
Consolidated Statement of Changes in Equity	33
Condensed Consolidated Cash Flow Statement	36
Notes to the Unaudited Interim Financial Report	38
Definitions	67

# CORPORATE INFORMATION

## LEGAL NAME OF THE COMPANY

中國同輻股份有限公司(簡稱:中國同輻)

## ENGLISH NAME OF THE COMPANY

China Isotope & Radiation Corporation\*

## REGISTERED OFFICE

Room 611, 6/F  
Fuxingmenwai Street No. A2  
Xicheng District  
Beijing  
China

## HEAD OFFICE IN THE PRC

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Haidian District  
Beijing  
China

## 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  
Mr. Du Jin

### Non-executive Directors

Mr. Zhou Liulai  
Mr. Chen Shoulei (Appointed on 28 June 2019)  
Mr. Chen Zongyu (Appointed on 28 June 2019)

### Independent Non-executive Directors

Mr. Guo Qingliang  
Mr. Meng Yan  
Mr. Hui Wan Fai

## THE COMMITTEES UNDER THE BOARD

### Audit and Risk Management Committee

Mr. Hui Wan Fai (*chairman*)  
Mr. Meng Yan  
Mr. Zhou Liulai

### Nomination Committee

Mr. Meng Yanbin (*chairman*)  
Mr. Guo Qingliang  
Mr. Hui Wan Fai

### Remuneration and Appraisal Committee

Mr. Meng Yan (*chairman*)  
Mr. Chen Zongyu  
Mr. Guo Qingliang

### Strategy Committee

Mr. Meng Yanbin (*chairman*)  
Mr. Wu Jian  
Mr. Zhou Liulai  
Mr. Chen Zongyu  
Mr. Chen Shoulei

### Legal Affairs Committee

Mr. Meng Yanbin (*chairman*)  
Mr. Chen Zongyu  
Mr. Guo Qingliang  
Mr. Hui Wan Fai

## LEGAL REPRESENTATIVE

Mr. Meng Yanbin

## AUTHORIZED REPRESENTATIVES

Mr. Meng Yanbin (*chairman of the Board*)  
Mr. Wu Laishui (*joint company secretary*)  
Ms. Kam Mei Ha Wendy (*as the alternate representative of Mr. Meng Yanbin*)

# CORPORATE INFORMATION (CONTINUED)

## SUPERVISORS

Mr. Zhang Qingjun  
 Mr. Liu Zhonglin  
 Mr. Zhang Guoping (Appointed on 28 June 2019)  
 Mr. Li Guoxiang  
 Mr. Zhang Yiming

## JOINT COMPANY SECRETARIES

Mr. Wu Laishui  
 Ms. Kam Mei Ha Wendy

## AUDITOR

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## COMPLIANCE ADVISER

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## 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  
 Level 28/31/33/36/37  
 SK Tower  
 No. 6 Jianguomenwai Jia Main Street  
 Chaoyang District  
 Beijing  
 PRC

## PRINCIPAL BANKERS

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

## H SHARE REGISTRAR

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 Hopewell Centre  
 183 Queen's Road East  
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 Hong Kong

## STOCK CODE

1763

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## LISTING DATE

6 July 2018

# FINANCIAL HIGHLIGHTS

<b>(RMB in million)</b>	<b>Six months ended 30 June 2019</b>	Six months ended 30 June 2018 (restated)
Revenue	<b>1,655.0</b>	1,373.4
Gross profit	<b>1,190.2</b>	971.6
Profit from operating activities	<b>329.2</b>	282.5
Profit before taxation	<b>337.3</b>	288.4
Profit attributable to equity shareholders of the Company	<b>147.8</b>	117.5
Basic/diluted earnings per share (RMB)	<b>0.46</b>	0.49
Profitability		
Gross profit margin	<b>71.9%</b>	70.7%
Operating profit margin	<b>19.9%</b>	20.6%
Net profit margin	<b>17.0%</b>	16.9%
	<b>At 30 June 2019</b>	At 31 December 2018 (restated)
Total assets	<b>7,288.7</b>	6,903.7
Total liabilities	<b>2,806.9</b>	2,565.4
Net assets	<b>4,481.8</b>	4,338.4



## 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. As a nuclear technology application platform of CNNC, its businesses 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 the businesses of radioactive source products, irradiation, and independent clinical laboratory services. In the first half of 2019, the Company derives 83.7% of its revenue and 89.7% of its gross profit from the pharmaceuticals segment in the nuclear medicine industry. As a leader in the nuclear medicine industry in the PRC, which is featured with huge potential, high entry barriers and high profitability, CIRC is the largest manufacturer of radiopharmaceuticals, UBT kits and analyzers, and RIA kits in the PRC. CIRC has high market presence. CIRC is the largest radioactive source products manufacturer with the 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 irradiation service, CIRC is the third largest provider for irradiation service, and is the only company 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 MEP to engage in the design, manufacturing and installation of irradiation facilities in China.

As the nuclear technology application industry platform of CNNC, CIRC 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.

# 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 sterilization purpose and EPC service for the design, manufacturing and installation of gamma ray irradiation facilities and the provision of independent clinical laboratory services to hospitals and other medical institutions.

## BUSINESS REVIEW

During the six months ended 30 June 2019, we operated four business segments, namely pharmaceuticals, radioactive source products, irradiation and independent clinical laboratory services and other businesses. Benefiting from medical treatment technologies and policies, the continuing deepening of the reform of the State pharmaceuticals system, the progress of the radioactive pharmaceuticals and medical treatment technologies, the further improvement of the nuclear medicine system, coupled with the aging population, the increased average longevity of people and the enhanced health and safety awareness and per-capita consumption of citizens, the isotopes and irradiation industry has widespread development and application in China. During the Reporting Period, the Group rides on the momentum to actively explore new systems of scientific and technological innovation, make efforts to promote the construction of its scientific research platform, carefully organize scientific research and production activities, and spare no effort to promote industrial strategic arrangements and market development. Revenue achieved was RMB1,655.0 million, representing a year-on-year increase of 20.5%. Net profit was RMB281.3 million, representing a year-on-year increase of 21.0%, and net profit attributable to equity shareholders of the Company was RMB147.8 million, representing a year-on-year increase of 25.8%.

## BUSINESS SEGMENTS

### 1. Pharmaceuticals

CIRC are the 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 immunoassay diagnostic reagents and kits in China. During the Reporting Period, CIRC promoted all production and operation activities successively. Revenue from the pharmaceuticals business was RMB1,384.4 million, representing a year-on-year increase of 21.0%, among which, in the first half of 2019, revenue from sales of Technetium-99m instantly labeled pharmaceutical series increased by 21.2% compared to the first half of 2018, which was mainly due to the fact that on the one hand, CIRC increased the clinical promotion of technetium-99m-MIBI, on the other hand, some major medical centers (such as Hengdian HTA, Zhengzhou HTA, Shenyang HTA etc.) increased their marketing efforts, resulting in an increase in customer usage and customer base. Revenue from sales of strontium-89 chloride injections increased by 15.4% compared to the first half of 2018, mainly due to the preliminary results of the clinical promotion activities of strontium-89 chloride injections actively carried out by CIRC; revenue from sales of fluorine-18-FDG injections increased by 15.4% compared to the first half of 2018, and in addition to certain natural growth factors, the official operation of Hengdian HTA was also an important growth factor; in addition, pharmaceuticals centers in Wuhan and Changsha have obtained GMP certificates, which provided a solid guarantee for the subsequent sales growth of fluorine-18-FDG injections; revenue from sales of Carbon-14 UBT kits increased by 29.3% compared to the same period of 2018, mainly due to the significant growth of UBT kits as a result of the promotion of breath test technologies by CIRC to grassroots medical institutions, the further exploration of the frontline physical examination market, the continuous conducting of academic promotion and charity clinics activities and the enhanced health awareness of frontline hospitals and the general public.

# MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

## 2. Radioactive source products

CIRC are one of the largest manufacturers of medical and industrial radioactive sources products in China and also a 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 successful launch of CIRC's first batch of cobalt-60 raw materials for medical use marks the mastering of the technology for production of cobalt-60 for medical use through independent research and development in the PRC, and makes CIRC the first and sole domestic supplier of cobalt-60 for medical use in China. The gamma knife, medical equipment, is about to be equipped with "China Chips" to successfully realize domestication, which provides great support for sustainable development of the gamma knife industry. During the Reporting Period, revenue from radioactive source products reached RMB184.9 million, representing a year-on-year increase of 9.0%, among which, revenue from sales of cobalt-60 gamma knife radioactive source in 2019 grew faster by 28.0% compared to the same period of last year, which was due to the short supply in the market in the previous two years; revenue from sales of meter calibration sources grew by 52.2% compared to the same period of last year.

## 3. Irradiation

CIRC are primarily engaged in providing irradiation service for sterilization purpose to manufacturers of medical devices, food, traditional Chinese medicine and cosmetics in China, and provide EPC services for the design, manufacturing and installation of irradiation facilities to irradiation service providers. Revenue from the irradiation segment of CIRC for the first half of 2019 was RMB34.7 million, representing a year-on-year increase of 33.7%, mainly due to the fact that during the Reporting Period, the irradiation segment further developed the market by continuously expanding the strategic layout, which realised the increase in operating income. During the Reporting Period, CNNC Isotope & Radiation (Changchun) Radiation Technology Co., Ltd. (hereinafter referred to as "Changchun Radiation Company"), a subsidiary of CIRC, has successfully developed PE-Xc pipes and PE-Xc pipes of high thermal conductivity for underfloor heating through the irradiation technology, which vitalizes the underfloor heating market of China. Changchun Radiation Company also actively plans for new scientific research projects, such as research on the preparation and application of radiation-modified high-performance environment-friendly natural fiber composite materials.

## 4. Independent clinical laboratory services and other businesses

As a downstream extension of CIRC's in vitro immunoassay diagnostic reagents and kits business, we also provide independent clinical laboratory services to hospitals and other medical institutions in China. We primarily offer independent clinical laboratory services with respect to hepatitis, endocrine, bone metabolism, cardiovascular disease, diabetes and other diseases. CIRC is promoting the chain operation of independent clinical laboratories. During the Reporting Period, laboratory centers in Chengdu and Wuhan obtained medical institution licenses, and started to accept samples. CIRC will continuously develop the independent clinical laboratory service industry, and will continuously expand the coverage of independent third-party laboratory centers, in line with medical development of China. During the Reporting Period, revenue from independent clinical laboratory services and other businesses of CIRC was RMB51.0 million, representing a year-on-year increase of 53.5%. Revenue from independent clinical laboratory services increased by 24.4% year on year, mainly due to (i) the operation of clinical laboratory service subsidiaries; (ii) the establishment of our special testing platform to overcome weaknesses in development and to promote technological upgrade and enhance our strengths; and (iii) signature of a strategic cooperation agreement with BGI (華大基因) to enter the gene testing market.

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

Meanwhile, arrangements are accelerated for the nuclear medical equipment business as a new industry. After the establishment of CNNC Accuray (Tianjin) Medical Technology Co., Ltd. (中核安科锐(天津)醫療科技有限責任公司) by CNNC High Energy Equipment (Tianjin) Co., Ltd. (中核高能(天津)裝備有限公司) (hereinafter referred to as “CNHE”), a subsidiary of CIRC, and Accuray Asia Limited, an American company on 28 January 2019, CNHE actively participates in ChinaMed and other exhibitions, continuously promoting two international advanced radiotherapy products, namely Radixact, the fourth-generation tomotherapy system, and Cyberknife, the robotic radiosurgery system; in the first half of 2019, CNHE and Shanxi Medical University signed the framework agreement for cooperation in production and research of nuclear medicine equipment, so as to promote the localization of high-end nuclear medicine equipment.

In the field of nuclear medical treatment, CIRC updates its development philosophy to keep pace with the times, by the use of its own advantages in traditional industries, and actively expands its businesses in the market in the field of medical services, and makes great efforts to promote the development of medical service businesses including molecular imaging diagnosis.

The table below sets forth our revenue by business segment for the six months ended 30 June 2019 and 2018:

	Six months ended 30 June 2019		Six months ended 30 June 2018	
	Amount	%	Amount (restated)	%
<b>(RMB in million, except in percentage)</b>				
Pharmaceuticals	1,384.4	83.7	1,144.6	83.3
Radioactive source products	184.9	11.2	169.7	12.4
Irradiation	34.7	2.1	25.9	1.9
Independent clinical laboratory services and other businesses	51.0	3.0	33.2	2.4
Total	1,655.0		1,373.4	

### MARKETING

In order to unify the market resources, expand the market size, strengthen the core business, increase the market share, and implement the policy of collectivization and commercialization, CIRC established a radiopharmaceutical marketing center, a radioactive source marketing center and a brachytherapy business division (hereinafter referred to as the “Three Marketing Platforms”) in 2018. During the Reporting Period, the three marketing platforms operated smoothly, realizing the unified management of market resources for therapeutic radiopharmaceuticals, radioactive source and Iodine-125 sealed source and relevant sales channels, and providing a support for scientific and reasonable development of marketing strategies. Through the establishment of the three marketing platforms, CIRC has gradually built a high-quality brand image.



## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

In terms of market development, the three centers of marketing platforms continue to make intensive efforts in various market segments. The radiopharmaceutical marketing center actively carries out clinical promotion activities for Strontium-89 chloride injection and technetium-99m-MIBI, with a total of 89 academic salons for technetium-99m-MIBI products, covering 1,619 medical, technical and nursing personnel; and continuously strengthens external cooperation to enrich the product structure. During the Reporting Period, it started 4 demonstration base construction projects for the promotion of nuclear medicine application for medical diagnosis, and had 1 hospital passed the acceptance test and established. At present, there are 49 participating hospitals in the PRC. The accelerated popularization of nuclear medicine application for clinical diagnosis and treatment effectively facilitates market expansion for products of the Company. The brachytherapy business division has completed the unified management of Iodine-125 sealed sources of three brands, and has actively carried out development for industry extension. The radioactive source marketing center realized the integration of the sales channels of radioactive sources, thus effectively improved the market competitiveness of the Company.

Meanwhile, HTA is making efforts to create “overall nuclear medicine solutions”, aiming to provide overall nuclear medicine solution services to major hospitals in China, and accelerate the transformation from provision of products to provision of system solutions, thus expediting the popularization of nuclear medicine departments in medical institutions in China and promoting the development of nuclear medicine in China.

During the Reporting Period, the Company’s headquarters and its members held a total of 17 publicity and exhibition activities such as various national academic conferences and trade exhibitions, thus enhancing its brand influence. It has established a nationwide product, technology and academic promotion system. Meanwhile, CIRC has actively carried out customer satisfaction survey to strengthen product safety and quality control systems and deepen service awareness; and has successfully acquired companies, such as Pet-Module, Ningbo Junan, and Leike, to expand its product lines and continuously extend its industrial coverage.

As of 30 June 2019, the Group held various marketing activities through our sales network comprising our own sales staff, promoters and distributors, covering 31 provinces, municipalities and autonomous regions in China. In addition, the Group had a broader end user base. As of 30 June 2019, the Group had a sales network covering more than 11,000 hospitals and other medical institutions, including 1,800 Class III hospitals, 5,000 Class II hospitals and 4,400 Class I hospitals in China.

# MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

## SCIENTIFIC RESEARCH AND INNOVATION

The Group owns strong research and development strengths. Our research and development team comprising 203 research and development staff focuses on the extensive researching and optimization of production technologies, the development of new products and the safety and efficacy upgrading of existing products. The Group first conducts detailed market analysis and then strictly selects research and development projects according to its own advantages, industrial expertise and market demand. We have been proactively researching and developing various imaging diagnostic and therapeutic pharmaceuticals and are striving to fill in the blanks in the China therapy fields so as to meet the therapy demand. As of 30 June 2019, we owned eight imaging diagnostic and therapeutic radiopharmaceuticals under research and development, including one radiopharmaceutical pending approval for production (i.e. sodium iodine-131 capsule for therapeutic purpose), one radiopharmaceutical at the stage of clinical trial (i.e. iodine-131-MIBG injection), one therapeutic radiopharmaceutical pending application and approval for clinical trial (i.e. palladium-103 sealed source), one imaging diagnostic radiopharmaceutical pending approval for clinical trial (i.e. sodium fluorine-18 injection) and four imaging diagnostic and therapeutic radiopharmaceuticals under various stages of research and development.

In the first half of 2019, we achieved remarkable results in our work on intellectual properties with a total of 13 patents applied including 11 patents for inventions and 13 licensed patents including 1 patents for inventions. As of 30 June 2019, we had registered more than 240 patents and had filed applications for more than 80 patents, which further solidified our business strengths in China. As of 30 June 2019, the Group established three research and development centers under the CIRC Institute system, namely in vitro diagnosis technology, radioactive medicine, and stable isotope and breath test technology R&D centers. The Group will work with foreign and domestic advantageous enterprises and public institutions to innovate on operating systems and mechanisms, carry out product research and development through various methods including independent research and development, alliance, entrustment, introduction or acquisition and merger, and will gradually establish a high-level enterprise research and development center covering all nuclear technology application fields. In addition, the postdoctoral research workstation for nuclear technology application has been officially approved for operation, and has started the enrollment process, which provides strong support for the construction of the Group's multi-level research teams.

## INTERNATIONAL BUSINESSES

During the Reporting Period, the Group recorded revenue of RMB22.0 million from our export of UBT analyzers, RIA kits, cobalt sources and other products to more than 50 countries and regions, representing a year-on-year increase of 58.2%, compared to the same period of 2018; and its overseas revenue from brachytherapy particle products exceeded zero; with regard to Morocco gamma knife demonstration project, it completed equipment donation, cobalt source shipment and delivery and physician training work, and was about to start the equipment commissioning; it obtained the IAEA (International Atomic Energy Agency) supplier qualification; meanwhile, it actively undertook and participated in activities organized by IAEA, held important talks with leaders of institutions, and supported IAEA in promoting nuclear technology application in member countries. The strategy of overall nuclear medicine solutions was already paying off, with continuous improvement in overseas market development platforms and stable progress in the establishment of overseas localized operating organizations, while overall international market conditions will facilitate the stable growth of businesses in overseas markets in the second half of the year.

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### CAPITAL OPERATION

During the Reporting Period, the Group completed the acquisition of 5 enterprises with a total investment of RMB159.3 million.

S/N	Acquired Enterprise	Agreement Signature Date	Acquisition Amount (RMB in million)	Principal Businesses
1	Ningbo Junan Pharmaceuticals Technology Co., Ltd. (寧波君安藥業科技有限公司)	18 January 2019	80.0	Production and sale of Iodine-125 sealed sources and Strontium-89 chloride injections
2	Pet-Module (Beijing) Co., Ltd. (派特(北京)科技有限公司)	24 January 2019	8.4	Production and sale of FDG composite modules
3	Shanghai Eugene Biotech Co., Ltd. (上海優晶生物科技有限公司)	18 February 2019	1.4	Production and sale of POCT products
4	Xinghua Meiquan Technology Co., Ltd. (興化市美全科技有限公司)	20 March 2019	18.5	Irradiation services
5	Beijing Leike Mechatronic Engineering Technology Co., Ltd. (北京雷克機電工程技術有限公司)	29 March 2019	51.0	Production, reloading, sale and transportation of iridium-192 and selenium-75 radioactive sources, and otherwise

# MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

## PRODUCTION CAPACITY

The manufacturing and production facilities of the Group have a wide geographical coverage in China. The pharmaceuticals centers are located in 12 regions, including Beijing, Shanghai, Guangzhou and Tianjin; the therapeutic radiopharmaceuticals manufacturing bases are located in 3 regions (i.e. Beijing, Ningbo and Jiajiang); the UBT diagnostic kits and test analyzers manufacturing bases are located in 2 regions (i.e. Shenzhen and Tongcheng); the radioactive source manufacturing bases are located in 2 regions (i.e. Beijing and Jiajiang) and the in vitro immunoassay diagnostic reagents and kits manufacturing bases are located in Beijing.

The production capacity, actual production volume and utilization rates for the six months ended 30 June 2019 are set out in the table below:

### Imaging diagnostic and therapeutic radiopharmaceuticals:

	Six months ended 30 June 2019		
	Annual designed capacity	Actual production volume	Utilization rate
Fluorine-18-FDG injections (Ci)	11,600	2,260	19.5%
Molybdenum-99/technetium-99m generators (Ci)	32,445	5,751	17.7%
Technetium-99m instantly labeled pharmaceutical series (vial)	567,000	215,979	38.1%
Sodium iodine-131 oral solution (Ci)	21,986	5,140	23.4%
Iodine-125 sealed sources (unit)	1,000,000	398,571	39.9%
Strontium-89 chloride injections (vial)	65,000	4,548	7.0%

### UBT kits and analyzers:

	Six months ended 30 June 2019		
	Annual designed capacity	Actual production volume	Utilization rate
Carbon-13&14 UBT kits (unit)	23,000,000	19,280,683	83.8%
Carbon-13&14 UBT analyzers (unit)	6,200	2,712	43.7%

### In vitro immunoassay reagents and kits:

	Six months ended 30 June 2019		
	Annual designed capacity	Actual production volume	Utilization rate
RIA kits (unit)	200,000	50,126	25.1%
EIA reagents, CLIA reagents and TRFIA reagents (unit)	100,000	24,409	24.4%
Colloidal gold reagents (unit)	100,000	278	0.3%

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### Radioactive source products:

	Six months ended 30 June 2019		
	Annual designed capacity	Actual production volume	Utilization rate
Cobalt-60 source for gamma knife (Ci)	2,500,000	137,614	5.5%
Iridium-192 brachytherapy sources (Ci)	10,000	2,913	29.1%
Cobalt-60 radioactive source for irradiation service (Ci)	14,000,000	3,640,563	26.0%
Iridium-192 non-destructive testing radioactive sources (Ci)	1,200,000	62,470	5.2%
Caesium-137 radioactive sources (Ci)	55,835	1,117	2.0%
Americium-241/Beryllium neutron sources (Ci)	1,000	10	1.0%
Selenium-75 non-destructive testing radioactive source (Ci)	50,000	2,980	6.0%

### FUTURE DEVELOPMENT

In the second half of 2019, we will continue to enhance market promotion, strengthen the “shared and diversified” business philosophy with the mission of bringing benefit to people’s livelihood and the society, continuously improve the market service system and increase the sales volume of the Group’s products. In the future, under the guidance of the Company’s development strategy, we will further accelerate the development of production capacity, increase scientific research investment, solidly improve the corporate management level, and realize industry extension and expansion through capital operation, thus supporting the development of the Group.

In terms of capacity building, in order to meet the increasing demand for radiopharmaceuticals in China’s densely inhabited districts in a timely manner, we will accelerate arrangements for the network of pharmaceuticals centers, with proposed establishment and operation of a number of pharmaceuticals centers in the second half of 2019, laying a solid foundation for the formation of a network arrangement system covering major cities in China in 2022. In addition, progress has been made in the construction of medical bases. In the first half of 2019, Guangdong medical base was officially completed and went into operation, while two new types of modern production and research bases in Hebei Province and Sichuan Province were being constructed in an orderly manner. The successive completion and operation of the medical bases will further enhance our research and development and production capacity, and help meet the requirements of standardized and large-scale production and operation of radiopharmaceuticals for imaging diagnosis and medical treatment, so as to meet the demand in China’s growing radiopharmaceuticals market.

In terms of scientific research innovation, we will more clearly define the positioning of leading by science and technology, vigorously promote reform and innovation work in terms of system structure, assessment mechanism, salary system, talent introduction, incentive measures, etc., and accelerate the construction of the Group’s CIRC Institute, so as to expedite the fostering of professional talents. Meanwhile, we will further strengthen cooperation with domestic and foreign colleges and universities, scientific research institutions and enterprises, carry out various technical researches, and improve the capability of research and development of new products, so as to continuously enhance our core competitiveness.

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

In terms of management, we will make solid progress in lean management, build a lean culture, form a lean management system, and continuously improve the management level in terms of production site, process, logistics, safety and quality, so as to reduce costs and improve quality. Meanwhile, we will accelerate the construction of informatization platforms, gradually incorporate information technologies into all processes of the corporate value chain, so as to significantly improve enterprise management and work efficiency.

In terms of capital operation, we will continuously improve the capital operation ability, actively promote the vertical and horizontal expansion and development of the industry, concentrate advantageous resources to carry out strategic capital operation supporting the industry in the fields of radioactive medicine, medical diagnosis, irradiation application, nuclear medicine equipment, etc., according to strategic positioning of various industries, and with focus on key projects. We gradually realize the transformation from sale of products to provision of services, and make efforts to build a platform of “overall nuclear medicine solutions”.

In the future development, the Group will make efforts to promote the rapid development of the nuclear technology application industry, according to the market demand and with the aim of obtaining economic benefits, and strive to become a leading international supplier of nuclear technology application products and services.

### FINANCIAL REVIEW

#### Revenue

We derived our revenue mainly from four major business segments: (1) pharmaceuticals; (2) radioactive source products; (3) irradiation; and (4) independent clinical laboratory services and other businesses.

Our revenue increased by 20.5% from RMB1,373.4 million (restated) for the six months ended 30 June 2018 to RMB1,655.0 million during the Reporting Period, which was mainly due to an increase in revenue from our pharmaceuticals segment, radioactive source products segment and independent clinical laboratory services and other businesses.

#### Cost of Sales, Gross Profit and Gross Margin

Our cost of sales increased by 15.7% from RMB401.8 million (restated) for the six months ended 30 June 2018 to RMB464.7 million during the Reporting Period, which was mainly due to an increase in cost of sales of our pharmaceuticals segment and independent clinical laboratory services and other businesses segment.

Our gross profit increased by 22.5% from RMB971.6 million (restated) for the six months ended 30 June 2018 to RMB1,190.2 million during the Reporting Period and our gross margin increased from 70.7% (restated) to 71.9%. The increase in gross margin was primarily due to higher gross margin of our pharmaceuticals segment with higher proportion of revenue in our total revenue.

# MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

## Other Income

Our other income increased by 70.6% from RMB10.9 million (restated) for the six months ended 30 June 2018 to RMB18.6 million during the Reporting Period, primarily due to the increase in interest income during the Reporting Period as a result of the existence of a balance of HKD funds raised through our listing in Hong Kong.

## Selling and Distribution Expenses

Our selling and distribution expenses increased by 25.3% from RMB541.5 million (restated) for the six months ended 30 June 2018 to RMB678.3 million during the Reporting Period, which was primarily due to an increase in our sales service fees and staff costs as of the expanded operational scale of our radiopharmaceuticals products.

As a percentage of revenue, selling and distribution expenses increased slightly from 39.4% (restated) for the six months ended 30 June 2018 to 41.0% during the Reporting Period.

## Administrative Expenses

Our administrative expenses increased by 27.0% from RMB158.5 million (restated) for the six months ended 30 June 2018 to RMB201.3 million during the Reporting Period, mainly due to (i) the increased staff costs resulting from our expanded operational scale, (ii) the increase in depreciation and amortization charges of the Company, mainly due to the expansion of segment operations, including pharmaceuticals and independent medical tests, and investment of more fixed assets, and (iii) increased research and development expenses incurred by the Company.

As a percentage of revenue, administrative expenses increased from 11.5% (restated) for the six months ended 30 June 2018 to 12.2% during the Reporting Period.

## Finance Costs

Our finance costs increased by 113.3% from RMB2.8 million (restated) for the six months ended 30 June 2018 to RMB6.0 million during the Reporting Period, mainly due to the increase in interest expenses on our lease liability and the rise in exchange losses resulting from exchange rate movement.

## Share of Profits less Losses of Associates and Share of Profits of a Joint Venture

Our share of profits less losses of associates increased by RMB3.9 million from RMB-2.3 million for the six months ended 30 June 2018 to RMB1.6 million during the Reporting Period, mainly due to the decrease in losses incurred by our associate, Shenzhen CICAM, and the increase in earnings of other associates. Our share of profits of a joint venture increased by 13.1% from RMB11.1 million for the six months ended 30 June 2018 to RMB12.5 million during the Reporting Period, mainly due to an increase in profits from our joint venture, Shanghai GMS Pharmaceutical Co., Ltd.

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### Profit before Tax

As a result of the foregoing, our profit before tax increased by 17.0% from RMB288.4 million (restated) for the six months ended 30 June 2018 to RMB337.3 million during the Reporting Period.

### Income Tax

Our income tax increased slightly by 0.2% from RMB55.9 million (restated) for the six months ended 30 June 2018 to RMB56.0 million during the Reporting Period, mainly due to the increase in our taxable income.

For the six months ended 30 June 2018 and during the Reporting Period, our effective tax rate was 19.4% (restated) and 16.6% respectively.

### Profit for the Period

As a result of the foregoing, our profit for the period increased by 21.0% from RMB232.5 million (restated) for the six months ended 30 June 2018 to RMB281.3 million during the Reporting Period.

## FINANCIAL POSITION

### Overview

For the six months ended 30 June 2019, the total assets, the total liabilities and the total equity of the Group were RMB7,288.7 million, RMB2,806.9 million and RMB4,481.8 million, respectively.

### Net Current Assets

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

	<i>RMB in million</i>	
	<b>At 30 June 2019</b>	At 31 December 2018 (restated)
Inventories	<b>414.3</b>	343.7
Trade and bill receivables	<b>1,950.1</b>	1,728.4
Prepayments, deposits and other receivables	<b>283.5</b>	198.6
Cash at bank and on hand	<b>2,331.1</b>	2,615.8
<b>Total Current Assets</b>	<b>4,979.0</b>	4,886.5
Borrowings	<b>150.0</b>	0.0
Trade payables	<b>146.0</b>	169.8
Accruals and other payables	<b>2,000.0</b>	1,876.7
Lease liabilities	<b>21.3</b>	0.0
Provisions	<b>69.6</b>	68.0
Income tax payable	<b>58.2</b>	79.7
<b>Total Current Liabilities</b>	<b>2,445.1</b>	2,194.2
<b>Net Current Assets</b>	<b>2,533.9</b>	2,692.3

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

Our net current assets decreased by 5.9% from RMB2,692.3 million (restated) as of 31 December 2018 to RMB2,533.9 million as of 30 June 2019, mainly due to the rise in current liabilities as a result of the increase in current borrowings.

### 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 4.4% (restated) and 6.8% as of 31 December 2018 and 30 June 2019, respectively.

Our quick ratio (total current assets excluding inventories divided by total current liabilities as of the same date) was 2.1 times (restated) and 1.9 times as of 31 December 2018 and 30 June 2019, respectively.

### Analysis of Cash Flows

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

	<i>RMB in million</i>	
	<b>Six months ended 30 June</b>	
	<b>2019</b>	2018 (restated)
Net cash (used in)/generated from operating activities	<b>(13.9)</b>	105.7
Net cash used in investing activities	<b>(790.0)</b>	(69.9)
Net cash generated from/(used in) financing activities	<b>0.4</b>	(57.9)
Net decrease in cash and cash equivalents	<b>(803.5)</b>	(22.1)
Cash and cash equivalents at the beginning of the period	<b>2,557.5</b>	1,157.1
Effect of changes in foreign exchange rate	<b>1.8</b>	0.1
Cash and cash equivalents at the end of the period	<b>1,755.9</b>	1,135.0

### 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 30 June 2019, our trade and other receivables (net of bad debt allowance of RMB168.6 million) were RMB2,233.6 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 30 June 2019, our trade and other payables were RMB2,146.1 million.

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### Bank Loans

As of 30 June 2019, our bank loans were RMB249.4 million, among which, Headway, a subsidiary of the Group borrowed a five-year loan of RMB135.0 million which carries interest at a rate of 5.0% above the five-year benchmark lending rate per annum of the People's Bank of China ("PBOC"); Sanjin Electronic borrowed a five-year loan of RMB9.4 million which carried interest at an annual rate of 4.51%; HTA borrowed a short-term borrowing due within one year of RMB100.0 million which carried interest at an annual rate of 3.915%; Ningbo Junan borrowed a short-term borrowing due within one year of RMB5.0 million, of which RMB3.0 million carried interest at an annual rate of 6% and RMB2.0 million carried interest at an annual rate of 5.9%.

### Capital Expenditures

Our capital expenditures mainly comprise additions to ownership interests in leasehold land held for own use, investment properties, plant and equipment and intangible assets. During the Reporting Period, our capital expenditures were RMB229.2 million.

### Contingent Liabilities

As of 30 June 2019, we did not have any material contingent liabilities.

### Pledge of Assets by the Group

As at 30 June 2019, a subsidiary of the Group borrowed a five-year loan which carried interest at a rate of 5.0% above the PBOC five-year benchmark lending rate per annum and was jointly guaranteed by shareholders of the subsidiary, and the Group's certain ownership interests in leasehold land held for own use with carrying amount of RMB25.3 million, and time deposits with original maturity over three months of RMB18.0 million as at 30 June 2019 were pledged as security for such bank loan. Sanjin Electronic has pledged its ownership interests in leasehold land held for own use and properties with a carrying amount of RMB7.3 million and RMB58.8 million respectively to borrow a five-year loan of RMB9.4 million. Ningbo Junan has pledged its properties with a carrying amount of RMB3.6 million to borrow a short-term borrowing due within one year of RMB5.0 million.

### Foreign Exchange and Foreign Exchange Risk

During the six months ended 30 June 2019, 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 minimize 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.

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

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 to ensure that we maintain sufficient reserves of cash and adequate commitment funds from major financial institutions to meet both short 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.

Our Board will propose declaration of dividend, if any, in Renminbi with respect to the shares on a per share basis for shareholders' approval. We will pay such dividend in Renminbi. According to the Articles of Association of the Company, all of our shareholders are equally entitled to dividend and distribution. Holders of the shares will be proportionately entitled to all dividends and other distributions declared on a per share basis.

### INTERIM DIVIDEND

The Board does not recommend the payment of any interim dividend for the six months ended 30 June 2019.

## MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

### NO MATERIAL ADVERSE CHANGE

The Directors have confirmed that there was no material adverse change in our financial and trading position or prospects since 30 June 2019.

### 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 of Hong Kong Limited (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 related expenses in relation to the global offering. As at 30 June 2019, liquidity of approximately RMB119.9 million were used and approximately RMB206.0 million was used in selective mergers and acquisitions.

*Unit: RMB in million*

Use	Initial allocation of the net proceeds	Revised allocation of the net proceeds	Amount utilized as of 31 December 2018	Balance of the net proceeds allocated after the change	Amount utilized from January to June 2019	Balance
Investment in imaging diagnostic and therapeutic radiopharmaceuticals manufacturing and research and development bases	597.30	460.00	0.00	460.00	23.50	436.50
Establishment of production and distribution subsidiaries	67.30	–	0.00	–	0.00	–
Establishment of new production facilities – Headway (Tongyuan or Shenzhen)	84.50	50.00	0.00	50.00	0.00	50.00
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	253.60	118.30	0.00	118.30	13.55	104.75
Investments/selective (mergers) acquisitions	286.50	536.10	51.40	484.70	154.60	330.10
Working capital and general corporate purposes	143.30	268.10	71.70	196.40	48.24	148.16
<b>Total</b>	<b>1,432.50</b>	<b>1,432.50</b>	<b>123.10</b>	<b>1,309.40</b>	<b>239.89</b>	<b>1,069.51</b>

# MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

## EMPLOYEES AND REMUNERATION POLICY

The Group had a total of 2,571 employees as at 30 June 2019. During the six months ended 30 June 2019, our staff costs (including directors' remuneration but excluding contributions to any pension plan) were approximately RMB163.4 million. The remuneration policy of the Group is to motivate and retain excellent staff so as to realize 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 realize 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 realize 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 six months ended 30 June 2019, 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 Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "**Listing Rules**") (where appropriate).

By order of the Board of Directors  
**China Isotope & Radiation Corporation**  
**Meng Yanbin**  
*Chairman*

Beijing, the PRC, 30 August 2019

# CORPORATE GOVERNANCE REPORT AND OTHER INFORMATION

## COMPLIANCE WITH THE CORPORATE GOVERNANCE CODE

The Company has adopted and applied the principles and code provisions of the Corporate Governance Code set out in Appendix 14 to the Listing Rules. During the Reporting Period, the Company has complied with the principles and code provisions set out in the Corporate Governance Code. The Group has always been committed to enhancing its corporate governance level and deems the corporate governance as an integral part of the value created for shareholders. The Group has, with reference to the code provisions of the Corporate Governance Code set out in Appendix 14 to the Listing Rules, established a modern corporate governance structure effectively balanced and independently operated by the general meetings, the Board, the Supervisory Committee and senior management of the Company. The Company has also adopted the Corporate Governance Code as the corporate governance practices of the Company.

## COMPLIANCE WITH THE MODEL CODE FOR SECURITIES TRANSACTIONS

The Group has adopted a set of codes (“Customized Code”) whose standards are not lower than the Model Code for Securities Transactions by Directors of Listed Issuers (the “Model Code”) as set out in Appendix 10 of the Listing Rules as its own code of conduct regarding securities transaction by all Directors, Supervisors and the relevant employees of the Company.

Having made specific enquiries to the Directors and Supervisors, all Directors and Supervisors confirmed that they had complied with the required standards as set out in the Customized Code during the Reporting Period. The Company was also not aware of any incidents of non-compliance with the Customized Code by the relevant employees.

## INDEPENDENT NON-EXECUTIVE DIRECTORS

The Company has appointed a sufficient number of independent non-executive Directors, one of whom with appropriate professional qualifications, or appropriate accounting or related financial management expertise in accordance with the requirements of the Listing Rules. The Company appointed a total of three independent non-executive Directors, including Mr. Guo Qingliang, Mr. Meng Yan and Mr. Hui Wan Fai.

## AUDIT AND RISK MANAGEMENT COMMITTEE

The audit and risk management committee of the Company (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. Meng Yan and Mr. Zhou Liulai, and its terms of reference comply with the Listing Rules.

The Audit and Risk Management Committee has considered and reviewed the accounting principles and practices adopted by the Group and has discussed the relevant internal control and financial reporting matters with the management, including reviewing the unaudited condensed consolidated interim financial results of the Group for the six months ended 30 June 2019.

# CORPORATE GOVERNANCE REPORT AND OTHER INFORMATION (CONTINUED)

On 30 August 2019, the Audit and Risk Management Committee reviewed and confirmed the interim results announcement of the Group for the six months ended 30 June 2019, the 2019 interim report and the unaudited condensed consolidated interim financial information for the six months ended 30 June 2019 prepared in accordance with the IAS 34 *Interim Financial Reporting*.

## SHARE CAPITAL

As of 30 June 2019, the share capital of the Company totalled RMB319,874,900, divided into 79,968,800 H Shares and 239,906,100 Domestic Shares of RMB1.00 each. The Company's share capital has not changed during the Reporting Period.

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

As of 30 June 2019, none of the Directors, Supervisors and chief executive of the Company had interests and short positions (a) which will have to be notified to our Company and the Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests and short positions which he is taken or deemed to have under such provisions of SFO); or (b) which will be required, pursuant to section 352 of the SFO, to be entered in the register referred to therein; or (c) which will be required to be notified to our Company and the Stock Exchange pursuant to the Model Code.

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

To the best knowledge of the Company, as of 30 June 2019, 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:

# CORPORATE GOVERNANCE REPORT AND OTHER INFORMATION (CONTINUED)

Shareholder	Class of Shares	Nature of interest	Number of Shares held	Approximate percentage of shareholding in the relevant class of Shares (%)	Approximate percentage of shareholding in the total share capital of our Company (%)
CNNC <sup>(1)</sup>	Domestic Shares	Beneficial owner/Interest of controlled corporation	236,150,233(L)	98.43	73.83
CIAE <sup>(1)</sup>	Domestic Shares	Beneficial owner	58,534,835(L)	24.40	18.30
NPIC <sup>(1)</sup>	Domestic Shares	Beneficial owner	46,994,835(L)	19.59	14.69
CNNC Fund <sup>(1)</sup>	Domestic Shares	Beneficial owner	18,779,342(L)	7.83	5.87
Shanghai Industrial Investment (Holdings) Company Limited ("SIIC") <sup>(2)</sup>	H Shares	Interest of controlled corporation	19,912,400(L)	24.90	6.23
Shanghai Industrial Investment Treasury Company Limited <sup>(2)</sup>	H Shares	Interest of controlled corporation	11,906,400(L)	14.89	3.72
Shanghai Investment Holdings Limited <sup>(2)</sup>	H Shares	Interest of controlled corporation	11,906,400(L)	14.89	3.72
Shanghai Industrial Holdings Limited ("SIHL") <sup>(2)</sup>	H Shares	Interest of controlled corporation	11,906,400(L)	14.89	3.72
S.I. Infrastructure (Holdings) Limited <sup>(2)</sup>	H Shares	Interest of controlled corporation	11,906,400(L)	14.89	3.72
Sure Advance Holdings Limited ("Sure Advance") <sup>(2)</sup>	H Shares	Beneficial owner	11,906,400(L)	14.89	3.72
Shanghai Shangshi (Group) Co., Ltd. ("Shanghai Shangshi") <sup>(2)</sup>	H Shares	Interest of controlled corporation	8,006,000(L)	10.01	2.50
Shanghai Pharmaceuticals Holding Co. Ltd ("SPH") <sup>(2)</sup>	H Shares	Interest of controlled corporation	8,006,000(L)	10.01	2.50
Shanghai Pharmaceuticals (HK) Investment Limited ("SPH HK") <sup>(2)</sup>	H Shares	Beneficial owner	8,006,000(L)	10.01	2.50
Beijing State-owned Assets Management Co., Ltd. <sup>(3)</sup>	H Shares	Interest of controlled corporation	10,899,000(L)	13.63	3.41
Beijing Industrial Developing Investment Management Co., Ltd. <sup>(3)</sup>	H Shares	Beneficial owner	10,899,000(L)	13.63	3.41
China Structural Reform Fund Corporation Limited	H Shares	Beneficial owner	8,155,000(L)	10.20	2.55
Serenity Capital Management, Ltd. <sup>(4)</sup>	H Shares	Investment manager	4,801,600(L)	6.00	1.50
Serenity Investment Master Fund Limited <sup>(4)</sup>	H Shares	Beneficial owner	4,801,600(L)	6.00	1.50
Pandanus Associates Inc. ("Pandanus Associates") <sup>(5)</sup>	H Shares	Interest of controlled corporation	4,816,200(L)	6.02	1.51
Pandanus Partners L.P. ("Pandanus Partners") <sup>(5)</sup>	H Shares	Interest of controlled corporation	4,816,200(L)	6.02	1.51
FIL Limited ("FIL") <sup>(5)</sup>	H Shares	Interest of controlled corporation	4,816,200(L)	6.02	1.51
Fidelity China Special Situations PLC ("Fidelity China")	H Shares	Beneficial owner	4,816,200(L)	6.02	1.51

# CORPORATE GOVERNANCE REPORT AND OTHER INFORMATION (CONTINUED)

## 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 ("**Baoyuan Investment**") 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. CNNC is deemed to be interested in the Domestic Shares held by CIAE, NPIC, CNNC Fund, 404 Company and Baoyuan Investment under the SFO, 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 19,912,400 H Shares in total, of which 11,906,400 H Shares and 8,006,000 H Shares are held by Sure Advance and SPH HK, each being 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. In addition, SIIC directly holds 100% equity interest in Shanghai Shangshi, which directly held 33.60% equity interest in SPH, while SPH directly holds 100% equity interest in SPH HK.
- (3) Beijing Industrial Developing Investment Management Co., Ltd. is a direct wholly-owned subsidiary of Beijing State-owned Assets Management Co., Ltd.. By virtue of the SFO, Beijing State-owned Assets Management Co., Ltd. is deemed to be interested in the 10,899,000 H Shares held by Beijing Industrial Developing Investment Management Co., 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.
- (5) Fidelity China is managed by FIL Investment Services (UK) Limited, an indirect wholly-owned subsidiary of FIL. FIL is indirectly controlled by Pandanus Partners, which is indirectly and wholly owned by Pandanus Associates. In accordance with the SFO, FIL, Pandanus Partners and Pandanus Associates are deemed to be interested in the 4,816,200 H Shares held by Fidelity China.
- (6) (L) represented long position.

Save as disclosed herein, as of 30 June 2019, 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.

# CORPORATE GOVERNANCE REPORT AND OTHER INFORMATION (CONTINUED)

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

During the six months ended 30 June 2019 and as of the date of this interim report, neither the Company nor any of its subsidiaries purchased, sold or redeemed any listed securities of the Company.

## MATERIAL LITIGATION

As of 30 June 2019, the Company was not involved in any material litigation or arbitration. Nor were the Directors of the Company aware of any material litigation or claims that were pending or threatened against the Company.

## 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 during the Reporting Period and will continue doing so in the future daily operation.

## CHANGE IN INFORMATION OF DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

The changes in the information of Directors, Supervisors and senior management of the Company which are required to be disclosed pursuant to Rule 13.51B(1) of the Listing Rules, after the publication of the last annual report, are as follows:

1. Mr. Wu Jian (武健), an executive Director, resigned as a director of CNGT on April 2019.
2. Mr. Du Jin (杜進), an executive Director, resigned as a director of HTA on April 2019.
3. Mr. Zhang Yiming (張軼名), an employee representative Supervisor, has worked as the manager of the safety and quality department of the Company since April 2019.
4. Mr. Wu Laishui (吳來水) resigned as a director of HTA, a director of CNGT, the legal representative and executive director of China Isotope (Shanghai) Co., Ltd. on April 2019.
5. Mr. Wang Suohui (王鎖會), resigned as the chairman of the board of directors of CNNC Tongxing and BINE, on April 2019. Since May 2019, he has served 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.



# CORPORATE GOVERNANCE REPORT AND OTHER INFORMATION (CONTINUED)

Save as disclosed above, as at the end of Reporting Period, the Company is not aware of any change in the information of Directors, Supervisors and chief executive which is required to be disclosed pursuant to Rule 13.51B(1) of the Listing Rules.

By order of the Board of Directors  
**China Isotope & Radiation Corporation**  
**Meng Yanbin**  
*Chairman*

Beijing, the PRC, 30 August 2019

# REVIEW REPORT

## REVIEW REPORT TO THE BOARD OF DIRECTORS OF CHINA ISOTOPE & RADIATION CORPORATION

(a joint stock company incorporated in the People's Republic of China with limited liability)

### INTRODUCTION

We have reviewed the interim financial report set out on pages 29 to 66 which comprises the consolidated statement of financial position of China Isotope & Radiation Corporation (the "Company") as of 30 June 2019 and the related consolidated statement of profit or loss, consolidated statement of profit or loss and other comprehensive income and statement of changes in equity and condensed consolidated cash flow statement for the six month period then ended and explanatory notes. The Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited require the preparation of an interim financial report to be in compliance with the relevant provisions thereof and International Accounting Standard 34, *Interim financial reporting*, issued by the International Accounting Standards Board. The directors are responsible for the preparation and presentation of the interim financial report in accordance with International Accounting Standard 34.

Our responsibility is to form a conclusion, based on our review, on the interim financial report and to report our conclusion solely to you, as a body, in accordance with our agreed terms of engagement, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report.

### SCOPE OF REVIEW

We conducted our review in accordance with Hong Kong Standard on Review Engagements 2410, *Review of interim financial information performed by the independent auditor of the entity*, issued by the Hong Kong Institute of Certified Public Accountants. A review of the interim financial report consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with Hong Kong Standards on Auditing and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly we do not express an audit opinion.

### CONCLUSION

Based on our review, nothing has come to our attention that causes us to believe that the interim financial report as at 30 June 2019 is not prepared, in all material respects, in accordance with International Accounting Standard 34, *Interim financial reporting*.

#### **KPMG**

*Certified Public Accountants*

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

30 August 2019

# CONSOLIDATED STATEMENT OF PROFIT OR LOSS

for the six months ended 30 June 2019 – unaudited

(Expressed in Renminbi (“RMB”))

	Note	Six months ended 30 June	
		2019 RMB' 000	2018 (Note) RMB' 000 (restated)
Revenue	4	<b>1,654,979</b>	1,373,440
Cost of sales		<b>(464,730)</b>	(401,810)
<b>Gross profit</b>		<b>1,190,249</b>	971,630
Other income	5	<b>18,584</b>	10,896
Selling and distribution expenses		<b>(678,276)</b>	(541,493)
Administrative expenses		<b>(201,331)</b>	(158,544)
<b>Profit from operations</b>		<b>329,226</b>	282,489
Finance costs	6(a)	<b>(6,027)</b>	(2,826)
Share of profits less losses of associates		<b>1,559</b>	(2,341)
Share of profits of a joint venture		<b>12,532</b>	11,083
<b>Profit before taxation</b>	6	<b>337,290</b>	288,405
Income tax	7	<b>(56,034)</b>	(55,906)
<b>Profit for the period</b>		<b>281,256</b>	232,499
<b>Attributable to:</b>			
Equity shareholders of the Company		<b>147,827</b>	117,533
Non-controlling interests		<b>133,429</b>	114,966
<b>Profit for the period</b>		<b>281,256</b>	232,499
<b>Earnings per share</b>	8		
Basic and diluted (RMB)		<b>0.46</b>	0.49

Note: The Group has initially applied IFRS 16 at 1 January 2019 using the modified retrospective approach. Under this approach, comparative information is not restated. See Note 3. Comparative information is restated due to a business combination under common control. See Note 16(a).

The notes on page 38 to 66 form part of this interim financial report. Details of dividends payable to equity shareholders of the Company are set out in Note 15(a).

# CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

for the six months ended 30 June 2019- unaudited

(Expressed in RMB)

	Six months ended 30 June	
	2019	2018
		(Note)
Note	RMB' 000	RMB' 000
		(restated)
<b>Profit for the period</b>	<b>281,256</b>	232,499
<b>Other comprehensive income for the period (after tax and reclassification adjustments):</b>		
Items that may be reclassified subsequently to profit or loss:		
– exchange differences on translation of share of profits less losses of an associate	421	822
Items that will not be reclassified to profit or loss:		
– remeasurement of defined benefit liability	(1)	(3,045)
– equity investments at fair value through other comprehensive income – net movement in fair value reserve (non-recycling)	382	(249)
<b>Other comprehensive income for the period</b>	<b>802</b>	(2,472)
<b>Total comprehensive income</b>	<b>282,058</b>	230,027
<b>Attributable to:</b>		
Equity shareholders of the Company	148,629	115,433
Non-controlling interests	133,429	114,594
<b>Total comprehensive income for the period</b>	<b>282,058</b>	230,027

Note: The Group has initially applied IFRS 16 at 1 January 2019 using the modified retrospective approach. Under this approach, comparative information is not restated. See Note 3. Comparative information is restated due to a business combination under common control. See Note 16(a).

The notes on page 38 to 66 form part of this interim financial report.

# CONSOLIDATED STATEMENT OF FINANCIAL POSITION

at 30 June 2019 – unaudited

(Expressed in RMB)

		<b>At 30 June 2019</b>	At 31 December 2018 (Note) RMB' 000 (restated)
	<b>Note</b>	<b>RMB' 000</b>	
<b>Non-current assets</b>			
Property, plant and equipment	9	<b>1,521,576</b>	1,339,798
Investment properties		<b>14,013</b>	14,526
Right-of-use assets	10	<b>169,814</b>	–
Lease prepayments		<b>–</b>	115,925
Intangible assets		<b>89,718</b>	48,928
Goodwill	11	<b>41,942</b>	5,670
Interests in associates		<b>69,328</b>	85,510
Interest in a joint venture		<b>32,097</b>	42,917
Long-term receivables		<b>32,995</b>	32,206
Unquoted equity investments		<b>126,000</b>	125,491
Deferred tax assets		<b>212,187</b>	206,263
		<b>2,309,670</b>	2,017,234
<b>Current assets</b>			
Inventories		<b>414,270</b>	343,723
Trade and bill receivables	12	<b>1,950,074</b>	1,728,435
Prepayments, deposits and other receivables		<b>283,528</b>	198,597
Cash at bank and on hand	13	<b>2,331,122</b>	2,615,757
		<b>4,978,994</b>	4,886,512
<b>Current liabilities</b>			
Borrowings		<b>150,000</b>	–
Trade payables	14	<b>146,042</b>	169,838
Accruals and other payables		<b>2,000,032</b>	1,876,732
Lease liabilities		<b>21,279</b>	–
Provisions		<b>69,598</b>	67,994
Income tax payable		<b>58,161</b>	79,652
		<b>2,445,112</b>	2,194,216
<b>Net current assets</b>		<b>2,533,882</b>	2,692,296
<b>Total assets less current liabilities</b>		<b>4,843,552</b>	4,709,530

The notes on page 38 to 66 form part of this interim financial report.

**CONSOLIDATED STATEMENT OF FINANCIAL POSITION (CONTINUED)**

at 30 June 2019 – unaudited

(Expressed in RMB)

	<b>Note</b>	<b>At 30 June 2019 RMB'000</b>	At 31 December 2018 (Note) RMB'000 (restated)
<b>Non-current liabilities</b>			
Borrowings		99,410	150,000
Deferred income		45,079	45,625
Defined benefit retirement obligation		44,727	44,596
Deferred tax liabilities		13,382	8,347
Lease liabilities		33,110	–
Provisions		116,045	113,286
Long-term payables		10,041	9,283
		<b>361,794</b>	371,137
<b>Net assets</b>			
		<b>4,481,758</b>	4,338,393
<b>Capital and reserves</b>			
Share capital		319,875	319,875
Reserves		3,243,981	3,182,178
<b>Total equity attributable to equity shareholders of the Company</b>		<b>3,563,856</b>	3,502,053
<b>Non-controlling interests</b>		<b>917,902</b>	836,340
<b>Total equity</b>		<b>4,481,758</b>	4,338,393

Note: The Group has initially applied IFRS 16 at 1 January 2019 using the modified retrospective approach. Under this approach, comparative information is not restated. See Note 3. Comparative information is restated due to a business combination under common control. See Note 16(a).

The notes on page 38 to 66 form part of this interim financial report.

# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

for the six months ended 30 June 2019 – unaudited

(Expressed in RMB)

	Attributable to equity shareholders of the Company										Total equity RMB' 000
	Note	Share capital RMB' 000	Capital reserve RMB' 000	PRC statutory reserve RMB' 000	Fair value reserve (non-recycling) RMB' 000	Other reserve RMB' 000	Exchange reserve RMB' 000	Retained profits RMB' 000	Sub-total RMB' 000	Non-controlling interests RMB' 000	
<b>Balance at 1 January 2018 (as previously reported)</b>		239,906	859,316	100,754	10,905	13,956	338	650,280	1,875,455	577,063	2,452,518
Effect on acquisition of a subsidiary under common control		-	32,636	-	-	-	-	25	32,661	3,479	36,140
<b>Balance at 1 January 2018 (restated)</b>		239,906	891,952	100,754	10,905	13,956	338	650,305	1,908,116	580,542	2,488,658
<b>Changes in equity for the six months ended 30 June 2018</b>											
Profit for the period (restated)		-	-	-	-	-	-	117,533	117,533	114,966	232,499
Other comprehensive income		-	-	-	(249)	-	822	(2,673)	(2,100)	(372)	(2,472)
Total comprehensive income (restated)		-	-	-	(249)	-	822	114,860	115,433	114,594	230,027
Capital contributions from non-controlling equity owners of subsidiaries		-	-	-	-	-	-	-	-	19,127	19,127
Appropriation of maintenance and production funds		-	-	-	-	6,248	-	(6,248)	-	-	-
Utilisation of maintenance and production funds		-	-	-	-	(3,981)	-	3,981	-	-	-
Dividends	15(a)	-	-	-	-	-	-	(66,478)	(66,478)	-	(66,478)
Distributions by subsidiaries to non-controlling equity owners		-	-	-	-	-	-	-	-	(44,445)	(44,445)
<b>Balance at 30 June 2018 (restated)</b>		239,906	891,952	100,754	10,656	16,223	1,160	696,420	1,957,071	669,818	2,626,889

The notes on page 38 to 66 form part of this interim financial report.

# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY (CONTINUED)

for the six months ended 30 June 2019 – unaudited

(Expressed in RMB)

	Attributable to equity shareholders of the Company									
	Share capital	Capital reserve	PRC statutory reserve	Fair value reserve (non-recycling)	Other reserve	Exchange reserve	Retained profits	Sub-total	Non-controlling interests	Total equity
Note	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
<b>Balance at 1 July 2018 (restated)</b>	239,906	891,952	100,754	10,656	16,223	1,160	696,420	1,957,071	669,818	2,626,889
<b>Changes in equity for the six months ended 31 December 2018:</b>										
Profit for the period (restated)	-	-	-	-	-	-	204,374	204,374	150,262	354,636
Other comprehensive income	-	-	-	12,744	-	2,127	(341)	14,530	(76)	14,454
Total comprehensive income (restated)	-	-	-	12,744	-	2,127	204,033	218,904	150,186	369,090
Issue of ordinary shares	79,969	1,294,090	-	-	-	-	-	1,374,059	-	1,374,059
Capital contributions from non-controlling equity owners of subsidiaries	-	-	-	-	-	-	-	-	23,750	23,750
Appropriation of maintenance and production funds	-	-	-	-	12,191	-	(12,191)	-	-	-
Utilisation of maintenance and production funds	-	-	-	-	(4,179)	-	4,179	-	-	-
Appropriation to reserves	-	-	12,147	-	-	-	(12,147)	-	-	-
Dividends	-	-	-	-	-	-	(47,981)	(47,981)	-	(47,981)
Distributions by subsidiaries to non-controlling equity owners	-	-	-	-	-	-	-	-	(7,414)	(7,414)
<b>Balance at 31 December 2018 (Note) (restated)</b>	319,875	2,186,042	112,901	23,400	24,235	3,287	832,313	3,502,053	836,340	4,338,393

Note: The Group has initially applied IFRS 16 at 1 January 2019 using the modified retrospective approach. Under this approach, comparative information is not restated. See Note 3. Comparative information is restated due to a business combination under common control. See Note 16(a).

The notes on page 38 to 66 form part of this interim financial report.

**CONSOLIDATED STATEMENT OF CHANGES IN EQUITY (CONTINUED)**

for the six months ended 30 June 2019 – unaudited

(Expressed in RMB)

	Attributable to equity shareholders of the Company										Total equity RMB' 000
	Share capital RMB' 000	Capital reserve RMB' 000	PRC statutory reserve RMB' 000	Fair value reserve (non-recycling) RMB' 000	Other reserve RMB' 000	Exchange reserve RMB' 000	Retained profits RMB' 000	Sub-total RMB' 000	Non-controlling interests RMB' 000		
<b>Balance at 1 January 2019 (as previously reported)</b>	319,875	2,153,406	112,901	23,400	24,235	3,287	833,331	3,470,435	832,741	4,303,176	
Effect on acquisition of a subsidiary under common control	-	32,636	-	-	-	-	(1,018)	31,618	3,599	35,217	
<b>Balance at 1 January 2019 (restated)</b>	319,875	2,186,042	112,901	23,400	24,235	3,287	832,313	3,502,053	836,340	4,338,393	
<b>Changes in equity for the six months ended 30 June 2019</b>											
Profit for the period	-	-	-	-	-	-	147,827	147,827	133,429	281,256	
Other comprehensive income	-	-	-	382	-	421	(1)	802	-	802	
Total comprehensive income	-	-	-	382	-	421	147,826	148,629	133,429	282,058	
Capital contributions from non-controlling equity owners of subsidiaries	-	-	-	-	-	-	-	-	34,244	34,244	
Acquisition of a subsidiary under common control	-	(46,093)	-	-	-	-	-	(46,093)	(4,909)	(51,002)	
Acquisition of subsidiaries	-	-	-	-	-	-	-	-	6,851	6,851	
Acquisition of non-controlling interests in a subsidiary	-	(1,516)	-	-	-	-	-	(1,516)	1,516	-	
Appropriation of maintenance and production funds	-	-	-	-	8,065	-	(8,065)	-	-	-	
Utilisation of maintenance and production funds	-	-	-	-	(2,733)	-	2,733	-	-	-	
Dividends	-	-	-	-	-	-	(39,217)	(39,217)	-	(39,217)	
Distributions by subsidiaries to non-controlling equity owners	-	-	-	-	-	-	-	-	(89,569)	(89,569)	
<b>Balance at 30 June 2019</b>	319,875	2,138,433	112,901	23,782	29,567	3,708	935,590	3,563,856	917,902	4,481,758	

The notes on page 38 to 66 form part of this interim financial report.

# CONDENSED CONSOLIDATED CASH FLOW STATEMENT

for the six months ended 30 June 2019 – unaudited

(Expressed in RMB)

	Note	Six months ended 30 June	
		2019	2018
		RMB' 000	RMB' 000 (Note) (Restated)
<b>Cash flows from operating activities</b>			
Cash generated from operations		68,013	176,940
Income tax paid		(81,878)	(71,239)
<b>Net cash (used in)/generated from operating activities</b>		<b>(13,865)</b>	105,701
<b>Investing activities</b>			
Net (increase)/decrease in deposits with banks	13	(502,087)	180,156
Payments for purchase of investment properties, property, plant and equipment, lease prepayments and intangible assets		(220,534)	(256,491)
Payments for purchase of interests in associates		(5,760)	–
Payment for acquisition of a subsidiary under common control		(10,200)	–
Payments for acquisitions of subsidiaries		(70,426)	–
Interests received	5	11,529	5,015
Other cash flows arising from investing activities		7,470	1,395
<b>Net cash used in investing activities</b>		<b>(790,008)</b>	(69,925)

The notes on page 38 to 66 form part of this interim financial report.

**CONDENSED CONSOLIDATED CASH FLOW STATEMENT (CONTINUED)**

for the six months ended 30 June 2019 – unaudited

(Expressed in RMB)

	Note	Six months ended 30 June	
		2019 RMB'000	2018 (Note) RMB'000 (Restated)
<b>Financing activities</b>			
Capital element of lease rentals paid		(7,794)	–
Interest element of lease rentals paid		(1,224)	–
Capital contributions from non-controlling equity owners of subsidiaries		34,244	19,127
Proceeds from borrowings		109,410	–
Repayment of borrowings		(15,000)	–
Other interests paid		(4,161)	–
Dividends paid to shareholders of the Company		(61,003)	(37,047)
Dividends paid by subsidiaries to non-controlling equity owners		(54,057)	(39,979)
<b>Net cash generated from/(used in) financing activities</b>		<b>415</b>	<b>(57,899)</b>
<b>Net decrease in cash and cash equivalents</b>		<b>(803,458)</b>	<b>(22,123)</b>
<b>Cash and cash equivalents at 1 January</b>	13	<b>2,557,524</b>	1,157,054
Effect of foreign exchanges rates changes		1,804	66
<b>Cash and cash equivalents at 30 June</b>	13	<b>1,755,870</b>	1,134,997

Note: The Group has initially applied IFRS 16 at 1 January 2019 using the modified retrospective approach. Under this approach, comparative information is not restated. See Note 3. Comparative information is restated due to a business combination under common control. See Note 16(a).

The notes on page 38 to 66 form part of this interim financial report.

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT

(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 new 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.

## 2 BASIS OF PREPARATION

This interim financial report has been prepared in accordance with the applicable disclosure provisions of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited, including compliance with International Accounting Standard (“IAS”) 34, *Interim financial reporting*, issued by the International Accounting Standards Board (“IASB”). It was authorised for issue on 30 August 2019.

The interim financial report has been prepared in accordance with the same accounting policies adopted in the 2018 annual financial statements, except for the accounting policy changes that are expected to be reflected in the 2019 annual financial statements. Details of any changes in accounting policies are set out in Note 3.

The preparation of an interim financial report in conformity with IAS 34 requires management to make judgments, estimates and assumptions that affect the application of policies and reported amounts of assets and liabilities, income and expenses on a year to date basis. Actual results may differ from these estimates.

This interim financial report contains condensed consolidated financial statements and selected explanatory notes. The notes include an explanation of events and transactions that are significant to an understanding of the changes in financial position and performance of the Company and its subsidiaries (collectively referred to as the “Group”) since the 2018 annual financial statements. The condensed consolidated interim financial statements and notes thereon do not include all of the information required for a full set of financial statements prepared in accordance with IFRSs.

The interim financial report is unaudited, but has been reviewed by KPMG in accordance with Hong Kong Standard on Review Engagements 2410, *Review of interim financial information performed by the independent auditor of the entity*, issued by the Hong Kong Institute of Certified Public Accountants. KPMG’s independent review report to the Board of Directors is included on page 28.

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 3 CHANGES IN ACCOUNTING POLICIES

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

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

IFRS 16, *Leases*

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

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

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

### (a) Changes in the accounting policies

#### (i) *New definition of a lease*

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

The Group applies the new definition of IFRS 16 only to contracts that were entered into or changed on or after 1 January 2019. For contracts entered into before 1 January 2019, the Group has used the transitional practical expedient to grandfather the previous assessment of which existing arrangements are or contain leases.

Accordingly, contracts that were previously assessed as leases under IAS 17 continue to be accounted for as leases under IFRS 16 and contracts previously assessed as non-lease service arrangements continue to be accounted for as executory contracts.

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 3 CHANGES IN ACCOUNTING POLICIES (CONTINUED)

### (a) Changes in the accounting policies (continued)

#### (ii) *Lessee accounting*

IFRS 16 eliminates the requirement for a lessee to classify leases as either operating leases or finance leases, as was previously required by IAS 17. Instead, the Group is required to capitalise all leases when it is the lessee, including leases previously classified as operating leases under IAS 17, other than those short-term leases and leases of low-value assets. As far as the Group is concerned, these newly capitalised leases are primarily in relation to property, plant and equipment.

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.

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. For the Group, low-value assets are typically laptops or office furniture. The lease payments associated with those leases which are not capitalised are recognised as an expense on a systematic basis over the lease term.

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

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

The right-of-use asset is subsequently stated at cost less accumulated depreciation and impairment losses.

The lease liability is premeasured 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 premeasured 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.

#### (iii) *Lessor accounting*

The Group leases out a number of items of properties as the lessor of operating leases. The accounting policies applicable to the Group as a lessor remain substantially unchanged from those under IAS 17.

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 3 CHANGES IN ACCOUNTING POLICIES (CONTINUED)

### (b) Critical accounting judgements and sources of estimation uncertainty in applying the above accounting policies

#### (i) *Determining the lease term*

As explained in the above accounting policies, the lease liability is initially recognised at the present value of the lease payments payable over the lease term. In determining the lease term at the commencement date for leases that include renewal options exercisable by the Group, the Group evaluates the likelihood of exercising the renewal options taking into account all relevant facts and circumstances that create an economic incentive for the Group to exercise the option, including favourable terms, leasehold improvements undertaken and the importance of that underlying asset to the Group's operation. The lease term is reassessed when there is a significant event or significant change in circumstance that is within the Group's control. Any increase or decrease in the lease term would affect the amount of lease liabilities and right-of-use assets recognised in future years.

### (c) *Transitional impact*

At the date of transition to IFRS 16 (i.e. 1 January 2019), the Group determined the length of the remaining lease terms and measured the lease liabilities for the leases previously classified as operating leases at the present value of the remaining lease payments, discounted using the relevant incremental borrowing rates at 1 January 2019. The weighted average of the incremental borrowing rates used for determination of the present value of the remaining lease payments was 4.75%.

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

- (i) the Group elected not to apply the requirements of IFRS 16 in respect of the recognition of lease liabilities and right-of-use assets to leases for which the remaining lease term ends within 12 months from the date of initial application of IFRS 16, i.e. where the lease term ends on or before 31 December 2019;
- (ii) when measuring the lease liabilities at the date of initial application of IFRS 16, the Group applied a single discount rate to a portfolio of leases with reasonably similar characteristics (such as leases with a similar remaining lease term for a similar class of underlying asset in a similar economic environment); and
- (iii) when measuring the right-of-use assets at the date of initial application of IFRS 16, the Group relied on the previous assessment for onerous contract provisions as at 31 December 2018 as an alternative to performing an impairment review.

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 3 CHANGES IN ACCOUNTING POLICIES (CONTINUED)

### (c) Transitional impact (continued)

The following table reconciles the operating lease commitments as at 31 December 2018 to the opening balance for lease liabilities recognised as at 1 January 2019.

	<b>1 January 2019 RMB' 000</b>
Operating lease commitments at 31 December 2018	<b>41,136</b>
Less: commitments relating to leases exempt from capitalisation: – short-term leases and other leases with remaining lease term ending on or before 31 December 2019	<b>(908)</b>
	<b>40,228</b>
Less: total future interest expenses	<b>(4,360)</b>
Total lease liabilities recognised at 1 January 2019	<b>35,868</b>

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

So far as the impact of the adoption of IFRS 16 on leases previously classified as finance leases is concerned, the Group is not required to make any adjustments at the date of initial application of IFRS 16, other than changing the captions for the balances. Accordingly, instead of “obligations under finance leases”, these amounts are included within “lease liabilities”, and the depreciated carrying amount of the corresponding leased asset is identified as a right-of-use asset. There is no impact on the opening balance of equity.

The Group presents right-of-use assets that do not meet the definition of investment property in “right-of-use assets” and presents lease liabilities separately in the statement of financial position.

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 3 CHANGES IN ACCOUNTING POLICIES (CONTINUED)

### (c) Transitional impact (continued)

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

	Carrying amount at 31 December 2018 RMB' 000 (restated)	Capitalisation of operating lease contracts RMB' 000	Reclassification of lease prepayments RMB' 000	Carrying amount at 1 January 2019 RMB' 000
<b>Line items in the consolidated statement of financial position impacted by the adoption of IFRS 16:</b>				
Right-of-use assets	–	35,868	115,925	<b>151,793</b>
Lease prepayments	115,925	–	(115,925)	–
<b>Total non-current assets</b>	<b>2,017,234</b>	<b>35,868</b>	–	<b>2,053,102</b>
Lease liabilities (current)	–	13,430	–	<b>13,430</b>
<b>Current liabilities</b>	<b>2,194,216</b>	<b>13,430</b>	–	<b>2,207,646</b>
<b>Net current assets</b>	<b>2,692,296</b>	<b>(13,430)</b>	–	<b>2,678,866</b>
<b>Total assets less current liabilities</b>	<b>4,709,530</b>	<b>22,438</b>	–	<b>4,731,968</b>
Lease liabilities (non-current)	–	22,438	–	<b>22,438</b>
<b>Total non-current liabilities</b>	<b>371,137</b>	<b>22,438</b>	–	<b>393,575</b>
<b>Net assets</b>	<b>4,338,393</b>	–	–	<b>4,338,393</b>

The analysis of the net book value of the Group's right-of-use assets by class of underlying asset at the end of the reporting period and at the date of transition to IFRS 16 is as follows:

	At 30 June 2019 RMB' 000	At 1 January 2019 RMB' 000
Ownership interests in leasehold land held for own use, carried at depreciated cost	<b>120,398</b>	115,925
Buildings and plants, carried at depreciated cost	<b>47,238</b>	33,760
Equipment and others, carried at depreciated cost	<b>2,178</b>	2,108
	<b>169,814</b>	151,793

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 3 CHANGES IN ACCOUNTING POLICIES (CONTINUED)

### (d) Lease liabilities

The remaining contractual maturities of the Group's lease liabilities at the end of the reporting period and at the date of transition to IFRS 16 are as follows:

	At 30 June 2019		At 1 January 2019	
	Present value of the minimum lease payments	Total minimum lease payments	Present value of the minimum lease payments	Total minimum lease payments
Within 1 year	21,279	22,565	13,430	14,211
After 1 year but within 2 years	16,925	17,398	10,180	11,269
After 2 years but within 5 years	15,539	19,250	11,119	13,236
After 5 years	646	815	1,139	1,512
	33,110	37,463	22,438	26,017
	54,389	60,028	35,868	40,228
Less: total future interest expenses		(5,639)		(4,360)
Present value of lease liabilities		54,389		35,868

### (e) Impact on the financial result, segment results and cash flows of the Group

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

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

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 3 CHANGES IN ACCOUNTING POLICIES (CONTINUED)

### (e) Impact on the financial result, segment results and cash flows of the Group (continued)

The following tables may give an indication of the estimated impact of adoption of IFRS 16 on the Group's financial result, segment results and cash flows for the six months ended 30 June 2019, by adjusting the amounts reported under IFRS 16 in these interim financial statements to compute estimates of the hypothetical amounts that would have been recognised under IAS 17 if this superseded standard had continued to apply to 2019 instead of IFRS 16, and by comparing these hypothetical amounts for 2019 with the actual 2018 corresponding amounts which were prepared under IAS 17.

	2019				2018
			<b>Deduct:</b>		
			<b>Estimated</b>		
			<b>amounts</b>		
		<b>Add back:</b>	<b>related to</b>	<b>Hypothetical</b>	Compared
	<b>Amounts</b>	<b>IFRS 16</b>	<b>operating</b>	<b>amounts for</b>	to amounts
	<b>reported</b>	<b>depreciation</b>	<b>lease as if</b>	<b>2019 as if</b>	reported for
	<b>under IFRS 16</b>	<b>and interest</b>	<b>under IAS 17</b>	<b>under IAS 17</b>	2018 under
	<b>(A)</b>	<b>expense</b>	<b>(Note 1)</b>	<b>(D=A+B-C)</b>	IAS 17
	<b>RMB' 000</b>	<b>(B)</b>	<b>(C)</b>	<b>(D=A+B-C)</b>	<b>RMB' 000</b>
		<b>RMB' 000</b>	<b>RMB' 000</b>	<b>RMB' 000</b>	<b>(restated)</b>
<b>Financial result for the six months ended 30 June 2019 impacted by the adoption of IFRS 16:</b>					
<b>Profit from operations</b>	<b>329,226</b>	<b>9,090</b>	<b>8,971</b>	<b>329,345</b>	282,489
Finance costs	(6,027)	992	-	(5,035)	(2,826)
<b>Profit before taxation</b>	<b>337,290</b>	<b>10,082</b>	<b>8,971</b>	<b>338,401</b>	288,405
<b>Profit for the period</b>	<b>281,256</b>	<b>10,082</b>	<b>8,971</b>	<b>282,367</b>	232,499
<b>Reportable segment profit (gross profit) for the six months ended 30 June 2019 (Note 4(b)) impacted by the adoption of IFRS 16:</b>					
- Pharmaceuticals	1,058,909	1,957	2,688	1,058,178	862,763
- Radioactive source products	100,967	104	111	100,960	87,915
- Clinical medical and laboratory testing services and others	20,300	780	819	20,261	13,629
- Total	1,190,724	2,841	3,618	1,189,947	973,129

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 3 CHANGES IN ACCOUNTING POLICIES (CONTINUED)

(e) Impact on the financial result, segment results and cash flows of the Group (continued)

	2019			2018
	Amounts reported under IFRS 16 (A)	Estimated amounts related to operating leases as if under IAS 17 (Notes 1 & 2) (B)	Hypothetical amounts for 2019 as if under IAS 17 (C=A+B)	Compared to amounts reported under IAS 17 (restated)
	RMB' 000	RMB' 000	RMB' 000	RMB' 000
<b>Line items in the condensed consolidated cash flow statement for the six months ended 30 June 2019 impacted by the adoption of IFRS 16:</b>				
Cash generated from operations	68,013	(8,971)	59,042	176,940
<b>Net cash (used in)/generated from operating activities</b>	<b>(13,865)</b>	<b>(8,971)</b>	<b>(22,836)</b>	105,701
Capital element of lease rentals paid	(7,794)	7,794	-	-
Interest element of lease rentals paid	(1,224)	1,177	(47)	-
<b>Net cash used in financing activities</b>	<b>415</b>	<b>8,971</b>	<b>9,386</b>	(57,899)

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

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

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 4 REVENUE AND SEGMENT REPORTING

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.

### (a) Disaggregation of revenue

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

	<b>Six months ended 30 June</b>	
	<b>2019</b>	2018
	<b>RMB' 000</b>	RMB' 000
		(restated)
<b>Revenue from contracts with customers within the scope of IFRS 15</b>		
Disaggregated by major products of service lines		
– Sales of pharmaceuticals	<b>1,379,369</b>	1,139,516
– Sales of radioactive source products	<b>157,913</b>	150,759
– Irradiation services	<b>31,989</b>	25,274
– Technical services	<b>32,049</b>	24,016
– Revenue from construction contracts	<b>2,652</b>	642
– Independent clinical laboratory services	<b>36,729</b>	29,536
– Other services	<b>14,278</b>	3,697
	<b>1,654,979</b>	1,373,440

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

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 4 REVENUE AND SEGMENT REPORTING (CONTINUED)

### (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 four 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 analysers, in vitro immunoassay diagnostic reagents and kits and other products.
- Radioactive source products: sale of medical and industrial radioactive source products and technical services.
- Irradiation: provision of irradiation services to manufacturers of medical facilities, pharmaceuticals, cosmetics and food in the PRC for sterilisation purposes, and also design, manufacturing and installation of gamma ray irradiation facilities to irradiation service providers.
- Independent clinical laboratory services and other businesses: provision of independent clinical laboratory services for customers 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.

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 4 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 period is set out below.

	Six months ended 30 June 2019				
	Pharmaceuticals RMB' 000	Radioactive source products RMB' 000	Irradiation RMB' 000	Clinical medical and laboratory testing services and others RMB' 000	Total RMB' 000
<b>Disaggregated by timing of revenue recognition</b>					
Point in time	1,384,397	184,934	31,989	51,007	1,652,327
Over time	-	-	2,652	-	2,652
<b>Revenue from external customers</b>	1,384,397	184,934	34,641	51,007	1,654,979
Inter-segment revenue	1,196	10,172	-	6,331	17,699
<b>Reportable segment revenue</b>	<b>1,385,593</b>	<b>195,106</b>	<b>34,641</b>	<b>57,338</b>	<b>1,672,678</b>
<b>Reportable segment profit (gross profit)</b>	<b>1,058,909</b>	<b>100,967</b>	<b>10,548</b>	<b>20,300</b>	<b>1,190,724</b>

	Six months ended 30 June 2018 (restated)				
	Pharmaceuticals RMB' 000	Radioactive source products RMB' 000	Irradiation RMB' 000	Clinical medical and laboratory testing services and others RMB' 000	Total RMB' 000
<b>Disaggregated by timing of revenue recognition</b>					
Point in time	1,144,573	169,718	25,576	33,233	1,373,100
Over time	-	-	340	-	340
<b>Revenue from external customers</b>	1,144,573	169,718	25,916	33,233	1,373,440
Inter-segment revenue	2,127	10,283	-	4,673	17,083
<b>Reportable segment revenue</b>	<b>1,146,700</b>	<b>180,001</b>	<b>25,916</b>	<b>37,906</b>	<b>1,390,523</b>
<b>Reportable segment profit (gross profit)</b>	<b>862,763</b>	<b>87,915</b>	<b>8,822</b>	<b>13,629</b>	<b>973,129</b>

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 4 REVENUE AND SEGMENT REPORTING (CONTINUED)

### (b) Segment reporting (continued)

#### (ii) Reconciliation of reportable segment profit (gross profit)

	Six months ended 30 June	
	2019 RMB' 000	2018 RMB' 000 (restated)
Reportable segment profit (gross profit)	<b>1,190,724</b>	973,129
Elimination of inter-segment profit (gross profit)	<b>(475)</b>	(1,499)
Consolidated gross profit	<b>1,190,249</b>	971,630

#### (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

	Six months ended 30 June	
	2019 RMB' 000	2018 RMB' 000 (restated)
Government grants	<b>3,126</b>	2,009
Interest income	<b>11,529</b>	4,549
Rental income from operating leases	<b>4,039</b>	3,960
Others	<b>(110)</b>	378
	<b>18,584</b>	10,896

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 6 PROFIT BEFORE TAXATION

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

### (a) Finance costs

	<b>Six months ended 30 June</b>	
	<b>2019</b>	2018
	<b>RMB' 000</b>	RMB' 000 (Note) (restated)
Interests on borrowings	<b>4,161</b>	3,662
Interests on lease liabilities	<b>1,234</b>	–
Less: interest expense capitalised into construction in progress	<b>(3,862)</b>	(3,662)
	<b>1,533</b>	–
Net foreign exchange loss/(gain)	<b>1,106</b>	(348)
Interest accretion on reclamation obligations, net	<b>1,871</b>	1,687
Interest cost on defined benefit retirement plans	<b>759</b>	836
Interest cost on long-term payables	<b>758</b>	651
	<b>6,027</b>	2,826

Note: The Group has initially applied IFRS 16 at 1 January 2019 using the modified retrospective approach. Under this approach, comparative information is not restated. See Note 3.

The borrowing costs have been capitalised a rate of 4.99% per annum (2018: 4.99%).

### (b) Other items

	<b>Six months ended 30 June</b>	
	<b>2019</b>	2018
	<b>RMB' 000</b>	RMB' 000 (Note) (restated)
Depreciation		
– owned property, plant and equipment	<b>34,372</b>	29,909
– investment property	<b>513</b>	471
– right-of-use assets	<b>11,292</b>	–
Amortisation		
– lease prepayments	<b>–</b>	953
– intangible assets	<b>3,439</b>	1,532
Impairment losses/(reversal of impairment losses)		
– trade and bill receivables	<b>10,279</b>	9,650
– prepayments, deposits and other receivables	<b>51</b>	(585)
Research and development costs (other than amortisation costs)	<b>39,496</b>	31,260
Increase in provisions for reclamation obligations	<b>1,703</b>	1,193
Cost of inventories	<b>391,610</b>	340,205

Note: The Group has initially applied IFRS 16 at 1 January 2019 using the modified retrospective approach. Under this approach, comparative information is not restated. See Note 3.

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 7 INCOME TAX

	Six months ended 30 June	
	2019 RMB' 000	2018 RMB' 000 (restated)
<b>Current tax</b>		
Provision for the period	55,445	53,258
Under-provision in respect of prior years	3,241	5,217
	<b>58,686</b>	58,475
<b>Deferred tax</b>		
Origination and reversal of temporary differences	(2,652)	(2,569)
	<b>56,034</b>	55,906

Notes:

- (i) The Company and its subsidiaries established in the PRC are subject to PRC Corporate Income Tax rate of 25% (2018: 25%) for the six months ended 30 June 2019.
- (ii) Certain subsidiaries of the Group are approved High and New Technology Enterprises and are subject to a preferential PRC Corporate Income Tax rate of 15% during the approved period, subject to fulfillment of recognition criteria.
- (iii) A subsidiary of the Group has obtained approval from the relevant tax bureau to be taxed as an enterprise with tax incentive for development of the western region for the calendar year of 2019 and therefore enjoyed a preferential PRC Corporate Income Tax rate of 15% (2018: 15%).

## 8 EARNINGS PER SHARE

The calculation of basic earnings per share is based on the profit attributable to equity shareholders of the Company of RMB147,827,000 (six months ended 30 June 2018: RMB117,533,000 (restated)) and the weighted average number of ordinary shares in issue of 319,875,000 (six months ended 30 June 2018: 239,906,000) in issue during the interim period.

The Company did not have any potential dilutive shares in existence during the interim period. Accordingly, diluted earnings per share is the same as basic earnings per share.

## 9 PROPERTY, PLANT AND EQUIPMENT

During the six months ended 30 June 2019, the Group acquired items of plant and machinery with a cost of RMB214,228,000 (six months ended 30 June 2018: RMB157,940,000). Items of plant and machinery with a net book value of RMB1,814,000 were disposed of during the six months ended 30 June 2019 (six months ended 30 June 2018: RMB219,000), resulting in a loss on disposal of RMB634,000 (six months ended 30 June 2018: RMB39,000).

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 10 RIGHT-OF-USE ASSETS

As disclosed in Note 3, the Group has initially applied IFRS 16 using the modified retrospective method and adjusted the opening balances at 1 January 2019 to recognise right-of-use assets relating to leases which were previously classified as operating leases under IAS 17.

During the six months ended 30 June 2019, the Group entered into a number of lease agreements for use of land, plants and offices, and therefore recognised the additions to right-of-use assets of RMB28,838,000.

## 11 GOODWILL

	RMB' 000
<b>Cost:</b>	
At 1 January 2018, 31 December 2018 and 1 January 2019	5,670
Additions through acquisition of subsidiaries	36,272
At 30 June 2019	41,942
<b>Accumulated impairment losses:</b>	
At 1 January 2018, 31 December 2018, 1 January 2019 and 30 June 2019	–
<b>Carrying amount:</b>	
At 30 June 2019	41,942
At 31 December 2018	5,670

### Impairment tests for cash-generating units containing goodwill

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

	At 30 June 2019 RMB' 000	At 31 December 2018 RMB' 000
Pharmaceuticals	38,996	4,586
Irradiation	1,084	1,084
Clinical medical and laboratory testing services and others	1,862	–
	41,942	5,670

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 11 GOODWILL (CONTINUED)

Impairment tests for cash-generating units containing goodwill (continued)

The recoverable amount of the goodwill is 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. Cash flows beyond the five-year period are extrapolated using estimated weighted average growth rates and the cash flows are discounted using pre-tax discount rates as set out below.

	<b>At 30 June 2019</b>	At 31 December 2018
Estimated weighted average growth rate	<b>0%</b>	0%
Pre-tax discount rate	<b>7.9%</b>	7.9%

## 12 TRADE AND BILL RECEIVABLES

	<b>At 30 June 2019 RMB' 000</b>	At 31 December 2018 RMB' 000 (restated)
Bill receivables	<b>41,295</b>	47,777
Trade receivables due from		
– related parties under CNNC	<b>18,374</b>	19,957
– associates and a joint venture	<b>74,222</b>	65,281
– third parties	<b>1,974,203</b>	1,743,161
	<b>2,108,094</b>	1,876,176
Less: loss allowance	<b>158,020</b>	147,741
	<b>1,950,074</b>	1,728,435

All of the trade and bill receivables (net of impairment losses) are expected to be recovered within one year.

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 12 TRADE AND BILL RECEIVABLES (CONTINUED)

### Aging analysis

As of the end of the reporting period, the ageing analysis of trade and bills receivables based on the invoice date (or date of revenue recognition, if earlier) and net of loss allowance, is as follows:

	<b>At 30 June 2019 RMB' 000</b>	At 31 December 2018 RMB' 000 (restated)
Within 1 year	<b>1,733,636</b>	1,544,798
Between 1 to 2 years	<b>163,970</b>	130,336
Between 2 to 3 years	<b>31,018</b>	33,603
Over 3 years	<b>21,450</b>	19,698
	<b>1,950,074</b>	1,728,435

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

## 13 CASH AT BANK AND ON HAND

	<b>At 30 June 2019 RMB' 000</b>	At 31 December 2018 RMB' 000 (restated)
Cash on hand	<b>68</b>	98
Cash at bank	<b>1,837,846</b>	1,975,010
Cash at CNNC Finance Company Ltd.	<b>493,208</b>	640,649
	<b>2,331,122</b>	2,615,757
Representing:		
Cash and cash equivalents in cash flow statement	<b>1,755,870</b>	2,557,524
Time deposits with original maturity over three months (Note(i))	<b>551,488</b>	49,401
Restricted deposits (Note(ii))	<b>23,764</b>	8,832
	<b>2,331,122</b>	2,615,757

Note:

- (i) Time deposits with original maturity over three months of RMB18,000,000 as at 30 June 2019 (31 December 2018: RMB18,000,000) were pledged as security for a bank loan.
- (ii) Restricted deposits mainly represent deposits for guarantee of letters of credit.

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 14 TRADE PAYABLES

All trade payables are expected to be settled within one year.

## 15 SHARE CAPITAL, RESERVES AND DIVIDENDS

### (a) Dividends

#### (i) Dividends payable to equity shareholders attributable to the interim period

	2019 RMB' 000	2018 RMB' 000
Interim dividend declared after the interim period of RMBNil cents per share (2018: RMB15 cents per share)	-	47,981

#### (ii) Dividends payable to equity shareholders attributable to the previous financial year, approved during the interim period

	Six months ended 30 June	
	2019 RMB' 000	2018 RMB' 000
Final dividend in respect of the previous financial year, approved during the following interim period, of RMB12.26 cents per share (six months ended 30 June 2018: RMB28 cents per share)	39,217	66,478

The final dividend in respect of the previous financial year proposed during the reporting period has not been paid at the end of the reporting period (2018: RMB53,456,000 paid in September 2018 and RMB13,022,000 paid in January 2019).

### (b) 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.

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 15 SHARE CAPITAL, RESERVES AND DIVIDENDS (CONTINUED)

### (b) Capital management (continued)

The Group's adjusted net debt-to-capital ratio at the end of the current and previous reporting periods and at the date of transition to IFRS 16 was as follows:

	<b>30 June 2019 (Note) RMB' 000</b>	1 January 2019 (Note) RMB' 000	31 December 2018 RMB' 000 (restated)
Current liabilities:			
Interest-bearing borrowings	<b>150,000</b>	–	–
Lease liabilities	<b>21,279</b>	13,430	–
	<b>171,279</b>	13,430	–
Non-current liabilities:			
Interest-bearing borrowings	<b>99,410</b>	150,000	150,000
Lease liabilities	<b>33,110</b>	22,438	–
Total debt	<b>303,799</b>	185,868	150,000
Add: proposed dividends	–	39,217	39,217
Adjusted net debt	<b>303,799</b>	225,085	189,217
Total equity	<b>4,481,758</b>	4,338,393	4,338,393
Less: proposed dividends	–	39,217	39,217
Adjusted capital	<b>4,481,758</b>	4,299,176	4,299,176
Adjusted debt-to-capital ratio	<b>7%</b>	5%	4%

Note: The Group has initially applied IFRS 16 using the modified retrospective approach and adjusted the opening balances at 1 January 2019 to recognise lease liabilities relating to leases which were previously classified as operating leases under IAS 17. Under this approach, the comparative information is not restated. See Note 3.

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 16 ACQUISITION OF SUBSIDIARIES

### (a) Acquisition of a subsidiary under common control

During the period ended 30 June 2019, the Group entered into an equity transfer agreement with Beijing Yuanke Technology Development Co., Ltd. ("Beijing Yuanke"), a subsidiary of CIAE. Pursuant to the agreement, the Company agreed to acquire 100% of the equity interests in Beijing Leike Mechatronic Engineering Technology Co., Ltd. ("Beijing Leike") from Beijing Yuanke at a cash consideration of RMB51,002,000.

As the Group and Beijing Leike are under common control of CNNC, the above acquisition has been recorded as a business combination under common control. The assets and liabilities of Beijing Leike have been recognised at the carrying amounts recognised previously in CNNC's consolidated financial statements. The consolidated financial statements of the Group have been restated as if the acquisition had occurred prior to the start of the earliest period presented.

Recognised amounts of carrying value of identifiable assets acquired and liabilities assumed at 31 May 2019 (the "acquisition date") are as follows:

	RMB' 000 (unaudited)
Property, plant and equipment	530
Deferred tax assets	135
Inventories	885
Trade and bill receivables	18,737
Prepayments, deposits and other receivables	72
Cash at bank and on hand	18,591
Trade payables	(1,058)
Accruals and other payables	(1,150)
Net assets	36,742

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 16 ACQUISITION OF SUBSIDIARIES (CONTINUED)

### (a) Acquisition of a subsidiary under common control (continued)

Details of the restatement of the Group's consolidated financial statements are as follows:

	The Group (as previously reported) RMB' 000	Beijing Leike Mechatronic Engineering Technology Co., Ltd. RMB' 000	The Group (as restated) RMB' 000
Results of operations for the period ended 30 June 2018:			
Profit from operations	281,298	1,191	282,489
Profit for the period	231,798	701	232,499
Net profit attributable to:			
– Equity shareholders of the Company	116,983	550	117,533
– Non-controlling interests	114,815	151	114,966
Basic and diluted earnings per share (RMB)	0.49	–	0.49
Consolidated statement of financial position as at 31 December 2018:			
Non-current assets	2,016,352	882	2,017,234
Current assets	4,848,436	38,076	4,886,512
Current liabilities	2,190,475	3,741	2,194,216
Non-current liabilities	371,137	–	371,137

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 16 ACQUISITION OF SUBSIDIARIES (CONTINUED)

### (b) Acquisition of a subsidiary from a third party

*Acquisition of Ningbo Junan Pharmaceuticals Technology Co., Ltd.*

In April 2019, the Group acquired 100% interest in Ningbo Junan Pharmaceuticals Technology Co., Ltd. ("Ningbo Junan"), from Tibet Huajin Tianma Equity Investment Partnership (Limited Partnership), at a cash consideration of RMB80,000,000. Ningbo Junan is principally engaged in the manufacture and sale of pharmaceuticals in the PRC.

The acquisition was completed in April 2019. Upon completion of the transaction, Ningbo Junan became a wholly-owned subsidiary of the Group.

The recognised fair values of the identifiable assets and liabilities of Ningbo Junan as at the date of acquisition were set out as follows:

	Ningbo Junan RMB' 000 (unaudited)
Property, plant and equipment	3,535
Right-of-use assets	475
Intangible assets	30,368
Inventories	1,130
Trade and bill receivables	37,604
Prepayments, deposits and other receivables	330
Cash at bank and on hand	7,128
Borrowings	(5,000)
Trade payables	(515)
Accruals and other payables	(26,971)
Income tax payable	(1,451)
Deferred tax liabilities	(1,043)
<b>Total identifiable net assets at fair value</b>	<b>45,590</b>
Satisfied by:	
Cash	72,000
Accruals and other payables (consideration has not been paid)	8,000
<b>Total consideration</b>	<b>80,000</b>
Goodwill	34,410

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 16 ACQUISITION OF SUBSIDIARIES (CONTINUED)

### (b) Acquisition of a subsidiary from a third party (continued)

The cash flows in respect of the acquisition of Ningbo Junan is as follows:

	RMB' 000 (unaudited)
Cash consideration	72,000
Cash and cash equivalents acquired	(7,128)
	64,872

Since the acquisition, Ningbo Junan contributed RMB20,338,000 to the Group's revenue and RMB4,215,000 to the consolidated net profit for the six months ended 30 June 2019.

Had the business combination taken place at the beginning of the period, the revenue of the Group and the net profit of the Group for the six months ended 30 June 2019 would have been RMB1,667,413,000 and RMB281,237,000, respectively.

## 17 FAIR VALUES MEASUREMENT OF FINANCIAL INSTRUMENTS

### (a) Financial assets and liabilities measured at fair value

#### (i) Fair value hierarchy

The following table presents the fair value of the Group's financial instruments measured at the end of the 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.

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 17 FAIR VALUES MEASUREMENT OF FINANCIAL INSTRUMENTS (CONTINUED)

### (a) Financial assets and liabilities measured at fair value (continued)

#### (i) Fair value hierarchy (continued)

The Group has a finance manager performing valuations for the trading securities and unquoted equity investments. The manager reports directly to the chief financial officer 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.

	Fair value measurements as at 30 June 2019 categorised into			
	Fair value at 30 June 2019 RMB' 000	Level 1 RMB' 000	Level 2 RMB' 000	Level 3 RMB' 000
<b>Recurring fair value measurement</b>				
Unquoted equity investments	126,000	–	–	126,000

	Fair value measurements as at 31 December 2018 categorised into			
	Fair value at 31 December 2018 RMB' 000	Level 1 RMB' 000	Level 2 RMB' 000	Level 3 RMB' 000
<b>Recurring fair value measurement</b>				
Unquoted equity investments	125,491	–	–	125,491

During the six months ended 30 June 2019, there were no transfers between Level 1 and Level 2, or transfers into or out of Level 3 (2018: 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.

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 17 FAIR VALUES MEASUREMENT OF FINANCIAL INSTRUMENTS (CONTINUED)

(a) Financial assets and liabilities measured at fair value (continued)

(ii) Information about Level 3 fair value measurements

	Valuation techniques	Significant unobservable inputs	Range	Weighted average
Unlisted equity instruments	Market comparable companies	Discount for lack of marketability	10%	10%

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 30 June 2019, it is estimated that with all other variables held constant, a decrease/increase in discount for lack of marketability by 1% would have increased/decreased the Group's other comprehensive income by RMB133,000 (2018:RMB643,000).

The movement during the period in the balance of Level 3 fair value measurements is as follows:

	At 30 June 2019 RMB' 000	At 30 June 2018 RMB' 000
Unquoted equity investments:		
At 1 January	125,491	61,791
Additional securities acquired	-	7,040
Changes in fair value recognised in other comprehensive income during the period	509	(332)
At 30 June	126,000	68,499

Any gains or losses arising from the remeasurement of the Group's unlisted equity securities held for strategic purposes 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.

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 18 COMMITMENTS

- (a) Capital commitments outstanding at 30 June 2019 not provided for in the interim financial report

	<b>At 30 June 2019 RMB' 000</b>	At 31 December 2018 RMB' 000 (restated)
Contracted for	<b>148,303</b>	175,531
Authorised but not contracted for	<b>20,580</b>	223,301
	<b>168,883</b>	398,832

- (b) At 31 December 2018, the total future minimum lease payments under non-cancellable operating leases were payable as follows

	At 31 December 2018 RMB' 000 (restated)
Within 1 year	16,477
After 1 year but within 5 years	23,354
After 5 years	1,305
	41,136

The Group is the lessee in respect of a number of properties and items of plant and machinery and office equipment held under leases which were previously classified as operating leases under IAS 17. The Group has initially applied IFRS 16 using the modified retrospective approach. Under this approach, the Group adjusted the opening balances at 1 January 2019 to recognise lease liabilities relating to these leases (see Note 3). From 1 January 2019 onwards, future lease payments are recognised as lease liabilities in the statement of financial position in accordance with the policies set out in Note 3.

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 19 MATERIAL RELATED PARTY TRANSACTIONS

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.

In addition to the balances disclosed elsewhere in this interim financial report, the principle transactions which were carried out in the ordinary course of business are as follows:

	<b>Six months ended 30 June</b>	
	<b>2019</b> <b>RMB' 000</b>	2018 RMB' 000 (restated)
<u>Sale of goods to</u>		
CNNC	–	4
Related parties under CNNC	<b>14,296</b>	26,370
Associates and a joint venture	<b>12,970</b>	23,237
<u>Service provided to</u>		
Related parties under CNNC	<b>2,047</b>	1,994
Associates and a joint venture	<b>39,000</b>	27,251
<u>Purchase of goods from</u>		
Related parties under CNNC	<b>8,415</b>	44,941
Associates and a joint venture	<b>8,965</b>	10,284
<u>Purchase of a property, plant and equipment from</u>		
Related parties under CNNC	<b>4,379</b>	–
<u>Service provided by</u>		
CNNC	<b>300</b>	–
Related parties under CNNC	<b>43,503</b>	28,943
<u>Leases from</u>		
Related parties under CNNC	<b>4,401</b>	1,547

# NOTES TO THE UNAUDITED INTERIM FINANCIAL REPORT (CONTINUED)

(Expressed in RMB unless otherwise indicated)

## 19 MATERIAL RELATED PARTY TRANSACTIONS (CONTINUED)

	Six months ended 30 June	
	2019 RMB' 000	2018 RMB' 000 (restated)
<u>Interest expenses</u>		
Related parties under CNNC	53	–
<u>Net deposits (withdrawn from)/placed with</u>		
Related parties under CNNC	(147,441)	132,881
<u>Interest income</u>		
Related parties under CNNC	3,653	2,701
<u>Dividend paid to</u>		
CNNC	13,079	–
Related parties under CNNC	113,419	67,042
<u>Dividend received from</u>		
Associates and a joint venture	47,273	23,931
<u>Capital investment in</u>		
Related parties under CNNC	–	7,040
<u>Purchase of subsidiary from</u>		
Related parties under CNNC	51,002	–

## 20 COMPARATIVE FIGURES

Certain comparative figures have been adjusted to conform to current year's presentation. The Group has initially applied IFRS 16 at 1 January 2019 using the modified retrospective method. Under this approach, comparative information is not restated. Further details of the changes in accounting policies are disclosed in Note 3.



## DEFINITIONS

“AGM”	the annual general meeting of the Company
“Articles of Association”	the articles of association of the Company
“BINE”	BINE High-Tec Co., Ltd. (北京核二院比尼新技術有限公司), formerly known as Beijing Nuclear Engineering Research and Design Institute BINE New Technology Company (北京原子高科研究設計院比擬新技術公司), a company incorporated under the laws of the PRC on August 7, 1990 and owned by our Company as to 80% of its equity interest as of the 2019 Interim Report Date
“Board” or “Board of Directors”	the board of Directors of our 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 interim report, excluding Hong Kong, Macau and Taiwan
“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) (成都中核高通同位素股份有限公司), a company incorporated under the laws of the PRC on June 11, 2002 and owned by our Company as to 93.15% of its equity interest as of the 2019 Interim Report Date
“CNNC”	China National Nuclear Corporation
“CIAE”	China Institute of Atomic Energy
“CNNC Fund”	Beijing CNNC Industry Investment Fund (LLP)

## DEFINITIONS (CONTINUED)

“CNNC Tongxing”	CNNC Tongxing (Beijing) Nuclear Technology Co., Ltd. (中核同興(北京)核技術有限公司), a company incorporated under the laws of the PRC on March 12, 2010 and owned by our Company and a subsidiary of CNNC as to 51% and 49% of its equity interest, respectively, as of the 2019 Interim Report Date
“Director(s)”	director(s) of our Company
“Domestic Share(s)”	ordinary shares in the share capital of the Company with a nominal value of RMB1.00 each, which are subscribed for and paid up in RMB
“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
“H Share(s)”	overseas listed foreign shares in the 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
“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

## DEFINITIONS (CONTINUED)

“HTA”	HTA Co., Ltd. (原子高科股份有限公司), formerly known as Beijing HTA Nuclear Techno (北京原子高科核技術應用股份有限公司), a company incorporated under the laws of the PRC on May 18, 2001 and owned by our Company and a subsidiary of CNNC as to 68.28% and 3.02% of its shares respectively as of the 2019 Interim Report date, the shares of which are listed on the National Equities Exchange and Quotations (stock code: 430005)
“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 30 June 2019
“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

## DEFINITIONS (CONTINUED)

“SFO”	the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong), as amended, supplemented or otherwise modified from time to time
“Share(s)”	the ordinary shares in the capital of the Company with a nominal value of RMB1.00 each, comprising the Domestic Shares and the H Shares
“Shareholder(s)”	holder(s) of the Share(s) of the Company
“Stock Exchange”	The Stock Exchange of Hong Kong Limited
“Supervisor(s)”	supervisor(s) of our Company
“%”	percent

**中國同輻股份有限公司**  
China Isotope & Radiation Corporation