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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 418, South 4th Floor, Building 1, No. 66 Changwa Middle Street,

Haidian District,

Beijing

China

HEAD OFFICE IN THE PRC

No. 66

Changwa Middle Street

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

Mr. Chen Zongyu

Ms. Chang Jinyu

Independent Non-executive Directors

Mr. Guo Qingliang

Mr. Meng Yan

Mr. Hui Wan Fai

Mr. Tian Jiahe

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

Mr. Li Zhenhua

Mr. Zhang Jian

JOINT COMPANY SECRETARIES

Mr. Wu Laishui

Ms. Kam Mei Ha Wendy

AUDITOR

KPMG

Public Interest Entity Auditor registered

in accordance with the

Financial Reporting Council Ordinance

LEGAL ADVISORS

As to Hong Kong Law

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As to PRC Law

Zhong Lun Law Firm

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Chaoyang District

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PRC

PRINCIPAL BANKERS

Industrial and Commercial Bank of China.

Chang'an Branch

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LISTING DATE

6 July 2018

FINANCIAL HIGHLIGHTS

(RMB in million)	Six months ended 30 June 2020	Six months ended 30 June 2019
Revenue	1,517.4	1,655.0
Gross profit	847.2	1,190.2
Profit from operating activities	168.7	329.2
Profit before taxation	164.4	337.3
Profit attributable to equity shareholders of the Company	71.9	147.8
Basic/diluted earnings per share (RMB)	0.22	0.46
Profitability		
Gross profit margin	55.8%	71.9%
Operating profit margin	11.1%	19.9%
Net profit margin	8.8%	17.0%
	At 30	At 31
	June 2020	December 2019
Total assets	8,834.1	8,843.4
Total liabilities	3,583.6	3,840.0
Net assets	5,250.5	5,003.4

GROUP PROFILE

As a leader of the isotopes and irradiation technology application industry in the PRC, CIRC has tapped into the field of isotopes and irradiation technologies since it was established in 1983 and operated actively in the nuclear technology application industry for over 30 years. Basically, our business covers the entire spectrum of the nuclear technology application industry. Given the high entry qualifications and complex technological barriers, CIRC has ample room for expansion in the industry as we continue to build on our existing business foundation.

CIRC focuses on research and development, manufacturing and sales of pharmaceuticals and is also engaged in the business of radioactive source products, irradiation and Independent clinical laboratory services and other businesses. The Company derives 63.7% of its revenue and 78.9% 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 features huge potential, high entry barriers and high profitability, CIRC is the largest manufacturer of radiopharmaceuticals, UBT kits and analyzers and RIA kits domestically. CIRC has a high market presence. CIRC is the largest radioactive source products manufacturer with the most comprehensive product portfolio in the PRC, and is the only manufacturer of these products with the capability to produce various products such as Cobalt-60 for irradiation services and Cobalt-60 for medical applications. In terms of irradiation service, CIRC is the third largest provider of such services and is the only company to provide services of upstream production as well as downstream design and installation of irradiation facilities. The two subsidiaries of CIRC are among the three qualified EPC service providers approved by the MEP to engage in the design, manufacture and install irradiation facilities in China.

As the nuclear technology application industry platform of CNNC, CIRC has achieved the domestication of radioisotope raw materials production and research and development of irradiation products by leveraging on the availability of CNNC's nuclear reactors, cyclotrons and resources such as 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 services 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

For the six months ended 30 June 2020, we operated in four business segments, including pharmaceuticals, radioactive source products, irradiation and Independent clinical laboratory services and other businesses. In the first half of the year, the novel coronavirus outbreak brought a negative impact on our operations, seriously affecting the various business segments of the Group. Faced with the grim challenges of the pandemic, the Group adopted concrete and effective measures, with a firm commitment to prevent and control the epidemic and facilitated the resumption of work and production in a precise and orderly manner. Along with the improvement of pandemic prevention and control, the Group's operations started to change positively and experience a gradually improving financial performance. During the Reporting Period, the revenue achieved by the Group was RMB1,517.4 million, representing a year-on-year decrease of 8.3%. Net profit was RMB133.8 million, representing a year-on-year decrease of 52.4%, and net profit attributable to equity shareholders of the Group was RMB71.9 million, representing a year-on-year decrease of 51.3%.

BUSINESS SEGMENTS

1. Pharmaceuticals

CIRC is the leading manufacturer of diagnostic and therapeutic radiopharmaceuticals in China, primarily engaged in the research, development, manufacturing and sale of a wide range of diagnostic and therapeutic radiopharmaceuticals, UBT kits and analyzers and in vitro diagnostic reagents in China. During the Reporting Period, some hospital customers of the Group's pharmaceuticals segment followed the demands of local authorities to temporarily halt certain fields of clinical treatment work, due to the state's overall arrangements in novel coronavirus prevention and control, which resulted in the suspension of health and body examination services, with some local medical and healthcare committees calling for a temporary halt on HP breath tests. On the other hand, due to the pandemic's impact, the nuclear medicine discipline reported a decline of the volume of patient cases, causing the period of pharmaceutical orders from the hospitals lengthened and the order quantities reduced. During the Reporting Period, the Group's pharmaceutical segment recorded a sales revenue of RMB967.2 million, representing a 30.1% decrease from the corresponding period in 2019. But an analysis of the Group's pharmaceutical sales during the Reporting Period shows that the Group's pharmaceutical sales had rebounded beginning in May, when the pandemic in China gradually came under control. In the second half of 2020, the Group's pharmaceutical sales volume is expected to demonstrate a growth trend.

During the Reporting Period, the Group diligently accelerated various works through scientific planning and coordination, to ensure an ample supply of products for the pharmaceuticals market. The subsidiaries of the Group actively strove for resumption in work and production, made timely adjustments to international shipments, ensured the supply of raw materials supply and that in the critical phase of coronavirus prevention and control, the Group did its utmost to satisfy the needs for clinical and pharmaceutical usage of all hospitals concerned. During the Reporting Period, the Group's subsidiary company HTA integrated GMP factory passed the GMP test, and its two other subsidiaries – Nanning Atom Qualcomm Pharmaceutical Co., Ltd and Shijiazhuang HTA Pharmaceutical Co., Ltd – successfully obtained the license to operate Tc real-time labeling drugs. By entering production and operation, both companies injected new energy in HTA industry layout, ensured that the key strategic missions of 2020 were accomplished as planned and reached for the objectives of becoming bigger, stronger and better in the nuclear technology application industry and strove continually toward their goals.

2. Radioactive source products

CIRC is 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, industrial enterprises halted production given the impact of coronavirus, causing the demand to be lower for radioactive source products among industries in China. As a result, the Group derived revenue of RMB147.6 million from radioactive source business, representing a decrease of 20.2% from the same period in 2019. In February 2020, the Group successfully accomplished the mission of exporting industrial Cobalt-60. In addition, in March 2020, the Group's subsidiary company HTA completed the research and development for Krypton-85 beta source, and the related products will be launched in the market imminently.

3. Irradiation

CIRC is 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. For the first half of 2020, the irradiation segment realized a revenue of RMB37.9 million, representing a period-on-period increase of 9.3%, which was mainly due to an increase in revenue from irradiation processing services and an increase in volume of irradiation processing work on coronavirus-prevention materials.

The Group actively participated in the formulation of "Emergency Regulations for Irradiation and Sterilization of Medical Disposable Protective Clothing during the Epidemic Period (Provisional)" during which we took full advantage of our industry's competitive edge to participate in epidemic prevention and control. For this exercise, we shortened the sterilization periods of disposable medical products from 14 days originally to 1 day. As of the end of June, a total of 2.51 million sets of medical disposable protective clothing were irradiated and sterilised, along with 2.49 million units of medical masks and 140 million pairs of medical gloves. This played an important role to relieve the shortage of critical materials at the frontline of the battle against the pandemic and full endorsement was offered by the Ministry of Industry and Information Technology; State Administration of Science, Technology and Industry for National Defence; and State-owned Assets Supervision and Administration Commission of the State Council.

During the Reporting Period, the Group's subsidiary company BINE signed a cooperation agreement with a latex gloves' manufacturer in Malaysia. Under this agreement, a 4 million Ci BFT cobalt-source irradiation facility will be built by BINE for sterilisation of latex products. BINE will undertake the entire project design, supply and installation of the full set of facilities and train the operational staff. As an example of the Group's technology solution being exported overseas, the project lays a solid foundation for China's nuclear technology applications in Malaysia.

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 in respect to hepatitis, endocrine, bone metabolism, cardiovascular disease, diabetes and other diseases. The Group is promoting the chain operation of independent clinical laboratories. During the Reporting Period, the Group derived revenue of RMB364.7 million from Independent clinical laboratory services and other businesses, representing an increase of 615.1% on a period-on-period basis. Revenue derived from the Group's independent clinical laboratory services amounted to RMB49.6 million, primarily attributable to two laboratory centers in Wuhan and Chengdu under China Nuclear Zhongtong Lanbo, a subsidiary company of the Group, entering service as well as increased nucleic acid detection services rendered during pandemic period. Other businesses realized revenue of RMB315.1 million, primarily because of the growth of epidemic prevention goods export business and the operation of medical equipment business.

During the Reporting Period, CNNC Pulin Medical Technology (Chengdu) Co., Ltd. was registered in Chengdu. The company was a joint venture of three business units, including the Group's subsidiary, CNNC High Energy Equipment (Tianjin) Co., Ltd., that distributes gamma knife equipment as a business starting point. This new establishment will continue to expand into research and development, production, sale and services related to pharmaceuticals and medical equipment.

The table below sets forth our revenue by business segment for the six months ended 30 June 2020 and 30 June 2019:

	Six months of	ended	Six months e	nded
	30 June 2	020	30 June 20)19
(RMB in million, except in percentage)	Amount	%	Amount	%
Pharmaceuticals	967.2	63.7	1,384.4	83.7
Radioactive source products	147.6	9.7	184.9	11.2
Irradiation	37.9	2.5	34.7	2.1
Independent clinical laboratory services				
and other businesses	364.7	24.1	51.0	3.0
Total	1,517.4		1,655.0	

MARKETING

During the Reporting Period, as market developments were affected by the pandemic, the Group's headquarters, together with its subsidiary company CNNC Headway and its subsidiary joint-venture company CNNC Accuray, invited experts of their respective fields to conduct online teaching, facilitated academic promotions and created "Isotope Technology Lecture Hall", "Headway Health Lecture Hall" and "Ankerui Lecture Hall". As of 30 June 2020, 15 online sessions of "Isotope Technology Lecture Hall" were conducted, along with a series of topical seminars about nuclear medicine, isotope technology/irradiation pharmaceuticals, irradiation/short-distance treatment technology and irradiation technology and applications. A cumulative total of 2869 learners attended the online sessions. As a forerunner of nuclear technology applications, in May 2020, the Group undertook the 8th Irradiation Pharmaceuticals Preparation and Qualitative & Quantitative Control training outsourced by the Nuclear Medicine unit of the Chinese Medical Association, to facilitate the developments of nuclear medicine technology. During the Reporting Period, the Group continued to support the work of the nuclear medicine unit of Chinese Medical Association in order to promote nuclear medicine diagnostic work and build the foundation of a demonstration base project. The efforts culminated in the completion of the Affiliated Hospital of Chifeng University in Inner Mongolia on 15 June 2020.

To continually drive the Group's inner momentum for product innovation, recruitment work was undertaken to hire the Chief Expert and Technology Leader for CNNC Headway in the first half of 2020, marking Headway's move to usher in top talents, implement the Group's development strategy and talents development plan and take a critical step in boosting the company's strengths in technology research and development. CNNC Headway's subsidiary company Anhui Yanghe Company successfully secured the title of the 12th batch of "115" industry innovation team through accomplishment of a novel laser analysis spectrometer project for UBT. During the Reporting Period, CNNC Headway won the second prize of Shenzhen Science and Technology Progress in 2019 and was offered approval for a stable and isotope application engineering technology R & D centre in Shenzhen Postdoctoral Innovation Practice Base and Guangdong Province. By building a technology innovation platform, Headway facilitated industry academic research and synergistic innovations, the breakthrough of technical bottlenecks for critical technologies in industry development and continued to maintain industry-leading standards in stable isotope and UBT technology.

SCIENTIFIC RESEARCH AND INNOVATION

The Group has strong research and development strengths. Our research and development team comprising 218 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. Resolving the shortage of sterilised medical protecting clothing in China after the initial coronavirus outbreak, the Group actively undertook the related sterilisation research and participated in the formulation of "Emergency Regulations for Irradiation and Sterilization of Medical Disposable Protective Clothing during the Epidemic Period (Provisional)," to provide free, highly effective irradiation and sterilisation services for pandemic prevention and control. We have always actively conducted research and development work on various types of imaging diagnosis and radioactive pharmaceuticals to fill the void of various fields of medical treatment and meet the medical needs of China. As of 30 June 2020, we had eight types of imaging diagnosis and radioactive pharmaceuticals under research and development. Among them, a type of radioactive pharmaceutical (i.e. sodium iodine-131 capsule for therapeutic purpose) was awaiting approval, two types of radioactive pharmaceuticals (i.e. iodine-131-MIBG injection and sodium fluorine-18 injection) were in clinical trial phase and a type of radioactive pharmaceutical (i.e. palladium-103 sealed source) was awaiting approval for the clinical trial phase, and four types of imaging diagnosis and radioactive pharmaceuticals were in various phases of research and development.

During the Reporting Period, the Group achieved remarkable results in the work on intellectual properties, with a total of 34 patents applied including 12 patents for inventions and obtained 18 authorised patents, including 2 patents for invention. As of 30 June 2020, we had registered more than 320 patents and had filed applications for more than 150 patents, further consolidating our business strengths in China. As of 30 June 2020, the Group established six research and development centers under the CIRC Institute System, namely in vitro diagnosis technology, radioactive medicine and stable isotope and breath test technology, radioactive source and industrial applications, irradiation industrial applications and precision medicine. We will work with foreign and domestic advantageous enterprises to carry out innovations of the operational system and mechanism, adopt various methods including independent product development, alliance, entrustment, introduction or acquisition and merger, and will gradually establish a high-level enterprise research and development center covering nuclear various technology applications fields.

INTERNATIONAL BUSINESSES

During the Reporting Period, the Group recorded revenue of RMB233.7 million from our export of UBT analyzers, coronavirus test kits, RIA kits, gamma irradiation station, cobalt sources and other products to nearly 50 countries and regions, representing a year-on-year increase of 992.1%, compared to the same period of 2019. Among them, the exports of coronavirus-related products amounted to RMB207.9 million, representing a year-on-year increase of 20.4% after netting out. During the pandemic period, the Group responded swiftly to market needs and successfully formulated novel coronavirus test kits which were included in the Ministry of Commerce's export white list, thereby increasing our export revenue. Other initiatives taken include carrying out product promotion through methods like phone calls and networking; signing an export contract successfully with prepayment received for a gamma irradiation station, the second of its kind exported by CIRC to the international market. During the reporting period, the Group has successfully exported 0.5 million Ci CN101 final cobalt-source product; marking a first breakthrough for the export of final cobalt-source products. The Group has realized the export of radioactive source and flaw detection machine integration through the innovation of business model; successfully signed NDT gamma radiography with radioactive source export contract and explored the technology collaboration methods to boost exports from the Group. Concurrently, the Group donated face masks to its international business partners to jointly fight the epidemic; became a member of China Chamber of Commerce for Import & Export of Medicine and Healthcare Products; conducted closer communication and exchanges with externally-oriented pharmaceutical and medical enterprises; liaised with the IAEA (International Atomic Energy Agency) to whom reports of the Group's nuclear technology application projects were filed; participated in international cloud exhibitions on multiple occasions; embarked on business training and self- enhancement work such as establishing an internal management system and actively pursued resources integration domestically, with a view of preparing for localized operation.

CAPITAL OPERATION

Upholding the strategic objectives of "Becoming Larger, Stronger and Better", the Group firmly follows the development concept of "Assetization and Globalisation" to transform itself into a topnotch international organization and provider of nuclear technology application products and services. To implement the Group's strategy and improve our company's financial gains, we have teamed up with CIRC Funds to invest in various fields of nuclear technology applications, including nuclear medicine, medical device, In Vitro Diagnosis, industrial irradiation application and equipment manufacturing. These various projects have been underway as planned. During the Reporting Period, the Group did not acquire any enterprises.

PRODUCTION CAPACITY

The manufacturing and production facilities of the Group have a wide geographical coverage in China. The pharmaceuticals centers are located in 17 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 2020 are set out in the table below:

Imaging diagnostic and therapeutic radiopharmaceuticals:

	Six months ended 30 June 2020			
	Annual	Actual		
	designed	production	Utilization	
	capacity	volume	rate	
Fluorine-18-FDG injections (Ci)	12,203	2,609	21.38%	
Molybdenum-99/technetium-99m generators (Ci)	32,445	5,394	16.63%	
Technetium-99m instantly labelled pharmaceutical series (vial)	889,850	187,308	21.05%	
Sodium iodine-131 oral solution (Ci)	22,036	4,862	22.06%	
lodine-125 sealed sources (unit)	990,000	259,722	26.23%	
Strontium-89 chloride injections (vial)	67,000	3,902	5.82%	

UBT kits and analyzers:

	Six months ended 30 June 2020			
	Annual designed capacity	Actual production volume	Utilization rate	
Carbon – 13&14 UBT kits (unit) Carbon – 13&14 UBT analyzers (unit)	23,000,000 6,200	10,834,827 1,810	47.1% 29.2%	

In vitro immunoassay reagents and kits:

	Six months ended 30 June 2020			
	Annual			
	designed	production	Utilization	
	capacity	volume	rate	
RIA kits(unit)	200,000	37,951	18.98%	
EIA reagents, CLIA reagents and TRFIA (unit)	100,000	15,291	15.29%	
Colloidal gold reagents (unit)	100,000	0	0	

Radioactive source products:

Six month	s ended	30 June	2020
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	Annual	Actual		
	designed	production	Utilization	
	capacity	volume	rate	
Cobalt-60 source for gamma knife (Ci)	3,600,000	150,000	4.2%	
Iridium-192 brachytherapy sources (Ci)	10,000	925	9.3%	
Cobalt-60 radioactive source for irradiation service(Ci)	14,400,000	1,860,000	12.9%	
Iridium-192 non-destructive testing radioactive sources (Ci)	1,200,000	70,008	5.8%	
Caesium- 137 radioactive sources (Ci)	55,700	2,030	3.6%	
Americium-241/Beryllium neutron sources (Ci)	1,000	0.50	0.05%	
Selenium-75 non-destructive testing radioactive source (Ci)	50,000	25,000	50.0%	

FUTURE DEVELOPMENT

Presently, with the pandemic still spreading globally, the world economy will be drastically affected as it continues developing and evolving. This has placed enormous pressure on the China's domestic economy and its recovery. To ensure the Group's accelerated developments under the new circumstances, we will strengthen our evaluation of the external situation, focusing on the implementation of our various missions in an orderly manner, including prevention of various risks, the pursuit of progress amid stability, project development, technology research and development and management innovation in the second half of the year.

In terms of planning, we will continue to conduct an in-depth analysis on the medium-and-long-term impact of the external circumstances on the nuclear technology applications industry and on our Group's developments, as well as study and evaluate the effects of coronavirus pandemic for the Group's various business fields and development trends of the upstream and downstream industry. Revolving around the Group's development strategy and improvements, the "14th Five-Year Plan" will further enhance the scientific nature, professionalism, foresight and feasibility of planning to demonstrate a clear direction for the Group's qualitative developments.

In terms of project development, in order to speed up implementation of the Group's development strategy and improve its industry layout, we will make concerted efforts to pursue the "CRIC speed" in order to accelerate the planning of our country-wide medical centre network and focus on the key projects of building a medical base in Northern China and Sichuan. In the second half year of 2020, the Guangdong medical base will complete the relocation of its manufacturing facilities and expected to unleash the potential of its new productive capacity. Similarly, the construction of Northern China and Sichuan medical bases is also in progress. The successive completion of these medical bases will raise our research and development and productive capacity for our imaging diagnostic and radioactive medicine to become more standardized and scalable in meeting our production and operational demands, so as to address the increasing needs of the growing radiopharmaceuticals market of China.

In terms of technology research and development, we have witnessed the crucial role that nuclear technology has played in the current pandemic control, judging from the full endorsements of the various social sectors. Subsequently, we will embrace the opportunities that the pandemic has brought to the nuclear technology application industry, broaden the scope of applications and apply the technology in a more indepth manner.

In terms of management innovation, we will further strengthen cost management in an active response to the pandemic, accelerate the introduction of LEAN management and continue to push ahead cost reduction and efficiency enhancement. Meanwhile, on the foundation of smooth implementation of the Group's enhancement of equity value incentive initiative during the first half of the year, we will continue to deepen our business reforms, further entrench our reforms and innovations, remove the limitations on the developments of our system and mechanism and fully invigorate our company's drive for innovations and internal dynamism.

In the future development, the Group will firmly follow a market orientation, at the core of which is the commitment to raising economic efficiency and improving quality driven by reforms and innovations. We will also strive to accelerate the developments of nuclear technology applications to reinforce our leadership position in the industry.

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 decreased by 8.3% from RMB1,655.0 million for the six months ended 30 June 2019 to RMB1,517.4 million during the Reporting Period, which was mainly due to revenue decreases of our pharmaceuticals segment and radioactive source products segment given the Covid-19 pandemic impact in the first half of the year.

Cost of Sales, Gross Profit and Gross Margin

Our cost of sales increased by 44.2% from RMB464.7 million for the six months ended 30 June 2019 to RMB670.3 million during the Report Period, which was mainly due to an increase in cost of sales of our Independent clinical laboratory services and other businesses. On the one hand, the cost of independent clinical laboratory services increased with the business volume growth. On the other hand, the cost increase was due to the operation of medical equipment business and the growth of epidemic prevention material export business.

Our gross profit decreased by 28.8% from RMB1,190.2 million for the six months ended 30 June 2019 to RMB847.2 million during the Reporting Period and our gross margin decreased by 16.1% from 71.9% to 55.8%. The decrease in gross margin was primarily due to the gross margin decline of our pharmaceuticals segment under the pandemic.

Other Income

Our other income increased by 84.4% from RMB18.6 million for the six months ended 30 June 2019 to RMB34.3 million during the Reporting Period, which was mainly due to increased government grants received during the Reporting Period.

Selling and Distribution Expenses

Our selling and distribution expenses decreased by 28.9% from RMB678.3 million for the six months ended 30 June 2019 to RMB482.0 million during the Reporting Period, which mainly reflected the impact of the pandemic, causing our business volume to decline and therefore, a reduction of our sales service fees and transportation cost.

As a percentage of revenue, selling and distribution expenses decreased from 41% for the six months ended 30 June 2019 to 31.8% during the Reporting Period, which was mainly due to revenue structure changes and a decline of the pharmaceuticals business with relatively high selling expenses during the Reporting Period.

Administrative Expenses

Our administrative expenses increased by 14.6% from RMB201.3 million for the six months ended 30 June 2019 to RMB230.7 million during the Reporting Period, which was mainly due to (i) the increased staff costs resulting from our expanded operational scale, and (ii) the increase in depreciation and amortization charges of the Company, mainly due to the expansion of pharmaceuticals segment operations and investment of more fixed assets.

As a percentage of revenue, administrative expenses increased from 12.2% for the six months ended 30 June 2019 to 15.2% during the Reporting Period, which was mainly due to the need of settling fixed expenses such as staff costs as well as depreciation and amortization despite of declining revenue.

Finance costs

Our finance costs increased by 206.7% from RMB6.0 million for the six months ended 30 June 2019 to RMB18.4 million during the Reporting Period, which was mainly due to the increased interest expense of our debt financing.

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 81.3% from RMB1.6 million for the six months ended 30 June 2019 to RMB2.9 million during the Reporting Period, mainly due to the decrease in losses incurred by our associates Shenzhen CICAM. Our share of profits of joint ventures decreased by 10.4% from RMB12.5 million for the six months ended 30 June 2019 to RMB11.2 million during the Reporting Period, mainly due to a decrease in profits from our joint venture Shanghai GMS Pharmaceutical Co., Ltd..

Profit before Tax

As a result of the foregoing, our profit before tax decreased by 51.3% from RMB337.3 million for the six months ended 30 June 2019 to RMB164.4 million during the Reporting Period.

Income Tax

Our income tax slightly decreased by 45.4% from RMB56.0 million for the six months ended 30 June 2019 to RMB30.6 million during the Reporting Period, mainly due to the decrease in our taxable income.

For the six months ended 30 June 2019 and during our Reporting Period, our effective tax rate was 16.6% and 18.6% respectively.

Profit for the Period

As a result of the foregoing, our profit for the period decreased by 52.4% from RMB281.3 million for the six months ended 30 June 2019 to RMB133.8 million during the Reporting Period.

FINANCIAL POSITION

Overview

For the six months ended 30 June 2020, the total assets, the total liabilities and the total equity of the Group were RMB8,834.1 million, RMB3,583.6 million and RMB5,250.5 million respectively.

Net Current Assets

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

	RMB in million	
	At 30 June	At 31 December
	2020	2019
Inventories	753.1	444.4
Trade and bill receivables	1,975.0	2,187.7
Prepayments, deposits and other receivables	336.3	263.4
Cash at bank and on hand	2,413.8	2,744.9
Total Current Assets	5,478.2	5,640.4
Borrowings	85.5	191.2
Trade payables	276.2	173.6
Accruals and other payables	2,180.0	2,368.8
Lease liabilities	31.4	27.8
Provisions	69.6	69.6
Income tax payable	35.4	98.2
Total Current Liabilities	2,678.1	2,929.2
Net Current Assets	2,800.1	2,711.2

Our net current assets increased by 3.3% from RMB2,711.2 million as of 31 December 2019 to RMB2,800.1 million as of 30 June 2020, which was mainly due to an increase in current liabilities caused by the growth of trade payables.

Adjusted Net Gearing Ratio and Quick Ratio

As of 31 December 2019 and 30 June 2020, 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 18.5% and 14.3% respectively.

As of 31 December 2019 and 30 June 2020, our quick ratio (total current assets excluding inventories divided by total current liabilities as of the same date) was 1.8 times and 1.8 times, respectively.

Analysis of Cash Flows

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

RMB in million

	Six months ended 30 June		
	2020	2019	
Net cash used in operating activities	(164.0)	(13.9)	
Net cash used in investing activities	(256.6)	(790.0)	
Net cash generated from financing activities	13.8	0.4	
Net decrease in cash and cash equivalents	(406.8)	(803.5)	
Cash and cash equivalents at the beginning of the period	2,640.3	2,557.5	
Effect of changes in foreign exchange rate	(1.3)	1.8	
Cash and cash equivalents at the end of the period	2,232.2	1,755.9	

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 2020, our trade and other receivables (net of bad debt allowance of RMB144.6 million) were RMB2,311.3 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 2020, our trade and other payables were RMB2,456.2 million.

Bank Loans and Pledge of Assets

As of 30 June 2020, our bank loans were RMB169.1 million, which mainly includes: (i) a one-year loan of RMB53.5 million newly borrowed by a subsidiary of the Group at an interest rate per annum of 3.915% during this period, with an amount of RMB130 million for the previous period and a balance of RMB83.5 million for this period, which was a credit loan without pledge of assets, mainly used for the company's daily production and operation turnover; (ii) a one-year loan of RMB2.0 million borrowed by a subsidiary of the Group at an interest rate per annum of 5.0025%, which was a credit loan without pledge of assets, mainly used for the company's procurements of goods; (iii) a 15-year loan of RMB8.0 million borrowed by a subsidiary of the Group at an interest rate equivalent to the five-year LPR of the business day before the loan contract becomes effective plus 78.5 base points (subject to adjustment every 12 months), with an amount of RMB7.7 million remaining during the period, which was mainly used for the company's procurement of goods, and for which the Group's properties with a carrying amount of RMB9.4 million and prepayment for land lease of RMB1.0 million were pledged; (iv) a five-year loan of RMB30.0 million borrowed by a subsidiary of the Group at an interest rate equivalent to the five-year LPR plus 20.25 base points (subject to adjustment every 12 months), with an amount of RMB20.0 million remaining during the period, which was used for the renovation of the company's office building and for which the Group's properties of RMB193.6 million and prepayment for land lease of RMB36.9 million were pledged; (v) a nine-year long-term loan of RMB50.0 million borrowed by a subsidiary of the Group at an interest rate equivalent to the five-year LPR of the business day before the actual withdrawal date minus 50 base points (subject to adjustment every 12 months), which was a credit loan without pledge of assets, mainly used for the construction of a pharmaceuticals base project; (vi) a six-year long-term loan of RMB5.9 million borrowed by a subsidiary of the Group at an interest rate equivalent to the five-year LPR of the business day before the actual withdrawal date plus 15 base points (subject to adjustment every 12 months), which was a credit loan without pledge of assets, mainly used for the construction of a pharmaceuticals base project.

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 RMB228.6 million.

Contingent Liabilities

As of 30 June 2020, we did not have any material contingent liabilities.

Foreign Exchange and Foreign Exchange Risk

During the six months ended 30 June 2020, the Group was exposed to currency risks 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 Risks

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

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

Liquidity risks

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 proportionally 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 2020.

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 2020.

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.

In accordance with the requirements of paragraph 11(8) of Appendix 16 of the Listing Rules, the update of use of proceeds, and the use of proceeds from the initial public offering for the first half of 2020 (including the expected time of full utilisation of this balance) is set out below:

Unit: RMB in million

	Initial	Revised	Amount utilised	Amount	Amount		Expected
	allocation	allocation	as of 31	utilised in	utilised as	Balance as	time of full
	of the net	of the net	December	first half of	of 30 June	of 30 June	utilisation
Use	proceeds	proceeds	2019	2020	2020	2020	of balance
Investment in imaging diagnostic and therapeutic							
radiopharmaceuticals manufacturing and research							
and development bases	597.3	460.0	29.5	7.7	37.2	422.8	2021
Establishment of production and distribution subsidiaries	67.3	-	-	-	-	-	-
Establishment of new production facilities – Headway							
(Tongyuan or Shenzhen)	84.5	50.0	50.0	0.0	50.0	0.0	2020
Investment in the research and development							
of various imaging diagnostic and therapeutic							
radiopharmaceuticals, raw materials of radioactive							
source products, medical radioisotopes, and UBT							
products and related raw materials	253.6	118.3	76.6	4.3	80.9	37.4	2020
Investments/selective (mergers) acquisitions	286.5	536.1	529.9	3.8	533.7	2.4	2020
Working capital and general corporate purposes	143.3	268.1	232.5	31.3	263.8	4.3	2020
Total	1,432.5	1,432.5	918.5	47.1	965.6	466.9	

EMPLOYEES AND REMUNERATION POLICY

The Group had a total of 3,030 employees as of 30 June 2020. During the six months ended 30 June 2020, our staff costs (including directors' remuneration but excluding contributions to any pension plan) were approximately RMB249.2 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.

CASH SETTLED SHARE BASED TRANSACTION

At the Annual General Meeting held on 30 June 2020, the plan for the first tranche of the share appreciation rights and the scheme for initial grant under the plan were approved by the Group. On 30 June 2020, the Board announced the first tranche of the share rights appreciation plan and approved the initial grant under the plan. The target group of the incentive comprised of 162 individuals (including 107 senior management executives and 55 senior technical staff members of the Group). A total of 8,607,700 share appreciation rights, which made up 2.69% of the total shares issued, were granted. Pursuant to the share option scheme, each share option is related to a share, and share option will be settled in cash, and thus there will be no influence on the total number of issued shares or dilution effect on shares. Under the initial grant, the highest exercise price for each share appreciation right is as follows: (1) HK\$22.20, being the closing price of the Group's H Shares on the Hong Kong Stock Exchange on the Date of Grant, (2) the average closing price of HK\$21.82 of the Croup's H Shares on the Hong Kong Stock Exchange for the five consecutive trading days prior to the Date of Grant, or (3) the nominal value of the shares of the Company, that is HK\$1.0948.

HEDGING ACTIVITIES

During the six months ended 30 June 2020, the Group had not entered into any hedging transaction in relation to foreign exchange risks or interest risks.

FUTURE PLANS FOR MATERIAL INVESTMENTS OR CAPITAL ASSETS

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

By order of the Board of Directors

China Isotope & Radiation Corporation

Meng Yanbin

Chairman

Beijing, the PRC, 28 August 2020

CORPORATE GOVERNANCE 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 Board of Supervisors 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 four independent non-executive Directors, including Mr. Guo Qingliang, Mr. Meng Yan, Mr. Hui Wan Fai and Mr. Tian Jiahe.

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 2020.

On 28 August 2020, the Audit and Risk Management Committee reviewed and confirmed the interim results announcement of the Group for the six months ended 30 June 2020, the 2020 interim report and the unaudited condensed consolidated interim financial information for the six months ended 30 June 2020 prepared in accordance with the IAS 34 Interim Financial Reporting.

SHARE CAPITAL

As of 30 June 2020, 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 2020, 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 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 2020, the following persons (other than the Directors, Supervisors and chief executive of the Company) had interests or short positions in the Shares or underlying Shares of our Company which are required to be disclosed to our Company and the Stock Exchange pursuant to the provisions of Divisions 2 and 3 of Part XV of the SFO, or interests or short positions which are required to be entered in the register pursuant to Section 336 of SFO, or, directly or indirectly, be interested in 5% or more of the nominal value of any class of our share capital:

Shareholder	Class of Shares	Nature of interest	Number of Shares held ⁽⁶⁾	Approximate percentage of shareholding in the relevant class of Shares (%)	Approximate percentage of shareholding in the total share capital of our Company (%)
CNNC (f)	Domestic Shares	Beneficial owner/Interest of controlled corporation	236,150,233(L)	98.43	73.83
CIAE (1)	Domestic Shares	Beneficial owner	58,534,835(L)	24.40	18.30
NPIC (1)	Domestic Shares	Beneficial owner	46,994,835(L)	19.59	14.69
CNNC Fund (1)	Domestic Shares	Beneficial owner	18,779,342(L)	7.83	5.87
Shanghai Industrial Investment (Holdings) Company Limited ("SIIC") (2)	H Shares	Interest of controlled corporation	19,912,400(L)	24.90	6.23
Shanghai Industrial Investment Treasury Company Limited (2)	H Shares	Interest of controlled corporation	11,906,400(L)	14.89	3.72
Shanghai Investment Holdings Limited (2)	H Shares	Interest of controlled corporation	11,906,400(L)	14.89	3.72
Shanghai Industrial Holdings Limited ("SIHL") (2)	H Shares	Interest of controlled corporation	11,906,400(L)	14.89	3.72
S.I. Infrastructure (Holdings) Limited (2)	H Shares	Interest of controlled corporation	11,906,400(L)	14.89	3.72
Sure Advance Holdings Limited ("Sure Advance") (2)	H Shares	Beneficial owner	11,906,400(L)	14.89	3.72
Shanghai Shangshi (Group) Co., Ltd. ("Shanghai Shangshi") (2)	H Shares	Interest of controlled corporation	8,006,000(L)	10.01	2.50
Shanghai Pharmaceuticals Holding Co. Ltd ("SPH") (2)	H Shares	Interest of controlled corporation	8,006,000(L)	10.01	2.50
Shanghai Pharmaceuticals (HK) Investment Limited ("SPH HK") [2]	H Shares	Beneficial owner	8,006,000(L)	10.01	2.50
Beijing State-owned Assets Management Co., Ltd. (3)	H Shares	Interest of controlled corporation	10,899,000(L)	13.63	3.41
Beijing Industrial Developing Investment Management Co., Ltd. (3)	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. (4)	H Shares	Investment manager	4,801,600(L)	6.00	1.50
Serenity Investment Master Fund Limited (4)	H Shares	Beneficial owner	4,801,600(L)	6.00	1.50
Pandanus Associates Inc. ("Pandanus Associates") (5)	H Shares	Interest of controlled corporation	6,425,200(L)	8.03	2.01
Pandanus Partners L.P. ("Pandanus Partners") [5]	H Shares	Interest of controlled corporation	6,425,200(L)	8.03	2.01
FIL Limited ("FIL") (5)	H Shares	Interest of controlled corporation	6,425,200(L)	8.03	2.01
Fidelity China Special Situations PLC	H Shares	Beneficial owner	5,651,600(L)	7.07	1.77
UBS Group AG	H Shares	Interest of controlled corporation	4,155,700(L)	5.20	1.30

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 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) FIL Investment Management (Hong Kong) Limited and FIL Investment Management (Singapore) Limited are wholly-owned by FIL Asia Holdings Pte Limited, a 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 6,075,200 H Shares and 350,000 H Shares held by FIL Investment Management (Hong Kong) Limited and FIL Investment Management (Singapore) Limited respectively.
- (6) (L) represented long position.

Save as disclosed herein, as of 30 June 2020, 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.

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

During the six months ended 30 June 2020 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 2020, 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:

Mr. Meng Yanbin, the chairman of the board of directors, has served as a member of the Advisory Committee of Hainan Boao Lecheng International Medical Tourism Pilot Zone since 11 January 2020.

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, 28 August 2020

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 27 to 53 which comprises the consolidated statement of financial position of China Isotope & Radiation Corporation as of 30 June 2020 and the related consolidated statement of profit or loss, 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 2020 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

28 August 2020

CONSOLIDATED STATEMENT OF PROFIT OR LOSS for the six months ended 30 June 2020 – unaudited

(Expressed in Renminbi ("RMB"))

Six months ended 30 June

		2020	2019
	Note	RMB'000	RMB'000
Revenue	4	1,517,435	1,654,979
Cost of sales		(670,277)	(464,730)
Gross profit		847,158	1,190,249
Other income	5	34,253	18,584
Selling and distribution expenses		(482,020)	(678,276)
Administrative expenses		(230,668)	(201,331)
Profit from operations		168,723	329,226
Finance costs	6(a)	(18,385)	(6,027)
Share of profits less losses of associates		2,866	1,559
Share of profits less losses of joint ventures		11,165	12,532
Profit before taxation	6	164,369	337,290
Income tax	7	(30,577)	(56,034)
Profit for the period		133,792	281,256
Attributable to:			
Equity shareholders of the Company		71,924	147,827
Non-controlling interests		61,868	133,429
Profit for the period		133,792	281,256
Earnings per share	8		
Basic and diluted (RMB)		0.22	0.46

The notes on page 36 to 53 form part of this interim financial report. Details of dividends payable to equity shareholders of the Company are set out in Note 14.

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

for the six months ended 30 June 2020 – unaudited (Expressed in RMB)

Six months ended 30 June

	2020 RMB'000	2019 RMB' 000
Profit for the period	133,792	281,256
Other comprehensive income for the period		
(after tax and reclassification adjustments):		
Item that may be reclassified subsequently to profit or loss:		
- exchange differences on translation of share		
of profits less losses of an associate	454	421
Items that will not be reclassified to profit or loss:		
- remeasurement of defined benefit liability	(6)	(1)
- equity investments at fair value though other		
comprehensive income - net movement in fair value		
reserve (non-recycling)	5,095	382
Other comprehensive income for the period	5,543	802
Total comprehensive income	139,335	282,058
Attributable to:		
Equity shareholders of the Company	77,467	148,629
Non-controlling interests	61,868	133,429
Total comprehensive income for the period	139,335	282,058

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

(Expressed in RMB)

		At 30 June 2020	At 31 December 2019
	Note	RMB'000	RMB'000
Non-current assets			
Property, plant and equipment	9	2,081,970	1,987,037
Investment properties		16,431	22,425
Intangible assets		167,625	108,382
Goodwill	10	43,875	43,875
Interests in associates		82,682	61,543
Interests in joint ventures		540,561	529,396
Long-term receivables		34,612	33,784
Unquoted equity investments		158,285	151,492
Deferred tax assets		229,926	265,045
		3,355,967	3,202,979
Current assets			
Inventories		753,047	444,364
Trade and bill receivables	11	1,974,991	2,187,746
Prepayments, deposits and other receivables		336,283	263,400
Cash at bank and on hand	12	2,413,848	2,744,883
		5,478,169	5,640,393
Current liabilities			
Bank loans		85,480	191,215
Trade payables	13	276,170	173,556
Accruals and other payables		2,179,997	2,368,775
Lease liabilities		31,461	27,809
Provisions		69,598	69,598
Income tax payable		35,409	98,220
		2,678,115	2,929,173
Net current assets		2,800,054	2,711,220
Total assets less current liabilities		6,156,021	5,914,199

CONSOLIDATED STATEMENT OF FINANCIAL POSITION (CONTINUED)

at 30 June 2020 - unaudited

(Expressed in RMB)

	At 30 June	At 31 December
	2020	2019
	RMB'000	RMB'000
Non-current liabilities		
Bank loans	83,620	97,235
Corporate bond	499,682	499,682
Deferred income	62,111	55,084
Defined benefit retirement obligation	52,361	52,094
Deferred tax liabilities	19,827	18,383
Lease liabilities	52,622	57,659
Provisions	123,597	119,814
Long-term payables	11,695	10,815
	905,515	910,766
Net assets	5,250,506	5,003,433
Capital and reserves		
Share capital	319,875	319,875
Reserves	3,448,121	3,439,471
Total equity attributable to equity shareholders of		
the Company	3,767,996	3,759,346
Non-controlling interests	1,482,510	1,244,087
Total equity	5,250,506	5,003,433

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY for the six months ended 30 June 2020 – unaudited

(Expressed in RMB)

				Attributable	to equity shar	Attributable to equity shareholders of the Company	Company				
					Fair value						
				PRC	reserve					Non-	
		Share	Capital	statutory	-uou)	Other	Exchange	Retained		controlling	Total
		capital	reserve	reserve	recycling)	reserve	reserve	profits	Sub-total	interests	equity
	Note	RMB' 000	RMB' 000	RMB' 000	RMB'000	RMB' 000	RMB' 000	RMB' 000	RMB' 000	RMB' 000	RMB' 000
Balance at 1 January 2019											
(as previously reported)		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		1	32,636	1	1	1	1	(1,018)	31,618	3,599	35,217
Balance at 1 January 2019 (restated)		319,875	2,186,042	112,901	23,400	24,235	3,287	832,313	3,502,053	836,340	4,338,393
Changes in equity for the six months											
ended 30 June 2019											
Profit for the period		1	ı	ı	ı	ı	I	147,827	147,827	133,429	281,256
Other comprehensive income		1	1	1	382	1	421	(1)	805	1	802
Total comprehensive income		1	1	1	382	1	421	147,826	148,629	133,429	282,058
Capital contributions from non-controlling											
equity owners of subsidiaries		1	1	1	1	ı	ı	ı	1	34,244	34,244
Acquisition of a subsidiary under											
common control		ı	(46,093)	1	ı	1	ı	1	(46,093)	(4,909)	(51,002)
Capital injection in a subsidiary		ı	(1,516)	1	ı	ı	ı	ı	(1,516)	1,516	ı
Acquisition of subsidiaries		I	1	1	1	1	ı	ı	I	6,851	6,851
Appropriation of maintenance and											
production funds		1	1	1	1	8,065	ı	(8,065)	1	1	ı
Utilisation of maintenance and production											
funds		ı	ı	ı	ı	(2,733)	ı	2,733	ı	ı	ı
Dividends	14	1	ı	ı	ı	ı	I	(39,217)	(39,217)	ı	(39,217)
Distributions by subsidiaries to											
non-controlling equity owners		1	1	1	1	1	1	1	1	(89,569)	(89,569)
Balance at 30 June 2019		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 36 to 53 form part of this interim financial report.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY (CONTINUED) for the six months ended 30 June 2020 – unaudited

(Expressed in RMB)

			Attributable	to equity shar	Attributable to equity shareholders of the Company	• Company				
				Fair value						
			PRC	reserve					Non-	
	Share	Capital	statutory	-uou)	Other	Exchange	Retained		controlling	Total
	capital	reserve	reserve	recycling)	reserve	reserve	profits	Sub-total	interests	ednity
Ż	Note RMB' 000	RMB' 000	RMB' 000	RMB' 000	RMB' 000	RMB' 000	RMB' 000	RMB' 000	RMB' 000	RMB' 000
Balance at 1 July 2019	319,875	2,138,433	112,901	23,782	29,567	3,708	935,590	3,563,856	917,902	4,481,758
Changes in equity for the six months										
ended 31 December 2019:										
Profit for the period	l	I	ı	I	I	1	181,203	181,203	162,466	343,669
Other comprehensive income	1	1	1	16,419	1	720	(2,590)	14,549	(31)	14,518
Total comprehensive income	ı	I	ı	16,419	I	720	178,613	195,752	162,435	358,187
Capital contributions from non-controlling										
equity owners of subsidiaries	I	ı	1	I	ı	1	1	ı	178,675	178,675
Capital injection in a subsidiary	I	(262)	1	I	1	1	1	(262)	262	1
Acquisition of subsidiaries	I	I	ı	I	I	I	I	ı	(1,857)	(1,857)
Appropriation of maintenance and										
production funds	I	1	1	ı	10,783	1	(10,783)	ı	1	1
Utilisation of maintenance and production										
funds	ı	ı	ı	ı	(7,220)	ı	7,220	1	1	ı
Appropriation to reserves	I	ı	12,775	I	I	ı	(12,775)	1	ı	ı
Distributions by subsidiaries to										
non-controlling equity owners	1	1	1	1	1	1	1	1	(13,330)	(13,330)
Balance at 31 December 2019	319,875	2,138,171	125,676	40,201	33,130	4,428	1,097,865	3,759,346	1,244,087	5,003,433

The notes on page 36 to 53 form part of this interim financial report.

STATEMENT OF CHANGES IN EQUITY (CONTINUED)

156,169

(44,431)

(4,000)

5,250,506

for the six months ended 30 June 2020 - unaudited

RMB'000

5,003,433

133,792 5,543 139,335

(Expressed in RMB)

Total equity

(4,000)Noncontrolling 61,868 156,169 61,868 24,386 1,482,510 interests **RMB**'000 1,244,087 (24,386)(44,431)3,759,346 5,543 **RMB**,000 71,924 77,467 3,767,996 Sub-total profits 71,918 (44,431)Retained RMB'000 1,097,865 71,924 1,121,229 Attributable to equity shareholders of the Company 4,428 4,882 Exchange reserve **RMB**,000 454 454 Other (4,052)8,175 reserve RMB'000 33,130 37,253 -uou) 5,095 5,095 45,296 Fair value recycling) **RMB**,000 40,201 reserve PRC 125,676 125,676 reserve **RMB**,000 statutory (24,386)Capital reserve **RMB**'000 2,113,785 2,138,171 Share 319,875 capital 319,875 **RMB**,000 Note 4 Capital contributions from non-controlling Jtilisation of maintenance and production Changes in equity for the six months Appropriation of maintenance and non-controlling equity owners equity owners of subsidiaries Distributions by subsidiaries to Capital injection in a subsidiary Other comprehensive income Total comprehensive income Balance at 1 January 2020 Balance at 30 June 2020 ended 30 June 2020 Profit for the period production funds **Dividends** funds

The notes on page 36 to 53 form part of this interim financial report.

CONDENSED CONSOLIDATED CASH FLOW STATEMENT for the six months ended 30 June 2020 – unaudited

(Expressed in RMB)

Six months ended 30 June

		2020	2019
	Note	RMB'000	RMB'000
Cash flows from operating activities			
Cash (used in)/generated from operations		(105,415)	68,013
Income tax paid		(58,523)	(81,878)
Net cash used in operating activities		(163,938)	(13,865)
Investing activities			
Net increase in deposits with banks	12	(69,144)	(502,087)
Payments for purchase of investment			
properties, property, plant and equipment,			
lease prepayments and intangible assets		(223,047)	(220,534)
Payments for purchase of interests in associates		(21,640)	(5,760)
Payments for acquisitions of subsidiaries		-	(80,626)
Interests received	5	12,496	11,529
Distributions received from associates		20,907	3,710
Government grants received		19,853	2,580
Other cash flows arising from investing activities		3,945	1,180
Net cash used in investing activities		(256,630)	(790,008)

CONDENSED CONSOLIDATED CASH FLOW STATEMENT (CONTINUED)

for the six months ended 30 June 2020 – unaudited

(Expressed in RMB)

Six months ended 30 June

	Note	2020 RMB'000	2019 RMB'000
Financing activities			
Capital element of lease rentals paid		(8,083)	(7,794)
Interest element of lease rentals paid		(1,369)	(1,224)
Capital contributions from non-controlling equity			
owners of subsidiaries		156,169	34,244
Proceeds from borrowings		109,330	109,410
Repayment of borrowings		(228,680)	(15,000)
Other interests paid		(13,586)	(4,161)
Dividends paid to shareholders of the Company		-	(61,003)
Dividends paid by subsidiaries to non-controlling			
equity owners		-	(54,057)
Net cash generated from financing activities		13,781	415
Net decrease in cash and cash equivalents		(406,787)	(803,458)
Cash and cash equivalents at 1 January	12	2,640,314	2,557,524
Effect of foreign exchanges rates changes		(1,325)	1,804
Cash and cash equivalents at 30 June	12	2,232,202	1,755,870

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 28 August 2020.

The interim financial report has been prepared in accordance with the same accounting policies adopted in the 2019 annual financial statements, except for the accounting policy changes that are expected to be reflected in the 2020 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 2019 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.

(Expressed in RMB unless otherwise indicated)

2 BASIS OF PREPARATION (CONTINUED)

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 26.

3 CHANGES IN ACCOUNTING POLICIES

The IASB has issued the following amendments to IFRSs that are first effective for the current accounting period of the group:

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

None of these developments have had a material effect on how the Group's results and financial position for the current or prior periods have been prepared or presented 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.

(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, and sale of medical devices 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:

Civ months anded 20 June

	Six months ended 30 June	
	2020	2019
	RMB'000	RMB'000
Revenue from contracts with customers within the		
scope of IFRS 15		
Disaggregated by major products of service lines		
- Sales of pharmaceuticals	965,326	1,379,369
 Sales of radioactive source products 	136,320	157,913
 Sales of medical devices 	246,973	_
- Irradiation services	36,659	31,989
- Technical services	53,498	32,049
 Revenue from construction contracts 	1,215	2,652
- Independent clinical laboratory services	49,564	36,729
- Other services	27,880	14,278
	1,517,435	1,654,979

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

(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, sale of medical devices and other miscellaneous services.

(i) Segment results, assets and liabilities

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

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

(Expressed in RMB unless otherwise indicated)

REVENUE AND SEGMENT REPORTING (CONTINUED) 4

(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 2020			
	Pharmaceuticals RMB'000	Radioactive source products RMB'000	Irradiation RMB'000	Independent clinical laboratory services and other businesses RMB'000	Total RMB'000
Disaggregated by timing of					
revenue recognition	007.405	447.040	00.050	004.704	4 540 000
Point in time Over time	967,185	147,642	36,659	364,734	1,516,220
	-	-	1,215		1,215
Revenue from external					
customers	967,185	147,642	37,874	364,734	1,517,435
Inter-segment revenue	152	11,032	524	7,848	19,556
Reportable segment revenue	967,337	158,674	38,398	372,582	1,536,991
Reportable segment profit (gross profit)	662,529	80,126	12,144	93,439	848,238
		Six mon	ths ended 30 Jun	e 2019	
				Independent	
				clinical	

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

(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	
	2020 20	
	RMB'000	RMB'000
Reportable segment profit (gross profit)	848,238	1,190,724
Elimination of inter-segment profit (gross profit)	(1,080)	(475)
Consolidated gross profit	847,158	1,190,249

(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

	2020	2019
	RMB'000	RMB'000
Government grants	17,647	3,126
Interest income	12,496	11,529
Rental income from operating leases	2,932	4,039
Others	1,178	(110)
	34,253	18,584

(Expressed in RMB unless otherwise indicated)

6 **PROFIT BEFORE TAXATION**

Profit before taxation is arrived at after charging:

(a) Finance costs

	Six months ended 30 June	
	2020	2019
	RMB'000	RMB'000
Interests on bank loans and other borrowings	13,586	4,161
Interests on lease liabilities	1,814	1,234
Less: interest expense capitalised into construction in progress	841	3,862
	14,559	1,533
Net foreign exchange loss	119	1,106
Interest accretion on reclamation obligations, net	1,938	1,871
Interest cost on defined benefit retirement plans	887	759
Interest cost on long-term payables	882	758
	18,385	6,027

The borrowing costs have been capitalised at a rate of 4.64% per annum (2019: 4.99%).

(b) Other items

	Six months ended 30 June	
	2020	2019
	RMB'000	RMB'000
Depreciation		
- owned property, plant and equipment	71,027	45,664
- investment properties	3,544	513
Amortisation		
- intangible assets	6,593	3,439
Impairment losses		
- trade and bill receivables	5,780	10,279
- prepayments, deposits and other receivables	85	51
Research and development costs (other than amortisation costs)	43,046	39,496
Increase in provisions for reclamation obligations	729	1,703
Cost of inventories	599,196	391,610

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(Expressed in RMB unless otherwise indicated)

7 **INCOME TAX**

Six months ended 30 June			
2020	2019		
RMB'000	RMB'000 RMB'000		
44.007			

		_0.0
	RMB'000	RMB'000
Current tax		
Provision for the period	14,367	55,445
(Over)/under-provision in respect of prior years	(18,655)	3,241
	(4,288)	58,686
Deferred tax		
Origination and reversal of temporary differences	34,865	(2,652)
	30,577	56,034

Notes:

- The Company and its subsidiaries established in the PRC are subject to PRC Corporate Income Tax rate of 25% (2019: 25%) for the six months ended 30 June 2020.
- 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.

8 **EARNINGS PER SHARE**

The calculation of basic earnings per share is based on the profit attributable to equity shareholders of the Company of RMB71,924,000 (six months ended 30 June 2019: RMB147,827,000) and the weighted average number of ordinary shares in issue of 319,875,000 (six months ended 30 June 2019: 319,875,000) 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 2020, the Group acquired items of plant and machinery with (a) a cost of RMB162,783,000 (six months ended 30 June 2019: RMB214,228,000). Items of plant and machinery with a net book value of RMB1,840,000 were disposed of during the six months ended 30 June 2020 (six months ended 30 June 2019: RMB1,814,000), resulting in a loss on disposal of RMB829,000 (six months ended 30 June 2019: RMB634,000).
- (b) During the six months ended 30 June 2020, the Group entered into a number of lease agreements for use of plants and offices, and therefore recognised the additions to right-of-use assets of RMB8,018,000.

(Expressed in RMB unless otherwise indicated)

10 GOODWILL

	RMB'000
Cost:	
At 1 January 2019	5,670
Acquisition of subsidiaries under non-common control	38,205
At 31 December 2019, 1 January 2020 and 30 June 2020	43,875
Accumulated impairment losses:	
At 1 January 2019, 31 December 2019, 1 January 2020 and 30 June 2020	
Carrying amount:	
At 30 June 2020	43,875
At 31 December 2019	43,875

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 At 31 December	
	2020 2019	
	RMB'000	RMB'000
Pharmaceuticals	42,791	42,791
Irradiation	1,084	1,084
	43,875	43,875

The recoverable amount of the goodwill is determined based on value-in-use calculations.

(Expressed in RMB unless otherwise indicated)

10 **GOODWILL (CONTINUED)**

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

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.

	At 30 June	At 31 December
	2020	2019
Pharmaceuticals		
Annual sales growth rate for the first five-year period	8%~14%	8%~14%
Annual sales growth rate beyond five-year period	0%	0%
Discount rate	7.9%, 12%, 13.52%	7.9%, 12%, 13.52%
Irradiation		
Annual sales growth rate for the first five-year period	13%	13%
Annual sales growth rate beyond five-year period	0%	0%
Discount rate	7.90%	7.90%

11 TRADE AND BILL RECEIVABLES

	At 30 June	At 31 December
	2020	2019
	RMB'000	RMB'000
Bill receivables	42,510	34,898
Trade receivables due from		
- related parties under CNNC	10,675	16,062
- associates and a joint venture	60,232	77,133
- third parties	1,995,377	2,187,676
	2,108,794	2,315,769
Less: loss allowance	133,803	128,023
	1,974,991	2,187,746

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

(Expressed in RMB unless otherwise indicated)

11 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:

	At 30 June At 31 December	
	2020	2019
	RMB'000	RMB'000
Within 1 year	1,703,209	2,032,336
Between 1 to 2 years	200,056	116,179
Between 2 to 3 years	56,101	32,634
Over 3 years	15,625	6,597
	1,974,991	2,187,746

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

12 CASH AT BANK AND ON HAND

	At 30 June At 31 December	
	2020	2019
	RMB'000	RMB'000
Cash on hand	58	44
Cash at bank	1,719,969	1,833,565
Cash at CNNC Finance Company Ltd.	693,821	911,274
	2,413,848	2,744,883
Representing:		
Cash and cash equivalents in cash flow statement	2,232,202	2,640,314
Time deposits with original maturity over three months	162,490	93,346
Restricted deposits (Note)	19,156	11,223
	2,413,848	2,744,883

Note:

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

(Expressed in RMB unless otherwise indicated)

13 TRADE PAYABLES

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

14 SHARE CAPITAL, RESERVES AND DIVIDENDS

Dividends

Dividends payable to equity shareholders attributable to the previous financial year, approved during the interim period.

	Six months ended 30 June	
	2020	2019
	RMB'000	RMB'000
Final dividend in respect of the previous financial year, approved		
during the following interim period, of RMB13.89 cents per share		
(six months ended 30 June 2019: RMB12.26 cents per share)	44,431	39,217

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 (2019: RMB39,217,000 paid in August 2019).

(Expressed in RMB unless otherwise indicated)

15 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.

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.

(Expressed in RMB unless otherwise indicated)

FAIR VALUES MEASUREMENT OF FINANCIAL INSTRUMENTS (CONTINUED) 15

- Financial assets and liabilities measured at fair value (continued) (a)
 - (i) Fair value hierarchy (continued)

	Fair value at 30 June 2020 RMB'000	Fair value measurements as at 30 June 2020 categorised into Level 3 RMB'000
Recurring fair value measurement		
Unquoted equity investments	158,285	158,285
		Fair value
		measurements as at
		31 December 2019
	Fair value at	categorised into
	31 December 2019	Level 3
	RMB'000	RMB' 000
Recurring fair value measurement		
Unquoted equity investments	151,492	151,492

During the six months ended 30 June 2020, there were no transfers between Level 1 and Level 2, or transfers into or out of Level 3 (2019: nil). The Group's policy is to recognise transfers between levels of fair value hierarchy as at the end of the reporting period in which they occur.

(Expressed in RMB unless otherwise indicated)

15 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

		Significant		
	Valuation	unobservable		Weighted
	techniques	inputs	Range	average
Unlisted equity	Market comparable	Discount for lack		
instruments	companies	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 2020, 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 RMB1,058,300 (2019: RMB996,800).

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

	At 30 June	At 30 June
	2020	2019
	RMB'000	RMB'000
Unquoted equity investments:		
At 1 January	151,492	125,491
Changes in fair value recognised in other comprehensive		
income during the period	6,793	509
At 30 June	158,285	126,000

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.

(Expressed in RMB unless otherwise indicated)

CASH SETTLED SHARE BASED TRANSACTION 16

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

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

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

17 **COMMITMENTS**

Capital commitments outstanding at 30 June 2020 not provided for in the interim financial report

	At 30 June	At 31 December
	2020	2019
	RMB'000	RMB'000
Contracted for	102,865	125,778
Authorised but not contracted for	12,128	44,302
	114,993	170,080

(Expressed in RMB unless otherwise indicated)

18 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:

Six mont	hs enc	led 30	June
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	2020	2019
	RMB'000	RMB'000
Sale of goods to		
Related parties under CNNC	10,124	14,296
Associates and a joint venture	9,435	12,970
Service provided to		
Related parties under CNNC	1,155	2,047
Associates and a joint venture	10,712	39,000
Purchase of goods from		
Related parties under CNNC	11,778	8,415
Associates and a joint venture	6,996	8,965
Purchase of a property, plant and equipment from		
Related parties under CNNC	5,532	4,379
Service provided by		
CNNC	71	300
Related parties under CNNC	30,048	43,503
Leases from		
Related parties under CNNC		
- operating leasing as if under IAS 17	_	4,401
- right of use assets recognised during the period under IFRS 16	698	11,035
 lease payments 	5,355	4,401

(Expressed in RMB unless otherwise indicated)

18 MATERIAL RELATED PARTY TRANSACTIONS (CONTINUED)

Six months ended 30 June

	2020	2019
	RMB'000	RMB'000
Interest expenses		
Related parties under CNNC	349	298
Net deposits withdrawn from		
Related parties under CNNC	(217,453)	(147,441)
Interest income		
Related parties under CNNC	6,849	3,653
Dividend paid to		
CNNC	14,817	13,079
Related parties under CNNC	14,658	113,419
Dividend received from		
Associates and a joint venture	3,822	47,273
Purchase of a subsidiary from		
Related parties under CNNC Group	_	51,002

DEFINITIONS

"14th Five-Year Plan" the Outline of the 14th Five-Year Plan for the National Economic and

Social Development of the People's Republic of China

"Articles of Association" the articles of association of the Company

"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", China Isotope & Radiation Corporation, a joint stock company

"our Company", "we" or "us" incorporated in the PRC with limited liability

"CNNC" China National Nuclear Corporation

"CIAE" China Institute of Atomic Energy

"CNNC Fund" Beijing CNNC Industry Investment Fund (LLP)

"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

DEFINITIONS (CONTINUED)

"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

"HTA" HTA Co., Ltd.

"BINE" BINE High-Tech Co., Ltd.

"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

"Reporting Period" the financial year ended 30 June 2020

"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

"Shenzhen CICAM" Shenzhen CICAM Manufacturing Co., Ltd.

"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