

中國同輻股份有限公司

China Isotope & Radiation Corporation

(於中華人民共和國註冊成立的股份有限公司)

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

股份代號 Stock Code: 1763



ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT 環境、社會及管治報告

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DEFINITIONS

Unless otherwise stated, these terms are defined as follows:

BNIBT Beijing North Institute of Biotechnology Co., Ltd.

CIRC, the Group, or we China Isotope & Radiation Corporation and its subsidiaries

CNGT Chengdu Gaotong Isotope Co., Ltd. (CNNC)

CNNC China National Nuclear Corporation

COVID-19 Pandemic Pandemic of Coronavirus Disease 2019

ESG Environmental, Social and Governance

ESG Reporting Guide The Environmental, Social and Governance Reporting Guide is set out in

Appendix 27 of the Listing Rules

Hazardous chemicals Hazardous Chemical Waste

Headway Bio-Sci & Tech Co., Ltd.

Hong Kong Special Administrative Region of the People's Republic of China

HTA Co., Ltd.

Listing Rules The Rules Governing the Listing of Securities on the Stock Exchange of Hong

Kong Limited

NO, Nitrogen Oxides

PM Particular Matters

PRC The People's Republic of China, for the purpose of this ESG report, excluding

Hong Kong, Macau and Taiwan

RMB Renminbi, the lawful currency of the PRC

SEHK The Stock Exchange of Hong Kong Limited

DEFINITIONS (CONTINUED)

SO_x Sulphur Oxides

the Company China Isotope & Radiation Corporation

the Report China Isotope & Radiation Corporation Environmental, Social and Governance

Report 2022

the Year, the Reporting Period From 1 January 2022 to 31 December 2022

ABOUT THE GROUP

Since its establishment in 1983, CIRC has maintained its leading position in the field of isotopes and irradiation technology applications in the PRC for a long time through continuous in-depth research and development as well as the application and promotion of isotopes and radiation technology. After decades of development, the Group has covered the whole industry chain of nuclear technology application, mastered the key technologies that are difficult to overcome in the field of isotopes and nuclear irradiation, and established a complete set of business development systems. Based on the existing business, the Group has huge market development potential.

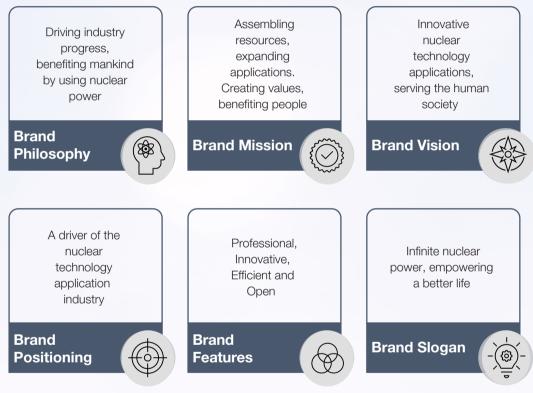
CIRC focuses on the research and development (R&D), production and sales of pharmaceuticals, and is also engaged in radioactive sources, irradiation, nuclear medical equipment, independent clinical laboratory services and other businesses. 63.83% of the Group's revenue and 79.55% of the Group's gross profit were derived from the pharmaceuticals segment, which belongs to the nuclear medicine industry. The nuclear medicine industry is known for its high potential, high entry barrier and high revenue. As the largest manufacturer of imaging diagnostic and therapeutic radiopharmaceuticals, Uterine Balloon Tamponade kits, analysers, and radioactive source products in the PRC, CIRC has very strong advantages in terms of market share and technical expertise. On the one hand, in the field of irradiation, CIRC is the third largest irradiation service provider in China and is also the only supplier that can provide both upstream production and downstream design and installation services for irradiation facilities. In addition, two of the three EPC service providers approved by the Ministry of Ecology and Environment of the PRC to engage in the design, manufacturing and installation of irradiation facilities are subsidiaries of CIRC. On the other hand, in the field of radioactive source products, CIRC is the largest and most comprehensive manufacturer of radioactive source products in the PRC, and the only manufacturer of radioactive source products in the PRC with production capabilities such as Cobalt-60 for irradiation and Cobalt-60 for medical use.

In addition, with the support of CNNC, CIRC has the natural advantage of the parent company's strong resource support. Leveraging on the excellent equipment and resources of CNNC in the application fields of isotopes and irradiation technology, such as nuclear reactors, cyclotrons, professionals and technical reserves, CIRC is on the road to promote the production of isotopes raw materials and the localisation of the research and development of irradiation products.

ABOUT THE GROUP (CONTINUED)

BRAND VALUE

As a pursuing enterprise, CIRC attaches great importance to the value and strength of the brand. By deeply cultivating the field of nuclear technology and adhering to the "two grasps" of product and service development, CIRC continues to empower the brand and create long-term value for customers, shareholders and other stakeholders. In recent years, CIRC has adhered to the brand pursuit of "sowing ideal and achieving health", further optimised the brand positioning and brand structure system, and implemented a brand strategy that is more in line with the current development stage, to facilitate the transfer and accumulation of brand assets, as well as the continuous improvement of brand value.



Picture: CIRC Branding System

The essence of a brand is the recognition and resonance of values. CIRC always believes that "everyone in the entire value chain of the enterprise, including employees, shareholders, customers, suppliers, distributors, governments, communities and other stakeholders, should be included in the brand management system". CIRC grows together with the industry, pioneering its management practices, and has been striving to deliver CIRC's brand image through every product, every service, and every action.

ABOUT THIS REPORT

The Group is pleased to present its fifth ESG Report, which aims to disclose and review the Group's concepts, measures, performance and commitments in sustainable development in 2022 while focusing on responding to the key concerns of major stakeholders on the Group's sustainable development. To fully understand the Group's ESG performance, the Report should be read in conjunction with the "Corporate Governance Report" section of the Group's 2022 Annual Report.

REPORTING SCOPE

The content and key performance indicators disclosed in the Report mainly focus on the Group's core businesses in Mainland China (as defined in the "About the Group" section of the Report). Unless otherwise stated, the time scope of the Report is consistent with the 2022 Annual Report of the Group, covering the period from 1 January 2022 to 31 December 2022.

REPORTING GUIDELINE

The Group prepared the Report following the latest ESG Reporting Guide of the SEHK. The Report complies with the mandatory disclosure requirements and the "comply or explain" provisions of the ESG Reporting Guide, and is prepared based on the four reporting principles of "Materiality", "Quantitative", "Balance" and "Consistency".

Principles	The Group's response	
Materiality	The Group collects stakeholders' opinions through questionnaires and conducts materiality assessments to identify current material ESG issues.	
Quantitative	Where feasible, the Group discloses its environmental and social performance indicators in a quantitative manner, providing detailed explanations and comparable data.	
Balance	The Group has identified material issues that have significant impacts on its business. The Report comprehensively discloses the Group's performance and impact on ESG based on objective facts.	
Consistency The Group has used consistent methodologies to allow for meaningful complete ESG data over time. If there is any change in the methods used and scope of it shall be explained in the notes for readers' reference.		

ACCESS TO THE REPORT

The Report is prepared and published in Traditional Chinese and English. In case of any discrepancy, the Traditional Chinese version shall prevail. The electronic version of the Report can be viewed and downloaded from the Group's official website (https://www.circ.com.cn) or the website of Hong Kong Exchanges and Clearing Limited (https://www.hkexnews.hk/index.htm). If you have any questions or suggestions regarding the Report, you are welcome to contact us via email at ir@circ.com.cn.

CARING FOR LIFE AND HEALTH AND CREATING SOCIAL VALUE

The Group inherits CNNC's corporate mission of "strengthening the country through nuclear power and benefiting mankind", and strives to achieve the goals of "matching characteristics", "improving people's livelihood" and "benefiting society". The Group adheres to the spirit of the nuclear industry in the new era of "strengthening nuclear power to serve the country and making innovation and dedication". Based on isotopes and irradiation technology, the Group will expand, strengthen and optimise the two major industries of nuclear medical health and irradiation application, and realise the whole industrial chain layout of nuclear technology application through the extension and development of upstream and downstream industrial chains. Adhering to the concept and original intention of driving industrial progress and benefiting mankind with nuclear power, we have accumulated a profound brand influence. We will adhere to the brand features of "Professional, Innovative, Efficient and Open" and the brand mission of "assembling resources, expanding applications, creating value and benefiting people". We will continue to innovate and drive the development of the nuclear technology application industry, expand the application of nuclear technology to a wider range of fields, and enable the application of nuclear technology to better serve the human society and empower a better life.

NATIONAL LAYOUT AND OVERALL DEVELOPMENT

Nuclear technology application industry is the main focus for nuclear technology to serve the economic and social development and meet the growing needs of the public for a better life. The Group actively responds to the national development strategy, comprehensively considers the market demand, continuously increases the layout of national isotope medical centres, and is committed to establishing a complete medical centre network. CIRC has established 32 project companies for isotope medical centres. According to the overall development plan, 50 medical centres are expected to be built in the future. The expanding scope of nuclear medicine services will be conducive to providing more convenient and safe medicines to medical institutions in various places, improving the living and health level of local people, and promoting the development of local nuclear medicine.

HTA, a subsidiary of the Group, adheres to the strategic goal of "becoming a leader in the development of international nuclear medicine by expanding, strengthening and optimising the nuclear medicine industry" and follows the "13650" strategic layout, which is highlighting one headquarters, building three major production and R&D bases, strengthening six major R&D centres, and achieving the development ideas of 50 medical centres nationally to steadily promote the construction of medical centres. During the Reporting Period, 23 pharmaceutical centres (including the Beijing headquarters) were in operation, 15 of which were able to supply fluorine deoxygenated glucose (FDG). There were also 10 centres under construction. The preliminary completion of the national layout of the pharmaceutical centres enabled the real-time distribution of drugs, improved the response speed to customer needs, and further explored new markets.

TECHNOLOGICAL INNOVATION TO IMPROVE THE PRODUCTS

Technological innovation is the core of corporate development. CIRC attaches great importance to scientific and technological innovation. Relying on the strong economic and scientific research strength of CNNC and other shareholders, we continue to deepen the integration of industry, university and research, improve and optimise the scientific and technological innovation ecosystem, and provide patients with more and higher-quality radiodiagnosis and treatment drugs with increasingly rich product lines. During the Reporting Period, the comprehensive strength of CIRC's innovation has significantly improved. For example, Headway, a subsidiary of the Group, established four new product research projects in 2022, completed the transformation of the ¹⁴C Marking Platform construction project achievements, obtained the radiation safety license, and mastered the synthesis technology of a batch of key intermediates. At present, Headway has formed three R&D bases in Shenzhen headquarters, Hefei, Anhui and Tongcheng, Anhui, covering the fields of drugs, stable isotopes, radioisotopes, medical equipment R&D, etc., and the scientific and technological innovation work has achieved remarkable results.

The Group regards the R&D of new drugs as an important direction of scientific research and innovation. In order to improve the level of diagnosis and treatment in the fields of tumors, neurodegenerative diseases, cardiovascular diseases, and other fields, the Group's subsidiary HTA has completed clinical research and submitted the application for registration and marketing of Sodium fluoride ¹⁸F injection, and has obtained the acceptance notice ahead of competitors. In addition, iodine ¹³II-MIBG injection is undergoing phase III clinical trials. Drugs such as iodine ^{99m}Tc sulfide colloid injection, ⁶⁸Ga-Dotatate injection, fluorine ¹⁸F betazine injection, fluorine ¹⁸F stigmine injection, fluorine ¹⁸F - Lidopa injection, and fluorine ¹⁷⁷Lu oxyoctreotide injection have completed preclinical studies and are pending approval for clinical trials. The number of drugs that are about to enter the clinical research phase has reached a record high. In the future, the Group will focus on new nuclides, new targets, and new indications for major diseases such as cancer diagnostic drugs (prostate, neuroendocrine, and other tumors), neurodegenerative disease diagnostic drugs (AD, PD), and cardiovascular diseases while steadily promoting the research of varieties under development. Through a combination of original innovation and technology introduction, the Group will gradually carry out innovative drug research and form a batch of drugs with independent intellectual property rights, to serve the diagnosis and treatment of more serious diseases and better meet the needs of human health.

At the same time, the Group deeply understands that talents are the foundation and core elements of innovation. We combine internal training with external introduction to build a more reasonable and structured scientific research team, and continuously improve the comprehensive strength of scientific research. The Group currently has 12 national-level talents, 14 provincial-level talents, 5 chief experts and 16 technology leaders. The R&D team, consisting of 538 R&D personnel, focuses on the research and development and optimisation of production technology, new product development and the safety and efficacy upgrading of existing products, and jointly promotes the scientific and technological innovation in various industries of the Group. In addition, the Group has set up a post-doctoral research station of the Human Resources and Social Security Department, a post-doctoral innovation practice base in Shenzhen, a post-doctoral research station for radiopharmaceuticals in Jiangsu Province and a post-graduate research station for irradiation applications in Soochow University, and actively carried out post-doctoral and post-graduate training to continuously strengthen the construction of talent team.

Case: Diagnostic drugs for neurodegenerative diseases

Development of Alzheimer's disease (AD) diagnostic drugs:

β-starch-like protein (β-Amyloid, Aβ) is an important target to achieve early diagnosis of Alzheimer's disease. The development of a positron emission tomography (PET) imaging agent with high affinity and selectivity with the Aβ protein can achieve early diagnosis of disease without injury. Fluorine ¹⁸F Betazide Injection is an Aβ-PET imaging agent jointly developed by the Group and the Key Laboratory of the Ministry of Radioactive Pharmaceuticals of Beijing Normal University. It has independent intellectual property rights and has a good imaging nature. It is a Class-I innovative drug in the PRC. The Group's product candidate, Fluorine ¹⁸F Betazide Injection, has completed various pre-clinical studies and submitted clinical trial applications. The clinical trial application was accepted by the National Medical Products Administration on 29 December 2022.

Parkinson's disease diagnostic drugs:

6-18F Fluorine-L-Dobar is clinically mainly used for the diagnosis of neurological diseases such as Parkinson's disease, schizophrenia and Alzheimer's disease, with clinical value such as early disease diagnosis, disease evaluation and cell transplant testing. The Group's 6-18F Fluorine-L-Dobar Injection, a product under development, has completed various pre-clinical research work and preparation of application materials, and has completed the submission of clinical trial application by the end of December 2022.

The establishment of enterprise R&D platform has become an "accelerator" to promote technological competition. In terms of industry-university-research cooperation, the Group has actively established scientific research cooperation relationships with scientific research institutes, universities and hospitals with industrial advantages such as China Academy of Metrology, Shanghai Institute of Materia Medica of Chinese Academy of Sciences, China Radiation Protection Research Institute, Harbin Institute of Technology, Sichuan University, Beijing Normal University, Beijing Concord Hospital and 301 Hospital, and strengthened academic exchanges and scientific research talent cultivation through the establishment of joint laboratories, R&D centres, collaborative innovation centres and other methods to achieve comprehensive cooperation in scientific and technological innovation. We have established 5 internal platforms and 11 external platforms, which are dedicated to the research and development of radiopharmaceuticals, in-vitro diagnostic reagents, stable isotopes and breath tests, radioisotopes, medical equipment and other fields.

PROMOTE DEVELOPMENT VIA INTERNATIONAL COOPERATION AND EXCHANGE

CIRC strategically to take initiatives to actively "Going Global" to expand a broader space for the long-term and healthy development of enterprises. We actively explored overseas markets and exported cobalt sources, breath detection, free medicine boxes and other products to more than 70 countries and regions such as Africa, the Middle East, South Asia and Southeast Asia. At the same time, we strengthened cooperation with international organisations such as International Atomic Energy Agency (IAEA) Release and Radioactive Source Collaboration Centre to continuously expand our global influence.

During the Reporting Period, CIRC made milestone progress in international cooperation. The landmark event was on 21 October 2022, IAEA was officially launched in CIRC. This is the fourth collaboration centre established by the IAEA after that in France, Russia and Portugal, and also the first collaboration centre in the field of drug release in Asia. Under the central cooperation mechanism, CIRC will cooperate with IAEA and its member nuclear field experts, academic organisations, enterprises and public institutions in four aspects, including the standardised design and operation of the drug release centre, quality control of drug release, R&D and application promotion of drug release, and production and application of industrial trackers and sealed radioactive sources. The cooperation content includes industry analysis, standard formulation, talent cultivation, innovative application, demonstration projects and other forms.



Picture: National Nuclear Technology (Radioactive Drug Engineering Transformation) R&D Centre of China Atomic Organisation



Picture: CNNC Radioactive Pharmaceutical Engineering Technology Research Centre



Picture: National Atomic Organisation Nuclear Technology (Radioactive Drug Engineering Transformation) R&D Centre



Picture: CNNC Radiopharmaceutical Engineering Technology Research Centre

In addition, we actively organise or participate in various international academic achievement exchange activities to achieve mutual learning and open development.

For example, Headway organised the first academic conference in Mexico with the theme of "Diagnosis and Control of Gastropylori-induced Gastrointestinal Diseases". From November 14 to 19, 2022, Headway, as a national-level specialised "Little Giant" enterprise, participated in the 24th China International High-tech Fair with its self-developed ¹³C and ¹⁴C breath detection products.

Case: CIRC attending the African Technology Conference

On July 22, 2022, supported by IAEA, the African Regional Cooperative Agreement for Research, Development and Training Related to Nuclear Science and Technology (AFRA) held the 33rd "Technical Working Group Meeting" (TWGM) at Rwanda. During the period, the National Atomic Energy Agency initiated and CNNC held the China-Africa Technology and Knowledge Transfer Conference. CIRC introduced the Group's nuclear technology application products and capabilities at the conference.

In this event, CIRC published a keynote report titled "Gamma Irradiation Station Technology and its Application" and "Nuclear Technology Application Empowers a Better Life", and expanded the publicity effect through publicity videos, roll banners, brochures, etc. In addition, taking advantage of this opportunity, CIRC introduced the "irradiation technology application" and "nuclear medicine and radiotherapy" related foreign aid human resources training programs approved by the Ministry of Commerce to the participating countries, actively promoted the promotion of nuclear technology application in Africa and benefited the local people's livelihood.



Picture: CIRC participated in the African Technology Conference



Picture: CIRC participated in the African Technology Conference

GIVING BACK TO SOCIETY AND BENEFITING PEOPLE'S LIVELIHOOD WITH NUCLEAR MEDICINE

With a high sense of mission and responsibility, CIRC leverages the professional advantages of nuclear medicine, gives full play to the brand characteristics of "Professional, Innovative, Efficient and Open", shoulders the industry responsibility of "industry-driver of technology application", and continuously contributes to social activities such as volunteer services and featured public welfare.

Since the outbreak of COVID-19 Pandemic, CIRC has quickly responded to the national call, fully supported nucleic acid testing, research and development of irradiation and sterilisation technology for medical protective clothing, and provided free irradiation. We have spared no effort to ensure the supply of drugs, and actively organised a series of anti-epidemic materials donation activities. In particular, during the period from November to December 2022, the medical testing laboratory of the BNIBT undertook nucleic acid sampling and testing work in two streets of Fengtai District, with a daily nucleic acid testing volume of up to 25,000 tubes, helping the local government to improve the sensitivity of epidemic monitoring and early warning with accurate and comprehensive nucleic acid testing. In addition, 2,693 young "commando members" of Headway were in an emergency and controlled area, fighting at the grassroots level of epidemic prevention and were highly recognised by the society.

During the Reporting Period, CIRC recorded 1,445 volunteer service hours throughout the Year, fully promoting the volunteer service spirit of "dedication, friendship, mutual assistance and progress", and serving the society and giving back to the society with practical actions.





Picture: volunteer service for the Beijing Winter Olympics

In order to promote the effective connection between poverty alleviation and rural revitalisation, and further improve the health and well-being of the people, all subsidiaries of CIRC, based on their professional advantages and social needs, delivered care to the society through various types of special public welfare bridges, and created a practical sample of sustainable public welfare.

Case: Headway's "five-in-one" featured public welfare

Based on the products of the ¹⁴C-UBT System and the main business, Headway has established a "five-in-one" public welfare system combining public welfare activities with national strategies, red education, targeted poverty alleviation, social responsibility and brand building.

In 2022, Headway carried out 540 free medical consultations in 441 hospitals in 26 provinces across the country, and donated 132,355 ¹⁴C-UBT System medicine kits (products), benefiting approximately 130,000 people, forming a series of free medical consultations with multiple themes such as "International Gastrointestinal Day", "Chinese Medical Doctor Festival" and "Nuclear with You Together".

At the same time, Headway vigorously carried out science popularisation education and publicity, and carried out the construction of party building. Through cooperating with the party branch of Hubei Health Management Association, it carried out the party day activity of "the old and the young" health service into rural areas in Macheng, Hubei, which enabled the brand image to be deeply rooted in the grassroots level, and the experts to reach the end-user groups, and demonstrated the corporate accountability with a high sense of responsibility.



Picture: free clinic of "Protecting Gastrointestinal Health, Love in Action"

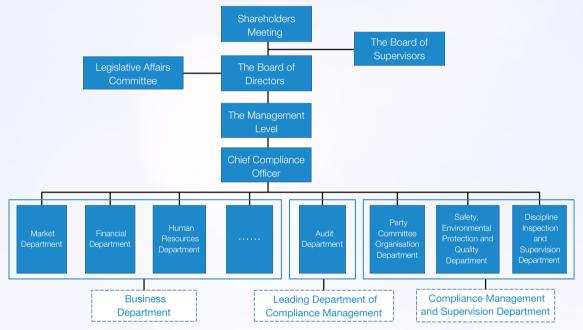


Picture: "the old and the young" charity activity

In addition, for the Group's contribution to public welfare in other aspects during the Reporting Period, please refer to the section "Bearing in Mind Our Mission and Commitment to Charity" in the Report.

IMPROVING MECHANISM AND STRENGTHENING COMPLIANCE MANAGEMENT

Sound corporate governance is the foundation for business development. CIRC is committed to continuously improving the level of corporate governance. At the governance level, it is clear that the Board of Directors (the "Board") is the decision-making body for compliance management, and the Legislative Affairs Committee is the leading body responsible for promoting compliance management. In addition, CIRC has also set up a lead agency and assigned the responsible departments and persons in charge of compliance management and carry out compliance management work efficiently. The Group's compliance organisational structure is shown in the diagram below:



Picture: compliance management organisational chart of CIRC

In order to further improve CIRC's compliance management, the Board has established the Legislative Affairs Committee and the Chief Compliance Officer, which are responsible for the Group's compliance matters. In addition, the Group has formulated and implemented the CIRC Compliance Management System based on regulatory documents such as the Guidelines for Compliance Management of State Owned Enterprises (Trial) and the Guidelines for Compliance Management of Overseas Operations of Enterprises. The system defines the specific content of compliance management, including system formulation, risk identification, compliance review, risk response, accountability, assessment and evaluation, compliance training, etc., and explicitly requires CIRC and its subsidiaries to gradually establish and improve the special compliance management system in relevant key areas (including but not limited to market sales, construction projects, safety and environmental protection, product quality, labour and employment, finance and taxation, intellectual property rights, business partners, sponsorship and donations, etc.), organise and carry out special compliance management process sorting in key business areas, design compliance review, compliance risk prevention and control and other forms of compliance review, so as to strengthen the review of the above business aspects, and ensure the Group's legal and compliant operation, continuous standardised management and long-term healthy development.

As a responsible Chinese enterprise, in addition to basic compliance, the Group also actively assumes social responsibilities, continuously improves the ESG governance structure, and improves the level of sustainable development management. The Board is the highest governance and supervision body responsible for ESG affairs, which specifically includes the supervision, assessment, priority and management of important ESG issues and risks, the formulation and management of ESG-related goals, and the review and supervision of the completion of the goals, and the continuous optimisation of ESG governance strategies and measures. The Board also regularly reviews and monitors the effectiveness of ESG-related risk management and internal control, and assumes full responsibility for the formulation of ESG strategies and related reporting. In addition, an ESG Working Group has been established under the Board to assist the Board in directing and supervising the implementation of the governance functions of ESG issues.

In terms of target management, the Board has authorised the ESG Working Group to manage the progress and implementation of the Group's ESG objectives and action plans, collect relevant information, properly manage the relevant records of the implementation of objectives and plans, and conduct annual regular review of ESG objectives. After the review, we will consider the progress and results of achieving the annual targets, and submit remedial measures and indicators update proposals to the Board for approval. We control, implement and execute various ESG goals and action plans through the following processes:



Through regular recording and annual review mechanism, the Board can better grasp the progress of the Group's various ESG goals, while at the same time understand and consider the resources required for ESG development in future business, which lays the foundation for the Group to formulate a more detailed and comprehensive long-term ESG development strategy.

During the Reporting Period, we conducted the ESG risk assessment to identify the following ESG risks that have a significant impact on our business operations, and formulated management measures for relevant ESG risks to mitigate the impact of ESG risks on our business.

Risk level	ESG risks	CIRC's management measures		
Very high	Compliance Risk	Actively respond to the risks of legal sanctions, regulatory penalties, financial losses and reputational losses, and take effective measures to control compliance risks		
		Conduct comprehensive compliance investigation and inspection on the sales units of drugs and medical devices of the Group, and issue rectification orders to the inspected units on problems in corporate governance and compliance management		
		Establish corresponding internal management systems for the production, use and sales of radioactive products, and implement physical protection measures for the storage, transportation and recycling of radioactive sources		
		 Formulate radiation emergency plans, and assign corresponding environmental monitoring personnel to regularly conduct environmental monitoring of equipment to ensure environmental compliance Regularly carry out employee education and training on compliance 		
	Supply Chain Management	 Sorting out potential risks in the process of international market development around key countries and guiding market development risk identification of member units 		
		Evaluate issues that may cause environmental and social risks from time to time, identify environmental and social risks in the supply chain, and propose effective control measures		
		For example, the HTA Supplier Management Regulations stipulates that the supplier's quality assessment methods are divided into document qualification audit, on-site quality audit, written audit and sample test. It also stipulates that personnel participating in on-site quality audit shall confirm the supplier's qualification certificates in the material supplier's on-site quality audit report, including whether they have Good Supply Practice (GSP) certificate for Pharmaceutical Products, Good Manufacturing Practices (GMP) certificate for Pharmaceutical Products, quality management system certification, environmental management system certification, occupational health and safety management system certification, etc.		

Risk level	ESG risks	CIRC's management measures	
Medium	Intellectual Property Management	 Formulated and implemented the CIRC Technology Investment Management Measures, which stipulates the whole process management of intellectual property rights for technology investment projects Before the establishment, the project contractor conducts patent search and patent risk analysis, and includes intellectual property planning in the project's task contract Formulate and implement incentive systems such as CIRC Incentive Measures for Technological Innovation to stimulate employees' innovation enthusiasm For projects that may involve the export of technology or products in the future, the Group will carry out international patent planning in advance, and apply as soon as possible if it meets the conditions for 	
		patent application; if it is not appropriate to apply for a patent, it will be protected through effective measures such as technical know-how; new products will be actively protected through trademark registration and other means	
	Research and Development	 Pay close attention to market information and competitors' trends, actively respond to market changes, accelerate its own industrial layout, seize market share, and provide one-stop solutions from products to services to enhance competitive advantages Sorting out potential risks in the process of international market development around key countries and guiding market development risk identification of member units 	
		Continue to promote the construction of the "1+N" R&D platform system and accelerate the preparation for the construction of external R&D platforms; promote the construction of a leading talent team for scientific and technological innovation, set up a post-doctoral scientific research station, and introduce a number of high-end talents in each R&D centre; apply for scientific research projects and implement key scientific research projects; carry out academic exchange activities, and successfully hold a series of lectures of "CIRC Science and Technology Lecture"	

Risk level	ESG risks	CIRC's management measures
	Employment	Formulate and implement the CIRC Headquarters Employee Recruitment Management Measures, adhere to legal employment and legal management, and resolutely eliminate the employment of child labour and any form of forced labour
		Formulate and implement the Implementation Measures for the Labour Contract System of CIRC Headquarters to strictly prohibit unfair or unreasonable dismissal and effectively protect the rights and interests of employees
		On the basis of complying with the requirements of national and local policies on labour, insurance and welfare such as the Social Insurance Law of the People's Republic of China, we further provide employees with benefits such as employee retirement benefit plans, medical and
		work-related injury insurance plans and housing provident fund plans Formulate and implemented the CIRC Headquarters Staff Attendance Management Regulations, implemented statutory holiday arrangements in accordance with national regulations, and implemented shift system for production positions of each subsidiary to ensure reasonable working hours of employees
		Set up an Environmental, Health and Safety Committee to formulate a series of improvement plans and preventive measures against the physical and potential risks of different departments and production procedures to reduce the safety and health risks to employees
		Actively holding sports games, festival activities, team building and other employee activities
	Information Security Management	Formulate internal policies such as the CIRC Regulations on the Management of Confidentiality Work and the CIRC Interim Measures for the Management of Trade Secrets to clarify the scope of trade secrets, including important customer and supplier data, as well as other market information and operating information such as market procurement and marketing plans, market forecasts, production and sales strategies, operating channels, sales methods, production costs, etc.
		Require to include trade secret protection clauses in labour contracts with employees to strictly control the scope of knowledge of trade secret matters
		As the daily office of CIRC's confidentiality work, the Confidentiality Office of CIRC is responsible for organising and carrying out education and training on trade secret protection, confidentiality inspection, confidentiality technology protection and investigation and punishment of leakage incidents in accordance with the law
		Actively organise various forms of publicity, education and training activities on trade secret protection, such as marketing training, to improve the confidentiality awareness and prevention skills of business secret management personnel and the staff who know about the business secrets

ADHERING TO THE RED LINE AND FOCUSING ON INCORRUPTIBLE OPERATION

The Group always adheres to the business philosophy of integrity, honesty, openness and transparency, adheres to the bottom line of legal and compliant operation, and strictly abides by the laws, regulations and administrative regulations related to the prevention of bribery, extortion, fraud and money laundering, including but not limited to:

- The Criminal Law of the People's Republic of China;
- The Securities Law of the People's Republic of China;
- The Company Law of the People's Republic of China;
- The Anti-Money Laundering Law of the People's Republic of China;
- The Law of the People's Republic of China on Administrative Punishment of Public Officials;
- The Securities and Futures Ordinance of Hong Kong;
- The Prevention of Bribery Ordinance of Hong Kong;
- Anti-money Laundering Regulations for Financial Institutions;
- Several Provisions on the Integrity of State-owned Enterprise Leaders; and
- Provisions on the Professional Integrity of Securities and Futures Business Institutions and Their Employees

The Group focused on strengthening anti-corruption and anti-commercial bribery and established a comprehensive internal integrity risk prevention system based on the CIRC Anti-fraud Management Measures. In order to strengthen the daily supervision of anti-fraud work, we have set up a permanent anti-fraud department to receive, investigate, report and provide reasonable opinions on fraud reports. In addition, the Group strengthened the supervision and management of key personnel and key areas. For example, the CIRC Anti-fraud Management Measures clarifies the anti-fraud work of senior management, and the Compliance Code of Conduct clearly stipulates the anti-corruption requirements for employees to conduct drug promotion, medical interaction and communication with medical professionals and medical institutions.

Accountability for fraud

Leadership	It refers to the responsibility of the management personnel with corresponding
Responsibility	leadership duties to be responsible for the distortion of accounting information and concealment of losses due to the occurrence of fraud incidents caused by dereliction of duty or oversight within the scope of work they are in charge with.
Direct responsibility	It refers to the responsibility of the management personnel and their related personnel who directly operate or participate in the relevant decision-making, or to commit, assign, enforce, connivance, shelter others from fraud, or fail to perform their duties correctly within the scope of their responsibilities, resulting in the distortion of accounting information and concealment of losses.

The Group also initiated a special governance work on overseas commercial bribery. In order to refine the guidance on overseas anti-corruption work, we have formulated the CIRC Overseas Anti-corruption Compliance Guidelines. The system clarifies the compliance management requirements for overseas anti-corruption work, and the relevant guidance is specific, clear and practical, which effectively improves the ability to identify and prevent and control overseas corruption risks, and improves the compliance management system in line with international standards.

In order to improve the anti-fraud work governance system and the internal control process, the Group has formulated and issued the CIRC Detailed Rules for the Management of Letters, Visits, and Whistle-Blowing. In terms of receiving whistle-blowing information, we have established multi-channel information collection channels such as hotlines, post and visits, and publicise the reporting channels. At the same time, we strictly protect the information of whistle-blowers and the content of reports to ensure that the reports of employees at all levels and all parties in the society that violate professional ethics and damage the interests of both parties can be collected smoothly and efficiently. For the reported information received, the Group conducts classification and serious review. Employees who violate the internal system will be handled in accordance with the violation of work or organisational discipline. Employees who violate the law will be transferred to the judicial authority for handling in accordance with the law.

The Group regards strengthening the anti-corruption education as an important means to enhance employees' compliance with laws and regulations. We strengthened the system constraints, incorporated the integrity requirements into the management regulations of leaders and employees, and formulated and issued the *Integrity Practice Manual for Employees*. At the same time, we pay attention to special education and daily reminders, and organise comprehensive supervision business training focusing on common risks in business areas and compliance management. We promote anti-fraud policies and measures through office automation systems and training, and persevere with integrity and discipline. In addition, we extended the supervision to the grassroots level to further standardise the corporate management of grassroots units.

In order to improve the effect of integrity education, in 2022, we carefully designed the "Six Ones" anti-corruption education month activity by focusing on the theme of "cultivating an incorruptible and honest culture and gathering development momentum". Member units of the Group organised 61 anti-corruption party lectures, 21 on-site visits, 66 anti-corruption warning education film watchings, and made 69 anti-corruption works based on their actual conditions. We comprehensively deepened the anti-corruption culture and continued to guide directors and employees to enhance their sense of responsibility for integrity.





Picture: Comprehensive Supervision Business
Training of CIRC

Picture: Headway Integrity Classroom

Case: Strengthening integrity education for directors and all employees

On 6 December 2022, the Group held a warning education conference, covering more than 300 directors and employees. The meeting reported typical cases of violations of regulations and disciplines investigated by the Group in recent years, analysed the current severe situation of anti-corruption work, provided reminders and training on the supervision focus of key areas, key links and important positions, and required employees to enhance their awareness of anti-corruption and self-awareness of actions, so as to strengthen the compliance of directors and employees.



Picture: CIRC 2022 Warning Education Conference

During the Reporting Period, the Group did not receive any violations of laws and regulations related to bribery, extortion, fraud and money laundering, nor did it have any material violations of laws and regulations related to anti-corruption or concluded corruption lawsuits brought against the Group or its employees.

PROFESSIONAL AND EFFICIENT, CLOSE COMMUNICATION WITH STAKEHOLDERS

We attach great importance to the concerns and demands of stakeholders, and actively maintain close and efficient communication with stakeholders through various channels to understand their concerns and expectations on the Group's sustainable development issues, so as to make targeted improvements and responses in the Group's daily operations and management, continuously improve governance and operating performance, and continuously create common value.

Stakeholder Groups	Communication Channels	Sustainability Issue Concerns
Shareholders	Corporate reports and announcements Shareholder meetings Official website	Economic performance Corporate management Compliant operation
Government and Regulatory Authorities	Corporate reports and other announcements	Compliance with relevant laws and regulations Tax according to the law
Employees	Employee discussion forum Labour association activities Email	Employee rights, benefits and development Health and safety
Customers	Customer visit Customer service satisfaction surveys	Product quality High-quality service
Suppliers	Public tender Interview and email	Fair and open tendering process Win-win cooperation
Community	Charitable activities	Business compliance Community engagement Environmental protection

MATERIALITY ASSESSMENT

In order to identify the most important ESG issues for the Group and respond to the concerns of various stakeholders on the Group's ESG performance in a timely manner, the Group regularly conducts materiality assessment and continuously improves the working mechanism and methods of materiality assessment. During the Reporting Period, the Group conducted a materiality assessment to determine the key disclosure scope of this report. The specific process of materiality assessment is as follows:

Identification

 The Group actively communicates with various stakeholders to understand their expectations, while reviewing and screening a total of 27 ESG issues (including 8 environmental issues and 19 social issues) with reference to the ESG Reporting Guide, peer best practices and corporate development characteristics, forming an ESG issue database for 2022.

Ranking

 The Group invited internal and external stakeholders, including directors, supervisors, senior management, employees, shareholders, government and management institutions, customers, suppliers and communities, to participate in the survey in the form of online questionnaires, and ranked the ESG issues in the issue database according to their level of concern. A total of 701 valid questionnaire responses were received in this materiality assessment.

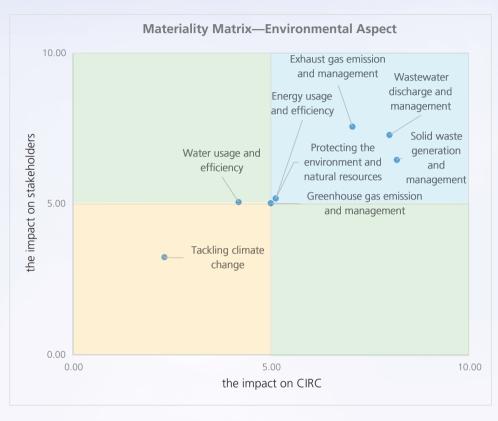
Assessment

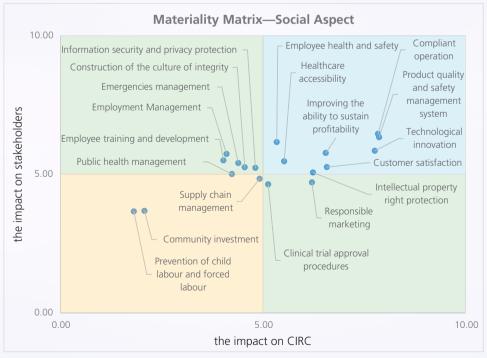
• The Group reviews the importance of each issue based on two dimensions, namely "the degree of impact on CIRC" and "the degree of impact on stakeholders". Issues with a score of half or above in both dimensions will be regarded as material issues, and a total of 6 material issues in the environmental aspect and 8 material issues in the social aspect were obtained.

Review

• The Group reviewed the selected material issues and confirmed their importance to the Group's stakeholders, so as to disclose them in the Report specifically.

The results of our materiality assessment are presented in environmental and social aspects respectively. Please refer to the charts below.





Based on the results of the materiality assessment, the Group classified the ESG issues into tier 1, 2 and 3 issues. The tier 1 issues were identified as material issues. We will respond in detail to our strategies and performance in the Report. We will also respond to some of the practices related to the tier 2 issues in the Report.

Issues	Environmental Aspect	Social Aspect
Tier 1 issues¹	 Wastewater discharge and management Solid waste generation and management Exhaust gas emissions and management Protecting the environment and natural resources Energy usage and efficiency Greenhouse gas emissions and management 	 Compliant operation Product quality and safety management system Technological innovation Improving the ability to sustain profitability Customer satisfaction Employee health and safety Intellectual property right protection Healthcare accessability
Tier 2 Issues ²	Water usage and efficiency	 Responsible marketing Information security and privacy protection Employment management Construction of the culture of integrity Emergencies management Clinical trial approval procedures Employee training and development Public health management
Tier 3 Issues ³	Tackling climate change	 Supply chain management Community investment Prevention of child labour and forced labour

¹ Issues distributed in the blue area in the materiality matrix

lssues distributed in the green area in the materiality matrix

³ Issues distributed in the yellow area in the materiality matrix

The Group deeply understands that strengthening environmental protection is the unavoidable way for enterprises to achieve sustainable development. It continues to implement environmental protection policies in its daily operations, deeply optimises the use of resources, and is committed to reducing the impact of the Group's business operations on the environment.

The Group strictly abides by the Environmental Protection Law of the People's Republic of China, the Law of the People's Republic of China on the Prevention and Control of Radioactive Pollution, the Law of the People's Republic of China on Environmental Impact Assessment, the Law of the People's Republic of China on the Prevention and Control of Soil Pollution, the Law of the People's Republic of China on the Prevention and Control of Water Pollution, the Water and Soil Conservation Law of the People's Republic of China, the Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution, the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste, the Energy Conservation Law of the People's Republic of China, the Law of the People's Republic of China on the Prevention and Control of Environmental Noise Pollution, the Water Law of the People's Republic of China and other relevant laws and regulations.

In order to further strengthen the management of emissions and use of resources, and effectively control the risks that have significant impacts on the environment and natural resources, the Group has formulated and continuously revised internal management measures, management regulations and work plans on environmental protection in accordance with relevant legal standards, including but not limited to:

- CIRC Safety Production Responsibility System and Accountability Management Regulations
- CIRC Safety and Environmental Protection Management System
- CIRC Environmental Protection Management Measures
- CIRC Safety and Environmental Risk Management Measures
- CIRC Radiation Safety Management Measures
- CIRC Safety and Environmental Protection Inspection Management Measures

Each subsidiary of the Group has also formulated corresponding internal management documents based on their actual situations. For example, Headway has formulated the *Environmental Protection Management System* (EHS-ZD-038-01), the *Waste Classification, Collection and Disposal Management Regulations* (EHS-GC-038-01), the *Radioactive Waste Collection and Disposal Management Regulations* (EHS-GC-039-02) in accordance with the requirements of national laws and regulations.

In addition, obtaining the corresponding qualification is the prerequisite for legal production. We have obtained the ISO 14001: 2015 environmental management system certification and the ISO/IEC 17025: 2017 *General Requirements for the Competence of Testing and Calibration Laboratories* to ensure that the environment of radiation laboratories and other workplaces is at a safe level and to prevent significant impact on the environment.

During the Reporting Period, the Group did not have any incidents of non-compliance with relevant environmental laws or regulations that have a significant impact on the Group relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.





Picture: ISO 14001: 2015 and ISO/IEC 17025: 2017 certificates

ABIDE BY THE SYSTEM AND STRICTLY MANAGE WASTE AND EMISSIONS

To actively implement the national strategic deployment of green development transformation, CIRC pays close attention to waste discharge and management issues, and takes a series of actions to reduce greenhouse gasses generated from production and operation activities, with the goal of reducing air pollutants and greenhouse gas emissions. We adopt diversified management measures, including but not limited to:



Guide employees to a low-carbon lifestyle, such as BNIBT encouraging employees to use public transportation as much as possible when they are on duty, using less paper towels and more handkerchiefs instead, using less elevators and more stairs instead, turning off lights and removing plugs when not in use



Actively advocate green office, such as BNITBT applying telephone conferences to replace business trips, planting trees in the company, building green belts, etc.



Strictly manage the use of official vehicles, for example, the *BNITBT Measures for the Administration of Motor Vehicles* stipulates that full-time drivers should repair and maintain vehicles in a proactive and timely manner to improve vehicle efficiency and reduce fuel consumption; Headway reduces indirect greenhouse gas emissions through lean management, strict control of vehicle use and other measures



Reduce the use of resources (as described in the section "green and low-carbon, strengthening energy and resources conservation")

In order to reduce greenhouse gas emissions, the Group actively promotes green travel, formulates classification indicators and action plans, and clarifies the responsible departments and execution departments to reduce greenhouse gas emissions of vehicles with practical actions. In the next step, we will further deepen the management of official vehicles, and promote energy conservation and emission reduction of official vehicles by refining fuel consumption records and carrying out regular maintenance. We also incorporate the replacement of official vehicles into our work plan and intend to use more low-emission vehicles. At the same time, reducing unnecessary business travel is also conducive to pollution reduction and efficiency enhancement. We will encourage all units to make full use of digital office methods, apply more online meetings, and minimise offline meeting arrangements. In addition, strengthening production process management is also an important measure to reduce greenhouse gas emissions. For example, HTA arranges centralised production and reduces emissions by shortening production time, and it is expected that exhaust emissions can be reduced by 2,971,903.48 cubic metres.

For exhaust gas that needs to be emitted to the environment, we reduce the impact on the atmospheric environment through purification or filtration. For example, the exhaust gas and greenhouse gas of HTA are emitted through the Atomic Energy Research Institute's emission system and activated carbon filtration treatment. The exhaust gas generated by Headway is filtered by filters before being discharged to outdoor, and qualified units are arranged to test the exhaust gas on a regular basis every year. The test results in 2022 meet the relevant standards and requirements.

Based on the characteristics of the nuclear medicine business, we strictly manage the discharge of waste generated during the production process and take sufficient measures to reduce the possible impact of waste on the environment. The wastes generated from the Group's production and operation activities are divided into two categories: hazardous wastes and non-hazardous wastes. Among hazardous waste, we pay special attention to the proper treatment of three types of radioactive wastes (solid waste, wastewater and exhaust gas). To further implement the Regulations on the Safety of Radioactive Waste and other relevant regulations, the Group has formulated internal provisions such as the CIRC Radiation Safety Management Measures, the Regulations on the Management of Radioactive Waste, the BNIBT Measures for the Management of Radioactive Waste and the HTA Regulations on the Safety Management of Three Types of Radioactive Waste, and adhered to the principle of "reducing generation, increasing sorting and collection" in the production process to carry out whole-process supervision and management of the production, collection and disposal of radioactive waste. The Group sets up an internal waste disposal warehouse to temporarily store the classified and collected radioactive waste, and dynamically reviews the inventory level to timely send the waste to the urban waste disposal warehouse for disposal. We strictly distinguish the treatment of radioactive waste and non-radioactive waste, so as to minimise the possible pollution to the environment caused by the Group's production, operation and scientific research activities. Specifically, the requirements for the treatment of the three types of radioactive wastes are as follows:

Solid Waste

- Radioactive waste should be sorted, packed and stored at designated locations
- Radioactive waste temporarily stored in temporary places should be sealed, stored, labeled clearly, and relevant files should be established
- The transfer and storage of solid radioactive waste shall be entrusted to a qualified unit, and shall go through formalities and file for storage upon handover

Wastewater

Strong acidic and organic radioactive liquid waste is strictly prohibited to be discharged
into the radioactive liquid waste pipeline, and shall be separately collected and used in
special packaging, which shall be safely stored by the production unit and recorded in
detail for storage by the Company

Exhaust Gas

- Radioactive waste gas generated in class-A or B workplaces must be purified and filtered, and then discharged into the atmosphere through a dedicated exhaust pipe after reaching the standard
- Radioactive aerosols (including cobalt ⁶⁰Co aerosols) generated during radioactive source operation need to be filtered and purified by a classification filter before discharge, and regular internal and external monitoring
- Volatile reagents (methanol, trimethylbenzene and ethanolamine) are sealed in reagent tanks, configured in the ventilation cabinet, sealed in the container after configuration, and subsequently sealed in the whole production process. Volatile organic compounds are discharged after being treated by the activated carbon filter device

Figure: specific requirements for the treatment of radioactive "three wastes"

In addition to strictly regulating the waste disposal process, Headway, a subsidiary of the Group, strictly manages waste classification and collection by changing sampling methods and inspection methods to reduce the generation of laboratory waste and radioactive waste at source. Compared with the previous two years, Headway reduced radioactive waste by approximately 200 kg, and solid and liquid hazardous waste also reduced.

For the management of non-radioactive waste, the Group strictly implements the Regulations on the Safety Management of Hazardous Chemicals and the General Rules for Storage of Commonly Used Hazardous Chemicals and other laws and regulations, and formulates internal policies such as the Measurements on the Safety Management of Hazardous Chemicals and the Administrative Measures for Medical Waste to further strictly regulate the classification, collection, storage and treatment of non-radioactive waste. According to the Waste Classification, Collection and Disposal Management Regulations, general industrial waste is divided into recyclable waste and non-recyclable waste. The Group stores it in special industrial garbage bins, which are collected and delivered to the waste recycling department for disposal. For non-hazardous wastes, the Group entrusts third-party manufacturers or delivers them to the waste recycling station for recycling and treatment, so as to achieve daily production cleaning, including but not limited to the disposal of paper, plastics, glass, metal, domestic waste and other wastes.

In order to properly manage the hazardous waste, the Group strictly implements relevant national management regulations and internal systems such as the *Industrial Waste Management System* and the *Management Measures for Hazardous Chemicals and Precursor Wastes*. Through classified collection, hazardous waste warehouses and special containers are set up for special storage, and clear and compliant hazardous waste labels are posted to avoid secondary pollution. For the treatment of hazardous chemicals, the Group entrusts qualified manufacturers to follow the regulations.

Specific requirements of the Group for handling hazardous chemicals

- Record the type, nature, quantity, concentration, storage location, storage method and treatment of hazardous chemical waste (liquid and solid)
- Set up and strictly manage the records of the production and disposal of hazardous chemicals (liquid and solid) to prevent the illegal use and loss of hazardous chemical waste
- Implement a special responsibility system for the collection, temporary storage, declaration and disposal of hazardous chemical waste, and prohibit random disposal and treatment
- Collection and storage of hazardous chemical waste containers and packaging materials should comply with relevant standards, and subsidiaries are required to formulate corresponding preventive measures for possible leakage risks during storage

In addition to the sorting and classification of waste, hardware management is also an important guarantee for proper waste disposal. To ensure the effective treatment of pollutants and compliance with emission standards, the Group regularly carries out the maintenance of environmental protection equipment and facilities, invests sufficient resources in the allocation of instruments and equipment that meet the on-site monitoring requirements, and sets up special personnel for environmental protection. For example, Headway highlighted and monitored where there are potential environmental hazards by installing alarm devices, formulating emergency drills, and regularly inspecting and maintaining alarm devices, so that the risks can be measured and controlled. In addition, we strengthened the investigation of hidden dangers and environmental risk assessment internally, accepted the supervision and inspection of local governments and superior units externally, and further promoted the in-depth implementation of environmental protection work.

The Group is committed to improving the level of waste management from the root. We set waste reduction targets in terms of reducing waste at source and increasing the waste recovery rate to further promote waste reduction. In terms of employee behaviour guidance and daily office work, we deeply explore details and encourage employees to reduce the use of disposable products, such as purchasing reusable employee tableware. We organised the recycling and reuse of office waste paper and electronic equipment, continued to improve the office waste recycling system, and improved the waste recycling rate by promoting waste classification. To effectively classify and recycle waste, we set up four types of waste separation bins for other waste, recyclable waste, hazardous waste and food waste in each unit. In daily production and scientific research, the Group also requires responsible units to take all reasonable and feasible process improvement and management measures, such as using advanced automatic equipment, increasing the maintenance of equipment and facilities, optimising and improving process, and reducing the waste caused by process delay or equipment operation. At the same time, we also attach great importance to the education and training of employees, especially the further standardisation of job operation training to minimise the increase in waste caused by human error, reducing environmental pollution by decreasing waste generation from the source.

GREEN AND LOW-CARBON, STRENGTHENING ENERGY AND RESOURCES CONSERVATION

In order to become a pioneer in green and sustainable development, the Group has formulated and implemented the "Cost Reduction and Efficiency Improvement" plan to coordinate the improvement of operation efficiency, reduction of energy consumption cost, and focus on exploring the potential of cost reduction and efficiency enhancement in production and operation, technology improvement, on-site management, energy consumption management, logistics management and other aspects. In order to further reduce the consumption of resources such as electricity, water and fuel, we have implemented the following management measures to improve energy and water efficiency:

Management Measures		
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The Group vigorously guides its subsidiaries to improve resource utilisation, reduce the consumption of energy, water and other raw materials, and reduce waste. In order to achieve the multiple use of water, the subsidiaries have successively established a wastewater reuse system for recycling and treatment of wastewater generated from cleaning and wastewater generated from the preparation of purified water. The treated water is ultimately used for greening in the plant area, thereby effectively improving the utilisation efficiency of water resources. During the Year, the Group had no difficulty in sourcing water.

In order to strictly manage the discharge of industrial wastewater, Headway has formulated the *Environmental Monitoring Plan* to manage the discharge of industrial wastewater, standardise the monitoring and treatment procedures, and comply with class III standards of the *Environmental Quality Standard for Surface Water* (GB 3828-2002). Industrial wastewater is recycled and reused by the sewage treatment station in the plant. Some wastewater containing machine waste liquid (such as wastewater generated from cleaning liquid tanks) is collected in a unified manner and entrusted to units with hazardous waste treatment qualifications for treatment, and external discharge is strictly prohibited. In addition, Headway's gas trucks have improved the production process, which has greatly reduced the water consumption for cleaning the nozzle and changed the manual cleaning of the pallet to machine cleaning, which has improved the work efficiency and reduced the water consumption. Domestic sewage is treated in accordance with the third-level standard in the second period of the *Discharge Limits of Water Pollutants* of Guangdong Province, and regular environmental and sewage quality testing is conducted. In addition, Headway has an independent sewage treatment station that can treat 20 to 30 cubic metres of sewage per day. The treated sewage will be used for the toilet flushing system, saving 20 cubic metres of water per day for the company.

In terms of energy conservation, Headway has established management measures for electricity conservation to regulate its management of electricity conservation, so as to achieve energy conservation and emission reduction while ensuring its normal production and operation and meeting the office environment. Headway improves the efficiency of energy use by controlling the air-conditioning temperature in public areas, including setting the air-conditioning temperature at no less than 25°C from March to November and no more than 20°C from December to February. During the Year, Headway saved approximately 810,000 kWh of electricity from the headquarters.





Picture: BNIBT recycles and reuses the cooling water and wastewater generated from the water system

ENVIRONMENTAL PROTECTION, BUILDING AN ECOLOGICAL CIVILISATION TOGETHER

The Group pays close attention to the possible impact of the operation process on the surrounding environment, and strictly requires the subsidiaries of the Group to implement the minimum control measures for radioactive solid waste, and set the minimum target value for the year in the annual safety and environmental protection target responsibility statement to achieve the safety management of radioactive solid waste.

PRACTICING GREEN DEVELOPMENT AND REDUCING ENVIRONMENTAL FOOTPRINT (CONTINUED)

During the Reporting Period, we transformed the unorganised discharge of radioactive gasses in the workplaces of non-sealed radioactive materials, strengthened the control of radioactive gasses in the workplaces of non-sealed radioactive materials, and further improved the quality of the Company's radioactive workplaces and the surrounding environment. According to the *Procedures for Identification, Evaluation and Control of Environmental Factors*, every subsidiary is required to identify environmental factors and significant environmental factors on a regular basis and determine corresponding control measures.

The Group implements systematic safety management measures. For example, when constructing, renovating, expanding, carrying out safety rectification, operating and decommissioning radioactive workplaces, relevant implementation units are required to simultaneously design and approve pollution prevention facilities and the main part of the project, carry out construction and acceptance at the same time, strictly implement the "Three Simultaneities" management system, organise environmental impact assessments and acceptance tests, and implement risk prevention measures to ensure that environmental risks are controllable. At the same time, the Group improved various emergency plans, formulated the *Comprehensive Emergency Plan for Work Safety Accidents*, the *Emergency Plan for Radiation Safety Accidents* and the *Emergency Plan for Industrial Work Safety Accidents*, standardised emergency response measures, and improved emergency response capabilities to avoid leakage accidents and reduce the impact of accidents on the environment.

In order to safely dispose of various types of waste, Headway has incorporated environmental protection work into the monthly and annual assessments of relevant departments, and promoted work through examinations. In addition, Headway has established an EHS committee responsible for safety, environmental protection and occupational health management. CNGT has established an environmental management system and has obtained external certification for its environmental management system.

In the future, CIRC will continue to strive to become a participant, contributor and leader in ecological civilisation construction, practise the concept of green development, vigorously carry out green production, adhere to safety and environmental protection first, and provide strong momentum for the healthy and sustainable development of enterprises.

ACTIVELY RESPOND TO CLIMATE CHANGE

As climate change intensifies, frequent climate events such as extreme weather pose significant risks to the global economy. Physical risks (such as extreme weather) and transition risks (such as low-carbon related policies) directly or indirectly affect various industries. In this regard, the Group pays close attention to the impact of climate change on its business, and continues to pay attention to relevant risks and opportunities to better cope with climate change.

The Group has formulated relevant strategies to address the potential risks brought by climate change. The Group requires each subsidiary to carry out risk identification regularly every year. For example, Headway conducts risk identification regularly every year. The main physical risks identified include extreme weather and natural disasters, such as typhoons and rainstorms.

PRACTICING GREEN DEVELOPMENT AND REDUCING ENVIRONMENTAL FOOTPRINT (CONTINUED)

Therefore, Headway has set up a special working group for flood control and typhoon prevention in response to extreme weather and natural disasters (such as typhoons and rainstorms) that may affect its business. At the same time, it has formulated and implemented the *Headway Environmental Plan* and formulated corresponding measures and procedures for different weather conditions, including formulating the conditions for early warning and activation, and classifying disaster events into different warning levels. According to the corresponding levels of warning, emergency plans for corresponding events are activated to minimise the impact of extreme weather and natural disasters on the business.

OVERVIEW OF ENVIRONMENTAL PERFORMANCE⁴

	Unit	2022 Data	2021 Data
Air Pollutant Emission			
NO _x emission	Tonnes	2.54	0.37
SO _x emission	Tonnes	0.001	0.01
PM emission	Tonnes	0.04	0.03
Greenhouse Gas Emission			
GHG emission (scope 1) ⁵	tCO _{2e}	636.30	436.31
GHG emission (scope 2) ⁶	tCO _{2e}	7,194.55	5,858.30
Total GHG emission	tCO _{2e}	7,830.84	6,294.61
Total GHG emissions intensity	tCO2e/RMB100 million	127.41	159.06
	of revenue		
Energy Use			
Total purchased electricity	kWh in '000s	12,863.81	10,033.06
Purchased electricity intensity	kWh in '000s/RMB100 million	209.30	253.52
	of revenue		
Total purchased steam	kWh in '000s	113.64	491.70
Purchased steam intensity	kWh in '000s/RMB100 million	1.85	12.42
	of revenue		
Total gasoline (vehicle) consumption	kWh in '000s	247.58	136.18
Intensity of gasoline (vehicle) consumption	kWh in '000s/per gasoline vehicle	14.56	9.07
Total diesel (vehicle) consumption	kWh in '000s	557.63	512.53
Diesel (vehicle) consumption intensity	kWh in '000s/per diesel vehicle	50.69	46.59

- Unless otherwise specified, the statistical caliber of the Group's environmental data for the Year is consistent with that of 2021.
- Greenhouse gas emissions here are direct greenhouse gas emissions generated by vehicles, construction machinery, diesel generators and refrigerants consumed during the year, as well as greenhouse gas removals from newly planted trees. The calculation methods are based on the Appendix II: Reporting Guidance on Environmental KPIs issued by the Stock Exchange, the Guidelines for Accounting and Reporting Greenhouse Gas Emissions from Road Transport Enterprises (Trial) issued by the Ministry of Ecology and Environment of the People's Republic of China, and the Guidelines for Accounting and Reporting Greenhouse Gas Emissions from Other Industrial Enterprises (Trial) issued by the National Development and Reform Commission of the People's Republic of China.
- The greenhouse gas emissions here are derived from indirect greenhouse gas emissions generated during the production process of purchased steam and purchased electricity. The calculation methods are based on the Guidelines for Accounting and Reporting Greenhouse Gas Emissions of Enterprises in Other Industries (Trial) issued by the National Development and Reform Commission of the People's Republic of China and the Notice on the Work Related to the Management of Greenhouse Gas Emissions Reporting of Power Generation Industry in 2023-2025 issued by the Ministry of Ecology and Environment of the People's Republic of China.

PRACTICING GREEN DEVELOPMENT AND REDUCING ENVIRONMENTAL FOOTPRINT (CONTINUED)

	Unit	2022 Data	2021 Data
Use of Water Resources			
Total water consumption	Tonnes	78,386.00	61,542.00
Total water consumption intensity	Tonnes/RMB100 million	1,275.40	1,555.09
	of revenue		
Packaging Materials			
Total packaging materials	Tonnes	217.08	172.30
Total packaging material intensity	Tonnes/RMB100 million of revenue	3.53	4.35
Hazardous Waste			
Hazardous chemicals generated	Tonnes	0.004	0.86
Intensity of hazardous chemicals generated	Tonnes/RMB100 million of revenue	7.00 × 10 ⁻⁵	0.02
Radioactive Waste			
Radioactive waste gas generated	Cubic metres	35,123,413	36,235,630
Intensity of radioactive waste gas generated	Cubic metres/RMB100 million of revenue	571,484.10	915,630.77
Radiation source generated	Pieces	254	470
Waste generation intensity	Pieces/RMB100 million of revenue	4.13	11.88
Low-level radioactive waste (solid)	Tonnes	60.98	39.69
Low-level of radioactive waste (solid) intensity	Tonnes/RMB100 million of revenue	0.99	1.00
Low-level radioactive waste (liquid)	Tonnes	4.72	8.66
Low-level radioactive waste (liquid) intensity	Tonnes/RMB100 million	0.08	0.22
	of revenue		
Non-hazardous Waste			
Non-radioactive Waste			
Waste packaging materials generated	Tonnes	131.83	59.42
Intensity of waste packaging materials generated	Tonnes/RMB100 million of revenue	2.14	1.50
Office paper generation	Tonnes	12.65	3.60
Office paper generation intensity	Tonnes/RMB100 million of revenue	0.21	0.09
Domestic waste generated	Tonnes	72.2	92.4
Domestic waste generation intensity	Tonnes/RMB100 million of revenue	1.17	2.33
Wastewater Discharge			
Waste water discharge	Cubic metres	15,810.00	17,441.29
Intensity of wastewater discharge	Cubic metres/RMB100 million of revenue	257.24	440.72

MUTUAL TRUST AND WIN-WIN COOPERATION TO BUILD A SUSTAINABLE SUPPLY CHAIN

The Group is committed to establishing a benign cooperative relationship with its business partners, and building a friendly relationship of mutual trust and win-win cooperation with suppliers based on the principles of "openness, fairness, justice, selection of the best, honesty and trustworthiness, standardisation and efficiency, and supply guarantee". In terms of regulating the bidding and procurement process, the Group strictly complies with the Law of the People's Republic of China on Tendering and Bidding, the Regulation on the Implementation of the Law of the People's Republic of China on Tendering and Bidding and other laws and regulations, and has formulated the CIRC Procurement Management Measures, the CIRC Bidding and Procurement Management Measures and other relevant systems to ensure the stable and smooth circulation of the supply chain. In terms of supplier management, the Group conducts thorough management of suppliers in accordance with internal systems such as the CNNC Supplier Management Measures and the Supplier Management and Control Procedures, and strictly reviews suppliers from the following aspects:

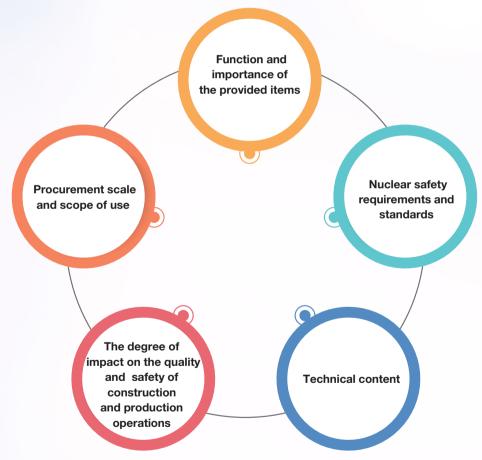


Figure: factors for supplier review

MUTUAL TRUST AND WIN-WIN COOPERATION TO BUILD A SUSTAINABLE SUPPLY CHAIN (CONTINUED)

In addition, we manage our suppliers in a tiered manner based on the above factors, and classify them into core suppliers, important suppliers and general suppliers. The qualified suppliers of CNNC are core suppliers and important suppliers, and the registered suppliers of CNNC's electronic procurement platform are general suppliers. In order to realise the digital management of suppliers, the Group requires each subsidiary to establish a corresponding supplier management system, which is led and managed by the safety, environmental protection and quality department, and the user department, procurement department, warehousing management department, after-sales service department and other units to cooperate and share information. Dynamic and quantitative assessment of suppliers' performance is also an important measure to strengthen management. CIRC organises and carries out supplier performance evaluation on an annual basis. For suppliers who fail to meet the performance requirements, their qualifications as qualified suppliers will be revoked; for suppliers with bad behaviours, they will be included in the supplier blacklist and white list. Each subsidiary has also formulated and implemented the corresponding assessment management system, and reviewed and engaged the suppliers in accordance with the documents filed with the National Medical Products Administration, or dealt with the breach of contract by the suppliers accordingly.

The Group implements the bidding and procurement procedures in accordance with national laws and regulations. Taking the construction projects that must be tendered in accordance with the law as an example, the specific procedures generally include: issuing bidding announcements, conducting qualification reviews, establishing bid evaluation committees, opening bids, evaluating bids, publicizing and determining bids, etc. The specific procedures carry out relevant work in accordance with the national bidding and tendering law and its implementation regulations. For non-bidding procurement projects, CIRC implements the Company's procurement management measures and non-bidding procurement management measures. Except for single-source procurement, we use competitive methods to determine suppliers to ensure that the procedures are in line with the best market principles; purchase from a single source is limited to unique patents or technologies, and the purchase price is generally determined through negotiation between the parties.

Supplier Data	2022
Total number of suppliers	761
By geographical region	
Hong Kong	4
China Region	674
Overseas	83

MUTUAL TRUST AND WIN-WIN COOPERATION TO BUILD A SUSTAINABLE SUPPLY CHAIN (CONTINUED)

The social and environmental responsibility and performance of suppliers are also the key considerations for the Group's supplier assessment. The Group implements a supplier access management mechanism and strictly controls the engagement of suppliers through on-site review, data review, filing review and other procedures. During the Reporting Period, 210 suppliers, representing approximately one-third of the total number of suppliers, have implemented the above practices of the Group regarding the engagement of suppliers. At the same time, each subsidiary has also formulated its own supplier management system based on the actual situation. For example, the HTA Supplier Management Regulations clearly stipulates that the quality assessment methods of suppliers are divided into document qualification audit, on-site quality audit, written audit and sample test, and requires personnel participating in the on-site quality audit of key raw and auxiliary materials to record the plant, facilities, equipment and other aspects of the suppliers. Personnel participating in the on-site quality audit shall also confirm whether the suppliers have Good Supply Practice (GSP) certificate, Good Manufacturing Practice (GMP) certificate, quality management system certification, environmental management system certification, occupational health and safety management system certification and other contents in the on-site quality audit report of material suppliers. For the construction projects independently invested by CIRC, we ensure that we have investment in environmental protection and carry out procurement of pollution prevention and control facilities for environmental protection.

In order to ensure the quality of purchased products and stable supply, we have formulated a catalog of strategic products and superior products. At the same time, we also require each subsidiary to enhance the planning of procurement, establish the procedures for the preparation and review of procurement plans, clarify the division of responsibilities, conduct unified management of procurement plans, and implement procurement in accordance with the approved procurement plans and procurement plans in accordance with national laws and regulations and relevant regulations of CNNC. In addition to emergency procurement, bidding and procurement implemented on the public resources trading platform in accordance with relevant national regulations and confidential procurement, all kinds of procurement activities are conducted through the electronic procurement platform of CNNC. We carry out the bidding work of construction projects and the relevant work of non-bidding procurement projects in accordance with the administrative measures. The specific procedures for bidding generally include: publishing bidding announcements, conducting qualification review, forming bid evaluation committees, opening tenders, bid evaluation, publicity and bid determination. For non-bidding procurement measures. CIRC implements the Company's procurement management measures and non-bidding procurement management measures.

In order to identify and effectively control the environmental and social risks in the supply chain, the Group will evaluate matters that may cause environmental and social risks from time to time, and then propose corresponding control measures. For example, in terms of avoiding compliance risks, CIRC comprehensively carried out compliance risk investigation and risk control work, and required promotion service providers (CSO companies) to issue an undertaking letter of anti-commercial bribery and non-related relationship to ensure the integrity of the cooperation process with CIRC and the legitimacy of business dealings. In addition, CIRC has established a significant risk control, tracking, monitoring and early warning mechanism for core suppliers and important suppliers to identify and evaluate the significant negative impact of the supply chain on the environment and society. At the same time, in order to mitigate and control the significant negative impact of the supply chain on the environment and society, CIRC reserves backup suppliers to ensure stable supply.

Integrating environmental protection concepts into all links of the supply chain to enhance the sustainability of the supply chain is also an important indicator for high-quality development of enterprises. When selecting suppliers, we purchase goods and services that have less negative impact on the environment based on procurement needs, so as to use more environmentally friendly products and services and fully implement the concept of green environmental protection.

The Group carried out brand definition system construction and brand structure system optimisation under the framework of the *Brand Construction Management Outline*. We formulated the *Brand Manual*, strengthened brand training, and strived to create the brand building atmosphere of "everyone is the brand spokesperson of CIRC". At the same time, by formulating a brand strategy that is in line with the current development stage, we can accumulate, improve and transmit brand assets in two ways, promote the development of the industry with practical actions, interpret and enrich the CIRC brand. Product quality is the foundation of brand building. CIRC strictly guarantees product quality, focuses on scientific research and innovation, promotes brand structure optimisation through product iteration and upgrading, and expands brand influence.

SAFETY FIRST BY FOCUSING ON PRODUCT SAFETY

The Group strictly abides by the Production Quality Law of the People's Republic of China, the Production Safety Law of the People's Republic of China, the Regulations on the Safety and Protection of Radioisotopes and Ray Devices, the Regulations on the Administration of Transport Safety of Radioactive Articles, the Measures for the Administration of Radioactive Pharmaceuticals, the Code of Conduct for the Safety and Security of Radioactive Sources, the Regulations on the Safety Management of Hazardous Chemicals, the Nuclear Safety Law of the People's Republic of China and other laws and regulations related to health, safety issues and remedial methods. The Group has formulated and improved internal management policies and systems, including the Responsibility System for Safety Duty Personnel, the Regulations on the Management of Safe Electricity, the Regulations on the Management of Construction Projects, the Responsibility System for On-site Safety Officer of Construction Projects, and the Regulations on the Safety.

The Group firmly believes that safe production is the lifeline of enterprise development. We implement strict product safety and quality control, and integrate safety objectives into the whole process of production and operation. In order to improve the level of safety management, the Group regularly carries out various safety inspections and safety technology improvement, establishes a safety production committee and holds special meetings on safety work quarterly. In addition, the Group requires all subsidiaries to strictly implement the production safety responsibility system, and ensure the safety of products and the normal operation of production and operation activities by actively formulating the safety management system.

In accordance with the requirements of the *Drug Administration Law of the People's Republic of China* (2019 Revision) on pharmacovigilance quality management, HTA and CNGT have formulated the following relevant requirements (including but not limited to):



HTA

- The Regulations on the Management of Adverse Drug Reaction Reporting and Monitoring
- The Administrative Measures on the Pharmacovigilance System



CNGT

- The Management Regulations on the Labelling
- The Management Framework for Safety, Environmental Protection and Occupational Health.
- The Management Regulations on the Related Parties of Safety, Environmental Protection and Occupational Health
- The Administrative Measures on the Standardised Self-evaluation and Continuous Improvement of Safety Production
- The Management Regulations on the Safety Inspections and Checks,
- The Management Regulations on the Safety Production Responsibility and Accountability
- The Management Regulations on the Production and Service Processes

In the Safety Management Protocol, CNGT has clarified the responsibilities of the safety production committee of its member units in the safety management system, and pointed out that the safety production committee is the leading body for safety production and safety management, and is responsible for making decisions on major safety issues. At the same time, the Safety Management Protocol regulates safety management contents such as radiation safety, general safety and transportation safety, and also includes safety education and training, safety performance assessment and occupational health management.

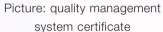
HTA attaches great importance to the safety management of radioactive sources and radioactive substances, and has formulated and implemented the *Regulations on the Safety Management of Radioactive Sources and Radioactive Substances of HTA*, requiring all units and subsidiaries to establish their own safety management responsibility systems, and strictly abide by the safety management regulations on the purchase, production, sales, recycling, storage, transfer, import and export and transportation of radioactive sources and radioactive substances. In the procurement, borrowing, transfer, storage, and processing of radioactive raw materials, a unified approval system shall be strictly implemented. All units affiliated to HTA (non-independent subsidiaries) are allowed to carry out the above activities only after obtaining the approval from the competent leaders. At the same time, HTA and each production unit must code the radioactive sources produced one by one, and strictly prohibit all units from selling radioactive sources without code; for units and individuals that cannot be qualified, sales of radioactive sources, devices containing radioactive sources and radiation devices to them are strictly prohibited; before delivery, it is also necessary to ensure that all products sold have passed the approval of the environmental protection department of the region where the customer is located, and comprehensively strengthen the supervision of radioactive sources and radioactive substances.

In order to enhance the ability to properly respond to emergencies, the Group continuously improves the management mechanism and strengthens the level of safety emergency preparedness and emergency response capabilities. We have established an emergency organisation and set up work plans and measures such as the CIRC Production Safety Emergency Management Measures, the CIRC Production Safety Accident Comprehensive Emergency Plan, and the CIRC Production Safety Accident Report and Investigation Measures. We improved the emergency management system and formulated three special emergency plans, namely the CIRC Radiation Accident Emergency Plan, the CIRC Industrial Safety Accident Emergency Plan and the CIRC Environmental Emergency Plan.

QUALITY BUILDING FOUNDATION AND FOCUSING ON PRODUCT QUALITY

The Group unswervingly carries out production and operation activities in accordance with the quality policy of "compliance operation, safety first, brand foundation and success once". CIRC and its subordinate units strictly comply with ISO 9001 and have passed the ISO 9001 quality management system certification. In addition, we regularly carry out quality improvement work, and regularly organise quality management (QC) group activities and "quality month" activities every year. The Group has also established a scientific and comprehensive quality management system and formulated the CIRC Quality Management Regulations, the CIRC Quality Accident (Incident) Management Measures, the CIRC Quality Supervision and Management Measures, the CIRC Quality Information Management Measures, the CIRC Quality Training Management Measures and the CIRC Quality Management Group Activities Management Measures. During the Reporting Period, in view of its excellent performance in quality management, the QC team of HTA's "One Heart" won the Gold Award at the 47th International Convention on Quality Control Circles (ICQCC).







Picture: HTA ICQCC Gold Award

After-sales guarantee is also an important part of quality management. The CIRC Quality Management System requires product manufacturers to establish a sound post-sales (repair) service guarantee mechanism, and timely solve quality problems after product delivery. On the basis of complying with the Administrative Measures for Drug Recalls, the Administrative Measures for Medical Device Recalls, the Good Manufacturing Practice for Drugs (2010 Edition), the Good Manufacturing Practice for Medical Devices and other regulations, each unit has formulated a series of documents and systems, such as the Administrative Procedures for Drug Recalls, the Procedures for Product Recalls Control, and the Administrative Procedures for Product Returns and Recalls, to make detailed provisions on the definition, scope of application, responsibilities of each department and working procedures of recall, and has formulated the investigation and evaluation records of drug safety hazards, the medical device investigation and evaluation forms, the report form of recall incidents, the recall notice, the recall plan, etc. In order to ensure that the drug recall system is complete and effective, each unit conducted a product recall simulation in 2022. During the Reporting Period, there was no product recall.

Strengthening product quality inspection is necessary to protect customers' interests, maintain corporate reputation and enhance economic benefits. The product quality control section of the CIRC Quality Management System clearly stipulates the three major stages of quality inspection, namely incoming inspection, process inspection and final product inspection. Products that fail to pass the inspection shall not be released. We also require the monitoring and measurement of the characteristics of the purchased raw and auxiliary materials, inprocess products (semi-finished products) and finished products in accordance with the quality standards and inspection standard operating procedures of various products to verify that the product requirements have been met.

For the control and management of non-conforming products, the Group has specified the relevant work procedures in the CIRC Quality Manual. The disposal process of such non-conforming products is as follows:

Identification: Product procurement is subject to warehousing verification. If unqualified products are found, they should be marked, isolated and Review: Organise Application for Disposal: Disposal of recorded, and the relevant personnel to unqualified products in non-conformity should be evaluate unqualified and Disposal Form of accordance with the recorded on the Notice of Unqualified Products approved disposal products in accordance Unqualified Products. At with the Notice of shall be submitted for the same time, the person Unqualified Products. in charge of quality of the operation department and the safety and environmental protection department shall be notified.

The final disposal method of non-conforming products includes: acceptance of non-conforming products (only applicable to general non-conforming products without substantial impact), scrapping, negotiation with users or return or exchange of products, notifying customers to stop using or recall the products.

During the Year, the Group did not receive any return of products sold or shipped due to safety and health reasons.

INNOVATION-DRIVEN TECHNOLOGICAL R&D

CIRC has conducted in-depth research and judgment to accurately grasp the domestic and international economic development situation during the "14th Five-Year Plan" period. With reform and innovation as the driving force, improving economic efficiency and high-quality development as the core, and "controlling the source, strengthening the core and expanding the application" as the path to achieve, we strive to achieve the strategic goal of "expanding, strengthening and improving" nuclear technology application industry, and actively integrate into the new development pattern of "dual-circular" at home and abroad. For the two major industrial directions of nuclear medical health and irradiation application, CIRC will comprehensively accelerate the development of seven business units, namely radiopharmaceuticals, medical diagnosis, radioactive sources, irradiation applications, nuclear medical equipment, nuclide manufacturing and import and export trade, and is committed to building the Group into an international nuclear technology application product and service provider with strong resource control, reasonable industrial layout, efficient management system and strong independent innovation capabilities.

Strong research and development capabilities are the core competitiveness of the Group. Our research and development team has been continuously focusing on the development of new products, optimisation of production technology and promotion of safety and efficacy upgrading of existing products. For a long time, we have been actively developing various imaging diagnostic and therapeutic drugs. We analyse market demand through market research, combine our own advantages and industry expertise, explore the overlapping points between market demand and technological innovation, so as to strictly select R&D projects, strive to fill the gap in the radiopharmaceuticals and nuclear medicine sectors in the Chinese market, and continuously meet the dynamic medical needs.

We actively promoted independent innovation research and achieved remarkable results. The Group continued to promote the construction of the "1+N" R&D platform system, and actively carried out the construction of provincial and ministerial R&D platforms; increased the construction of scientific and technological innovation leading talent teams, introduced a number of high-end talents in each R&D centre, and the first batch of post-doctoral scientific research station personnel completed the defense and defense of the station, and successfully went out. A number of key scientific research projects were approved by the National Natural Fund and provincial and ministerial projects, participated in a number of domestic and foreign academic exchange activities, and successfully held a series of lectures of "Tongfu Science and Technology Lecture".

Case: Achievements of scientific research projects of subsidiaries (partial)

- The project results of the Research and Development of New Kr-85 Thickness Testing of HTA won the third prize of the Science and Technology Award of CNNC. The overall technology of the project has reached the international advanced level, breaking the situation where Kr-85 testing and thick sources are all dependent on imports for nearly ten years. In the future, it is expected to fully meet the demand for Kr-85 source from domestic paper, plastic film and lithium battery production lines. The products sold have been exported and the international market has been expanded.
- The results of the Urea ¹³C/¹⁴C UBT Kits Automatic Production Line project of the Headway won the second prize of the Science and Technology Award of CNNC. The overall technology of the project reached the international advanced level and generated good social benefits.
- CIRC and Beijing HTA Jinhui Radiation Technology Application Co., Ltd. jointly won the third prize
 of the Science and Technology Award of CNNC for the project result of the Research on the
 Standards for Irradiation and Sterilisation of Medical Protective Clothing Materials.







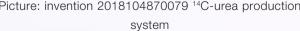
Picture: CIRC and its subsidiaries won a number of CNNC Science and Technology Awards

Protecting intellectual property rights is to protect innovation. The Group strictly abides by the Patent Law of the People's Republic of China, the Copyright Law of the People's Republic of China, the Regulations on National Defense Patent, the Anti-Unfair Competition Law of the People's Republic of China, the Law of the People's Republic of China on Promoting the Transformation of Scientific and Technological Achievements and other relevant laws and regulations, and continuously invests resources in scientific and technological innovation and intellectual property protection. During the Year, CIRC applied for a total of 174 patents, representing an increase of 51.3% as compared with the previous year, including 54 invention patents, 112 utility model patents and 8 appearance patents. CIRC has obtained 134 patent licenses, including 23 invention patents, 98 utility model patents and 13 appearance patents, and 1 foreign patent among the invention patents, achieving a breakthrough in the Group's overseas patent licensing. As of 31 December 2022, the Group had 678 valid patents, including 105 invention patents, which continuously enhanced its technological strength.

We implement intellectual property protection throughout the whole process of scientific research projects: before the establishment, we incorporate the content of intellectual property planning into the project task contract; in the process of project implementation, the Group regularly adjusts the planning and layout of intellectual property rights, and carries out international patent planning in advance for projects that may involve technology or product export in the future. We classified and protected different types of intellectual property rights to comprehensively strengthen the strategic guidance of corporate intellectual property rights.

In addition, in order to strengthen the encouragement of employee innovation, we have formulated the CIRC Incentive Measures for Technological Innovation and issued the CIRC Management Measures for Science and Technology Award Selection to further stimulate innovation vitality.







Picture: invention 2018104870079 ¹⁴C-urea production Picture: invention of a class of prostate cancer targeted drug precursor and its synthesis method

During the Reporting Period, the Group registered a total of 16 trademarks, registered 38 copyrights, published 2 group standards, and formulated 4 industry standards and 9 group standards. In terms of scientific and technological awards and honors, the patent of the "Heavy Water Dump Cobalt Adjusting Bar Components" applied by the Group and the Shanghai Nuclear Engineering Research and Design Institute was awarded the silver prize of the 23rd China Patent Award. The implementation of the patent fills the gap in the field of large-scale production of cobalt-60 radioactive source technology in the heavy water reactor in China. The project has been exported to Canada, the United Kingdom, Thailand, Vietnam, Malaysia and other countries with a total volume of over ten million curies, greatly enhancing the Group's bargaining power in the international radioisotope market.

ADHERING TO MARKET ORIENTATION AND CUSTOMER VALUE

Keeping connected with customers is our consistent focus. CIRC insists on building a "market-oriented and customer-centric" market service system, and continuously consolidates the market foundation for high-quality development through improving the customer satisfaction supervision and management system.

QUALITY SERVICE TO IMPROVE CUSTOMER SATISFACTION

The Group's marketing system is operated in a manner of unified management and hierarchical responsibility. In particular, the market operation department is responsible for the market macro management of the CIRC system, while each subsidiary implements sales management and market management in the corresponding business areas. The CIRC Marketing Management Measures (Trial) clearly requires each subsidiary to establish a customer management system to achieve closed-loop management of customer file improvement, customer service, customer opinions and complaint handling, customer return visits, and customer satisfaction surveys. The Group also strengthens the supervision and inspection of the customer satisfaction work of each subsidiary, and regularly inspects the progress of the customer satisfaction rectification plan of each subsidiary in accordance with the CIRC Customer Satisfaction Management Measures to improve the effectiveness of rectification. In addition, we continuously improve the working mechanism and improve the response to customer needs by consolidating the work responsibilities of the responsible department.

Establishing a good and smooth customer communication channel is of great significance to improving customer satisfaction. The Group actively builds a communication bridge by actively holding customer exchange meetings, organising academic promotion and conducting user visits. On the one hand, it introduces the Group's products and relevant business information in the activities, on the other hand, it actively listens to customers' opinions and suggestions, and responds to customers' inquiries and needs in a timely manner, so that customers can feel professional and respected, and continuously improve market competitiveness. The Group pays attention to the effective handling of customer complaints, regularly or irregularly checks the handling of complaints of each department, and increases the assessment of product and service complaints, handling results and implementation in the performance indicators of relevant personnel of each department. During the Reporting Period, the Group received 5 cases of product and service-related complaints, all of which have been settled with the methods that satisfying the customers.

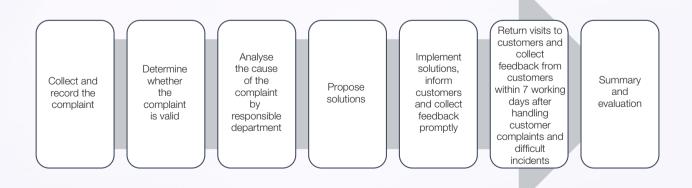


Figure: process for responding to product and service complaints

ADHERING TO MARKET ORIENTATION AND CUSTOMER VALUE (CONTINUED)

There is a special handling process for drug complaint management. The Group has made specific provisions in this regard. For example, the *Complaint Management Regulations* of HTA Good Manufacturing Practice (GMP) stipulates that the investigation and handling of drug quality complaints must be conducted by designated personnel and sufficient supporting personnel.

We are particularly prudent in handling complaints about the quality of radiopharmaceuticals. For example, for general complaints, upon receiving a complaint from the radiopharmaceuticals marketing centre of CIRC, we will notify the relevant business department of HTA, and the business department shall complete the handling and give feedback within 24 hours after receiving the complaint. When receiving a major complaint, it shall be managed by level and the overall handling process shall be controlled within 5 working days. Firstly, the radiopharmaceuticals marketing centre will notify the overall marketing service department of HTA immediately, and then the overall marketing service department will give feedback to the quality department of HTA immediately. Finally, the relevant business department will give feedback to the customer on the handling results to ensure that measures are taken in a prudent and timely manner to control and manage potential risks to optimise customer experience.

CONFIDENTIALITY OF INFORMATION AND EMPHASIS ON CUSTOMER RIGHTS

The Group carries out market management of advertising and labeling in accordance with the provisions of the Advertising Law of the People's Republic of China. At the same time, we put the privacy and trade secrets protection of customers and partners in a prominent position to maintain a good market order with practical actions. In terms of strengthening the protection of the rights and interests of the Group's customers and partners, in addition to strictly complying with the laws and regulations on advertising, labeling, privacy matters and remedial methods of the products and services provided such as the Trademark Law of the People's Republic of China and the Law of the People's Republic of China on the Protection of State Secrets, we have also formulated internal policies such as the CIRC Regulations on the Management of Confidentiality and the Measures for the CIRC Management of Trade Secrets to clearly define the scope of trade secrets of enterprises, and clarify that trade secrets include important customer and supplier data, as well as other market information and business information such as market procurement and marketing plans, market forecasts, production and sales strategies, business channels, sales methods, production costs, etc. At the same time, the Group strictly abides by the relevant provisions of national laws and regulations prohibiting the advertising and promotion of special drugs such as anesthetics, psychotropic drugs, toxic drugs for medical use and radioactive drugs, pharmaceutical precursor chemicals, and drugs for the treatment of detoxification, medical devices and treatment methods.

We also pay close attention to the confidentiality of important information, and adhere to the confidentiality work principles of "the person in charge of the business, the person in charge of the confidentiality work" and "the place where the business work is carried out, the place where the confidentiality work is implemented", so as to promote the strengthening of privacy protection. The day-to-day administrative body of CIRC's confidentiality work is the confidentiality office. Its duties include, but are not limited to, organising education and training on trade secret protection in accordance with the law, conducting confidentiality inspection, strengthening confidentiality technology protection, and organising investigation and punishment of leakage incidents. We will adopt a zero-tolerance attitude towards the leakage of confidential information. For the leakage of state secrets or the Company's trade secrets due to work errors and improper management, we will impose administrative penalties or pursue legal liabilities on relevant responsible persons after verification.

ADHERING TO MARKET ORIENTATION AND CUSTOMER VALUE (CONTINUED)

The foundation of confidentiality work lies in civil defense. We stipulate that employees are required to sign a labour contract containing trade secret protection clauses before employment to ensure that the scope of knowledge of trade secret matters is strictly controlled. Awareness is the guidance of action. We regularly organise confidential education and training for business secret management personnel and business secret personnel to enhance their awareness of confidentiality, enhance their confidentiality ability, and ensure the absolute security of business secrets.

During the Reporting Period, the Group did not have any material non-compliance with laws and regulations relating to health and safety, advertising, labeling, intellectual property rights and privacy matters of its products.

Case: Customer satisfaction survey

Based on the customer satisfaction survey results of 12 member units in 2021, we have formulated rectification and improvement measures in terms of improving service quality, improving product quality and improving transportation timeliness, and made improvements as planned.

From late September to early November 2022, 8 key units of the Group continued to carry out the 2022 customer satisfaction survey, covering 4,552 customers of the Group, covering various aspects such as brand, product quality, service quality and delivery. In addition, this customer satisfaction survey directly dealt with customers through visits for the first time. Through holding seminars, we deeply understood customers' opinions and suggestions on CIRC and its member units, and promoted the next step of customer satisfaction improvement.

The Group regards employees as the most valuable and important assets, and strictly complies with laws and regulations relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, other benefits and welfare that have a significant impact on the Group, such as the Labour Law of the People's Republic of China, the Labour Contract Law of the People's Republic of China on the Protection of Minors and the Social Insurance Law of the People's Republic of China. The Group advocates equal opportunities, diversity and anti-discrimination. While continuously optimising the talent management system, the Group has formulated detailed internal systems and established employee communication channels to safeguard the legitimate rights and interests of employees.

During the Reporting Period, the Group did not receive any violations of laws and regulations related to recruitment, dismissal, remuneration, promotion, working hours, holidays, equal opportunities, diversity, anti-discrimination, nor did it receive any violations or complaints related to illegal employment of child labour and forced labour that have a significant impact on the Group.

As at the end of the Year, the total number of employees of the Group was 3,366 (2021: 3,120). Please refer to the table below for details.

Number of employees	2022	2021
By gender		
Male	2,195	2,047
Female	1,171	1,073
By age		
20 - 30 years old	954	941
31 - 40 years old	1,431	1,281
41 - 50 years old	674	615
51 - 60 years old	307	283
By employment type		
Leadership	7	7
Middle level	87	90
General staff	3,272	3,023

Number of employees	2022	2021
By geographical region		
Beijing	1,036	1,360
Guangdong	449	379
Sichuan	322	256
Jiangsu	134	175
Shanghai	100	109
Hubei	133	78
Tianjin	196	61
Anhui	312	29
Zhejiang	141	29
Jilin	27	25
Hainan	23	22
Others ⁷	493	517

As at the end of the Year, the overall employee turnover rate was 12.77%. For details, please refer to the table below.

	Number of	
	employee	Employee
Employee turnover data	turnover	turnover rate
By gender		
Male	272	12.39%
Female	158	13.49%
By age		
20 – 30 years old	170	17.82%
31 - 40 years old	156	10.90%
41 – 50 years old	64	9.50%
51 - 60 years old	40	13.03%
By geographical region		
Beijing	70	6.76%
Guangdong	67	14.92%
Sichuan	54	16.77%
Jiangsu	10	7.46%
Shanghai	5	5.00%
Hubei	37	27.82%
Tianjin	33	16.84%
Anhui	46	14.74%
Hainan	0	0.00%
Others ⁷	92	18.66%

The number of employees in "others" region includes Liaoning, Inner Mongolia, Shaanxi, Hunan, etc.

STRENGTHEN EMPLOYEE CARE AND ENHANCE EMPLOYEES' SENSE OF GAIN

In order to further standardise the recruitment and employment process, the Group has formulated the Administrative Measures for the Recruitment of Employees in the Headquarters of CIRC, and continued to implement the recruitment principles of "openness, equality, competition, selection of candidates", "balance of morality and ability, recruitment of talents" and "mutual matching of personnel and positions", strictly eliminating any form of discrimination. The Group will not take gender, age, race, physical barriers, etc. as the assessment criteria for recruitment and promotion, and strive to create and maintain an equal competition environment. At the same time, through social recruitment, campus recruitment, employee recruitment and talent acquisition, the Group is able to attract talents and further promote its own development. Within the determined scope of preparation, we introduce employees from the headquarters in accordance with the procedures based on the vacancy and job requirements. Each unit also formulates annual recruitment plans and specific recruitment management regulations as needed, and submits the same to the Human Resources Department for approval of the recruitment plans of subsidiaries.

The Group strictly abides by the Labour Law of the People's Republic of China, the Labour Contract Law of the People's Republic of China and other laws and regulations, adheres to legal employment and legal management, and formulates relevant internal employment systems and regulations, and resolutely eliminates the employment of child labour and any form of forced labour. The Group's recruitment system stipulates that candidates should be at least 18 years old, and establishes labour relations by signing labour contracts with new employees. If any non-compliance with the employment conditions is found during the probation period, we will immediately terminate the employment relationship with the parties involved.

In order to further protect the legitimate rights and interests of employees, the Group strictly prohibits unfair or unreasonable dismissal. In accordance with the requirements of relevant laws and regulations, we have formulated the *Implementation Measures for the Labour Contract System of CIRC Headquarters* to further standardise the relevant provisions and procedures for the termination of labour contracts with employees, and clarify the payment obligations and standards for economic compensation and economic compensation. Except for the relevant circumstances specified (such as punishment received due to violation of national laws and regulations during the probation period, the labour contract with the new employee will be terminated), employees shall not be dismissed without reason.

In terms of remuneration, according to the overall budget of the Company and the total salary budget of the Group, the human resources department formulates the total salary budget for the next year on an annual basis. The Company's salary distribution is based on the Company's benefits, job value, employee performance and quality of ability, taking into account factors such as the local average salary level, minimum wage standard, local commodity price level and labour supply and demand situation. The salary distribution is mainly in the form of a post-performance salary system supplemented by a negotiated salary system. According to the duty positioning and job requirements of each position, the Company divides positions with different values into nine levels, namely, the rank of leaders, assistant to general manager, deputy chief engineer, department manager, deputy department manager, senior supervisor, supervisor, staff and clerk. If the position of an employee changes, the salary grade shall be adjusted accordingly, and the salary grade shall be determined by the position. At the same time, the Group has also formulated and implemented the CIRC Measures for the Administration of Total Wages and the CIRC Measures for the Administration of Employee Welfare Fees to promote and improve the structure of the remuneration system. In determining the remuneration of employees, the Group comprehensively considers factors such as the overall salary level in the industry and employee performance.

The Group attaches great importance to the well-being of its employees and strictly abides by the *Social Insurance Law of the People's Republic of China* and other national and local laws and regulations on labour, welfare and insurance. Meanwhile, the Group further formulates and implements employee retirement benefit plans, medical and work-related injury insurance plans and housing provident fund plans to provide more benefits for employees. The Group always attaches great importance to the protection of employee benefits and provides various welfare subsidies for employees, including but not limited to:

Staff medical examination fee Heat-proof and cooling fee

Staff canteen subsidies

One-child fee

Subsidies for infants Family Planning Awards

Off-site safety expenses for employees

Employee leave pay

Heating subsidies

Subsidies for employees' difficulties

Relay subsidies
Funeral allowance
Funeral condolences

Medical subsidies for employees' children

Staff retirement visit

Off-balance-office expenses for retirees

In addition, the Group has also formulated the CIRC Headquarters Staff Attendance Management Regulations, which implements a working system of 8 hours per day and 40 hours per week, 2 days per week on public holidays and statutory holidays in accordance with national regulations. The Group implements a shift system for production positions of each subsidiary to ensure reasonable working hours and hours for employees. At the same time, employees also enjoy work-related injury leave, sick leave, maternity leave, marriage and funeral leave, and paid annual leave.

FOCUS ON OCCUPATIONAL HEALTH AND CREATE A SAFE WORKING ENVIRONMENT

As the Group's business involves radiation technology, we always regard employees' physical and mental health and occupational safety as an important part of our work. The Group strictly abides by the following laws and regulations relating to providing a safe working environment and protecting employees from occupational hazards:

Fire Protection Law of the People's Republic of China

Production Safety Law of the People's Republic of China

Law of the People's Republic of China on the Prevention and Control of Occupational Diseases Regulations on Safety and Protection of Radioisotopes and Radioactive Devices Administrative Measures for Occupational Health of Radiological Staff

Regulations on the Safety Management of the Transportation of Radioactive Articles

Provisions on Individual Monitoring of External Lighting X and γ

Basic Standards for Radiation Protection and Radiation Source Safety

On this basis, in order to further protect the life and health of the Group's employees and related rights and interests, strengthen the prevention and control in the process of scientific research and production, and determine measures related to occupational health and safety, CIRC has established a complete safety responsibility system and management system, including the following systems:

CIRC Safety and Environmental Protection	CIRC Contractor Safety Management and Reward and Punishment Measures
Management System	
CIRC Radiation Safety Management Measures	CIRC Measures for the Reporting and Investigation of Production Safety Accidents
CIRC Industrial Safety Management Measures	CIRC Production Safety Emergency Management Measures
CIRC Environmental Protection Management Measures	CIRC Management Measures against "Three Violations"
CIRC Fire Safety Management Measures	CIRC Regulations on the Administration of Identification and Control of Hidden Dangers in Work Safety
CIRC Measures for the Supervision and Administration of Occupational Health	CIRC Implementation Rules for the Management of Nutrition and Health Fees for Radioactive Workers
CIRC Safety Production Responsibility System and	CIRC Radiation Safety Accident Emergency Plan
Accountability Management Regulations	
CIRC Safety and Environmental Risk Management	CIRC Comprehensive Emergency Plan for Production
Measures	Safety Accidents
CIRC Safety and Environmental Protection Inspection	CIRC Emergency Plan for Industrial Safety Accidents
Management Measures	

CIRC Safety and Environmental Protection Training

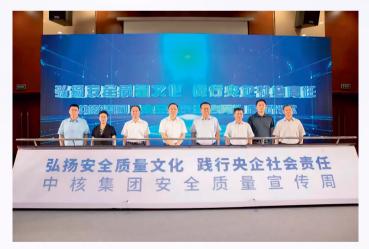
Management Measures

The Group always insists on creating a safe and healthy working environment for employees. The headquarters of CIRC has established a safety production committee with full-time safety management personnel, and each member unit has a safety management organisation to carry out hierarchical management and control of the Group's safety risks, and promote safety standardisation throughout the system. In addition, Headway has also set up an Environmental, Health and Safety (EHS) Committee. By assessing the physical and potential risks of various departments and different production processes, the EHS Committee has formulated a series of improvement plans and preventive measures to reduce the safety and health risks of employees. In terms of the prevention and control of occupational diseases, each unit carries out prevention and control from the production process in accordance with the basic principle of "prevention first and combination of prevention and control", continuously strengthens the maintenance and innovation of production process, equipment and facilities and operation technology, and establishes emergency response plans and relevant specific measures, so as to minimise various pollution and hazards in the production environment and avoid occupational health hazards to employees.

CIRC Emergency Plan for Environmental Emergencies

For radioactivity practitioners at work, the Group distributes labour protection and protective equipment according to the needs of their positions. At the same time, in strict accordance with the requirements of laws and regulations, the Group regularly conducts occupational health examinations for radioactive employees, and equips employees with personal dosage films at the workplace for regular inspection. During the Year, there was no abnormal test results of the Group's employees. In terms of occupational health management, we strictly require units with occupational hazards to carry out workplace monitoring and personal monitoring. While the results of personal dose monitoring of occupational exposure are properly kept, the results are copied to the safety, environmental protection and quality department of CIRC. In order to strengthen employees' awareness of occupational health and safety, the Group held a number of training and publicity activities during the Year to enhance employees' self-prevention awareness and ability and avoid potential accidents.

On 21 June 2022, CIRC actively participated in and supported the "Safety and Quality Publicity Week" activity jointly organised by the Social Responsibility Bureau of the SASAC and CNNC, and organised by China Baoyuan Investment Co., Ltd. The activity focused on the promotion of scientific knowledge such as nuclear safety culture, nuclear and radiation safety, nuclear industry history, etc., to enhance employees' awareness of occupational safety and health. During the period from 23 to 25 June 2022, CIRC organised employees to visit China Nuclear Industry Science and Technology Museum and Beijing HTA Jinhui Radiation Technology Application Co., Ltd. to further promote the safety and quality culture. By strengthening the learning of relevant knowledge and emergency measures, we enhanced the awareness and relevant skills of all employees on health and safety, so as to further fulfill the social responsibility of CIRC and promote the high-quality development of the nuclear industry.



Picture: CIRC participated in the "Safety and Quality Publicity Week" activity

At the same time, the Group attaches great importance to the physical and mental health of employees. In order to help employees relieve their work pressure, we actively organise employee activities such as festival activities, sports games and team building, so as to enhance the team spirit of employees and create a harmonious group and working atmosphere.

During the past three consecutive financial years (including the Reporting Period), the Group did not have any material safety accidents or work-related fatalities. During the Reporting Period, the number of working days lost due to work injury of the Group was 62 days. The Group also did not have any non-compliance in providing a safe working environment and protecting employees from occupational hazards.⁸

BUILD A TALENT HIGHLAND AND ATTACH IMPORTANCE TO EMPLOYEE TRAINING AND DEVELOPMENT

CIRC has always been committed to creating a fair, harmonious and promising working environment for employees. Through the formulation of CIRC Management Measures for Education and Training, we have further improved our employee management policies and development training programs. Under the leadership of the CIRC Party Committee, the human resources department of the Group actively conducts centralised management of the education and training of the cadres and employees of CIRC, and the departments and departments at the headquarters are responsible for division of labour to jointly promote the construction of the education and training system of CIRC. The Group is committed to providing high-quality training resources for all employees, and has organised a series of activities such as professional ability improvement training for department personnel, safety and quality training to continuously improve employees' knowledge and skills and promote their own development. During the COVID-19 Pandemic, the Group continued to use CIRC's online learning platform to help employees carry out work and study more safely and smoothly. Through the online learning platform and the continuous expansion of training methods and channels, the Group commenced the construction of the course library and initially established a training course for new employees and a refined management course system to promote the accumulation of corporate knowledge and good management. At the same time, we also carried out the general course of "Communication Strength" and the knowledge sharing column to regularly share the content of selected tutor speeches and high-quality books to employees.

During the Year, the number of employees trained of the Group was 2,028. For specific training data, please refer to the table below.

	Percentage of employees trained ⁹		Average training hours of employees	
	2022	2021	2022	2021
By gender				
Male	63.36%	65.61%	104	110
Female	36.64%	34.39%	93	110
By employee category				
Leadership	0.35%	0.22%	128	114
Middle level	7.54%	2.88%	103	105
General staff	92.11%	96.90%	100	110

The number of working days lost due to work-related injuries only includes the work-related injury identification procedures passed by the local social insurance administrative department.

The calculation method of the percentage of employees trained is: the number of employees trained in the category/ total number of employees trained * 100%.

Case: "Reading Together" training activity

In the afternoon of April 21, 2022, on the occasion of the 27th World Book Day, the first Party branch of CIRC headquarters carried out the first reading and sharing activity of "Reading Together" in No. 403 conference rooms. Wang Suohui, General Manager and Deputy Secretary of the Party Committee of CIRC, and Li Chao, Deputy General Manager of CIRC, participated in the event as a general party member

Prior to the event, the branch released three reading books, namely *The Nation of Entrepreneurship*, *Financial Disruption 300 Years* and *The History of Chinese People*, recommended by the general manager, Wang Suohui, to all party members. All Party members read one of the books. At the meeting, Li Ziying, the first secretary of the Party branch of the headquarters, read the *Proposal on Reading* on behalf of all Party members of the sub-branch, advocating that Party members should have planned reading and extrusion time to read books, strengthen theoretical armed forces, and continuously improve theoretical literacy. 6 Party members' representatives shared their experience of reading books based on their own experiences and work practices. In the free exchange session, all Party members actively made speeches and shared their reading insights. Wang Suohui expressed its affirmation to the content and significance of this event, hoping that everyone can return to book, cultivate the interests and hobbies of reading, and relax and delight reading today with information technology.

This reading and sharing activity is an important measure to promote learning-oriented Party organisations. It provides a platform for all Party members to exchange ideas. While further enriching employee activities, it creates a strong learning atmosphere of reading more, reading well, and reading good books, so that everyone can enjoy the charm of reading. Participants expressed that they will take this activity as an opportunity to insist on reading books more frequently and regard reading as a lifelong learning cause. They will effectively combine theory and practice, strengthen self-improvement, improve work standards, and continue to innovate and create excellence in work.







Picture: CIRC "Reading Together" activity

SHOULDERING SOCIAL RESPONSIBILITY AND PROMOTING SOCIAL DEVELOPMENT

CIRC always insists on giving back to the society with gratitude, striving to win more extensive social recognition, creating greater social benefits while creating economic benefits, and shoulder the responsibility of understanding and satisfying the needs of the community.

BEARING IN MIND OUR MISSION AND COMMITMENT TO CHARITY

The Group actively carries out social donation activities and strictly complies with laws and regulations such as the Law of the People's Republic of China on Public Welfare Donations and the Administrative Measures for External Donations of CNNC. According to the requirements of the regulations, the donation work of each directly affiliated unit and affiliated unit shall be considered and approved by the internal decision-making process of the unit; commitment to donations made must be performed honestly and all kinds of false publicity or promises are strictly prohibited. According to the relevant provisions of the CIRC Measures for the Administration of External Donations, the types of external donations are divided into the following categories according to the different recipients of subsidies:

Relief donations

Refers to donations which shall be used in production, livelihood relief and succour for people suffering from natural disasters, or living in old revolutionary base areas, ethnic minority areas, border areas. and underdeveloped areas that are identified by the state or designated aid areas, as well as other vulnerable groups and individuals

Charity donation

 Refers to donations which shall be used in social welfare undertakings such as education, technology, culture, hygiene, sports, environmental protection, energy conservation and emission reduction

Other donations

 Refers to donations for other public and welfare undertakings aiming at promoting humanism or social development apart from the above mentioned categories, as well as fulfilling VNNV's social responsibilities

As a leading enterprise in the nuclear medicine industry, we have always been committed to promoting the improvement of the level of nuclear medicine diagnosis and treatment at the grassroots level, strengthening the construction of nuclear medicine disciplines at the grassroots level, and improving the value and position of nuclear medicine in clinical diagnosis and treatment. We work with the Nuclear Medicine Branch of the Chinese Medical Association to make continuous efforts to promote the development of nuclear medicine and improve people's livelihood and well-being. We commenced the base construction project of 3 hospitals and assisted in the acceptance of 5 assisted hospitals, which brought a profound impact on the provision of convenient nuclear medical services and reflected the responsibility of radioisotope production and sales enterprises.

SHOULDERING SOCIAL RESPONSIBILITY AND PROMOTING SOCIAL DEVELOPMENT (CONTINUED)

In addition, CIRC formulated the "2023 Plan" and plans to donate RMB1,650,000 to Wu Jieping Medical Foundation, which is focusing on supporting the construction of "one county, one discipline" smart department initiative in the field of nuclear medicine across the country, talent training, scientific research, science popularisation education, clinical training and promotion, and diagnosis and treatment assistance for poor patients. We also donated RMB520,000 to targeted assistance or local poverty alleviation areas, and RMB780,000 to other local areas or communities and public welfare organisations.

Case: CIRC's material investment in public welfare activities

- 1. CIRC extended a helping hand to the disaster area in Luzhou, Sichuan, of which Headway and HTA, subsidiaries of the Company, donated a total of RMB250,000 to support earthquake prevention and disaster relief and post-disaster reconstruction.
- 2. CIRC donated RMB100,000 to Baihe County, Ankang City, Shaanxi Province to support the construction project of the nuclear culture and teaching department of Shunshui Primary School.
- 3. CIRC donated 100,000 medical masks to Zizhuyuan Street, Haidian District, and donated RMB20,000 to purchase epidemic prevention materials, daily necessities and protective materials for epidemic prevention personnel.

We also actively participate in different types of public welfare activities, including relief of earthquake-stricken areas, carrying out education-based poverty alleviation, and assisting in epidemic prevention and control, so as to lead by example to promote the improvement of people's lives and community development.

In addition, for the Group's public healthcare investment, please refer to the section headed "Giving Back to Society and Benefiting People's Livelihood with Nuclear Medicine" in the Report.

Aspects	Content	Relevant Section
Governance		
Governance Structure	A statement from the Board containing:	Improving mechanism and strengthening compliance
	(i) Disclose the Board's oversight of ESG issues;	management
	 (ii) the Board's ESG management approach and strategy, including the process of evaluating, prioritizing and managing material ESG-related issues (including risks to the issuer's business); and 	Professional and efficient, close communication with stakeholders
	(iii) how the Board reviews progress against ESG- related objectives and explains how they relate to the issuer's business.	
Reporting Principles	Describe or explain how the following reporting principles are applied in preparing the ESG Report	Reporting guideline
Reporting Scope	An explanation of the reporting scope of the ESG Report and a description of how the entities or businesses are selected for inclusion in the ESG Report. If the scope of the report changes, the issuer should explain the differences and the reasons for the changes	Reporting scope

Content	Relevant Section
Relating to air and greenhouse gas emissions,	Abide by the system and
discharges into water and land, and generation of	strictly manage waste and
hazardous and non-hazardous waste:	emissions
(a) the policies; and	
(b) compliance with relevant laws and regulations	
that have a significant impact on the issuer	
The types of emissions and respective emissions	Overview of environmental
data.	performance
Direct (Scope 1) and energy indirect (Scope 2)	
greenhouse gas emissions and intensity	
Total hazardous waste produced and intensity	
Total non-hazardous waste produced and intensity	
Description of emission target (s) set and steps taken	Abide by the system and
to achieve them	strictly manage waste and
Description of how hazardous and non-hazardous	emissions
wastes are handled, and a description of reduction	
target (s) set and steps taken to achieve them	
	Relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer The types of emissions and respective emissions data. Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions and intensity Total hazardous waste produced and intensity Total non-hazardous waste produced and intensity Description of emission target (s) set and steps taken to achieve them Description of how hazardous and non-hazardous wastes are handled, and a description of reduction

Subject Areas	Content	Relevant Section
A2 Use of Resources		
General Disclosure	Policies on the efficient use of resources, including energy, water and raw materials of other materials	Green and low-carbon, strengthening energy and resources conservation
A2.1	Direct and/or indirect energy consumption by type in total and intensity	Overview of environmental performance
A2.2	Water consumption in total and intensity	
A2.3	Description of energy use efficiency target (s) set and steps taken to achieve them	Green and low-carbon, strengthening energy and
A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target (s) set and steps taken to achieve them	resources conservation
A2.5	Total packaging material used for finished products and with reference to per unit produced	Overview of environmental performance
A3 The Environment and		
Natural Resources		
General Disclosure	Policies on minimising the issuer's significant impact on the environment and natural resources.	Environmental protection, building an ecological
A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them	civilisation together
A4 Climate Change		
General Disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer	Actively respond to climate change
A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them	

Subject Areas

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORTING GUIDE CONTENT INDEX (CONTINUED)

Relevant Section

Content

Subject Areas	Content	Relevant Section
B. Social		
B1 Employment		
General Disclosure	Relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare:	Care for employees with heart and build a first-class team
	(a) the policies; and	
	(b) compliance with relevant laws and regulations that have a significant impact on the issuer	
B1.1	Total workforce by gender, employment type, age group and geographical region	
B1.2	Employee turnover rate by gender, age group and geographical region	
B2 Health and Safety		
General Disclosure	Information relating to providing a safe working environment and protecting employees from occupational hazards:	Focus on occupational health and create a safe working environment
	(a) the policies; and	
	(b) compliance with relevant laws and regulations that have a significant impact on the issuer	
B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year	
B2.2	Lost days due to work injury	
B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored	

Subject Areas	Content	Relevant Section
B3 Development and		
Training		
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work; description of training activities	Build a talent highland and attach importance to employee training and
B3.1	The percentage of employees trained by gender and employee category	development
B3.2	The average training hours completed per employee by gender and employee category	
B4 Labour Standards		
General Disclosure	Relating to preventing child and forced labour:	Strengthen employee care and enhance employees'
	(a) the policies; and	sense of gain
	(b) compliance with relevant laws and regulations that have a significant impact on the issuer	
B4.1	Description of measures to review employment	
	practices to avoid child and forced labour	
B4.2	Description of steps taken to eliminate such practices when discovered	
B5 Supply Chain		
Management		
General Disclosure	Policies on managing environmental and social risks of the supply chain	Mutual trust and win-win cooperation to build a
B5.1	Number of suppliers by geographical region	sustainable supply chain
B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored	
B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored	
B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored	

Subject Areas	Content	Relevant Section
B6 Product Responsibility		
General Disclosure	Information relating to health and safety, advertising, labeling and privacy matters relating to products and services provided and methods of redress:	Building a leading brand and optimising product responsibility management
	(a) the policies; and	
	(b) compliance with relevant laws and regulations that have a significant impact on the issuer	
B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons	Quality building foundation and focusing on product quality
B6.2	Number of products and service related complaints received and how they are dealt with	Quality service to improve customer satisfaction
B6.3	Description of practices relating to observing and protecting intellectual property rights	Innovation-driven technological R&D
B6.4	Description of quality assurance process and recall procedures	Safety first, focus on product safety
		Quality building foundation and focusing on product quality
B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored	Confidentiality of information and emphasis on customer rights
B7 Anti-corruption		
General Disclosure	Relating to bribery, extortion, fraud and money laundering:	Adhering to the red line and focusing on clean operation
	(a) the policies; and	
	(b) compliance with relevant laws and regulations that have a significant impact on the issuer	
B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the	
B7.2	cases Description of preventive measures and whistle-	
	blowing procedures, how they are implemented and monitored	
B7.3	Description of anti-corruption training provided to directors and employees	

Subject Areas	Content	Relevant Section
B8 Community Investment		
General Disclosure	Policies on community engagement to understand	Shouldering social
	the needs of the communities where the issuer	responsibility and
	operates and to ensure its activities take into	promoting social
	consideration the communities' interests.	development
B8.1	Focus areas of contribution	
B8.2	Resources contributed to the focus area	

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