



中生北控  
BIOSINO

BIOSINO BIO-TECHNOLOGY AND  
SCIENCE INCORPORATION

**2021** ENVIRONMENTAL,  
SOCIAL AND  
GOVERNANCE  
REPORT ○



**ENTERPRISE MISSION:**  
BEAUTIFY LIFE WITH SCIENCE AND TECHNOLOGY

**CORPORATE VISION:**  
TO BECOME A PIONEER IN IVD INDUSTRY WITH INTERNATIONAL  
COMPETITIVENESS

**ENTERPRISE VALUES:**  
BE AN HONEST PERSON AND BE THE FIRST IN THE WORLD

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## MESSAGE FROM THE CHAIRMAN



### Dear Stakeholders,

It is with pride that I share this year's Environmental, Social and Governance ("ESG") Report issued by Biosino Bio-Technology and Science Incorporation ("Biosino" or the "Company"), which is independently issued for the first time.

Biosino is a biotechnology enterprise established and nurtured on the fertile land of scientific and technological innovation of the Chinese Academy of Sciences. With "beautify life with science and technology" as its corporate mission, Biosino is committed to becoming one of the greenest and most innovative enterprises in the in vitro diagnostic ("IVD") industry.

In respect of corporate governance, Biosino has established an ESG committee composed of all senior executives and an ESG working group, which is responsible for reviewing the progress of ESG objectives and reporting it to the board (the "Board") of directors (the "Directors") of the Company. Practically integrating ESG concepts and strategies into every aspect of the Company's strategy and operations.

At the same time, the Company has put forward the carbon peaking and carbon neutrality goal: carbon peak before 2028 and carbon neutralization before 2050. With reference to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), the risks of climate change and its impact on the Company's business are identified and disclosed. Biosino realized that achieving the goal of "carbon peak and carbon neutralization" is not only related to the future survival of the world and mankind, but also related to the future development of each company.

We hope to reduce carbon emissions in all aspects, all processes and all raw materials. From raw material suppliers to all aspects of production, then to logistics and dealers. Not only do we put forward specific requirements for carbon emission verification and carbon emission information disclosure of raw material for suppliers, but we also hope to reduce carbon emissions at the operational level through the use of renewable energy power. At the same time, continue R&D, reducing the mileage of cold chain transportation and realizing the emission reduction of downstream dealers. In addition, for carbon emissions that cannot be completely eliminated through emission reduction measures, the Company will offset them by purchasing green electricity, carbon sinks and afforestation.

"People oriented, people first, life first" is the spirit and principle embodied in the Company's culture. Our products and services not only consider the interests of enterprises, but also undertake the responsibility of the whole society and the whole value chain, and play a positive role in promoting and driving social development.

Therefore, the Company has continued to increase its R&D investment, with the R&D investment intensity reaching 7.95% in the past five years. The Company has an excellent scientific research team including of 3 people with doctorate degrees and 24 people with master degrees, an "Enterprise Post-doctoral scientific research workstation" approved by the Ministry of Personnel, an in vitro diagnostic engineering research center jointly built with domestic high-level scientific research institutions in the field of life sciences, and carries out comprehensive cooperation with international well-known enterprises.

In terms of quality assurance, the company has established a perfect quality management system and obtained ISO9001 and ISO13485:2016 quality management system certificates, and ISO/ICE 17025:2017 "General requirements for the competence of inspection and calibration of laboratories". Biosino has built 100000 class and 10000 class clean workshops in strict accordance with GMP standards, and ensured the accuracy and reliability of products by providing international and domestic first-class equipment and instruments. Biosino took the lead in implementing the traceability of product in the industry. And has established a "five in one" service system to quickly answer various questions from customers.

In terms of customer service, Biosino not only provides after-sales service for products, but also promotes scientific and technological innovation cooperation and all-round interaction with customers, and establishes long-term, friendly and two-way contact mechanism with customers. The Company is continuing to promote the "Precision medicine" and "One-way service" projects, tailor-made medical products and services for patients, and reduce waste. In addition, Biosino actively respond to and promote the mutual recognition of test results between hospitals, so as to reduce patients' repeated testing.

As for the future, Biosino will adhere to the value of "Being an honest person and Being the first in the world", continue to promote the company's high-quality development from the aspects of quality and service guarantee, green and low-carbon operation, accurate customer service, scientific and technological innovation and development.

Lebin Wu

Chairman of BIOSINO



# BOARD OF DIRECTORS' ESG STATEMENT

Biosino has established an ESG control structure covering three levels: decision-making level, management level and executive level. The Board is the decision-making level of ESG and the highest decision-making body of ESG. The ESG Committee of the board of directors is responsible for formulating the Company's ESG strategic matters, reviewing and making decisions on major ESG matters of the Company, regularly supervising and inspecting the progress of ESG related matters, fulfilling the ESG work requirements put forward by the Listing Supervision Department to the Board, and providing support for ESG decisions of the Board. At the same time, timely and accurately identifying the demands of various stakeholders, carrying out evaluation, and determining and revising material ESG issues. At the same time, we would discuss relevant issues, including but not limited to product quality, climate change, anti-corruption and other fields, and respond to the demands of various stakeholders.

The chairman takes charge of the ESG Committee and is responsible for presiding over the work of the Committee. The Secretary of the Board and all senior executives of the Company form the ESG leading group to formulate the Company's ESG management system, monthly inspect the implementation of the Company's ESG work, and regularly report the work progress to the ESG Committee. All departments of Biosino dispatch a representative to form an ESG working group to implement the decisions of the management and be responsible for the implementation of ESG objectives. On April 15, 2022, the chairman of the Board, Mr. Wu Lebin announced the establishment of the ESG Committee and the executive group under the Board, and held the deployment meeting of the Company's ESG and carbon assessment, which conducted on-site discussion and work deployment on important topics, annual objectives and future implementation plans of ESG.

■ **The main responsibilities of the ESG Committee include:**

Develop ESG vision, strategy and policy; Monitor the implementation of ESG strategy; Monitor the expenditure of ESG work; Supervise the company's external communication and dissemination; Review the annual ESG report and make recommendations to the board of directors for approval.

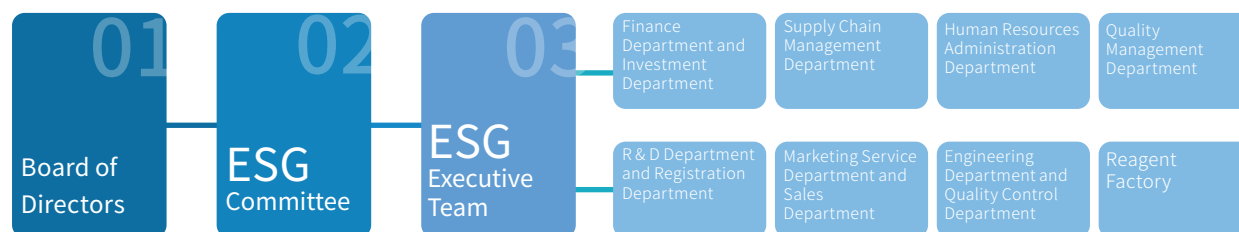
■ **The main responsibilities of ESG management include:**

Regularly carry out stakeholder communication, clarify the annual ESG focus, continuously improve and enrich the Company's ESG development strategy and development plan, and continuously follow up the implementation of ESG related matters valued by stakeholders.

■ **The main responsibilities of ESG executive layer include:**

Around the Company's mission and vision, take specific improvement measures on the Company's compliance with business norms, green and low-carbon operation, product technology innovation, promoting supply chain development, protecting employees' rights and interests and supporting social development to ensure the completion of the annual ESG goal.

**ESG ORGANIZATIONAL STRUCTURE**



# 2021 PERFORMANCE HIGHLIGHTS



**FINANCIAL PERFORMANCE**

2021 total revenue:  
¥ 348 million



348,000,000



**PRODUCT INNOVATION**

R&D investment in 2021:  
¥ 24.9 million  
Number of R&D personnel in 2021: 30+  
Authorized patents: 45  
Software copyright: 5  
In vitro diagnostic reagent product registration certificates: 268



**GREEN AND LOW CARBON**

Carbon peak and carbon neutralization commitment:  
Achieve carbon peak by 2028 and carbon neutralization by 2050

Total carbon emission in 2021:  
1550.325 carbon dioxide equivalent

Carbon emission intensity in 2021:  
0.0445 carbon dioxide equivalent / 10000 yuan



**TALENT DEVELOPMENT**

Total number of employees: 421  
Employee training coverage: 100%  
Average training duration of employees: 40 hours



421 100% 40<sub>h</sub>

## ■ ABOUT BIOSINO



Biosino is a listed high-tech company founded and controlled by the Chinese Academy of Sciences. It is mainly engaged in R&D, production, sales and service of IVD products. Since its inception in 1973, it has always been oriented to meeting the needs of the people's livelihood, actively promote the development of the national IVD industry, create an independent innovation system combining production, learning, research and use, and explore the operation of "internationalization, grouping, and compounding". The model builds a four-in-one industrial chain of "systematization, serialization, integration, and intellectualization" to enhance its core competitiveness and lay a leading position in the industry.

Since Biosino initiated single-double clinical chemistry reagents of enzymatic method in China, after decades of development, it has established a complete clinical chemistry testing series product platform, and developed in vitro diagnostic products such as immunology, molecular, flow cytometry and mass spectrometer. Biosino has R&D teams consisting of 3 people with doctorate degrees and more than 24 people with master degrees. It has established a "corporate postdoctoral research center" established an in vitro diagnostic engineering research center jointly with top-level scientific research institutions in the domestic life sciences field, and has carried out comprehensive cooperation with internationally renowned enterprises. Biosino has undertaken a series of national scientific and technological tasks such as the National Medical "863 Program", the National Science and Technology Support Program, the National High-tech Industry Demonstration Project, and the Chinese Academy of Sciences Knowledge Innovation Project, and has been recognized as an "innovative enterprise" in the national independent innovation demonstration zone.

Biosino has a production base of 16,000 square meters strictly in accordance with GMP standards, and has passed ISO9001, ISO13485, EU CE, Korean KGMP and Canadian CMDCAS quality management system certifications, and passed ISO/ICE17025:2005 "General requirements for the competence of testing and calibration laboratories", obtained the use of the CNAS laboratory accreditation mark. At present, 260 IVD assays registration certificates have been obtained, mainly covering 12 kinds of clinical chemistry testing items such as liver function, kidney function, blood lipid, cardiovascular, diabetes and rheumatism. It is one of the most complete manufacturers of clinical chemistry reagents in China.

Biosino has more than 500 agents and distributors, set up branches in most domestic provinces and overseas, and established a nationwide marketing network and technical service support system. Over the years, Biosino clinical chemistry products have been at the forefront of the domestic market, and overseas market is expanding continuously, the products are exported to more than 50 countries and regions in Europe, North America, Africa, Middle East and Southeast Asia. In the future, Biosino will continue to introduce more, newer and better products and services as always, and strive to make greater contribution to the development of China's IVD industry and the health of the Chinese people.

- Enterprise mission: Beautify life with science and technology
- Corporate vision: To become a pioneer in IVD industry with international competitiveness
- Enterprise values: Be an honest person and be the first in the world



## ■ RECOGNITION AND AWARDS



- State-level high-tech enterprises
- Beijing specialization, refinement, characteristic and novelty company







GOVERNANCE  
BIOSINO

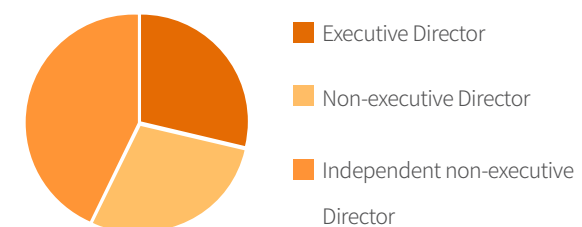
## BOARD DIVERSITY

For the year ended 31 December 2021 (the "Reporting Period"), the Company complied with all Code Provisions and, where appropriate, adopted the recommended best practices set out in the Corporate Governance Code, with the exception of Code Provision D.2.5 as addressed in the Corporate Governance Report in the annual report of the Company for the Reporting Period.

### BOARD DIVERSITY

The Board adopted the revised Board Diversity Policy for board members on January 8, 2019, which states that the selection of candidates for board members will be based on a series of diversity categories and refer to the business model and specific needs of the company, including but not limited to gender, age, race, language, cultural background, educational background, industry experience and professional experience.

At present, the Board has 2 executive Directors, 2 non-executive Directors and 3 independent non-executive Directors. From the educational background of the Directors, there are 2 people with doctoral degrees, 3 people with master's degrees and 2 people with bachelor's and other degrees; There are 6 men and 1 woman on the Board; In terms of the number of years as a director of the company, one director has served for more than 20 years, one has served between 6 to 9 years, and the other Directors have served for less than 5 years.



### GOVERNANCE STRUCTURE

The Board has established three board committees, namely, the remuneration committee, the nomination committee and the audit committee, to monitor the affairs of the Company.

### INTERNAL CONTROLS AND RISK MANAGEMENT

The Board is responsible for maintaining an appropriate and effective internal control and risk management system to protect the interests of the Company and shareholders, and

regularly review and supervise the effectiveness of the internal control and risk management system to ensure that the system is complete and sufficient. The relevant internal audit functions performed by the Board include: the Board formulates formal arrangements and applies the principles of financial reporting and internal control in accounting and financial matters to ensure compliance with the Rules ("Listing Rules") Governing the Listing of Securities on GEM of The Stock Exchange of Hong Kong Limited (the "Stock Exchange") and all relevant laws and regulations; Biosino appoints external consultants to conduct internal review on the scope determined by the audit committee. The existing organizational structure, close supervision of the management and the above-mentioned appointment of external consultants can enable the Company to maintain adequate risk management and internal control. The Board will review the necessity of establishing an internal audit function from time to time and may establish an internal audit team when necessary. Biosino holds regular meetings to discuss the procedures of finance, operation, compliance control and risk management, and reviews the performance of the Company with the audit committee every quarter, so as to ensure that effective safeguards have been implemented, identify potential risks and protect important assets.

### ANTI CORRUPTION POLICY

Biosino issued the anti corruption policy to fully support and uphold the high standards of integrity, honesty and fair competition in carrying out the Company's business, and will never tolerate any form of bribery or corruption. The policy clearly states that employees should abide by all applicable anti bribery laws, especially the Hong Kong bribery Prevention Ordinance, the British Anti Bribery Act, the People's Republic of China ("PRC") Criminal Law and the PRC Anti Unfair Competition Act, and common law relating to crimes to avoid misconduct of public officials. The Company regularly provides anti-corruption training and briefings for all employees. The training courses include online courses and on-site demonstrations. The Company actively encourages employees to report any concerns about bribery and corruption. All business departments keep records of suspected and actual accidents, and report relevant statistics to the financial controller of the Company on a quarterly basis. During the Reporting Period, there was no corruption incident in the Company.

### STAKEHOLDER IDENTIFICATION

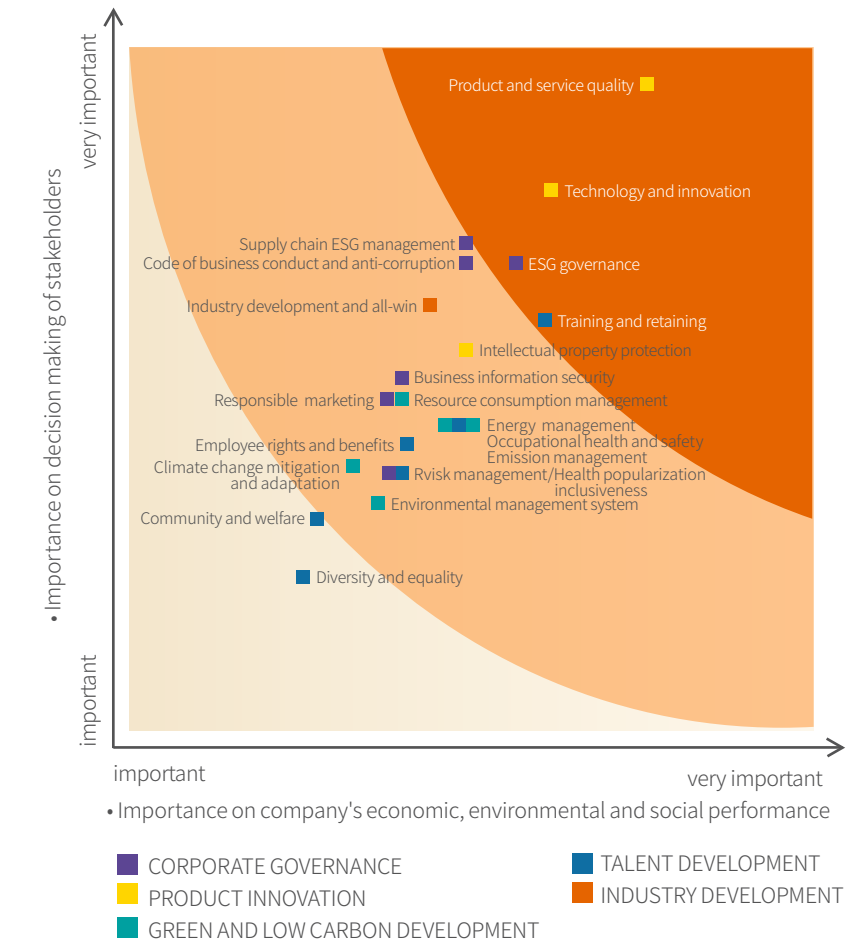
It is confirmed that in combination with the Company's own business characteristics and drawing on the experience of its peers, the main stakeholders of Biosino include: shareholders and investors, customers, employees, the Board and management, suppliers and partners, regulators and the government, as well as local society, non-governmental organizations and the media. Biosino can fully respect the legitimate rights of stakeholders and actively cooperate with them on the basis of fairness, rationality and mutual benefit to jointly promote the sustainable and healthy development of the Company. This year, we communicated with stakeholders in many ways through online and offline meetings, face-to-face interviews, questionnaire, etc.

Stakeholders	Issues of Concern	Communication Channels
Shareholders and Investors	<ul style="list-style-type: none"> <li>Compliance operation</li> <li>Information transparency</li> <li>Return on investment</li> <li>Improve product and service quality</li> <li>Risk management</li> <li>Corporate governance</li> <li>Market position</li> </ul>	<ul style="list-style-type: none"> <li>General meeting of shareholders</li> <li>Timely release, information on the Stock Exchange's and the Company's website</li> <li>Roadshows and public events</li> <li>Set up telephone, email and other communication channels</li> </ul>
Customers	<ul style="list-style-type: none"> <li>Stable relationship</li> <li>Customer service quality</li> <li>Protect customer privacy</li> <li>Business integrity and ethics</li> <li>Health and safety</li> </ul>	<ul style="list-style-type: none"> <li>Service visit</li> <li>Satisfaction survey</li> <li>Product training</li> <li>Telephone</li> <li>Wechat</li> <li>Email</li> </ul>
Employees	<ul style="list-style-type: none"> <li>Development and training</li> <li>Occupational health and safety</li> <li>Compensation and benefits</li> <li>Employee care</li> <li>Employee communication</li> </ul>	<ul style="list-style-type: none"> <li>Satisfaction survey</li> <li>Signing agreements</li> <li>Hold meetings</li> <li>Discussion</li> <li>Organizing activities</li> </ul>
The Board of Directors and	<ul style="list-style-type: none"> <li>Compliance operation</li> <li>Anti corruption</li> <li>Talent retention</li> <li>Enterprise sustainable development</li> </ul>	<ul style="list-style-type: none"> <li>Online communication</li> </ul>
Suppliers and Partners	<ul style="list-style-type: none"> <li>Fair bidding</li> <li>Business ethics and reputation</li> <li>Long term cooperative relationship</li> </ul>	<ul style="list-style-type: none"> <li>Supplier meetings</li> <li>Field investigation</li> <li>Signing the contract</li> <li>Telephone</li> <li>Wechat</li> <li>Email real-time communication</li> </ul>
Government and Regulators	<ul style="list-style-type: none"> <li>Compliance with regulations</li> <li>Policy implementation</li> <li>Pay taxes</li> <li>Responding to national strategies</li> </ul>	<ul style="list-style-type: none"> <li>Accept inspection and research</li> <li>Fill out forms</li> <li>Assist in review</li> </ul>
NGO and Media	<ul style="list-style-type: none"> <li>Give back to society</li> <li>Environmental protection</li> <li>Social welfare</li> <li>Health and safety</li> </ul>	<ul style="list-style-type: none"> <li>Exchange, interview and contact</li> <li>Community activities</li> </ul>

### MATERIALITY ASSESSMENT

Biosino identifies and summarizes materiality issues related to the Company in accordance with the guidelines on environmental, social and governance reports of the Hong Kong stock exchange, combining the evaluation of issues of internal and external stakeholders in the list of potential material measures, and the business attributes of Biosino. On the executive meeting of ESG and carbon assessment held on April 15, 2022, the opinions of ESG representatives were collected, the matrix of material issues was established. Based on this, the contents of ESG performance in this report were confirmed.

#### Materiality assessment



This report is based on the reporting principles of importance, quantification, balance and consistency. Major content changes have been reviewed and presented in the form of annual comparison for review by stakeholders.

- (a) Importance. When the issues related to ESG will have a significant impact on investors and other equity holders, they need to be disclosed in the report.
- (b) Quantification. Make the key performance indicators measurable so that the benefits of ESG management system can be evaluated and verified.
- (c) Balance. The ESG report presents the performance of the issuer in an impartial manner to avoid the possibility of improperly affecting the decision-making or judgment of the readers.
- (d) Consistency. Use consistent disclosure statistical methods so that ESG data can be compared meaningfully in the future.



ESG STRATEGY

	material issues	Action objectives
Corporate Governance	<ul style="list-style-type: none"> <li>• ESG governance</li> <li>• Corporate Governance Code and anti-corruption</li> </ul>	<p><b>Objectives of ESG Committee of the Board in 2022:</b></p> <ul style="list-style-type: none"> <li>• Revise and refine the the articles of association of the Company to enhance the effectiveness of governance;</li> <li>• Complete two ESG objective review meetings within the year;</li> <li>• Discuss and revise the annual material issues.</li> </ul>
Product Innovation	<ul style="list-style-type: none"> <li>• Product and service quality</li> <li>• Technology and innovation</li> <li>• Supply chain ESG management</li> <li>• Intellectual property protection</li> </ul>	<p><b>ESG supply chain management objectives in 2022:</b></p> <ul style="list-style-type: none"> <li>• Three key suppliers participated in the carbon evaluation of BioSino or passed the ESG audit;</li> <li>• Carry out carbon assessment pilot, and require class A material suppliers to provide product carbon emission information;</li> <li>• In the supplier self-assessment process, the requirements for them to carry out carbon assessment can be optional;</li> <li>• Set a target that 5% of suppliers will provide carbon emission data of goods or companies in 2022.</li> </ul>
Green and Low-carbon Development	<ul style="list-style-type: none"> <li>• Energy management</li> <li>• Emission management</li> <li>• Resource consumption management</li> </ul>	<p><b>Energy saving and low carbon goal of equipment and power:</b></p> <ul style="list-style-type: none"> <li>• The equipment of cold storage will be renewed one unit a year, and all of them will be renewed by 2028;</li> <li>• 10% less harmless waste per year;</li> <li>• Overhaul the bottom sewer pipe monthly to prevent water leakage.</li> </ul>
Talent development	<ul style="list-style-type: none"> <li>• Training and retaining</li> <li>• Occupational health and safety</li> <li>• Employee rights and benefits</li> </ul>	<p><b>Employee green and low carbon behavior initiative:</b></p> <ul style="list-style-type: none"> <li>• Encourage green office and green travel, and reduce the use of paper in the office through digital means;</li> <li>• The existing vehicles will be replaced by pure electric vehicles in steps every year, and all of them will be replaced by 2028;</li> <li>• Save energy through daily behavior and reduce power consumption by 5% every year;</li> <li>• The ESG training rate of all staff in 2022 will reach 100%;</li> <li>• Carry out a carbon public welfare action.</li> </ul>
Industry Development and Win-win	Industry development and all-win	<p><b>The initiative of the implementation of carbon assessment standards in the IVD industry:</b></p> <p>Through Zhongguancun IVD technology innovation alliance, promote the implementation of carbon assessment standards in the IVD industry.</p>



PRODUCT INNOVATION



# PRODUCT INNOVATION

## PRODUCT AND SERVICE QUALITY

As one of the largest industrial bases of medical biochemical diagnostic reagents in China, Biosino adopts international advanced management mode to realize advanced production processes such as microcomputer networking and automatic connection, and the production environment is fully closed, clean and automatic temperature control. At the same time, in strict accordance with the standard requirements of ISO 13485:2016, quality management personnel, quality control personnel and production operators with strong sense of responsibility and excellent technology are equipped to monitor the whole production process, and a perfect and strict quality control system is established. Quality control is carried out in the production process to ensure the repeatability and stability within and between batches of products; By participating in the inter room quality assessment activities of the Ministry of health and Beijing authorities, the accuracy of the products can meet or exceed the standard requirements. During the Reporting Period, the Company did not return products for safety and health reasons. Because the products sold by the Company do not reach consumers directly, it does not involve the protection of consumer data and privacy policies.

During the Reporting Period, the Company continued to increase R&D investment, continuously improve technology, improve production process, pay attention to the construction of product quality system, prolong product life cycle, reduce costs, and provide safer and more effective products and services. The R&D personnel write corresponding patent applications for the products developed, and protect relevant intellectual property rights through patent applications.

In order to promote partners to continuously improve their quality management level, the quality manual formulated in 2009 is revised and improved every year according to the requirements of laws, regulations and quality management system. 2021 is the 15th revision.

**HIGHLIGHT**

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the 15th revision Quality Manual

15<sup>th</sup>

## QUALITY MANAGEMENT COMMITMENT

The highest rank supervisor of the Company's quality management system is the president. In order to ensure the establishment, implementation and effectiveness of the Company's quality management system, the Company promises:

- Establish the guiding ideology of "focusing on customers" among all employees and translate it into the specific requirements of the Company;
- Formulate quality policy;
- Formulate quality objectives;
- Conduct management review regularly;
- Ensure the availability of resources and continuously improve the effectiveness of the quality management system.

## QUALITY MANAGEMENT SYSTEM

As a manufacturer of IVD, Biosino establishes, implements and maintains a quality management system and maintains its effectiveness in accordance with the requirements of ISO 13485:2016 "Medical Device Quality Management System Requirements for Regulations" and "Medical Device Production Quality Management Specifications".

**QUALITY POLICY**

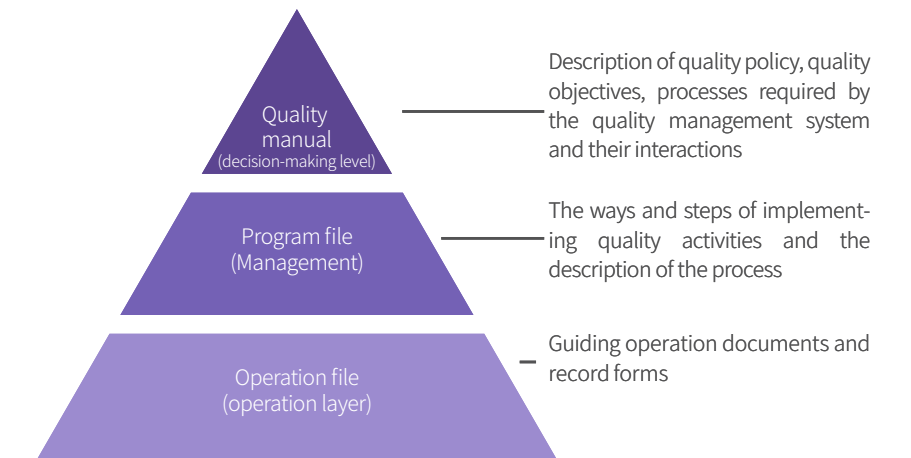
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High quality, efficient, innovative premium reagent products

Accurate, stable, detect life functions

As a manufacturer of in vitro diagnostic reagents, Biosino determines the required processes, including those related to management responsibilities, resource management, product realization, measurement analysis and improvement; the risk management control procedure is established and implemented to manage the process throughout the product life cycle. The sequence and interaction of the processes are clearly defined.

### Document structure of quality management system



## PLANT AND EQUIPMENT

In 2005, Biosino was the first to establish a microcomputer managed automatic production line in China and built a new plant in strict accordance with GMP standards. At the same time, in order to ensure the stability of product quality, the Company is equipped with international leading full-automatic biochemical analyzers such as Hitachi, Beckman and Abbott. It has automatic filling and plugging linkage machine, three head screw sub packer, freeze dryer and other automatic production equipment. Pure water treatment system and ultra pure water device are introduced. Combined with advanced production technology and management means, it provides strong technical support for the all-round compliance of clinical diagnostic reagents of Biosino.

## SAFETY AND QUALITY SYSTEM CERTIFICATION

Biosino has obtained a series of safety and quality management system certification, laboratory accreditation and other certificates:

- Three level review certificate of enterprise safety production standardization issued by the State Emergency Management Bureau;



- ISO13485:2016 Medical Device Quality Management System Certification



- ISO / IEC 17025:2017 General requirements for the competence of the laboratories in testing and calibration.



## SERVICE GUARANTEE

Biosino pursues the purpose of "technical service first", and has set up a technical service department to appoint high-quality talents majoring in inspection, pharmacy, medicine and marketing to conduct regular market patrol research and user follow-up. By holding training courses, holding academic exchanges, regularly publishing the bulletin of laboratory medicine technology, and combining with online interaction, we can provide users with professional technical support and services, and solve various difficult problems in product application on site. We also endeavour to provide customers with the best service at the first time.

The Company has established and implemented the customer feedback management procedure to standardize the customer complaint handling process in accordance with applicable laws and regulations, clarify the responsibilities of each department, and clarify the timeliness and effectiveness of customer complaint handling. The quality management department shall keep complaint handling records. The record includes:

- Receiving and recording information;
- Evaluate the information to determine whether the feedback constitutes a complaint;
- Investigate complaints;
- Determine whether information needs to be reported to the appropriate regulatory authorities;
- Dispose of products related to complaints;
- Determine whether corrective actions need to be initiated or not.

In 2021, there were no complaints about product quality, and there were 102 complaints about product packaging damage and individual product leakage. Relevant complaints have been quickly fed back and satisfactorily resolved.

The Company has simultaneously established and implemented the control procedure for adverse event monitoring and re evaluation of medical devices, carried out adverse event monitoring and re evaluation, and reported major quality accidents or advisory notices to relevant regulatory authorities. The quality management department shall keep records of reports to the regulatory authority.

In addition, the Company has established and implemented the product monitoring and measurement control procedure to monitor and measure the characteristics of products to verify that the product requirements are met. For the control of nonconforming products, the company has established and implemented the nonconforming product control procedure to ensure the identification and control of nonconforming products to prevent unexpected use or delivery.

## R&D AND INNOVATION

In 2021, in terms of R&D, we explored and innovated the R&D mechanism and reformed the operation mechanism of R&D projects. Biosino has established a performance appraisal system with the project as the core to change the focus of R&D center management from project process control to project initiation and achievement acceptance.

## R&D INVESTMENT

Since the foundation of China's enzyme single and double biochemical reagents, Biosino has been guided by meeting the needs of people's livelihood, taking promoting the development of national IVD industry as its own responsibility, paying attention to technological R&D investment, actively carrying out technological innovation, improving the intellectual property protection system, and giving full play to the advantages of independent intellectual property rights. The Company has a R&D team of more than 30 people, a 3,000 square meter R&D center and advanced diagnostic equipment. At present, the Company has obtained more than 70 patents, software copyright and trademarks.

In 2021, Biosino accelerated the pace of innovation and successively obtained a number of patents.

## R&D ACHIEVEMENTS

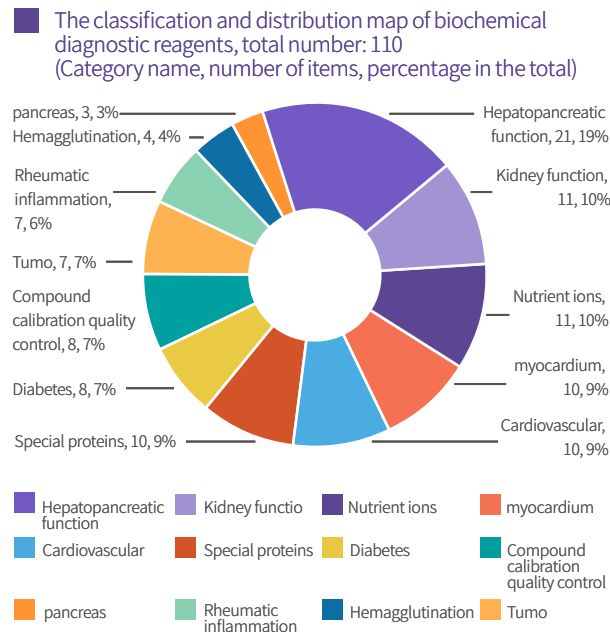
In 2021, Biosino obtained the new product registration of direct bilirubin determination kit, an anti crystallization creatine kinase detection kit and its preparation method obtained the invention patent, and Biosino user call center system v1 has obtained software copyright patents. During the Reporting Period, the Company's four products, including biochemical compound calibrators, obtained the Beijing technological innovation product certification.

In 2021, Biosino applied for one invention patent, four authorized patents and five authorized software copyrights. In 2022, new products closer to clinical needs and market requirements will be developed; the quality of existing products will be further improved and upgraded. While consolidating the existing products in the biochemical field around the direction of precision medicine, we will vigorously develop the research and development of new products in the immune and molecular fields. By the end of April 2022, the Company had 12 new biochemical products to be registered and submitted for approval; 2 immune products are ready for registration and approval; and two new molecular products were pending registration and approval.

REGISTERED PRODUCTS

In 2021, Biosino newly registered two products and continued to register 101 products; applied for 4 new technologies and products. At present, it has obtained 268 IVD reagent product registrations, mainly covering 12 types of biochemical testing items such as liver function, kidney function, blood lipid, cardiovascular, diabetes and rheumatism. It is one of the most complete manufacturers of biochemical diagnostic reagent products in China.

Existing biochemical projects: 12 categories and 110 projects, including 21 items of hepatopancreatic function and 11 items of renal function and nutritional ions; 10 myocardial, cardiovascular and special proteins; 8 items for calibration and quality control of diabetes and complex; Rheumatism, inflammation and tumor 7; Hemagglutination 3 items; Pancreas 3.



Product registration

	Unit	2016	2017	2018	2019	2020	2021
New product registration	Item	20	5	3	0	1	4
Product renewal registration	Item	2850	2685	2640	2932	2823	2390

TYPICAL CASE

Typical case :Lithium determination kit



Biosino is the first enterprise in China to use the biochemical platform "phosphatase method" to detect the blood lithium concentration. This product can be used in the field of mental diseases to quantitatively determine the serum lithium concentration of patients taking lithium salt (lithium carbonate) drugs in vitro. Lithium salt has always been the preferred recommended drug for the clinical treatment of bi-directional disorder. Due to its narrow treatment window, the determination of blood lithium concentration, as an important index to monitor the effective dose and toxic dose of lithium salt, is of great significance to guide the safe and rational use of drugs in clinic. The product is ready to use on the automatic biochemical analyzer and easy to operate; The test results are accurate and have good correlation with atomic absorption spectrometry and ion selective electrode method. It is suitable for routine use in clinical laboratories.

Typical case :Lschemia modified albumin assay kit

Ischemia modified albumin assay kit (IMA) is a biochemical diagnostic reagent, which has obtained KGMP quality system certification. This certification is one of the five quality system certifications. This reagent can be used as an early indicator of acute myocardial ischemia. During myocardial ischemia, IMA appears earlier than other myocardial markers (such as H-FABP, myo, CKMB, CTN). IMA can rise within minutes after ischemia and maintain a high level for several hours after ischemia remission.

The early diagnosis index of acute myocardial ischemia can significantly improve the sensitivity of early diagnosis of myocardial ischemia, assist in the exclusion diagnosis and short-term risk stratification of acute coronary syndrome (ACS), predict the detection results of troponin, and determine the severity of myocardial ischemia. It is the assessment index of coronary events after PCI.



02

Typical case :novel coronavirus (sars-cov-2) antigen detection kit

In 2020, the Company obtained the first-class product filing certificate for the two products of novel coronavirus nucleic acid extract and sample preservation solution. At the same time, the Biosino novel coronavirus (sars-cov-2) antigen (colloidal gold method) test kit was listed in the export white list of the Ministry of Commerce of China after obtaining CE access. The kit can quickly assist in the diagnosis of pneumonia infected by novel coronavirus, and can assist in the judgment of false negatives in nucleic acid detection methods.



03



## SUPPLY CHAIN ESG MANAGEMENT

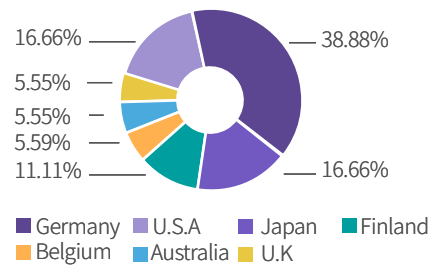
In order to ensure that suppliers meet the requirements and expectations of the company and conduct supplier management efficiently, Biosino has established a perfect supplier management system. We carry out supplier management in accordance with supplier review control procedure and procurement control procedure.

The supplier review control procedure can effectively select, evaluate and control suppliers to ensure that the products and services provided meet the requirements of the Biosino's production, development, testing and services. The supplier review team is composed of the heads of the Company's quality management department, finance department, reagent factory, procurement department, R&D department and quality control department. It is responsible for the evaluation of the supplier's quality system and the determination of qualified suppliers.

Biosino comprehensively evaluates the supplier's "quality system" from the aspects of the supplier's plant, personnel and training, material management, equipment, documents, production technology management, quality management, processing or testing products, delivery, contract signing and after-sales service. At the same time, Measures for Supervision and Administration of Medical Device Production, Specifications for the Production Quality Management of Medical Devices, Guidelines for the Audit of Suppliers of Medical Device Manufacturers, as well as the laws, regulations and industrial standards that suppliers should follow to ensure the quality of the products provided.

Class A material suppliers, which constitute the main part or key part of the Company's final products, could pass only when their qualification, quality management system, personnel qualification and sample evaluation meet the requirements. In addition, the purchasing department reviews the qualification of qualified material suppliers every six months, internally scores the supply quality, delivery date, use and after-sales service of suppliers, and eliminates unqualified suppliers.

Summary of multinational suppliers in different regions



## GOAL SETTING

### ESG supply chain management objectives in 2022:

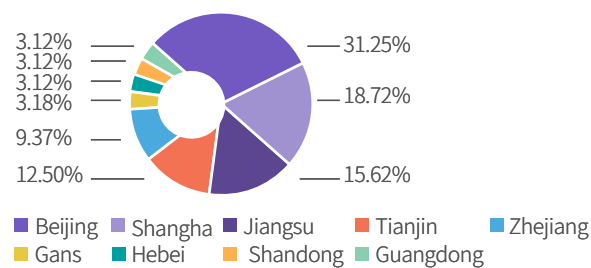
- Five class A key suppliers participated in the carbon evaluation of Biosino or passed the ESG audit;
- Carry out carbon assessment pilot, and require class A material suppliers to provide product carbon emission information;
- In the supplier self-assessment process, the requirements for them to carry out carbon assessment can be optional;
- Set a target that 10% of suppliers will provide carbon emission data of goods or of the enterprise in 2022. In 2028, 100% of suppliers will provide carbon emission data.

## 2022-2028

### According to the impact of purchased materials on Biosino's products, purchased materials are divided into three categories:

- Class A materials: raw materials that constitute the main part or key part of the final product and have a significant impact on product quality or safety performance, mostly enzymes, antiserum and other raw materials;
- Class B materials: raw materials that constitute non key parts of the final product, generally do not affect the quality of the final product, or even if there is a slight impact, measures can be taken to correct it. They are all raw materials other than class A materials;
- Class C materials: refer to all packaging materials, including inner packaging materials (bottles, plugs, covers) and outer packaging materials (labels, packaging boxes, shipping cartons, etc.).

Summary of China suppliers in different regions



GREEN AND LOW-CARBON DEVELOPMENT

# GREEN AND LOW-CARBON DEVELOPMENT

Biosino attaches great importance to environmental protection, emphasizes the importance of environmental protection to corporate social responsibility and sustainable development, and actively promotes the construction and implementation of environmental protection management system.

## ENVIRONMENTAL PROTECTION POLICIES AND OBJECTIVES

From the strategic perspective of environmental and social sustainable development, Biosino strictly controls pollution, promotes energy conservation and emission reduction, protects the ecological environment, and strives to create an environment-friendly business community. During project screening, the Company focuses on its potential impact on the environment, attaches great importance to environmental protection, ensures the environmental impact compliance and compliance of Biosino's business activities, actively enables the wide application of advanced environmental technology in the Company's business activities, reduces resource consumption, and advocates the attention of all stakeholders to environmental protection.

During the Reporting Period, the Company and relevant departments carried out full coverage inspection on the environmental management status of all holding subsidiaries, promoted the improvement of environmental management of holding subsidiaries, and completed the construction and implementation of management system within a time limit, so as to effectively ensure the sustainable development of the enterprise. During the Reporting Period, Biosino, its subsidiaries and joint-stock enterprises did not have any environmental pollution incidents.

**TO ACHIEVE THE DOUBLE CARBON GOAL, WE MUST HAVE CLEAR GOALS AND REALIZATION PATHS. AS A PIONEER IN THE IVD INDUSTRY, BIOSINO SHOULD ACTIVELY RESPOND TO NATIONAL POLICIES AND TAKE THE INITIATIVE. BIOSINO PLANS TO ACHIEVE CARBON PEAK BY 2028 AND CARBON NEUTRALIZATION BY 2050, PROMOTE THE IMPROVEMENT OF THE OVERALL VALUE OF THE COMPANY, CONTINUE TO MAKE CONTRIBUTIONS TO THE SOCIETY AND ACHIEVE WIN-WIN BETWEEN THE ENTERPRISE AND THE SOCIETY.**

—CHAIRMAN, MR. WU LEBIN

## ADDRESSING CLIMATE CHANGE

In 2021, Biosino conducted a carbon inventory of the Company in accordance with ISO 14064-1:2018 specifications and guidelines for quantification and reporting of greenhouse gas emissions and removals at the organizational level, and invited the Enterprise Green Development Research Institute to carry out a "carbon assessment" of the company in accordance with the Enterprise Carbon Assessment Standard.

The inventory and analysis of greenhouse gas data is the first step of carbon emission management by BioSino. From the perspective of the Company's main carbon emission sources, the Company's direct emissions (Scope 1) mainly come from the operation of its own vehicles and refrigerant escape emissions; Indirect emissions (Scope 2) mainly come from the power and steam of factories and office buildings; Other emissions (Scope 3) mainly come from product raw materials, purchased packaging materials, outsourced logistics and transportation services, sewage treatment and employee travel and commuting.

### List of major carbon emission sources in 2021

Scope	Definition	Main emission activities
Scope 1	Direct emissions from greenhouse gas emission sources owned or controlled by Biosino	<ul style="list-style-type: none"> <li>Owned vehicle operation</li> <li>Refrigerant escape</li> </ul>
Scope 2	Indirect greenhouse gas emissions from electricity and steam purchased by BioSino	<ul style="list-style-type: none"> <li>Power consumption of factories and office buildings</li> <li>Plant steam</li> </ul>
Scope 3	All other indirect emissions generated in the supply chain of BioSino	<ul style="list-style-type: none"> <li>Product raw materials</li> <li>Purchased packaging materials</li> <li>Outsourced logistics and transportation services</li> <li>Sewage treatment</li> <li>Staff travel and commuting</li> </ul>

### Summary of greenhouse gas emissions (Scope 1 + Scope 2) controlled by BioSino during the Reporting Period:

Scope 1: in 2021, the direct emission from greenhouse gas emission sources owned or controlled by Biosino is 78.385 tons of CO2 equivalent, mainly including the operation of its own vehicles and refrigerant escape.

Scope 2: in 2021, the indirect emission of greenhouse gases generated by electricity and steam purchased by Biosino is 1471.94 tons of CO2 equivalent, mainly in terms of power and steam consumption of factories and office buildings.

### Carbon emission structure in 2021

	Unit	2021	2020
Scope 1	tons of CO2 equivalent	78.385	86.99
Scope 2	tons of CO2 equivalent	1471.94	1248.4
Total	tons of CO2 equivalent	1550.325	1335.39

## GOAL SETTING

### "Double carbon" Goal:

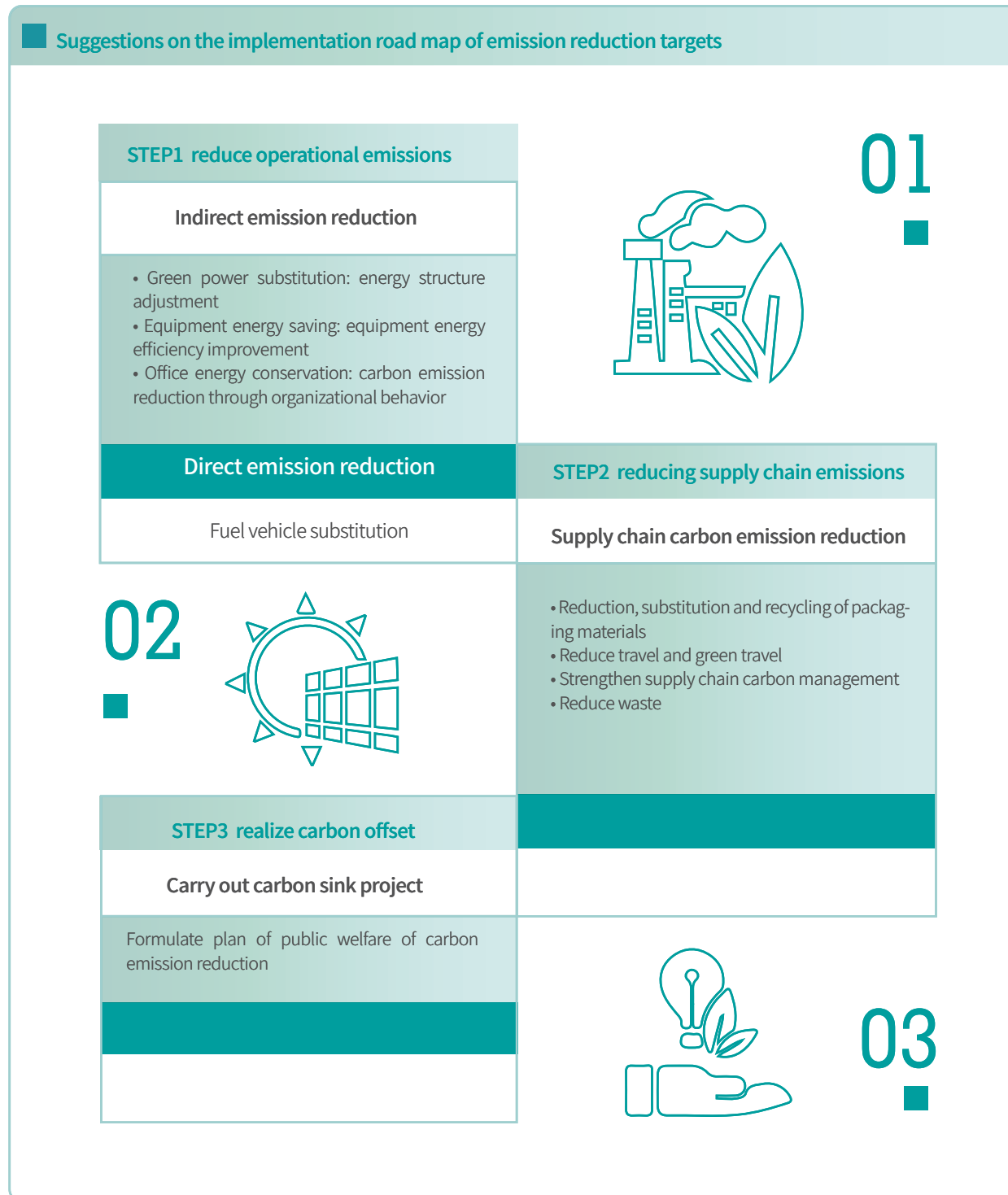
- Achieve carbon peak before 2028,
- Achieve carbon neutrality before 2050.

2028  
2050

## GOAL SETTING

- The equipment of cold storage will be renewed one unit a year, and all of them will be renewed in 2028;
- 10% less harmless waste per year;
- Overhaul the bottom sewer pipe monthly to prevent water leakage.

## CARBON EMISSION REDUCTION ROADMAP



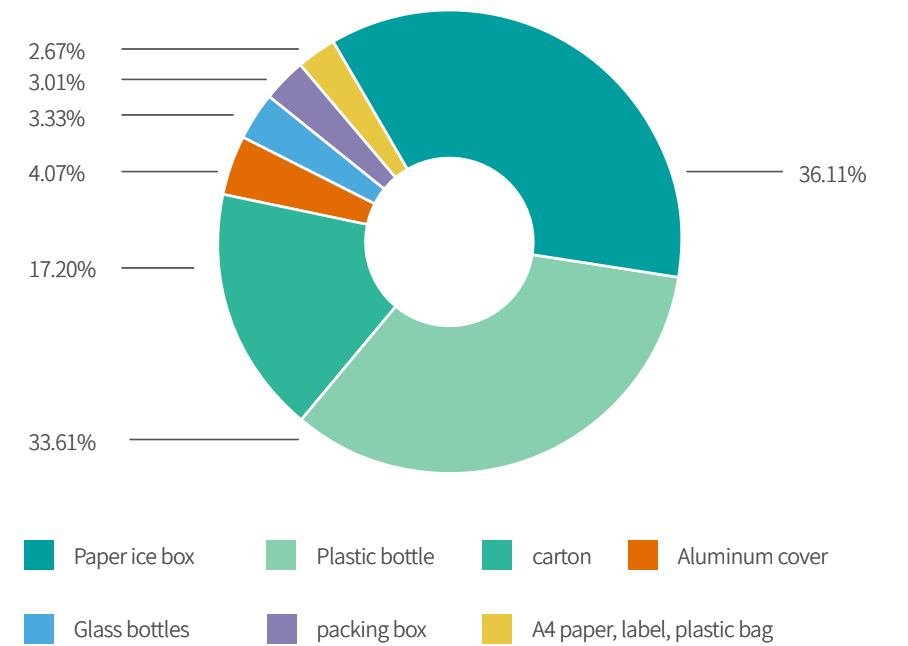
## POWER EMISSION REDUCTION SCHEME

- Set aside part of the funds for the deployment of renewable energy by saving basic electricity charges;
- By adopting digital intelligent power monitoring means, spare some manpower and investment funds to deploy renewable energy;
- Look for renewable energy alternatives other than photovoltaic, such as purchasing green electricity or green certificates.

## CARBON EMISSION REDUCTION SCHEME OF PACKAGING MATERIALS

- Replace the package of glass bottle with the small package of single copy, because the large package usually has a large amount of reagent capacity. If it expires, it can not be reused and can only be thrown away, resulting in unnecessary waste;
- Through research and development, it can replace some raw materials that must be refrigerated and allow more products to be stored at room temperature, which can not only reduce the use of paper ice box, but also reduce cold chain logistics, so as to reduce carbon emissions.
- Extend the validity period of reagent products, so as to reduce the waste of reagents and reduce the use of packaging materials.

Carbon emission proportion of different packaging materials





# EMISSION MANAGEMENT, THE UTILIZATION OF RESOURCE AND ENERGY

## EMISSION MANAGEMENT

As the Company is mainly engaged in the production, sales and distribution of IVD reagent products, the business does not produce or discharge nitrogen oxides, sulfur oxides and other pollutants regulated by Chinese national laws and regulations. The Company entrusts a third-party organizations to uniformly dispose of the generated hazardous waste on a regular basis. On the premise of ensuring the safety of hazardous waste storage, transportation and disposal, Biosino realizes the reduction of hazardous waste by standardizing the behavior of employees and raw material substitution. In addition, the production of emissions is reduced through the design of products that reduce the generation of waste liquid.

## POLLUTANT EMISSION CLASSIFICATION:

- Sewage: it is composed of industrial sewage and domestic sewage. Main types of pollutants: five-day chemical oxygen demand, chemical oxygen demand, ammonia nitrogen, suspended solids and oils.
- Atmospheric emission: process waste gas, vehicle exhaust, etc
- Solid waste consists of hazardous waste and general waste. Hazardous wastes include chemical raw materials used in the production process, acids, alcohols, etc. and medical wastes generated in the laboratory. General wastes include recyclable wastes, such as packaging materials and domestic garbage generated by office.

Biosino strictly abides by relevant laws and regulations and relevant standards for the discharge of waste gas, wastewater and waste in the place of operation, and manages it in accordance with the environmental protection management system.

## MEASURES TO CONTROL POLLUTANT EMISSION:

- After the sewage treatment and pretreatment and reaches the standard, it will be discharged into the back-end secondary sewage treatment plant or the municipal sewage pipe network.
- The atmosphere is adsorbed by activated carbon, and the liquid agent is sprayed or dedusted. The tail gas is discharged at high altitude in compliance with regulations. The traffic tail gas is used in compliance with national standards.
- Each holding subsidiary should carry out the final compliance disposal through the professional organization with disposal qualification approved by the local environmental protection bureau, and carry out incineration, landfill or reprocessing and utilization in accordance with the regulations.

### Typical case: product design to reduce waste liquid



#### Biochemical reagent albumin (ALB) - Project advantages:

The reagent reaction system is different from the succinic acid system commonly used in the market, but applies citric acid buffer system, avoids the use of sodium azide, and the reagent does not produce pollution and is environment-friendly. The reagent storage conditions are low, and it can be stable for 3 years at 2-8 °C. The reagent calibrator is traceable to the international reference material ERM-DA470K, and the measured value is accurate and reliable.

ALB

## RESOURCE USE, ENERGY CONSUMPTION AND INVESTMENT IN ENVIRONMENTAL PROTECTION FACILITIES

employees, reduce energy consumption and reduce the Company's operating costs. The Company's air conditioning cooling system adopts circulating water to avoid the consumption of cooling water, so as to improve the water efficiency plan and achievements. All production and office water is provided by the municipal waterworks without any problems.

During the Reporting Period, in order to improve the environmental protection performance, the Company continued to maintain the investment in environmental protection, optimized the production process and improved the efficiency of production facilities, so as to achieve energy conservation, emission reduction and environmental protection. Continue to invest in the construction, upgrading and transformation of environmental protection hardware facilities.

	Unit	2016	2017	2018	2019	2020	2021
Use of water resources	cubic meter	28,433	24,360.7	17,842	18,000	16,724	14,800
Power consumption	KWh	2,357,900	2,445,810	1,363,250	1,364,450	1,500,000	1,207,216
Steam	ton	/	/	400	600	600	700
Solid waste	ton	16.5	14.37	15.12	10	10	4.89
Hazardous waste	ton	/	/	/	2	2.3	3.2
Environmental protection facilities and transformation investment	Ten thousand yuan	66	14	3	5	115	4

## USE OF PACKAGING MATERIALS

The types of packaging materials used by Biosino's finished products are mainly rubber, glass, plastic and paper products. In 2021, Biosino will consume 7.92 tons of glass bottles, 51.08 tons of plastic bottles, 1.38 tons of rubber plugs, 2.2192 tons of aluminum caps, 13.14 tons of packaging boxes, 3.34 tons of A4 paper, 2.3 tons of labels, 19.67 tons of paper ice boxes, 0.37 tons of plastic bags, 12.04 tons of cartons and 6.67 tons of foam boxes.





# TALENT DEVELOPMENT



## TALENT DEVELOPMENT

### CORPORATE CULTURE AND THE CONCEPT OF EMPLOYING

From the beginning, Biosino has accumulated profound cultural heritage. It has built a career platform for employees through various institutional arrangements and organizational construction; And enter a cultural atmosphere at high speed through various exciting or warm activities.

#### BUSINESS PHILOSOPHY

01

**“Focus on the main business, build an industrial chain and build competitiveness”**

- Focus on product research and development, activate product sales and strengthen international cooperation
- Reshaping the core subsidiary strategy based on the principle of creating value
- Solve the main contradictions respectively in the front, middle and back stage, so as to improve and optimize organizational effectiveness

#### VIEW OF EMPLOYMENT

02

**“Believe in the future, embrace change, change yourself and create value”**

- Cultivate a team of senior executives who have feelings, dare to take responsibility, understand operation and good at management
- Highlight performance orientation, stimulate innovation, Managers can be promoted or demoted, employees can be eliminated or re employed
- Establish an assessment system based on the principle of value creation, and establish a sharing mechanism between enterprise benefits and all employees

#### PRODUCT MANAGEMENT PHILOSOPHY

03

**“High quality, efficient, Create reagent Boutique; Accurate, stable, Measure life function”**

- Clear R&D direction and improve R&D Efficiency
- Continuously optimize cost and seize market share
- Strictly control product quality and create market competitiveness

## TALENT TRAINING AND RETENTION

### OUR EMPLOYEES

Biosino has perfect system and standardized management, adheres to the principle of "respecting talents, trusting talents and understanding talents", creates a stage and opportunity for employees development, encourages employees to display their talents, makes the enterprise develop and grow by giving full play to employees talents, and reflects employees' own value through the development and growth of the enterprise.

Relevant employment systems include employee handbook, attendance and leave management system, salary management system of Biosino, performance appraisal management measures, probation management measures, employee transfer and promotion management measures, management measures for managers, welfare payment measures, harmony fund management measures, honor award regulations A series of regulations such as the regulations on the administration of labor insurance payment guarantee the rights and interests of employees, create fair and equal work opportunities for employees, provide rich welfare benefits, and provide protection for their career planning.



Biosino establishes and implements a sound salary incentive system, determines the post salary of personnel through different positions and ranks, establishes the salary system of R&D technicians, functional departments and sales personnel, establishes a reasonable rising channel, gives full play to the incentive role of salary, selects and reserves excellent talents according to the management personnel assessment methods and personnel promotion management methods, and establishes a talent reserve mechanism. Biosino abides by the provisions of the labour law, works within 8 hours a day, implements the two-day rest system, and provides annual leaves, marriage leaves, parental leaves and other legal holidays. The relevant subsidies include health care expenses, fever subsidies, professional title subsidies, age subsidies, cold storage subsidies, etc.

**Business centers**

	BioSino Beijing	BioSino Jin Yu	BioSino Jiangsu	BioSino Anhui
senior executive	9	11	1	2
Marketing Center	109	16	9	3
Product R&D Center	24	22	12	/
Manufacturing center	66	40	3	/
Management Support Center	29	15	10	18
total	237	104	35	23

**Education**

	BioSino Beijing	BioSino Jin Yu	BioSino Jiangsu	BioSino Anhui
doctor	4	1	1	/
master	32	8	3	/
undergraduate	87	21	20	4
Junior college or below	114	74	11	19
total	237	104	35	23

**Title**

	BioSino Beijing	BioSino Jin Yu	BioSino Jiangsu	BioSino Anhui
senior	13	2	1	/
intermediate	29	8	7	5
primary	32	2	27	18
nothing	163	92	/	/
total	237	104	35	23

**Age**

	BioSino Beijing	BioSino Jin Yu	BioSino Jiangsu	BioSino Anhui
20-30 years old	45	8	8	8
31-40 years old	113	37	19	12
41-50 years old	63	37	8	3
51-60 years old	16	22	/	/
total	237	104	35	23

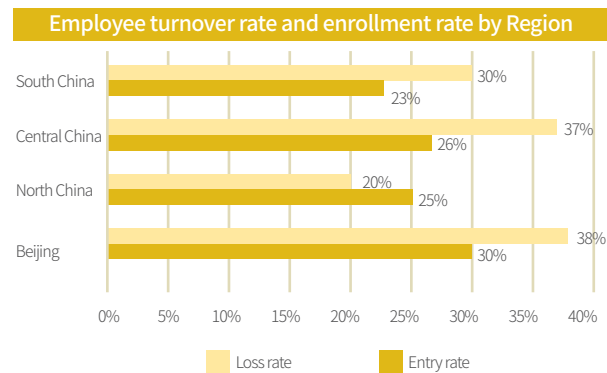
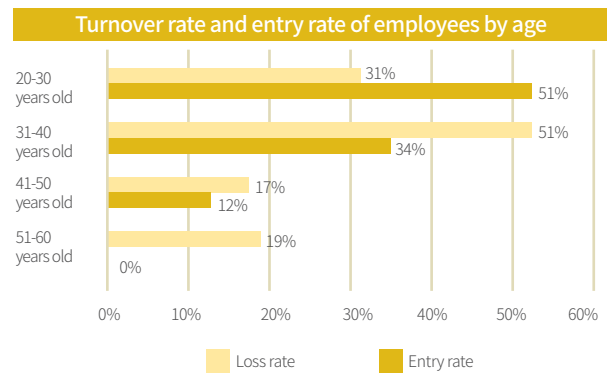
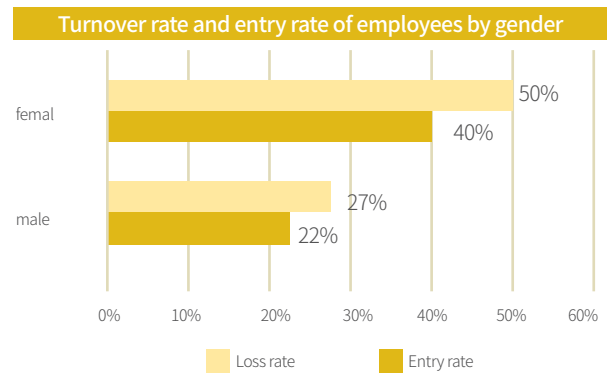
**Gender**

	BioSino Beijing	BioSino Jin Yu	BioSino Jiangsu	BioSino Anhui
male	143	34	26	10
female	94	70	9	13
total	237	104	35	23

The Company provides every employee with equal opportunities for entry and promotion, and has perfected management systems and regulations, which are strictly enforced.

Last year, Biosino adjusted its organizational structure, strengthened performance appraisal and personnel management, strengthened the survival of the fittest mechanism internally, eliminated the last element of incompetent personnel through appraisal, optimized personnel structure and improved personnel efficiency, resulting in the resignation of some personnel. In addition, there are employees who left for personal reasons, including not adapting to new positions after job change, relocating to a place far away from the Company and seeking other personal development.

**Information disclosure on employee enrollment rate and turnover rate (Biosino)**



**DEVELOPMENT AND TRAINING**

Biosino has seven training types: senior management training, middle-level management training, marketing training, professional technical training, professional skill training, general training for all staff and new employee training, including company level, department level and team level. Conduct in-depth training demand analysis for various types of training, enhance the pertinence of training contents, strengthen the tracking, assessment and evaluation of trainees, apply what they have learned, develop in an every expect, and improve the comprehensive quality and ability of employees through various trainings.

In 2021, Biosino's quality management system, safety production system and other training management systems operated well. The company organized and implemented three induction training for new employees, assisted the quality management department and the registration department in implementing training related to laws and regulations, and assisted all departments in implementing daily training such as quality management system documents, on-the-job training, continuing education of special equipment operation and so on.

In addition, the human resources administration department also organized and implemented the vocational skill training of Beijing vocational skill improvement action, involving general management, professional quality, safety production, post skills, health and epidemic prevention and other training contents, which improved the professional quality, professional skills and management competence of employees.

**HIGHLIGHT**

2021 vocational skill upgrading training subsidy: **172000 ¥**  
¥ 172000 yuan

2022 vocational skill upgrading training subsidy: **101600 ¥**  
¥ 101600 yuan

**ASSESSMENT AND INCENTIVE**

Biosino has formed a performance appraisal system based on KPI and balanced scorecard. Based on the post responsibilities of senior managers, set assessment indicators according to the Company's strategic objectives and budget decomposition at the beginning of each year, sign performance assessment letters and conduct performance assessment level by level. By the end of the year, their salaries had not been approved according to their performance indicators, and the performance evaluation standards and assessment procedures of senior managers had been effectively implemented. And make corresponding amendments and improvements according to the implementation.

At the same time, Biosino has established a targeted and operational evaluation and incentive mechanism at all levels, so as to further improve the corporate governance structure and all staff incentive mechanism, fully mobilize the enthusiasm of management and key employees, effectively combine the interests of shareholders, the Company and the personal interests of operators, and make all shareholders pay attention to the long-term development of the company.

Biosino has established an internal control system, and the effectiveness and rationality of the system are supervised and evaluated through internal audit. The effective internal control system ensures the effective implementation of applicable laws and internal systems, effectively reduces the risk of corruption and violation, and improves the operation ability of the company.



## OCCUPATIONAL HEALTH AND SAFETY

Biosino attaches importance to the occupational health protection of employees to avoid occupational hazards to their health, organizes relevant personnel to carry out occupational health examination in accordance with the requirements of laws and regulations, establishes special occupational health committees and working groups, sets up occupational health education billboards, publicizes and implements the requirements of laws and regulations, strengthens the occupational health protection of employees, provides labor protection articles, and replaces them regularly to ensure their safety and effectiveness.

Biosino strictly implements the provisions of the PRC Labour Law, the PRC Labour Contract Law and other laws and regulations, which eliminates the employment of child labor and forced labor, and no relevant events have occurred. Biosino abides by the PRC Employment Law in its recruitment standards to ensure fairness and equality.

Since 2014, Biosino has started the work of meeting the safety production standard, established the safety production leading group, occupational health leading group, biosafety Committee and leading group, and achieved the "national level II standard enterprise of safety production", the "level III standard enterprise of safety production" and the "standard unit of occupational health infrastructure construction activities in Beijing" in 2021. In terms of production and operation, the Company supervises and manages all work related to safety production, biosafety and occupational health in accordance with the requirements of laws and regulations.

### HIGHLIGHT

- The number of deaths due to work in 2021 is 0
- No industrial accidents in 2021
- Number of working days lost due to work injury: 0
- Employee training coverage: 100%
- Training duration per employee: 40 hours



Biosino's occupational health management work is organized and implemented, such as occupational health examination, occupational health training and occupational health declaration to ensure the smooth development of occupational health management. In 2020 and 2021, the company's occupational health examination found 2 incidents of occupational non-compliance incidents of noise restriction, and the labour contracts have been terminated through negotiation.

## OBJECTIVES SETTING

### Employee green and low carbon behavior initiative:

- Encourage green office and green travel, and reduce the use of paper in the office through digital means;
- The existing vehicles will be replaced by pure electric vehicles in steps every year, and all of them will be replaced in 2028;
- Save energy through daily behavior and reduce power consumption by 5% every year;
- The ESG training rate of all staff in 2022 will reach 100%;
- Carry out a carbon public welfare action.

### Training coverage 100%

	male	female
Training coverage	100%	100%

	Senior Manager	Middle managers	Staff
Training coverage	100%	100%	100%

### Average training duration 40 hours

	male	female
Average training duration	40 hours	40 hours

	Senior Manager	Middle managers	Staff
Average training duration	30 hours	50 hours	40 hours

## COMMUNITY PARTICIPATION

### FIGHT THE COVID-19

In terms of social welfare, during the Reporting Period, Biosino continued to support scientific research, health poverty alleviation, combating epidemic diseases, disaster assistance and other aspects, undertake social responsibilities and give back to the society.

In 2020, in the critical period of combating the COVID-19, Biosino actively perform its social responsibilities while doing well in its own prevention and control and digesting the adverse effects caused by the epidemic. In the company's internal production, supply and marketing departments cooperate closely to do a good job in the normal and continuous supply of basic testing and other related products required by the hospital. The sales personnel and technical service personnel did not stop working because of the epidemic, and timely sent the new products to the first-line hospital that needed them most.

Since the outbreak of the COVID-19, Biosino has bravely undertaken the mission and responsibility of national enterprises: donating anti epidemic materials to many hospitals such as Hubei; As an official procurement channel authorized by the British Embassy to purchase epidemic prevention materials at the time of the global spread of the epidemic; It was listed in the list of the first batch of 100 epidemic prevention products enterprises supported by the Beijing municipal government.

### HARMONIOUS DEVELOPMENT FUND

Since 2005, Biosino has established the harmonious development fund, which is mainly used to distribute congratulatory gifts for the marriage of the company's on-the-job employees and the college entrance examination of their children, provide subsidies for the illness of the on-the-job employees and their family members, and distribute honor bonuses to retired employees, with a cumulative amount of more than RMB 1 million. At the beginning of 2022, under the initiative and organization of the leaders, the company's labor union and the Party branch, a donation activity was launched for a sick employee, raising a total of more than RMB 60000.





## INDUSTRY DEVELOPMENT

## INDUSTRY DEVELOPMENT

### PARTICIPATE IN THE FORMULATION OF INDUSTRY STANDARDS AND GROUPS STANDARDS

Participating in the formulation of national standards, industrial standards and group standards is of great significance to Biosino. They can not only take the lead in adjusting product quality, seize market opportunities, improve the popularity of enterprises in the same industry and market, and build enterprise brands. It can also guide the development direction of the IVD industry, even cause the new positioning of the industry, improve the market recognition of the enterprise's products, and then expand the market share and improve the competitiveness. At present, there are 12 industry standards and group standards drafted and issued by BioSino.

#### Industry standards and group standards

	Standard name	Standard number	Release date	Implementa- tion date	Implementa- tion date
1	Total protein assay kit	YY/T 1444-2016	2016/1/26	2017/1/1	Industry standard
2	Lipoprotein (a) detection kit	YY/T 1448-2016	2016/1/26	2017/1/1	Industry standard
3	Carbon dioxide determination kit	YY/T 1523-2017	2017/3/28	2018/4/1	Industry standard
4	C-reactive protein assay kit	YY/T 1513-2017	2017/3/28	2018/4/1	Industry standard
5	Creatine kinase isoenzyme MB assay kit	YY/T 1580—2018	2018/2/24	2019/3/1	Industry standard
6	Heart type fatty acid binding protein assay kit (immunoturbidimetry)	YY/T 1590—2018	2018/2/24	2019/3/1	Industry standard
7	Glycosylated hemoglobin determination kit (latex immunoturbidimetry)	YY/T 1605—2018	2018/2/24	2019/3/1	Industry standard
8	Allergen specific IgE antibody detection kit	YY/T 1581—2018	2018/2/24	2019/3/1	Industry standard
9	Evaluation of measurement uncertainty of calibrators for in vitro diagnostic reagents	YY/T 1709—2020	2020/6/30	2021/12/1	Industry standard
10	mutation detection kit	YY/T 1800-2021	2021/9/6	2023/3/1	Industry standard
11	In vitro diagnostic test system performance evaluation methods Part 1: precision	YY/T 1789.1-2021	2021/9/6	2023/3/1	Industry standard
12	In vitro diagnostic calibrator Assignment Application Guide	T/ZMDS 40001-2021	2021/8/25	2021/8/25	Group standard



### JOINTLY PROMOTE THE EVALUATION STANDARD OF "QUALITY LEVEL"

Zhongguancun IVD industry technology innovation alliance, united 36 alliance companies to put forward suggestions to the National Medical Security Bureau: the evaluation standard of "quality level" is established during the process of vitro diagnostic reagent procurement to meet the requirements of precision medicine for the accuracy of clinical test results. It is necessary to conduct a comprehensive and unified evaluation of the "quality level" of reagents. After all, cost reduction under the premise of ensuring medical quality, is responsible behavior to the industry and the country.

#### Zhongguancun IVD industry technology innovation alliance

Biosino is the chair member of Zhongguancun IVD industry technology innovation alliance. As the chairman of the alliance, Mr. Wu Lebin jointly initiated the establishment with eight well-known companies in the IVD industry. Guided by industrial technological innovation and centered on the implementation and industrialization of technological achievements, it will further solve the common technical problems of China's IVD industry and promote the further development of the national IVD industry.

### CARRYING OUT ACADEMIC DISCUSSION

#### New technology / product seminar

The first new technology / product seminar in 2021 -meeting on research progress and application prospects of nano antibody was successfully held in the conference hall on the 5th floor of Building 9, Institute of Biophysics, Chinese Academy of Sciences, on the morning of March 24, 2021. Government officials, alliance members, many inspection experts and enterprise colleagues gathered together, conducted in-depth discussions on how to break the import monopoly and solve the problem of "neck sticking" of reagent consumables and raw materials under the new situation. Topics also included independent research and development from the source of antibody raw material supply chain and how to use the industrial innovation alliance platform to realize the transformation of scientific and technological achievements.

中关村中创体外诊断产业技术创新联盟 2021年第一次新技术/新产品研讨会  
2021.3.24 北京



### APPENDIX I: INDEX TABLE OF HKEX ESG REPORTING GUIDE

Subject Areas, Aspects, General Disclosures and KPIs		Chapter and page
A. Environment		
<b>Aspect A1</b>	<b>Emissions</b>	
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste. Note: Air emissions include NOx, Sox, and other pollutants regulated under national laws and regulations. Greenhouse gases include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride.	P23
KPI A1.1	The types of emissions and respective emissions data.	P27
KPI A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P24
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P28
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P28
KPI A1.5	Description of emissions target(s) set and steps taken to achieve them.	P24-25
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	P27
<b>Aspect A2</b>	<b>Use of Resources</b>	
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials. Note: Resources may be used in production, in storage, transportation, in buildings, electronic equipment, etc.	P27
KPI A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	P28
KPI A2.1	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	P28
KPI A2.1	Description of energy use efficiency target(s) set and steps taken to achieve them.	P26
KPI 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.	P28
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	P28
<b>Aspect A3</b>	<b>The Environment and Natural Resources</b>	
General Disclosure	Climate Change	P27
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions	P27
<b>Aspect A4</b>	<b>Climate Change</b>	
General Disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	P24
KPI 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.	P25



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Subject Areas, Aspects, General Disclosures and KPIs		Chapter and page
B. Social		
<b>Aspect B1</b>	<b>Employment and Labour Practices</b>	
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	P30
KPI B1.1	Total workforce by gender, employment type (for example, full – or part – time), age group and geographical region.	P31
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	P31
<b>Aspect B2</b>	<b>Health and Safety</b>	
General Disclosure	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	P33
KPI B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	P33
KPI B2.2	Lost days due to work injury.	P33
KPI B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	P33
<b>Aspect B3</b>	<b>Development and Training</b>	
General Disclosure	Policies on improving employees knowledge and skills for discharging duties at work. Description of training activities. Note: Training refers to vocational training. It may include internal and external courses paid by the employer.	P32
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	P33
KPI B3.2	The average training hours completed per employee by gender and employee category.	P33
<b>Aspect B4</b>	<b>Labour Standards</b>	
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	P33
KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	P33
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	P33
<b>Aspect B5</b>	<b>Supply Chain Management</b>	
General Disclosure	Policies on managing environmental and social risks of the supply chain.	P21
KPI B5.1	Number of suppliers by geographical region.	P21
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	P21

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<b>Aspect B5</b>	<b>Supply Chain Management</b>	
KPI B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	P21
KPI B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	P21
<b>Aspect B6</b>	<b>Product Responsibility</b>	
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating toDescription of consumer data protection and privacy policies, and how they are implemented and monitoredhealth and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	P15
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons	P15
KPI B6.2	Number of products and service related complaints received and how they are dealt with.	P17
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	P17
KPI B6.4	Description of quality assurance process and recall procedures.	P17
KPI B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	P13
<b>Aspect B7</b>	<b>Anti-corruption</b>	
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	P10
KPI 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 cases.	P10
KPI B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	P10
KPI B7.3	Description of anti-corruption training provided to directors and staff.	P32
<b>Aspect B8</b>	<b>Community Investment</b>	
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operatesand to ensure its activities take into consideration the communities' interests.	P34
KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport).	P34
KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	P34

# ABOUT THIS REPORT

## Overview

This report is the first ESG report independently issued by the Company, which comprehensively reflects the Company's performance in ESG. This report is an ESG report, covering the environment, social and governance of the year from January 1, 2021 to December 31, 2021.

## Report methodology

This report is prepared in accordance with the requirements of Appendix 20 of the GEM Listing Rules. In terms of climate change information disclosure, the reference is made to the requirements of the guidelines on "Report climate information in accordance with TCFD recommendations of the Stock Exchange".

## Report scope

The policies and data provided in this report covers the Company and its subsidiaries, and the scope of the report is consistent with the annual report. The data and cases in this report are mainly from the Company's statistic reports and relevant documents. The disclosure boundary is: (a) subsidiaries with consolidated financial statements; (b) subsidiaries actually controlled; and (c) the relevant company has been put into operation for two natural years or more.

The Board confirms that there are no false records and misleading statements in this report, and is responsible for the authenticity, accuracy and completeness of its contents.

## Report language

The report is drafted in Chinese and English.

## Confirmation and Approval

This report was approved by the Board on May 12, 2022, following confirmation by the ESG Committee.

## Acquisition method

This report is provided in both paper and electronic forms. The electronic version of this report can be viewed and downloaded from the official website of Biosino, and published on the website of the Stock Exchange at the same time.

# READER FEEDBACK

## Dear readers:

Thank you for reading this report. This is the sixth consecutive year that Biosino has disclosed environmental, social and governance information. It is the first time that Biosino has independently released the ESG report. We hope that you can evaluate this report and put forward your valuable opinions to help us continuously improve the report.

### Feedback questionnaire: :

1. Did you get the information you need from this report?
2. What further information do you think needs to be disclosed in this report?
3. Do you have any other suggestions for this report?

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**中生北控生物科技股份有限公司**  
BIOSINO BIO-TECHNOLOGY AND SCIENCE INC

