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CHINA ISOTOPE & RADIATION CORPORATION

中國同輻股份有限公司

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

(Stock Code: 1763)

ANNOUNCEMENT OF INTERIM RESULTS FOR THE SIX MONTHS ENDED 30 JUNE 2024

RESULTS HIGHLIGHTS

The board (the “**Board**”) of directors (the “**Directors**” and each a “**Director**”) of China Isotope & Radiation Corporation (the “**Company**” or “**CIRC**”, together with its subsidiaries, the “**Group**” or “**we**”) is pleased to announce the unaudited condensed consolidated financial statements of the Group for the six months ended 30 June 2024 (the “**first half of 2024**” or the “**Reporting Period**”) together with the unaudited comparative figures for the same period of 2023, as follows:

CONDENSED CONSOLIDATED STATEMENT OF PROFIT OR LOSS
FOR THE SIX MONTHS ENDED 30 JUNE 2024

	NOTES	Six months ended 30 June	
		2024 RMB'000 (Unaudited)	2023 RMB'000 (Restated) (Unaudited)
Revenue	4	2,810,279	2,739,483
Cost of sales		(1,346,129)	(1,254,000)
Gross profit		1,464,150	1,485,483
Other income, gains and losses	5	25,999	30,637
Selling and distribution expenses		(678,170)	(779,630)
Administrative expenses		(277,154)	(248,329)
Research and development costs		(111,647)	(135,508)
Impairment losses on trade and other receivables		(13,749)	(12,945)
Profit from operations		409,429	339,708
Finance costs	6(a)	(24,091)	(15,713)
Share of profits less losses of associates		(4,838)	4,352
Share of profits of joint ventures		11,773	20,759
Profit before taxation	6	392,273	349,106
Income tax	7	(85,600)	(66,923)
Profit for the period		306,673	282,183
Attributable to:			
– Equity shareholders of the Company		154,496	125,413
– Non-controlling interests		152,177	156,770
Profit for the period		306,673	282,183
Earnings per share	8		
Basic and diluted (RMB)		0.48	0.39

CONDENSED CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

FOR THE SIX MONTHS ENDED 30 JUNE 2024

	Six months ended 30 June	
	2024	2023
	RMB'000	RMB'000
	(Unaudited)	(Restated) (Unaudited)
Profit for the period	306,673	282,183
Other comprehensive (expense) income for the period		
<i>Items that will not be reclassified subsequently to profit or loss:</i>		
Remeasurement of defined benefit liability	(1,965)	1
Equity investments designated at fair value through other comprehensive income – net movement in fair value reserve (non-recycling), net of tax	(1,213)	1,790
Other comprehensive (expense) income for the period	(3,178)	1,791
Total comprehensive income for the period	303,495	283,974
Attributable to:		
– Equity shareholders of the Company	151,652	127,204
– Non-controlling interests	151,843	156,770
Total comprehensive income for the period	303,495	283,974

CONDENSED CONSOLIDATED STATEMENT OF FINANCIAL POSITION
AS AT 30 JUNE 2024

		At 30 June 2024 <i>RMB'000</i> (Unaudited)	At 31 December 2023 <i>RMB'000</i> (Audited)
Non-current assets			
Property, plant and equipment	10	3,845,215	3,601,172
Investment properties		43,506	46,053
Intangible assets		260,237	212,117
Goodwill	11	81,526	81,526
Interests in associates		113,323	119,599
Interests in joint ventures		470,133	503,514
Long-term receivables		49,196	49,196
Unquoted equity investments		154,968	156,394
Deferred tax assets		237,654	220,431
Other non-current assets		7,239	7,239
		<u>5,262,997</u>	<u>4,997,241</u>
Current assets			
Inventories		1,089,590	814,165
Contract assets		22,455	19,862
Trade and bill receivables	12	3,998,300	3,876,341
Deposits and other receivables		283,681	254,569
Prepayments		362,300	337,908
Cash at bank and on hand	13	2,723,263	2,891,624
		<u>8,479,589</u>	<u>8,194,469</u>
Current liabilities			
Bank loans		360,098	196,310
Trade payables	14	738,591	626,668
Accruals and other payables		3,165,055	3,255,920
Lease liabilities	10(b)	17,980	20,879
Provisions		91,650	86,612
Income tax payable		41,025	67,532
		<u>4,414,399</u>	<u>4,253,921</u>
Net current assets		<u>4,065,190</u>	<u>3,940,548</u>
Total assets less current liabilities		<u>9,328,187</u>	<u>8,937,789</u>

CONDENSED CONSOLIDATED STATEMENT OF FINANCIAL POSITION (CONTINUED)
AS AT 30 JUNE 2024

	<i>NOTE</i>	At 30 June 2024 <i>RMB'000</i> (Unaudited)	At 31 December 2023 <i>RMB'000</i> (Audited)
Non-current liabilities			
Bank loans		1,649,267	1,447,011
Deferred income		56,962	59,779
Lease liabilities	10(b)	23,502	31,322
Defined benefit retirement obligation		46,093	44,007
Deferred tax liabilities		8,188	8,876
Provisions		141,736	139,728
Other long-term payables		77,435	67,738
		<u>2,003,183</u>	<u>1,798,461</u>
Net assets		<u><u>7,325,004</u></u>	<u><u>7,139,328</u></u>
Capital and reserves			
Share capital		319,875	319,875
Reserves		4,425,130	4,373,445
Total equity attributable to equity shareholders of the Company		<u>4,745,005</u>	4,693,320
Non-controlling interests		<u>2,579,999</u>	<u>2,446,008</u>
Total equity		<u><u>7,325,004</u></u>	<u><u>7,139,328</u></u>

NOTES TO THE CONDENSED CONSOLIDATED INTERIM FINANCIAL INFORMATION FOR THE SIX MONTHS ENDED 30 JUNE 2024

1. GENERAL

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 immediate holding company of the Company is China Baoyuan Investment Company Limited (“China Baoyuan”) and the ultimate holding company of the Company is China National Nuclear Corporation (“CNNC”).

2. BASIS OF PREPARATION

(a) Basis of preparation

This condensed consolidated 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, and International Accounting Standard (“IAS”) 34, Interim Financial Reporting, issued by the International Accounting Standards Board (“IASB”). It was authorised for issue on 30 August 2024.

The condensed consolidated interim financial report has been prepared in accordance with the same accounting policies adopted in the 2023 annual financial statements, except for the adoption of new and amendments to International Financial Reporting Standards (“IFRSs”) as set out in Note 3. 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 2023 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 issued by the IASB.

(b) Restatement of the condensed consolidated financial statements for the six months ended 30 June 2023 due to business combination involving entities under common control

On 20 December 2023, the Company entered into an acting in concert agreement with other shareholders of China Nuclear Qinshan Isotope Co., Ltd.* (中核秦山同位素有限公司) (“China Nuclear Qinshan”). Pursuant to the acting in concert agreement, other shareholders irrevocably and unconditionally undertook that it would vote in the same manner as the Company in meetings of shareholders of China Nuclear Qinshan. The Company and other shareholders hold 55% of the issued share capital of China Nuclear Qinshan. Among the 9 directors on the board of directors, the Company and other shareholders nominated 5 directors in total. After signing the acting in concert agreement, the Company has more than half of the voting power in China Nuclear Qinshan.

* *English name is for identification purpose only.*

On 28 December 2023, the Company entered into the equity transfer agreement with China National Nuclear Corporation Dalian Institute of Applied Technology* (核工業大連應用技術研究所) to acquire Dalian CNNC Radiation Technology Co., Ltd.* (大連中核輻射技術有限公司) (“Dalian CNNC Radiation”) through business combinations, pursuant to which, the Company acquired 100% equity interests in Dalian CNNC Radiation held by China National Nuclear Corporation Dalian Institute of Applied Technology at a total consideration of RMB4,611,000.

Upon the completion, the Dalian CNNC Radiation and China Nuclear Qinshan became subsidiaries of the Group. As Dalian CNNC Radiation, China Nuclear Qinshan and the Group are commonly controlled by the CNNC both before and after the acquisitions, the acquisitions of Dalian CNNC Radiation and China Nuclear Qinshan were considered as business combination involving entities under common control. Accordingly, the Company applied the principle of merger accounting to account for the acquisitions of Dalian CNNC Radiation and China Nuclear Qinshan in preparing these condensed consolidated financial statements.

Therefore, adjustments have been made to all relevant items in the condensed consolidated statement of profit or loss and other comprehensive income and condensed consolidated statement of cash flows for the six months ended 30 June 2023. The details of the business combination and the reconciliation of the effect arising from the common control in connection with the acquisition of the Dalian CNNC Radiation and China Nuclear Qinshan were set out in the consolidated financial statements included in the Company’s 2023 annual report.

* *English name is for identification purpose only.*

3. PRINCIPAL ACCOUNTING POLICIES

In the current interim period, the Group has applied, for the first time, the following amendments to IFRSs issued by the IASB, which are effective for the Group's financial year beginning on 1 January 2024:

Amendments to IFRS 16	Lease Liability in a Sale and Leaseback
Amendments to IAS 1	Classification of Liabilities as Current or Non-current
Amendments to IAS 1	Non-current Liabilities with Covenants
Amendments to IAS 7 and IFRS 7	Supplier Finance Arrangements

Except as described below, the application of the amendments to IFRSs in the current interim period has had no material impact on the Group's financial performance and positions for the current and prior periods and/or on the disclosures set out in these condensed consolidated financial statements.

Impact on application of Amendments to IAS 1 Classification of Liabilities as Current or Non-current (the "2020 Amendments"); and Amendments to IAS 1 – Non-current Liabilities with Covenants (the "2022 Amendments")

The 2020 Amendments clarify the requirements on determining if a liability is current or non-current, in particular the determination over whether an entity has the right to defer settlement of the liability for at least 12 months after the reporting period. The amendments specify that an entity's right to defer settlement must exist at the end of the reporting period. Classification is unaffected by management's intentions or expectations about whether the entity will exercise its right to defer settlement. The amendments also clarify the classification of liabilities that will or may be settled by issuing an entity's own equity instruments.

The 2022 Amendments further clarify that, among covenants of a liability arising from a loan arrangement, only those with which an entity must comply on or before the reporting date affect the classification of that liability as current or non-current.

Upon application of the amendments, the Group has reassessed the terms and conditions of its loan arrangements in which the Group complied with covenants and has rights to defer the settlement of non-current liabilities. The adoption of the amendments has no impact to the Group's classification of liabilities as at 1 January 2023, 31 December 2023 and 30 June 2024.

Impact on application of Amendments to IAS 12 – Deferred Tax related to Assets and Liabilities arising from a Single Transaction

The amendments to IAS 12 narrow the scope of the initial recognition exemption of deferred tax liabilities and deferred tax assets in paragraphs 15 and 24 of IAS 12 so that it no longer applies to transactions that, on initial recognition, give rise to equal taxable and deductible temporary differences, such as leases and decommissioning liabilities. Therefore, entities are required to recognise a deferred tax asset (provided that sufficient taxable profit is available) and a deferred tax liability for temporary differences arising from these transactions. The amendments shall be applied to transactions related to leases and decommissioning obligations at the beginning of the earliest comparative period presented, with any cumulative effect recognised as an adjustment to the opening balance of retained profits or other component of equity as appropriate at that date. For all other transactions, the amendments are applied to those transactions that occur after the beginning of the earliest period presented.

The Group previously applied IAS 12 requirements to the relevant assets and liabilities arising from a single transaction as a whole. Temporary differences relating to relevant assets and liabilities are assessed on a net basis. Upon application of the amendments to IAS 12, the Group has assessed the relevant deferred tax assets and deferred tax liabilities for all deductible and taxable temporary differences associated with the right-of-use assets and the lease liabilities separately.

In accordance with the transition provision:

- (i) the Group has applied the new accounting policy retrospectively to leasing transactions that occurred on or after 1 January 2022;
- (ii) the Group also, as at 1 January 2022, recognised deferred tax assets (to the extent that it is probable that taxable profit will be available against which the deductible temporary differences can be utilised) and deferred tax liabilities for all deductible and taxable temporary differences associated with right-of-use assets and lease liabilities.

The details of the impacts on each financial statement line item and earnings per share arising from the application of the amendments are set out below. Comparative figures have been restated.

The effects of changes in accounting policy on the consolidated statement of profit or loss and other comprehensive income and earnings per share, are as follows:

Impact on profit for the period

	Six months ended 30 June 2023 <i>RMB'000</i>
Decrease in income tax expense	729
Increase in profit for the period	729
Increase in profit for the period attributable to:	
– Equity shareholders of the Company	552
– Non-controlling interests	177
	729
Increase in total comprehensive income for the period attributable to:	
– Equity shareholders of the Company	552
– Non-controlling interests	177
	729

Impact on basic and diluted earnings per share

	Six months ended 30 June 2023 <i>RMB'000</i>
Basic and diluted earnings per share before adjustments	0.398
Net adjustments arising from change in accounting policy in relation to:	
– Deferred tax impact on leasing transactions	0.002
Reported basic and diluted earnings per share	0.400

The effects of changes in accounting policy on the consolidated statement of financial position as at 1 January 2023, are as follows:

	As at 1 January 2023 (originally stated)	Adjustments	As at 1 January 2023 (restated)
	<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>
Deferred tax assets	221,484	976	222,460
Deferred tax liabilities	(18,242)	(798)	(19,040)
Total effect on net assets		<u>178</u>	
Reserves	4,145,412	225	4,145,637
Non-controlling interests	2,087,996	(47)	2,087,949
Total effect on equity	<u>6,553,283</u>	<u>178</u>	<u>6,553,461</u>

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, also design, manufacturing, construction and installation of gamma ray irradiation facilities, provision of irradiation service for sterilisation purpose, sale of radiation therapy equipment and other services.

(a) Disaggregation of revenue

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

	2024	2023
	<i>RMB'000</i>	<i>RMB'000</i>
	(Unaudited)	(Restated) (Unaudited)
Revenue from contracts with customers within the scope of IFRS 15		
Disaggregated by major products or services lines		
– sales of pharmaceuticals	1,767,944	1,787,803
– sales of radioactive source products	233,247	203,321
– sales of radiation therapy equipment	123,020	291,845
– sales of medical device	247,644	163,944
– irradiation services	80,831	74,591
– technical services	234,827	126,569
– revenue from construction contracts	12,300	9,370
– others	110,466	82,040
	<u>2,810,279</u>	<u>2,739,483</u>

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

(b) Segment reporting

The Group manages its businesses by divisions, which are mainly organised by business lines (products and services). In a manner consistent with the way in which information is reported internally to the Group's most senior executive management for the purposes of resource allocation and performance assessment, the Group has presented the following five reportable segments. Certain operating segments have been aggregated to form the following reportable segments.

- Pharmaceuticals: manufacturing and sale of a broad 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, installation of gamma ray irradiation facilities to irradiation service providers.
- Radiation therapy equipment and related services: sale of radiation therapy equipment, provision of related maintenance services.
- Other businesses: provision of a full range of services for the users, including services such as trade services for nuclear technology industry applications and medical product applications.

(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, gains and losses, selling and distribution expenses, administrative and other operating expenses, and assets and liabilities, are not measured under individual segments. Accordingly, no information on segment assets and liabilities and segment results are presented.

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 2024					
	Pharmaceuticals <i>RMB'000</i> (Unaudited)	Radioactive source products <i>RMB'000</i> (Unaudited)	Irradiation <i>RMB'000</i> (Unaudited)	Radiation therapy equipment and related services <i>RMB'000</i> (Unaudited)	other businesses <i>RMB'000</i> (Unaudited)	Total <i>RMB'000</i> (Unaudited)
Disaggregated by timing of revenue recognition						
Point in time	1,767,944	256,852	80,831	123,020	358,110	2,586,757
Over time	-	-	5,659	150,816	67,047	223,522
Revenue from external customers	1,767,944	256,852	86,490	273,836	425,157	2,810,279
Inter-segment revenue	30	3,837	684	71	7,509	12,131
Reportable segment revenue	1,767,974	260,689	87,174	273,907	432,666	2,822,410
Reportable segment profit (gross profit)	1,185,886	100,214	48,758	77,367	54,906	1,467,131
	Six months ended 30 June 2023					
	Pharmaceuticals <i>RMB'000</i> (Restated) (Unaudited)	Radioactive source products <i>RMB'000</i> (Restated) (Unaudited)	Irradiation <i>RMB'000</i> (Restated) (Unaudited)	Radiation therapy equipment and related services <i>RMB'000</i> (Restated) (Unaudited)	other businesses <i>RMB'000</i> (Restated) (Unaudited)	Total <i>RMB'000</i> (Restated) (Unaudited)
Disaggregated by timing of revenue recognition						
Point in time	1,787,803	223,278	74,155	379,056	245,984	2,710,276
Over time	-	-	6,149	23,058	-	29,207
Revenue from external customers	1,787,803	223,278	80,304	402,114	245,984	2,739,483
Inter-segment revenue	20,036	7,723	1,803	1,730	27,925	59,217
Reportable segment revenue	1,807,839	231,001	82,107	403,844	273,909	2,798,700
Reportable segment profit (gross profit)	1,259,182	84,452	36,471	84,485	29,338	1,493,928

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

	Six months ended 30 June	
	2024 RMB'000 (Unaudited)	2023 RMB'000 (Restated) (Unaudited)
Reportable segment profit (gross profit)	1,467,131	1,493,928
Elimination of inter-segment profit (gross profit)	(2,981)	(8,445)
Consolidated gross profit	<u>1,464,150</u>	<u>1,485,483</u>

5. OTHER INCOME, GAINS AND LOSSES

	Six months ended 30 June	
	2024 RMB'000 (Unaudited)	2023 RMB'000 (Restated) (Unaudited)
Government grants (<i>note</i>)	15,016	19,519
Interest income	11,512	12,858
Dividend income on unquoted equity investments	3,189	–
Rental income from operating leases	998	1,903
Net gain on disposal of property, plant and equipment	167	–
Net foreign exchange loss	(6,685)	(3,905)
Others	1,802	262
	<u>25,999</u>	<u>30,637</u>

Note:

The government grants for the six months ended 30 June 2024 mainly represented subsidies for support for research and development in the technology and medical field of approximately RMB10,961,000 (six months ended 30 June 2023: 15,418,000). There are no conditions and other contingencies attached to the receipts of those subsidies. The remaining government grants are released from deferred income.

6. PROFIT BEFORE TAXATION

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

(a) Finance costs

	Six months ended 30 June	
	2024 <i>RMB'000</i> (Unaudited)	2023 <i>RMB'000</i> (Restated) (Unaudited)
Interests on bank loans	25,260	14,630
Less: interest expense capitalised into construction in progress	(5,333)	(3,869)
	19,927	10,761
Interests on lease liabilities	1,044	1,601
Interest accretion on reclamation obligations, net	2,307	2,349
Interest cost on defined benefit retirement plans	624	833
Interest cost on long-term payables	189	169
	24,091	15,713

The borrowing costs have been capitalised at a rate of 3.01% (six months ended 30 June 2023: 3.90%) per annum.

(b) Other items

	Six months ended 30 June	
	2024 <i>RMB'000</i> (Unaudited)	2023 <i>RMB'000</i> (Restated) (Unaudited)
Depreciation		
– property, plant and equipment	112,820	106,321
– investment properties	2,547	3,378
Amortisation		
– intangible assets	10,218	9,269
Impairment losses (reversal of impairment losses) on		
– trade and bill receivables	10,730	13,280
– deposits and other receivables	3,019	(335)
Increase in provisions for reclamation obligations	5,039	5,593
Cost of inventories (included in cost of sales)	857,695	891,993

7. INCOME TAX

	For the six months ended 30 June	
	2024 <i>RMB'000</i> (Unaudited)	2023 <i>RMB'000</i> (Restated) (Unaudited)
Current tax – PRC Tax		
– Provision for the period	79,409	67,101
– Under-provision in respect of prior years	23,889	6,787
	103,298	73,888
Deferred tax		
– Origination and reversal of temporary differences	(17,698)	(6,965)
	85,600	66,923

Notes:

- (i) The Company and its subsidiaries established in the PRC are subject to PRC Corporate Income Tax rate of 25% (six months ended 30 June 2023: 25%) for the six months ended 30 June 2024.
- (ii) Certain subsidiaries of the Group are approved High and New Technology Enterprises and are subject to a preferential PRC Corporate Income Tax rate of 15% during the approved period subject to fulfillment of recognition criteria.

8. EARNINGS PER SHARE

The calculation of basic earnings per share is based on the profit for the period attributable to equity shareholders of the Company of approximately RMB154,496,000 (six months ended 30 June 2023 (restated): RMB125,413,000) and the weighted average number of ordinary shares of 319,874,900 (six months ended 30 June 2023: 319,874,900) 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. DIVIDENDS

Dividends payable to equity shareholders of the Company attributable to the previous financial year, approved during the interim period:

	Six months ended 30 June	
	2024	2023
	RMB'000	RMB'000
	(Unaudited)	(Unaudited)
Final dividend in respect of the previous financial year, approved during the current interim period, of RMB31.31 cents per ordinary share (six months ended 30 June 2023: RMB44.07 cents per ordinary share)	100,153	140,969
Interim dividend proposed after the end of the current interim period, of RMB7.24 cents per ordinary share (six months ended 30 June 2023: nil)	23,159	–

The final dividend in respect of the previous financial year approved during the reporting period has not been paid at the end of the interim period.

10. PROPERTY, PLANT AND EQUIPMENT AND LEASE LIABILITIES

- (a) During the six months ended 30 June 2024, the Group acquired items of buildings, machinery and equipment and office equipment with a cost of RMB351,983,000 (six months ended 30 June 2023: RMB235,279,000) in aggregate. Items of plant and machinery with a net book value of RMB133,000 were disposed of during the six months ended 30 June 2024 (six months ended 30 June 2023: nil), resulting in a gain on disposal of RMB17,000 (six months ended 30 June 2023: nil).
- (b) As at 30 June 2024, the carrying amount of lease liabilities was RMB41,482,000 (as at 31 December 2023: RMB52,201,000). During the six months ended 30 June 2024, the Group entered into a number of lease agreements of buildings with fixed lease payment terms, and therefore recognised the additions to right-of-use assets and lease liabilities of RMB792,000 (six months ended 30 June 2023: RMB3,802,000) and RMB792,000 (six months ended 30 June 2023: RMB3,802,000) respectively. One right-of-use asset of approximately RMB3,345,000 had been early terminated, resulting in a gain on early termination of lease of approximately RMB150,000 (six months ended 30 June 2023: nil).
- (c) The analysis of expense items in relation to leases recognised in profit or loss are as follows:

	Six months ended 30 June	
	2024	2023
	RMB'000	RMB'000
	(Unaudited)	(Unaudited)
Depreciation charge of right of use assets	13,213	17,256
Interest on lease liabilities	1,044	1,601
Expense relating to short-term leases	5,927	2,839

(d) Others

For the six months ended 30 June 2024, the total cash outflow for leases amount to RMB11,004,000 (six months ended 30 June 2023: RMB14,744,000).

11. GOODWILL

	<i>RMB'000</i>
Cost:	
At 1 January 2023 (audited)	48,349
Arising on acquisition of subsidiaries	<u>50,762</u>
At 31 December 2023 (audited) and 30 June 2024 (unaudited)	<u>99,111</u>
Impairment:	
At 1 January 2023 (audited), 31 December 2023 (audited) and 30 June 2024 (unaudited)	<u>(17,585)</u>
Carrying amount	
At 30 June 2024 (unaudited)	<u><u>81,526</u></u>
At 31 December 2023 (audited)	<u><u>81,526</u></u>

12. TRADE AND BILL RECEIVABLES

	At 30 June 2024 RMB'000 (Unaudited)	At 31 December 2023 RMB'000 (Audited)
Bill receivables	96,147	111,870
Trade receivables due from		
– related parties under CNNC	45,558	62,626
– associates and joint ventures	15,257	19,872
– third parties	<u>4,056,372</u>	<u>3,886,629</u>
	4,213,334	4,080,997
Less: loss allowance for expected credit loss	<u>(215,034)</u>	<u>(204,656)</u>
	<u><u>3,998,300</u></u>	<u><u>3,876,341</u></u>

Aging analysis

At 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 2024 RMB'000 (Unaudited)	At 31 December 2023 RMB'000 (Audited)
Within 1 year	3,400,616	3,335,766
1 to 2 years	439,280	389,000
2 to 3 years	125,249	115,870
Over 3 years	33,155	35,705
	<u>3,998,300</u>	<u>3,876,341</u>

The Group granted credit term on a case by case basis and trade and bills receivables are required to be settled in accordance with credit terms as stipulated in the contract and invoice due to issuance.

As at 30 June 2024, bill receivables amounting to approximately RMB37,624,000 (As at 31 December 2023: RMB15,550,000) was measured at FVOCI because the bill receivables are held within a business model whose objective of both collect contractual cash flows or to sell. The fair value of bill receivables was at a level 2 fair value measurement which has been calculated by discounting the expected future cash flows using rates currently available for instruments with similar terms, credit risk and remaining maturities.

During the six months ended 30 June 2024 and the year ended 31 December 2023, there was no transfer between level 1 and level 2 fair value hierarchy or transfer into or out of level 3.

13. CASH AT BANK AND ON HAND

	At 30 June 2024 RMB'000 (Unaudited)	At 31 December 2023 RMB'000 (Audited)
Cash at bank and on hand	238,564	407,365
Cash at CNNC Finance Company Ltd.	2,484,699	2,484,259
	<u>2,723,263</u>	<u>2,891,624</u>
Representing:		
Cash and cash equivalents disclosed in condensed consolidated statement of cash flows	2,269,731	2,376,459
Time deposits with original maturity over three months	428,640	496,591
Restricted deposits	24,892	18,574
	<u>2,723,263</u>	<u>2,891,624</u>

Restricted deposits mainly represent deposits for guarantee of letters of credit issued by banks.

14. TRADE PAYABLES

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

	At 30 June 2024 RMB'000 (Unaudited)	At 31 December 2023 RMB'000 (Audited)
Within 1 year	697,415	573,437
1 to 2 years	30,047	37,684
2 to 3 years	4,496	2,803
Over 3 years	6,633	12,744
	<u>738,591</u>	<u>626,668</u>

Trade payables are usually due for settlement within one year or are repayable on demand.

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 engineering, procurement and construction (“EPC”) service for the design, manufacturing and installation of gamma ray irradiation facilities and the provision of nuclear medical equipment and other services to hospitals and other medical institutions.

BUSINESS REVIEW

As of 30 June 2024, we have operated five business segments, namely pharmaceuticals, radioactive source products, irradiation, radiation therapy equipment and related services, and other businesses. In the first half of 2024, we continued to increase our market development efforts and proactively seized market opportunities, resulting in the improvement of various economic indicators. During the Reporting Period, the Group achieved revenue of RMB2,810.3 million, representing a year-on-year increase of 2.6%, net profit of RMB306.7 million, representing a year-on-year increase of 8.7%, and net profit attributable to equity shareholders of the Company of RMB154.5 million, representing a year-on-year increase of 23.2%.

BUSINESS SEGMENTS

1. *Pharmaceuticals*

The Group is a leading manufacturer of diagnostic and therapeutic radiopharmaceuticals in China, primarily engaged in the research, development, manufacturing and sale of a wide range of imaging diagnostic and therapeutic radiopharmaceuticals, Urea Breath Test (“UBT”) kits and analyzers in the domestic market.

During the Reporting Period, the Group further improved its competitiveness in the market by integrating the sales of Iodine-¹²⁵ sealed source products of its subsidiaries HTA Co., Ltd. and Ningbo Junan Pharmaceuticals Technology Co., Ltd. and achieving exclusive strategic cooperation with particle therapy supporting equipment and device suppliers to provide customers with comprehensive solutions. Through academic conferences, patient education and other means, the Group promoted nuclear medicine to the general public and nuclear medicine customers, including the introduction of new products such as “therapeutic sodium iodine-¹³¹ capsule” and radionuclide for scientific research purposes, thus increasing the variety of supply thereof and enhancing the Group’s influence in the field of nuclear medicine. During the Reporting Period, the first domestic lutetium-¹⁷⁷ production line without carrier with a capacity of 10,000 curies and GMP grade and gallium-⁶⁸ production line (germanium-gallium [⁶⁸Ge-⁶⁸Ga] generator) belonging to the Group were fully completed. CNGT has the capacity to supply lutetium-¹⁷⁷ and gallium-⁶⁸ nuclides, marking the full realization of nationalization and large-scale production and supply of GMP-grade lutetium-¹⁷⁷ and gallium-⁶⁸ nuclides for medical use, which will effectively alleviate the insufficient supply of lutetium-¹⁷⁷ and gallium-⁶⁸ in China as well as the significant reliance on imports. Zhonghe Headway’s new [¹³C] UBT kits have successfully obtained the Notice of Approval for Clinical Trial of Drugs.

The Group has strengthened collaboration among its drug suppliers and continued to optimize its business model to provide a stable supply of various diagnostic and therapeutic radiopharmaceuticals to medical institutions in the PRC. Through supporting the work of the nuclear medicine unit of the Chinese Medical Association, it strengthened the promotion of nuclear medicine diagnosis and treatment technology to clinical departments and other market development work and cooperated with the nuclear medicine unit of the Chinese Medical Association to carry out the construction of five new nuclear medicine diagnostic and treatment demonstration bases. It constantly promoted the development of the existing industries such as nuclear medicine diagnosis and therapeutic pharmaceuticals and accelerated the clinical study on the efficacy and safety evaluation of strontium-⁸⁹ chloride injections. It selected key hospitals for demonstration and promotion to explore the market potential of bone metastasis treatment for thyroid cancer, providing a safe and effective drug for clinical tumor patients and expanding the market capacity of radiopharmaceuticals. The Group vigorously promoted academic brand building of its respiratory disease testing products, launched a national scientific knowledge competition on health management in the field of physical examination and health care, and launched helicobacter pylori-related on-air lectures and academic activities on online platforms through promoting “specialist outpatient” lower-tier academic promotional activities. It actively participated in various academic promotional activities involving national, provincial and municipal core specialists, focused on clinical scientific research, and actively carried out clinical scientific research and evaluation experiments on the glue flash (膠閃). By reforming the marketing model, the Group as a whole synergized the quality resources of units within the Group to actively explore the market.

During the Reporting Period, the Group recorded revenue of RMB1,767.9 million from sales of pharmaceuticals, representing a year-on-year decrease of 1.1%, of which, the Group recorded revenue of RMB864.0 million from imaging diagnostic and therapeutic radiopharmaceuticals, representing a year-on-year increase of 5.8%, which was mainly due to the steady growth in revenue from radiopharmaceuticals as the new pharmaceutical centers came into operation and the size of the nuclear medicine market continued to expand, and the Group recorded revenue of RMB888.6 million from breath test, representing a year-on-year decrease of 3.9%, which was mainly due to the impact of the centralized procurement policy in some provinces.

2. *Radioactive source products*

The Group is a major manufacturer of medical and industrial radioactive source products in China and also a radioactive source producer with the 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 source products as well as provision of related technical services.

During the Reporting Period, gamma knife source and non-destructive testing radioactive source made steady progress and maintained a high market share, and the startup neutron source business kept a high growth trend. The exploration of “Source+” (源+) business has taken solid steps, and the experimental data on the research and development of domestic equipment are excellent. The supporting radioactive sources developed for the “Shenzhou XVII” manned spacecraft contributed to its successful return, thus guaranteeing the success of China’s manned spacecraft mission.

During the Reporting Period, the Group recorded revenue of RMB256.9 million from sales of radioactive source products, representing a year-on-year increase of 15.0%. The main reason for the increase was that the startup neutron source, as a key component of nuclear reactor startup, has seen an increase in market demand with the remarkable recovery of China’s nuclear power industry this year.

3. Irradiation

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

In terms of business expansion, the Group continued to plough into the field of electron beam curing and achieved a leading position in the field of electron beam curing in the PRC through the early deployment of two accelerator technology enterprises, namely, Zhongtong El Pont and EBC. The Group will subsequently carry out in-depth cooperation in the low-energy accelerators and their application industries, and is expected to achieve large-scale production and sales in the segment of electron beam curing plates and achieve revenue in the field of radiation curing applications.

The Group continued to strengthen its market competitiveness in the irradiation and sterilization industry and improve its nationwide presence. Currently, the Group has set up first-class irradiation sterilization bases in the Yangtze River Delta and regions surrounding Bohai to further enhance its services and scale of irradiation and sterilization in these regions. Meanwhile, the Group has taken Huadong Radiation as a hub, and promoted the construction of the regional management platform to realize the overall management of the Group’s radiation sterilization market, human resources and technology in the Yangtze River Delta region, thereby forming a distinctive integrated regional competitive advantage. The Group will actively invest in scientific research to explore the advantages of irradiation technology deeply and extensively, and actively explore new areas of irradiation applications.

During the Reporting Period, the Group recorded revenue of RMB86.5 million from irradiation-related business, representing a year-on-year increase of 7.7%.

4. Radiation therapy equipment and related services

During the Reporting Period, the Group accelerated the nationalization of high-end radiotherapy equipment. The Smart Cobalt-60-based Cone Beam Focused Stereotactic Therapy System has successfully completed the product registration work and obtained the medical device registration certificate. The production and research of national high-end gamma knife equipment successfully implemented and the Group will continue to promote the high-quality development of the domestic gamma knife industry. The world's first spiral tomotherapy system, Tomo C, was delivered for the first time, providing tumor patients with safer, more accurate and efficient diagnosis and treatment services, and the Group will practice the "Healthy China" Strategy with practical actions. The Group has appeared in national exhibitions for three times with its nuclear medical equipment products and gained wide attention in the industry by actively publicizing its own products. CNNC Accuray's treatment planning system (Precision) which is supported by the national high-end spiral tomotherapy system (Tomo C) was successfully approved by the National Medical Products Administration (NMPA) for the issuance of medical device registration certificate. The approved treatment planning system (Precision) adopts a new enhanced hardware platform and new software algorithms to provide an integrated and comprehensive treatment planning solution, which comprehensively improves the spiral tomography planning function, planning efficiency and software usage and other experiences. By equipping this product, the precise double helix CT image guidance and high-precision tomotherapy capability of the domestic high-end spiral tomotherapy system (Tomo C) will be fully guaranteed, and the treatment efficiency will be further improved to provide patients with more personalized treatment services.

During the Reporting Period, the Group recorded revenue of RMB273.8 million from radiation therapy equipment and related services, representing a year-on-year decrease of 31.9%, and the new product Tomo C acquired the certificate later than expectation, and sales of the old product decreased with the product iteration.

5. Other businesses

In order to provide users with a full range of services, the Group also provides services such as trade services for nuclear technology industry applications and medical product applications. We primarily provide users with import and export trade services for imported radioactive source, medical nuclides, imported radiopharmaceuticals, nuclear instruments and devices, medical equipment and other products. The Group is promoting the cooperation with international pharmaceutical companies to introduce advanced radiopharmaceuticals, intensive management services for hospital consumables, and trade and sales of medical devices.

During the Reporting Period, the Group's trade services and other businesses recorded revenue of RMB425.2 million, representing a year-on-year increase of 72.8%, which was mainly due to the increase in industrial testing services business newly acquired last year, the increase in isotope sales and export of medical equipment.

The table below sets forth our revenue by business segment for the six months ended 30 June 2024 and for the six months ended 30 June 2023:

<i>(RMB in million, except in percentage)</i>	Six months ended 30 June 2024		Six months ended 30 June 2023	
	Amount	%	Amount	%
Pharmaceuticals	1,767.9	62.9	1,787.8	65.3
Radioactive source products	256.9	9.1	223.3	8.1
Irradiation	86.5	3.1	80.3	2.9
Radiation therapy equipment and related services	273.8	9.8	402.1	14.7
Other businesses	425.2	15.1	246.0	9.0
Total	<u>2,810.3</u>	100.0	<u>2,739.5</u>	100.0

MARKETING

During the Reporting Period, the Group took the lead in launching the industry's first integrated solution for intelligent nuclear medicine and the "Irradiation Intelligence 1.0" (辐智 1.0) intelligent nuclear medicine management system, and completed the on-line acceptance of the entire system at the end of June at the Peking Union Medical College Hospital, completing the establishment of the world's first national-level intelligent nuclear medicine demonstration center. Meanwhile, the Group actively promoted the construction of regional specialty alliances and demonstration bases in key provinces such as Xinjiang, Sichuan, Zhejiang, Guangdong and Fujian. In the first half of the year, it held a seminar for the Guangdong Nuclear Medicine R&D and Application Alliance to promote the establishment of the Guangdong "Top Heaven and Earth" (顶天立地) industry-academia-research-medicine integration platform. The Alliance for Nuclear Medicine R&D Application is an innovative mechanism and efficient organization for fostering the cultivation of new quality productivity, bringing together government, industry, academia, research, medicine, and application, and building a platform for information exchange, resource sharing, and pooling efforts to overcome major difficulties. In the first half of the year, the Nuclear Medicine Specialty Alliance was established in Panxi region of Sichuan Province, promoting the development of nuclear medicine in Panxi region into the fast lane. By signing the first contract order in Xinjiang Uygur Autonomous Region TCM Hospital, the Group realized zero breakthrough in the intelligent nuclear medicine overall solution and signed strategic cooperation agreements with four provincial Class III-A hospitals.

SCIENTIFIC RESEARCH AND INNOVATION

The Group has always actively conducted research and development work on various types of imaging diagnosis and therapeutic pharmaceuticals to fill the void of various fields of medical treatment and meet the medical needs of China. As of 30 June 2024, we had a number of imaging diagnosis and therapeutic radiopharmaceuticals under research and development, among which, sodium fluorine-¹⁸ injection was completed with clinical trials and was submitted for new drug application; iodine-¹³¹-MIBG injection was in Phase III clinical trial; technetium-^{99m} sulfide colloidal injection, ⁶⁸Ga-Dotatate injection, fluorine-¹⁸ betazine injection, fluorine-¹⁸ stamine injection, fluorine-¹⁸-L dopa injection, and lutetium-¹⁷⁷ oxyoctreotide injection were approved for the clinical trial, and a variety of imaging diagnosis and therapeutic radiopharmaceuticals were in preclinical research and development stage.

Diagnostic drugs

Diagnostic drugs for tumors

1. Bone imaging drug: sodium fluorine-¹⁸ is a PET bone imaging drug used to diagnose lesions with altered bone activity, including bone metastases, incipient fracture, ostealgia, joint hyperplasia, etc. The Group's product under development, sodium fluorine-¹⁸ injection, has completed clinical trials and passed the registration inspection, on-site inspection of clinical trials, etc., and is under professional review.
2. Pheochromocytoma diagnostic drug: iodine-¹³¹-MIBG injection can be used for the diagnosis of neuroendocrine tumors such as pheochromocytoma and neuroblastoma. The Group's product under development, iodine-¹³¹-MIBG injection, is in Phase III clinical trial.
3. Prostate cancer diagnostic drug: PSMA is an ideal tumor marker for prostate cancer. The development of radioactive targeted PSMA diagnostic (therapeutic) drugs is currently a hot spot of interest that the domestic and foreign radiopharmaceutical companies are concerned about and compete for. The combination of [¹⁸F]Florastamin and PSMA has a higher specificity and a higher safety profile. The Group has signed a joint development agreement with FutureChem in Korea to obtain the exclusive rights to develop, manufacture and market [¹⁸F]Florastamin injection in PRC. At present, the Group's product under development, [¹⁸F]Florastamin injection, has completed Phase I clinical trial, which was granted the Approval for Drug Clinical Trial by the National Medical Products Administration on 15 March 2023.
4. Breast cancer sentinel lymph nodes imaging drug: technetium-^{99m} sulfide colloid is the first technetium marked radiocolloid for lymph imaging, which is used for the location and tracing of breast cancer sentinel lymph nodes. The Group's product under development, sulfide colloid kit and technetium-^{99m} sulfide colloidal injection, is in Phase III clinical trial, which was granted the Approval for Drug Clinical Trial by the National Medical Products Administration on 4 January 2023.

Diagnostic drugs for neurodegenerative diseases

1. Alzheimer (AD) diagnostic drug: β -Amyloid (A β) is an important target for early diagnosis of AD. The development of positron emission tomography (PET) imaging agents with high affinity and selectivity with A β protein can realize early non-invasive diagnosis of such disease. [¹⁸F]Florbetazine injection is an A β PET imaging agent jointly developed by the Group and the Key Laboratory of the Ministry of Education for Radiopharmaceuticals of Beijing Normal University, which has independent intellectual property rights and good imaging properties, and is a domestic Class I innovative drug. The Group's product under development, [¹⁸F]Florbetazine injection, has completed Phase I clinical trial, which was granted the Approval for Drug Clinical Trial by the National Medical Products Administration on 8 March 2023.
2. Parkinsonism diagnostic drug: 6-fluorine-¹⁸-L dopa injection is used clinically for the diagnosis of nervous system diseases such as parkinsonism, schizophrenia and AD, and has clinical value for early diagnosis of disease, assessment of disease severity and cell transplantation detection. The Group's product under development, 6-fluorine-¹⁸-L dopa injection, is intended to initiate the Phase III clinical trial, which was granted the Approval for Drug Clinical Trial by the National Medical Products Administration on 17 April 2023.

Therapeutic drug for tumor

Therapeutic drug for prostate cancer. Palladium-¹⁰³ sealed source is an in vivo implant for brachytherapy, suitable for the permanent implantation of solid tumors with low to neutral sensitivity to radiation, both for superficial, intra-thoracic and intra-abdominal solid tumors such as prostate cancer, pancreatic cancer, lung cancer, head and neck cancer, as well as for residual diseases and recurrent tumors after external radiation therapy. The Group's product under development, palladium-¹⁰³ sealed source, has completed various pre-clinical studies.

Integrated drug for diagnosis and treatment

Integrated drug for diagnosis and treatment for neuroendocrine tumor. Internationally, the use of ⁶⁸Ga-DOTATATE for PET/CT of neuroendocrine tumor has become the gold standard in imaging. ⁶⁸Ga-DOTATATE can also be used to evaluate the treatment effect of patients with neuroendocrine tumor. ¹⁷⁷Lu-DOTATATE is an effective drug in the treatment of neuroendocrine tumor. The Group's product under development, ⁶⁸Ga-DOTATATE injection and kits, was granted the Approval for Drug Clinical Trial by the National Medical Products Administration on 20 February 2023. The product under development, lutetium-¹⁷⁷ oxyoctreotide injection, is in Phase III clinical trial, which was granted the Approval for Drug Clinical Trial by the National Medical Products Administration on 8 May 2023.

Nuclear medicine equipment

The Gamma-ray Stereotactic Radiotherapy System (Gamma Knife) developed by the Group is a radiosurgery product integrating IGS image guidance technology and radiotherapy technology, which is suitable for the radiotherapy of head and body solid tumors. The product is equipped with functions such as CBCT image guidance, six-dimensional bed auto-correction, large dose rate, and target area AI auto-sketch. It has the advantages of more accurate positioning, smarter treatment planning and treatment process, and shorter single treatment time. The Group's gamma knife products were successfully approved with a medical device registration certificate (Guo Xie Zhu Zhun 20243051214) on 5 July 2024, providing solutions to the clinical needs of more cancer patients.

Internal platforms

Name of platform

Radiopharmaceuticals R&D Center
Stable Isotope and Breath Test Technology R&D Center
Radioactive Sources and Application R&D Center
Irradiation Application Technology R&D Center

Research field

Radiopharmaceuticals
Stable isotope and breath test
Radioactive sources and application
Irradiation application

External platforms

Name of platform

IAEA Radiopharmaceuticals and Radioactive Sources
Collaboration Center
National Atomic Energy Agency Research and Development
Center for Nuclear Technology (Radiopharmaceutical
Engineering Transformation)
CNNC Radiopharmaceuticals Engineering and Technology
Research Center
Guangdong Radioactive Isotope-labeled Drugs Engineering
Technology Research Center
Guangdong Stable Isotope Application Engineering
Technology Research Center
Shenzhen Carbon Isotope Application Engineering
Technology Research Center
Technology Center of Anhui Young-Hearty Medical
Appliance & Equipment Co., Ltd.
Beijing Enterprise Technology Center
Chengdu Enterprise Technology Center

CIRC Branch of Isotope Engineering and Technology
Research Center
Sichuan Radioisotope Engineering and Technology
Research Center
Shanxi Molecular Imaging Technology and Equipment
Research and Development and Transformation
Engineering Research Center
Key Laboratory of Radiopharmaceuticals Quality Control
and Evaluation of Guangdong Medical Products
Administration
Shanghai Molecular Imaging Probe Engineering
Technology Center
Zhejiang Engineering Research Center for Isotope
Preparation and Application Technology

Research field

Radiopharmaceuticals and
radioactive sources
Radiopharmaceuticals
Radiopharmaceuticals
Radiopharmaceuticals
Stable isotope
Carbon isotope
Breath test
Radiopharmaceuticals
Radioisotope and radioactive
sources
Isotope
Radioisotope
Medical equipment
Radiopharmaceuticals
Radiopharmaceuticals
Isotope preparation and application

During the Reporting Period, the Group achieved remarkable results in the work on intellectual properties, with a total of 122 patents applied, including 113 patent authorizations obtained. As of 30 June 2024, the Group had 897 valid patents, including 162 invention patents. The Group's scientific and technological strength has been continuously increasing.

During the Reporting Period, 2 trademarks were registered, 8 copyrights were registered, 4 national defense industry standards were issued, and 1 agricultural industry standard and 15 group standards were under preparation.

In terms of industry-academia-research cooperation, the Group has formed active research cooperation with industry-advantaged research institutes, universities and hospitals such as National Institute of Metrology, Shanghai Institute of Materia Medical of Chinese Academy of Sciences, China Institute for Radiation Protection, Harbin Institute of Technology, Sichuan University, Beijing Normal University, Peking Union Medical College Hospital and 301 Hospital, and strengthened academic exchanges and research talent cultivation through the establishment of joint laboratories, research and development centers and collaborative innovation centers for purpose of achieving comprehensive cooperation in technological innovation.

The Group has a long-standing commitment to building a system of high-level talents, with 1 top foreign talent, 10 national-level talents, 10 provincial and ministerial level talents, 4 chief experts, 14 technology leaders, and a scientific research team of 561 research and development personnels focusing on extensive researching and optimizing production technologies, developing new products and upgrading safety and efficacy existing products to jointly promote technological innovation in various industrial fields of the Group. In addition, the Group has set up a post-doctoral research workstation of MOHRSS, a post-doctoral innovation practice base in Shenzhen, a post-graduate workstation for radiopharmaceuticals in Jiangsu Province and a post-graduate workstation for irradiation application in Suzhou University with an aim of actively developing post-doctoral and post-graduate training and continuously strengthening the construction of talent team.

International Business

During the Reporting Period, the Group has exported UBT analyzers, radioactive sources, medical equipment and devices and other products to dozens of countries and regions, realizing a total export revenue of RMB213.87 million. During the Reporting Period, the Group successfully won the bidding and contract for the project of the Gamma irradiation station with a designed capacity of 1 million curies of Bangladesh Institute of Nuclear Agriculture, which is the Group's first overseas governmental irradiation station and the first overseas EPC project. The Group continued to implement the Indonesia Nuclear Medicine Service Project, the ADB Uzbekistan Healthcare Project, the Malaysia Gamma Irradiation Station Project and the Ministry of Commerce Foreign Aid Project, etc., which are progressing well. The Group proactively explored the markets in the Americas, Central Asia, Africa and ASEAN countries and steadily increased the market share of our products in the aforementioned regions. At the same time, as the world's third largest supplier of cobalt sources, the Group continued to carry out the cobalt source export business, kept promoting the overseas registration of breath test kits and radiopharmaceuticals to lay the foundation for the future development of overseas markets. In terms of channel construction, the Group continued to expand its business channels, actively promoted internal and external business synergies, actively participated in a number of international exhibitions at home and abroad, and signed memorandums of cooperation with government departments, atomic energy commissions, and enterprises in a number of countries, including Brazil and Uzbekistan, to promote industrial cooperation in various fields and the exportation of products, and at the same time, actively liaised with local governments and renowned enterprises to promote the construction of international sales channels. In terms of system management, the Group strengthened its business management and promoted the construction and improvement of its internal management system to further enhance the Group's international operations.

CAPITAL OPERATION

Upholding the strategic objective of “Becoming Larger, Stronger and Better”, the Group firmly follows the development concept of “Assetization and Globalization” 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 the Company’s financial gains, we have teamed up with CIRC Innovation Industrial Investment Fund 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 has not acquired any enterprises.

As of 30 June 2024, the Group’s actual amount paid to the Tongfu Fund was RMB410.4 million, accounting for 45.1% of the total actual amount of RMB910.4 million paid to the Tongfu Fund. After evaluation, the net assets of Tongfu Fund measured at fair value as of 30 June 2024 were RMB1,011.9 million. The Company’s net assets based on its 45.1% shareholding was RMB456.4 million, accounting for 3.3% of the Company’s total assets. In the first half of 2024, the Company’s investment income in Tongfu Fund was RMB2.3 million, and the Company received dividends of RMB2.5 million.

PRODUCTION CAPACITY AND BASE CONSTRUCTION

As of 30 June 2024, the Group’s cumulative number of pharmaceutical centers in operation reached 26, the cumulative number of companies that can supply positron drugs reached 22, six pharmaceutical centers have entered the construction/certification stage, and five were in the pre-project phase, gradually improving the network layout of national pharmaceutical centers.

In order to further enhance the R&D and production capacity of the Group in the fields of radiopharmaceuticals and radioactive sources, we have been vigorously promoting the construction of R&D and production bases of isotopes and their products in recent years. At present, the diagnostic and therapeutic radiopharmaceuticals manufacturing bases of the Group were mainly located in four regions (i.e. Beijing, Ningbo etc.), and the medical bases in northern China and Shanghai that are newly planned and laid out were progressing in an orderly manner. The UBT kits and analyzers manufacturing bases were located in Shenzhen and Tongcheng. The radioactive source manufacturing bases were located in Beijing and Leshan. The newly planned research, development and production base for radioactive sources was also being actively promoted. The construction of CNNC Qinshan isotope production base project proceeded in an orderly manner, which will become the largest isotope production base in China after completion and is of great significance to enhance China’s isotope nationalization capability.

All production lines of the North China medical base project have arrived at the project site for equipment installation, and the application materials for the radiation safety license have been submitted to the Ministry of Ecology and Environment.

The Shanghai medical base project has completed the renovation of the integrated production building and the construction of the curtain wall, and is in the process of installing the accelerator.

The radioactive source base project (Phase I) is undergoing decoration and equipment installation; the radioactive source base project (Phase II) has completed the roofing of the main works.

CNNC Qinshan isotope production base project has completed the decoration works, and all the equipment of the production line has arrived at the project site, where equipment installation and commissioning are being carried out.

Quality and Safety

The Group carried out and implemented the ideology of ecological civilization of Xi Jinping and the important remarks of General Secretary Xi Jinping on safety and production, actively practiced the safety concept of “safety creates happiness and safety creates value”, and coordinated high-quality development and high level of safety by taking the construction of safety culture as the leading role, and by using standardization, leaning and informationization as the means. During the Reporting Period, a comprehensive three-year campaign (2024-2026) was launched to address the root causes of safety and production, further prevent and resolve major safety and environmental protection risks, and accelerate the modernization of the safety and production governance system and governance capacity. At the time of the 40th anniversary of the Group’s establishment, CIRC released the “CIRC Safety Culture Handbook”, which formally clarified the concept of production safety, the work policy of production safety, the policy of safety development, the standards of safety behavior, and the ten major prohibitions on production safety, so as to “cultivate the roots and cast the soul” for the promotion of the construction of a safety culture. Its five pharmaceutical centers were the first to pass the standardized assessment of safe production by the China Isotope and Radiation Industry Association, leading the development of the industry in terms of safety and standardization. The Group deepened external collaboration and cooperation, organized the first “Radiation Safety Cup”(辐安杯) safety competition with the Nuclear and Radiation Safety Center of the National Nuclear Safety Administration, and launched high-risk operation training in conjunction with Sinopec’s South China Training Base to promote the spirit of safety craftsmanship. By carrying out activities such as Safe Production Month, 4.15 National Security Education Day, Safety Consultation Day, and Safety Culture Awakening Education Forum (安全文化震撼教育论坛), the Group thoroughly implemented the general concept of national security, enhanced the safety awareness and quality of the public, and promoted the harmonious development of employees, enterprises and society.

The Group has always been committed to the quality concept of “Brand Cornerstone” and “Do it right the first time”, and has always guaranteed the quality of every product and service, so that “CIRC Quality Production” has become the significant gene of the CIRC brand. The Group strictly adhered to the concept of taking customers as the center of the quality of products and services, and formulated and implemented internal quality standards that are higher than the national legal standards, covering the whole process of production and operation. The Group continued to enhance the effectiveness of its quality management system, optimized the quality of its products and services, and continued to improve customer satisfaction so as to maintain its industry-leading competitive edge and achieve high-quality development. During the Reporting Period, the new Gamma Beam Stereotactic Radiotherapy System was successfully approved by the National Medical Products Administration for medical device registration certificate, which fully utilized the key role of quality management in ensuring the implementation of the strategy. As a leading pharmaceutical company, the Group participated in and organized the revision of pharmaceutical standards. In terms of continuous improvement, the quality management team achieved remarkable results in its activities, and was awarded the first-class prize several times at the provincial and ministerial levels, as well as the highest “demonstration grade” in the national scope of the China Association for Quality.

SCIENCE AND TECHNOLOGY REFORM

In recent years, the Group has been solidly promoting the “Science and Technology Reform Demonstration Action” and completing the relevant specialised appraisal with high quality. In June 2024, the SASAC of the State Council issued the “Notice on the Publication of the Results of the 2023 Specialised Assessment of the ‘Science and Technology Reform Action’ and ‘Double Hundred Action’ under the Central Enterprises” (SASAC Reform Office [2024] No. 151) (《關於印發中央企業“科改行動”“雙百行動”2023 年度專項考核結果的通知》(國資廳改辦[2024]151 號)) announcing the results of the 2023 specialised assessment of the “Science and Technology Reform Demonstration Enterprises” under the central enterprises, in which the Group was ranked at the “Benchmark” level and successfully promoted from the “Excellent” level.

IMPROVING THE QUALITY OF LISTED COMPANIES

The Group integrated the improvement of the quality of listed companies with the development of enterprises in a deep and efficient manner, refined its initiatives, and implemented them in a pragmatic manner, so as to smoothly push forward the implementation of various initiatives for improving the quality of listed companies according to the plan. The Group focused on 5 major areas, including 15 sub-themes, 38 work objectives, 75 work measures and 69 milestone achievements, and made concerted efforts to continuously improve the quality of listed companies. As of 30 June 2024, the Group has accomplished a total of 30 work objectives (completion rate of 78.9%), 71 specific work initiatives (completion rate of 94.7%) and 65 milestone achievements (completion rate of 94.2%). At present, all tasks are progressing in an orderly manner according to the plan, and the overall progress is good.

The Group adhered to the strategy of innovation-driven development and coordinated special works such as the improvement of the quality of listed companies, the Year of Innovation and Optimization, the science and technology reform demonstration action, deepening the Three-Year Action for State-owned Enterprise Reform, and benchmarking the value creation of world-class enterprises, thus continuously shaping the new drivers and strengths for high-quality development and further enhancing the core competitiveness of the enterprise. The Group will further raise its political position, deepen its understanding on its dual responsibility of building a “strong nuclear power nation” and a “healthy China”, and continuously enhance its sense of responsibility, mission and urgency. Based on the requirements of “Three New and One High” (三新一高) and the strategic positioning of the Company, it has anchored itself in the goal of “Three-in-One” (三位一體), and is determined to push forward the implementation of various measures to improve the quality of listed companies, further implements the relevant requirements of the Group, continues to innovate and optimize to enhance its core competitiveness, and leads its peers in the industry in a more enthusiastic and enterprising manner to promote the high-quality development of the nuclear medicine and radiopharmaceutical industries, continuously improve the level of precision medicine in China, and contribute to the construction of “Healthy China”.

FUTURE DEVELOPMENT

In recent years, the State attached great importance to the development of nuclear technology application industry. In terms of radiopharmaceuticals, since the release of the “Medium and Long-term Development Plan for Medical Isotopes (2021-2035)” (《醫用同位素中長期發展規劃(2021 – 2035 年)》) in 2021, support for medical isotopes and related industries from all sectors of the community has continued to increase. In April 2023, the “Opinions of the National Medical Products Administration on Reforming and Improving the Management System for the Assessment and Approval of Radiopharmaceuticals” (《國家藥監局關於改革完善放射性藥品審評審批管理體系的意見》) was released, proposing that the characteristics of radiopharmaceuticals will be fully considered, and that the assessment and approval work will be reformed and improved scientifically.

In terms of nuclear medical equipment, in March 2023, the National Health Commission issued the “Notice on Issuance of Large Medical Equipment Configuration Permit Management Catalogue (2023)” (《關於發佈大型醫用設備配置許可管理目錄(2023)的通知》), which adjusted the spiral tomotherapy system from “Class A” to “Class B”; in June 2023, the National Health Commission issued the “14th Five-Year Plan for the Configuration of Large-scale Medical Equipment” (《十四五大型醫用設備配置規劃》), in which the State will plan to configure 76 sets of high-end radiotherapy equipment and 1,968 sets of conventional radiotherapy equipment during the 14th Five-Year Plan period (including 95 sets of Gamma-ray Stereotactic Radiotherapy System).

In the face of a series of favourable policies and broad industry prospects, the Company, as an industry leader, will closely focus on the goals and tasks of the “14th Five-Year Plan”, with standardized operation, lean management, change and innovation, high efficiency and quality, continuously deepen the lean management, pay more attention to innovation drive, and make every effort to promote the high-quality development of CIRC to a new level.

All efforts to achieve the core objective of stabilizing growth. In the first half of this year, the effect of the national growth stabilization policy has gradually emerged, market demand has gradually recovered, the quality of development has continued to improve, and China’s macro-economic environment will continue to improve in the future. With scientific and technological innovation and broad market prospects, China’s nuclear technology application industry will enter the “fast lane” of development under the impetus of a series of favourable policies. CIRC will grasp the development opportunities and make every effort to maintain the momentum of growth, striving to reach new heights in operating revenue, net profit and other business indicators in 2024.

Strengthening new advantages in isotopes and related products. Focusing on the objectives and tasks of the “14th Five-Year Plan”, CIRC will continue to strengthen the research and development of isotopes and products, capacity building and business expansion, and continue to consolidate its leading position in the domestic radiopharmaceutical and radioactive source industries. Firstly, we will insist on independent research and development and technology introduction to enrich the product pipeline quickly and efficiently; secondly, we will accelerate the construction of six bases and pharmaceutical centers, and strive to put into operation a total of 28 pharmaceutical centers in 2024; thirdly, CIRC will actively develop external cooperation and continue to enhance the influence and voice of the industry.

Striving to break new ground for nuclear medical equipment. With the goal of building an international first-class nuclear medical equipment enterprise integrating research and development, production, sales and services, CIRC will coordinate industrial planning, accelerate independent innovation, speed up the domestic substitution of core components, integrate with the development planning of the nuclear medical industry, and take multiple measures to strengthen external cooperation, so as to open up new horizons in nuclear medical equipment.

Exploring new areas for application of irradiation. Aiming to build a leading irradiation application enterprise in China, CIRC will continue to promote the irradiation technology using in more application scenarios, and vigorously open up new space for irradiation application. Firstly, we will grasp the development trend of the industry, accelerate the construction of irradiation bases in Beijing, Tianjin, Hebei, Yangtze River Delta and other regions, and improve the layout of irradiation processing service network. Secondly, we will accelerate the deployment of accelerator applications and actively extend to the end of products.

Striving for excellence to comprehensively improve management effectiveness. CIRC will keep pace with the times and plan for the future, carry out the evaluation and revision of the medium long-term development strategy, and compile the medium and long-term development plans for isotopes, radiopharmaceuticals, nuclear medical equipment and other sub-sector of its business. We will deeply promote lean management, speed up the establishment of Lean Benchmarking Workshops for business modules such as radiopharmaceuticals, radioactive sources and irradiation application, striving to add at least two benchmark pharmaceutical centers by 2024. We will accelerate the establishment of the Procurement Center and the Engineering Management Center to effectively reduce procurement costs and continuously improve the level of fixed asset project management. CIRC will focus on the construction of the third phase of the Financial Sharing Center (財務共享中心) and the construction of an accounting information quality assurance system. We will firmly carry out the specific work of “CIRC Work Plan for Improving the Quality of Listed Companies” (《中國同輻提高上市公司質量工作方案》) and continuously improve the core competitiveness and market influence of listed companies. CIRC will continue to promote the standardization of production safety and strive to improve the level of safety management in key areas. In addition, we will continue to deepen the application of “four-in-one” system of compliance, risk, internal control and law, establish an integrated and coordinated workflow, and improve the effectiveness of compliance management.

The “14th Five-Year Plan” is a strategic opportunity period for the development of the nuclear technology application industry. We will closely focus on the objectives of the “14th Five-Year Plan”, unify our ideology and understanding, maintain our strategic determination, practice the “CIRC speed”, make every effort to promote the implementation of the key tasks of the “14th Five-Year Plan”, and accelerate the establishment of an internationally renowned isotope and radiation technology application products and services supply group.

PRINCIPAL RISKS AND UNCERTAINTIES

The Group's financial condition, results of operations, and business prospects may be affected by a number of risks and uncertainties directly or indirectly pertaining to the Group's businesses. To the best of knowledge and belief of the Directors, the Directors consider that the following are the principal risks and uncertainties identified by the Group as of the date of this announcement.

Market Risk

Market risk is the risk that deteriorates profitability or affects ability to meet business objectives arising from the movement in market prices, like foreign exchange rates and interest rates. The management of the Group manages and monitors these exposures to ensure that appropriate measures are implemented on a timely and effective manner.

Foreign Exchange Risk

The Group mainly operates in the PRC with most of the transactions settled in Renminbi. As of 30 June 2024, other than those mentioned above, the Group did not carry out any other hedging activity against foreign currency risk. Any substantial exchange rate fluctuation of foreign currencies against Renminbi may have a financial impact on the Group.

Interest Rate Risk

For interest-sensitive products and investments, the Group analyses the interest rate exposure on a dynamic basis and considers managing this risk in a cost-effective manner when appropriate, through variety of means.

Liquidity Risk

Liquidity risk is the potential that the Group will be unable to meet its obligations when they fall due because of an inability to obtain adequate funding or liquidate assets. In managing liquidity risk, the Group monitors cash flows and maintains an adequate level of cash and cash equivalent to ensure the ability to finance the Group's operations and reduce the effects of fluctuation in cash flows.

Operational Risk

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. Responsibility for managing operational risks basically rests with every function at divisional and departmental levels. Key functions in the Group are guided by their standard operating procedures, limits of authority and reporting framework. The management will identify and assess key operational exposures regularly so that appropriate risk response can be taken.

Investment Risk

Investment risk can be defined as the likelihood of occurrence of losses relative to the expected return on any particular investment. Key concern of investment framework will be balancing risk and return across different investments, and thus risk assessment is a core aspect of the investment decision process. Proper authorization system has been set up and detailed analysis will be made before approving investments. Regular updates on the progress of the investments of the Group would be submitted to the Board.

Economic Environment

Most of the Group's facilities, operations are located in and its revenue derived from mainland China and Hong Kong. The Group's results of operations and financial condition therefore depend on the economies of mainland China and Hong Kong. The economy of Hong Kong is significantly affected by the developments in mainland China and the Asia-Pacific region. Mainland China's economy may experience negative economic developments, and other regional economies may also deteriorate. The Group also has significant business across mainland China and one of its growth strategies is to expand into new regions. These new regions have also been adversely affected by the global economic slowdown and any continued slowdown may have an adverse effect on the Group's existing operations in, and planned expansion into, these regions.

FINANCIAL REVIEW

Revenue

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

Our revenue increased by 2.6% from RMB2,739.5 million for the six months ended 30 June 2023 to RMB2,810.3 million during the Reporting Period, which was mainly due to the Company's hard work to expand the market during the Reporting Period, leading to an increase in the revenue of our radioactive source, irradiation and other business segments.

Cost of Sales, Gross Profit and Gross Margin

Our cost of sales increased by 7.3% from RMB1,254.0 million for the six months ended 30 June 2023 to RMB1,346.1 million during the Reporting Period, which was in line with the increase in sales revenue.

Our gross profit decreased by 1.4% from RMB1,485.5 million for the six months ended 30 June 2023 to RMB1,464.2 million during the Reporting Period and our gross margin decreased by 2.1% from 54.2% to 52.1%. The decrease in gross margin was primarily due to the decrease in the gross profit of the radiopharmaceuticals products of our Company.

Other Income

Our other income decreased by 15.1% from RMB30.6 million for the six months ended 30 June 2023 to RMB26.0 million during the Reporting Period, which was mainly due to decreased government grants during the Reporting Period.

Selling and Distribution Expenses

Our selling and distribution expenses decreased by 13.0% from RMB779.6 million for the six months ended 30 June 2023 to RMB678.2 million during the Reporting Period, which was mainly due to the decrease in sales service fees as a result of the changes in pharmaceuticals sales policies.

The percentage of selling and distribution expenses to revenue decreased from 28.5% for the six months ended 30 June 2023 to 24.1% during the Reporting Period, which was mainly due to the change in sales structure during the Reporting Period.

Administrative Expenses, Research and Development Costs, Credit Loss on Trade and Other Receivables

Our total administrative expenses, research and development costs, credit loss on trade and other receivables increased by 1.5% from RMB396.8 million for the six months ended 30 June 2023 to RMB402.6 million during the Reporting Period. Our administrative expenses increased by 11.6% from RMB248.3 million for the six months ended 30 June 2023 to RMB277.2 million during the Reporting Period, which was mainly due to an increase in employee compensation and depreciation expenses during the Reporting Period.

The research and development costs decreased by 17.6% from RMB135.5 million for the six months ended 30 June 2023 to RMB111.6 million during the Reporting Period, which was mainly due to the increase in the Company's R&D investment eligible for capitalization and the decrease in expensed R&D investments during the Reporting Period.

The total credit loss on trade and other receivables increased by 6.2% from RMB12.9 million for the six months ended 30 June 2023 to RMB13.7 million during the Reporting Period, which was mainly due to the increased bad debt losses accrued based on credit risk as a result of the increased receivables of the Company during the Reporting Period.

The percentage of total administrative expenses, research and development costs and impairment loss on trade and other receivables to revenue decreased from 14.5% for the six months ended 30 June 2023 to 14.3% during the Reporting Period, which was mainly due to the decrease in expensed R&D investments of the Company.

Finance Costs

Our finance costs increased by 53.3% from RMB15.7 million for the six months ended 30 June 2023 to RMB24.1 million during the Reporting Period, which was mainly due to the growth in interest expenses as a result of the increase in the Company's bank borrowings during the Reporting Period.

Share of Profits Less Losses of Associates and Share of Profits of Joint Ventures

Our share of profits less losses of associates decreased from RMB4.4 million for the six months ended 30 June 2023 to RMB-4.8 million during the Reporting Period, mainly due to the decrease in profits of associates. Our share of profits of joint ventures decreased by 43.3% from RMB20.8 million for the six months ended 30 June 2023 to RMB11.8 million during the Reporting Period, mainly due to the decrease in the profits of our joint ventures.

Profit before Tax

As a result of the foregoing, our profit before tax increased by 12.4% from RMB349.1 million for the six months ended 30 June 2023 to RMB392.3 million during the Reporting Period.

Income Tax

Our income tax increased by 27.9% from RMB66.9 million for the six months ended 30 June 2023 to RMB85.6 million during the Reporting Period, mainly due to the increase in our taxable income.

For the six months ended 30 June 2023 and during the Reporting Period, our effective tax rate was 21.8% and 19.2%, respectively.

Profit for the Period

As a result of the foregoing, our profit for the period increased by 8.7% from RMB282.2 million for the six months ended 30 June 2023 to RMB306.7 million during the Reporting Period.

FINANCIAL POSITION

Overview

As of 30 June 2024, the total assets, the total liabilities and the total equity of the Group were RMB13,742.6 million, RMB6,417.6 million and RMB7,325.0 million, respectively.

Net Current Assets

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

	<i>RMB in million</i>	
	At 30 June 2024	At 31 December 2023
Inventories	1,089.6	814.2
Contract assets	22.5	19.9
Trade and bill receivables	3,998.3	3,876.3
Deposits and other receivables	283.7	254.6
Prepayments	362.3	337.9
Cash at bank and in hand	2,723.3	2,891.6
Total Current Assets	8,479.6	8,194.5
Bank loans	360.1	196.3
Trade payables	738.6	626.7
Accruals and other payables	3,165.1	3,256.0
Lease liabilities	18.0	20.9
Provisions	91.7	86.6
Income tax payable	41.0	67.5
Total Current Liabilities	4,414.4	4,254.0
Net Current Assets	4,065.2	3,940.5

Our net current assets increased by 3.2% from RMB3,940.5 million as of 31 December 2023 to RMB4,065.2 million as of 30 June 2024, which was mainly due to the increased inventories as a result of the increase in the Company's provision for future production and operations.

Adjusted Net Gearing Ratio and Quick Ratio

As of 31 December 2023 and 30 June 2024, our adjusted net gearing ratios (adjusted net debt (interest-bearing debt plus unaccrued proposed dividends) divided by adjusted equity (all components of equity less unaccrued proposed dividends)) were 25.5% and 28.4%, respectively.

As of 31 December 2023 and 30 June 2024, our quick ratios (total current assets excluding inventories divided by total current liabilities as of the same date) were 1.7 times and 1.7 times, respectively.

Analysis of Cash Flows

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

	<i>RMB in million</i>	
	Six months ended 30 June	
	2024	2023
Net cash used in operating activities	(116.5)	(291.6)
Net cash used in investing activities	(333.2)	(69.0)
Net cash generated from (used in) financing activities	342.9	(176.5)
Net decrease in cash and cash equivalents	(106.8)	(537.1)
Cash and cash equivalents at the beginning of the period	2,376.5	2,236.8
Effect of changes in foreign exchange rate	–	–
Cash and cash equivalents at the end of the period	2,269.7	1,699.7

Trade and Bill Receivables, Prepayments, Deposits and Other Receivables

Trade and bill and other receivables are stated at amortised cost using the effective interest method less allowance for credit losses. As of 30 June 2024, our trade and bill receivables, prepayments, deposits and other receivables (net of bad debt allowance of RMB215.0 million) were RMB4,644.3 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 2024, our trade and other payables were RMB3,903.6 million.

Bank Loans and Pledge of Assets

As of 30 June 2024, the Group's total bank loans were RMB2,002.7 million.

As of 30 June 2024, the unsecured long-term bank loans mainly included:

- (i) A loan principal balance of RMB623.0 million borrowed by the Group at an interest rate of 2.7%.
- (ii) The loan principal balances of RMB123.5 million and RMB56.1 million borrowed by a subsidiary of the Group, both at the interest rate of 3.0%.
- (iii) A loan principal balance of RMB222.0 million borrowed by a subsidiary of the Group at an interest rate of 2.7%.

- (iv) A loan principal balance of RMB198.3 million borrowed by a subsidiary of the Group at an interest rate of 2.88%.
- (v) A loan principal balance of RMB120.0 million borrowed by a subsidiary of the Group at an interest rate of 3.03%.

As of 30 June 2024, the secured long-term bank loans mainly include:

- (i) A loan principal balance of RMB15.0 million borrowed by a subsidiary of the Group at an interest rate of 3.75%, for which the assets with total carrying amount of RMB15.0 million were pledged.
- (ii) A loan principal balance of RMB5.6 million borrowed by a subsidiary of the Group at an interest rate of 4.99%, for which the assets with total carrying amount of RMB7.4 million were pledged.

As of 30 June 2024, the unsecured short-term bank loans mainly included:

- (i) A loan principal balance of RMB201.6 million borrowed by a subsidiary of the Group at an interest rate of 2.40%, a loan principal balance of RMB30.0 million at an interest rate of 3%, and a loan principal balance of RMB66.6 million at an interest rate of 2.95%.

As of 30 June 2024, the secured short-term bank loans mainly included:

- (i) A loan principal balance of RMB10.0 million borrowed by a subsidiary of the Group at an interest rate of 3.45%, for which the assets with total carrying amount of RMB13.1 million were pledged.

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 RMB418.8 million.

Contingent Liabilities

As of 30 June 2024, we did not have any material contingent liabilities.

Foreign Exchange and Foreign Exchange Risk

During the six months ended 30 June 2024, 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 resolved to declare an interim cash dividend of RMB0.0724 per Share (inclusive of tax) for the six months ended 30 June 2024 (the “**2024 Interim Dividend**”) to Shareholders whose names appear on the register of members of the Company on 7 October 2024, with a total cash dividend to be distributed of RMB23,158,942.75 (inclusive of tax). The 2024 Interim Dividend is expected to be declared and paid in RMB to holders of Domestic Shares and, whereas dividends payable to holders of H shares will be declared in RMB and payable in Hong Kong dollars before Friday, 22 November 2024. Exchange rate between RMB and Hong Kong dollar will be the arithmetic mean of the median of the exchange rates of Hong Kong dollars against RMB as quoted by the People's Bank of China for the five business days preceding the date of the dividend payment (inclusive). The above interim dividend distribution proposal is subject to the review and approval by Shareholders at the EGM held on Wednesday, 25 September 2024. Details of the dividend distribution will be published after the EGM.

According to the “Enterprise Income Tax Law of the People's Republic of China” and its implementing rules, which came into effect on 1 January 2008, and other relevant rules, the Company is required to withhold 10% enterprise income tax before distributing the proposed 2024 Interim Dividend to non-resident enterprise Shareholders whose names appear on the register of members of the Company. Any H Shares registered in the name of non-individual registered Shareholders, including but not limited to HKSCC Nominees Limited, other nominees, trustees or other groups and organizations, will be treated as being held by non-resident enterprise Shareholders and therefore will be subject to the withholding of enterprise income tax.

According to the letter titled the “Tax arrangements on dividends paid to Hong Kong residents by mainland companies” issued by the Stock Exchange to the issuers on 4 July 2011 and a circular (Guo Shui Han [2011] No. 348) issued by the State Administration of Taxation on 28 June 2011, and relevant laws and regulations, if individual holders of H Shares are residents of Hong Kong or Macau or countries which have entered into a tax treaty with the PRC stipulating a dividend tax rate of 10%, the Company will withhold and pay individual income tax at the rate of 10% on

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

The Company assumes no responsibility and will not entertain any claim arising from any delay in, or inaccurate determination of, the tax status or tax treatment of Shareholders or any dispute over tax(es) withheld. Shareholders are recommended to consult their tax advisers regarding the PRC, Hong Kong and other tax effects involved in their holding and disposal of H Shares.

Closure of Register of Members

The Company will hold the EGM on Wednesday, 25 September 2024. The register of members of the Company will be closed from Friday, 20 September 2024 to Wednesday, 25 September 2024 (both dates inclusive) and from Wednesday, 2 October 2024 to Monday, 7 October 2024 (both dates inclusive).

Shareholders whose names appear on the register of members of the Company on Wednesday, 25 September 2024 will be entitled to attend and vote at the EGM. Shareholders whose names appear on the register of members of the Company on Monday, 7 October 2024 will be entitled to receive the 2024 Interim Dividend. For the purpose of being qualified as Shareholders to attend and vote at the EGM, Shareholders of the Company must lodge all transfers documents with the Company's H Share Registrar, Computershare Hong Kong Investor Services Limited, at Shops 1712-1716, 17th Floor, Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong (for holders of H Shares) or the Company's registered office in No. 66 Changwa Middle Street, Haidian District, Beijing, China (for holders of Domestic Shares) for registration no later than 4:30 p.m. on Thursday, 19 September 2024. For the purpose of being qualified as Shareholders to receive the 2024 Interim Dividend (subject to the approval by Shareholders at the EGM), Shareholders of the Company must lodge all transfers documents with the Company's H Share Registrar (see the address above) (for holders of H Shares) or the Company's registered office (see the address above) (for holders of Domestic Shares) for registration no later than 4:30 p.m. on Monday, 30 September 2024.

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 2024.

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 estimated expenses in relation to the global offering.

In accordance with the requirements of paragraph 11(8) of Appendix D2 of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the “**Listing Rules**”), the update of use of proceeds, and the use of proceeds from the initial public offering for the first half of 2024 (including the expected time of full utilisation of the balance) are set out below:

RMB in million

Use	Initial Allocation of the net proceeds	Revised Allocation of the net proceeds	Amount Utilised as of 31 December 2018	Amount Utilised as of 31 December 2019	Amount Utilised as of 31 December 2020	Amount Utilised as of 31 December 2021	Amount Utilised as of 31 December 2022	Amount Utilised as of 31 December 2023	Amount Utilised as of 30 June 2024	Balance as of 30 June 2024	Expected time of utilisation of balance
Investment in imaging diagnostic and therapeutic radiopharmaceuticals manufacturing and research and development bases	597.3	460.0	0.0	29.5	200.0	251.5	427.0	459.3	460.0	0.0	
Establishment of production and distribution subsidiaries	67.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Establishment of new production facilities	84.5	50.0	0.0	50.0	50.0	50.0	50.0	50.0	50.0	0.0	
Investment in the research and development of various imaging diagnostic and therapeutic radiopharmaceuticals, raw materials of radioactive source products, medical radioisotopes, and UBT products and related raw materials	253.6	118.3	0.0	76.6	101.2	105.4	105.5	105.5	105.5	12.8	In 2024
Investments/selective (mergers) acquisitions	286.5	536.1	51.4	529.9	536.1	536.1	536.1	536.1	536.1	0.0	
Working capital and general corporate	143.3	268.1	71.7	232.5	268.1	268.1	268.1	268.1	268.1	0.0	
Total	1,432.5	1,432.5	123.1	918.5	1,155.4	1,211.2	1,386.7	1,419.0	1,419.7	12.8	

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

EMPLOYEES AND REMUNERATION POLICY

The Group had a total of 3,132 (as of 30 June 2023: 3,264) employees as of 30 June 2024. During the six months ended 30 June 2024, our staff costs were approximately RMB378.5 million (for the six months ended 30 June 2023: RMB361.0 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 the 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 created as a result of on-the-job training and formal training programs.

HEDGING ACTIVITIES

During the six months ended 30 June 2024, the Group had not entered into any hedging transaction in relation to foreign exchange risks or interest risks.

ACQUISITIONS AND DISPOSALS OF SUBSIDIARIES, ASSOCIATES AND JOINT VENTURES

During the six months ended 30 June 2024, the Company did not have any acquisition or disposal of subsidiaries, associates or joint ventures.

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). During the six months ended 30 June 2024, the Company has no future plans for significant investment or capital assets or specific plans for acquisition.

CORPORATE GOVERNANCE REPORT AND OTHER INFORMATION

Compliance with the corporate governance code

The Company has adopted and applied the principles and code provisions of the Corporate Governance Code set out in Appendix C1 to the Listing Rules. During the Reporting Period, the Company has complied with the mandatory 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 of the Company. The Group has, with reference to the code provisions of the Corporate Governance Code set out in Appendix C1 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 (the “**Customised Code**”) with standards no less favorable than that of the Model Code for Securities Transactions by Directors of Listed Issuers (the “**Model Code**”) as set out in Appendix C3 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 Customised Code during the Reporting Period. The Company was also not aware of any incidents of non-compliance with the Customised Code by any employee.

Audit and risk management committee

As of the date of this announcement, 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. Poon Chiu Kwok (chairman), Mr. Lu Chuang and Mr. Chen Zan, and its terms of reference comply with the requirements of 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 2024.

Purchase, sale or redemption of the company’s listed securities

During the six months ended 30 June 2024 and as of the date of this announcement, neither the Company nor any of its subsidiaries purchased, sold or redeemed any listed securities (including sale of treasury shares) of the Company. As at 30 June 2024, neither the Company nor its subsidiaries hold any treasury shares.

Subsequent events

Save as disclosed above, no significant subsequent event has taken place after the Reporting Period to the date of this announcement.

Material litigation

As of 30 June 2024, the Company was not involved in any material litigation or arbitration. Nor were the Directors aware of any material litigation or claims that were pending or threatened against the Company.

PUBLICATION OF RESULTS ANNOUNCEMENT AND INTERIM REPORT

This announcement has been published on the websites of the Stock Exchange (www.hkexnews.hk) and the Company (www.circ.com.cn). The Company will publish the interim report for the six months ended 30 June 2024 on the above websites in due course.

By order of the Board
China Isotope & Radiation Corporation
Chairman
Zhang Junqi

Beijing, the PRC, 30 August 2024

As at the date of this announcement, the Board comprises Mr. Zhang Junqi and Mr. Fan Guomin as executive Directors; Mr. Chen Zan, Mr. Ding Jianmin, Ms. Chang Jinyu and Ms. Liu Xiuhong as non-executive Directors; and Mr. Poon Chiu Kwok, Ms. Chen Jingshan and Mr. Lu Chuang as independent non-executive Directors.