Stock code: 688363.SH

2023

Bloomage Biotechnology Corporation Limited

Sustainability Report







About This Report

Report Introduction

This report is the inaugural Sustainability Report (hereinafter referred to as "this Report") released by Bloomage Biotechnology Corporation Limited (hereinafter referred to as "Bloomage Biotech", "the Company" or "We"), following four consecutive annual Corporate Social Responsibility (CSR) reports since the Company's listing in 2019. This report discloses information pertinent to the Company's sustainable development and fulfilment of social responsibilities.

Report Scope

This Report covers Bloomage Biotechnology Corporation Limited together with its subsidiaries, in line with the reporting period covered in Bloomage Biotech's Annual Report, unless specifically stated otherwise. The reporting period of this Report spans from 1 January 2023 to 31 December 2023. To ensure continuity, integrity and comparability, certain content extends beyond the scope mentioned above, with detailed explanations provided within the report.

Basis of Compilation

This Report is compiled in compliance with *Guidelines No. 1 of the Shanghai Stock Exchange for the Self–Regulation of the Listed Company –Standard Operation (revised in 2023)*. It also references the *Global Reporting Initiative Standards (GRI Standards)* issued by the Global Sustainability Standards Board (GSSB), the United Nations Sustainable Development Goals (SDGs), the Standards of the Sustainability Accounting Standards Board (SASB Standards), the Task Force on Climate–related Financial Disclosures framework (TCFD framework), issues monitored by Morgan Stanley Capital International ESG Ratings (MSCI), and the Ten Principles of the United Nations Global Compact (UNGC) ("the Ten Principles of the UNGC"). For readers' convenience, a comprehensive index is provided in the appendix for easy reference.

Data Sources

All information presented in this report originates from internal official documents, statistical reports, third-party questionaries and surveys, and relevant public sources within Bloomage Biotech. Financial data is meticulously sourced from the Company's annual reports, with all monetary amounts denoted in Chinese Renminbi (RMB) unless explicitly stated otherwise.

Board Statement

This report has been deliberated and approved by the Board of Directors of Bloomage Biotech. The Board of Directors solemnly assures that there are no falsifications or misleading statements within this report, and assumes full accountability for the truthfulness, accuracy and completeness of its content.

Report Release

Both a Simplified Chinese and English version of this report will be officially published. In case of any ambiguity, the Simplified Chinese version shall take precedence.

Electronic copies of this report in both Chinese and English are readily accessible through the Company's official website and the Shanghai Stock Exchange's website:

https://www.bloomagebiotech.com/

http://www.sse.com.cn/

Feedback

For inquiries or feedback regarding this report and its contents, you are welcome to reach out through the following contacts:

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Chairwoman and CEO's Message

It is my great pleasure to share Bloomage Biotech's annual *Sustainability Report* with you all. This report is our first sustainability report, marking our unwavering commitment to the cause of sustainable development and ushering in a new era as Bloomage Biotech embraces a comprehensive Environmental, Social, and Governance (ESG) strategy.

In today's world, sustainable development has become a global consensus and a shared pursuit for all mankind. It stands as a vital requirement for both social progress and the long-term prosperity of enterprises. As a biotechnology company with a strong sense of social responsibility and extensive global influence, we recognize the imperative of steadfastly implementing a ESG strategy. We believe that integrating sustainable development principles into our strategic planning and daily operations is essential for the Company to ceaselessly drive sound and continuous growth while contributing to society and the sustainable future of humanity.

To this end, in 2023, we formally embedded ESG into our long-term development strategy and established an ESG management system tailored to our unique characteristics, so as to seamlessly infuse sustainable development principles into every facet of our business. Seizing this opportunity, we comprehensively revamped our previous annual CSR reports, and compiled this *Sustainability Report* with reference to mainstream ESG standards both domestically and internationally, in order to present our efforts in ESG-related areas more systematically and comprehensively, responding to the expectations from all stakeholders in society in a more profound and well-rounded way.

Amid the evolving dynamics of 2023, marked by heightened global instability and uncertainty, the world faces multifaceted challenges including economic volatility, rapid technological advancements, divergent values, and frequent climate disasters. In this shifting era, where opportunities and challenges coexist, Bloomage Biotech has proactively responded to the demands of the times. We have reshaped our mindset and behaviours, bravely confronting the all kinds of challenges presented by both internal and external environments.

We have continuously refined our corporate governance mechanisms, enhanced organizational capabilities, and optimized management systems. In 2023, we established a new organizational structure, building a comprehensive operational management system, a talent vitality mechanism, an ESG management system, and a compliance and anti-bribery management system to adapt to the new stage of company development. Simultaneously, we have ceaselessly improved existing systems such as centralized purchasing, human resources management, research and development (R&D) management, and quality management to ensure that the organization can better support the Company's strategy and enable each employee to fully realize their value and potential for growth. These initiatives not only elevate the Company's management capabilities but also enhance its operational resilience, laying a solid foundation for increasing future-oriented competitiveness.

Adhering to the corporate development logic of "science → technology → product → brand", we have identified synthetic biology as a key direction for our strategic development and stayed committed to investing in basic research and applied basic research. In 2023, we continued to deepen our synthetic biology strategy, achieving breakthroughs in the R&D of various substances and launching several new products made with biologically active substance raw materials, such as "Hybloom™ Minitrue" and "Bioyouth"-EGT Pure Ultrapure Ergothioneine". Moreover, we established a first-class synthetic biology pilotscale testing platform, successfully putting it into operation, and we completed the layout of new capacities and platforms in bases such as our Bloomage Biotech (Hainan) Science and Technology Industrial Park. Additionally, we also steadily promoted the integration of industry-university-research cooperation and established the first synthetic biology Corporate Venture Capital (CVC) fund in China. These efforts have formed a synthetic biology-supported biomanufacturing industry chain, spanning scientific innovation, pilot-scale testing, industrial transformation and market transformation.

We fully recognize that green development not only embodies a company's social responsibility but also reflects its long-term competitiveness. Therefore, we accelerate the green and sustainable development by leveraging scientific and technological innovation, new infrastructure, and digital management. In 2023, based on the entire product life cycle, we continued to optimize our research and development design and production techniques to continuously reduce energy and resource consumption and minimize negative environmental impacts. We introduced new energy facilities such as photovoltaics and methane power generation from wastewater to optimize our energy structure. Additionally, we established a digital energy management platform and ESG data dashboard, effectively enhancing our data management capabilities. We have also conducted an organizational-level carbon audit and a carbon footprint assessment of hyaluronic acid products, both of which have received third-party authority certification.

We uphold the greater good and pursue shared interests, and actively take into account the expectations and demands of different stakeholders, striving to achieve win-win cooperation among stakeholders including shareholders, customers, employees, suppliers, and communities. We continuously improve our quality management system, endeavoring to provide clients and consumers with high-quality, trustworthy products. We prioritize people, respecting and safeguarding employees' legitimate rights and interests, working to create a fair, safe, and healthy working environment, and providing learning platforms that meet the personal growth and career development needs of employees to help them realize their value. In addition, we continuously optimize our supplier management mechanism, and strengthen communication and cooperation with suppliers in product quality, environmental protection, and labor rights, jointly promoting high-quality development. For the thirteenth consecutive year, we have carried out "Yun Zhong (In Cloud) Public Welfare" campaign dedicated to exploring, inheriting, and promoting the cultural treasures of ethnic minorities, not only enhancing cultural confidence and influence but also driving rural development, influencing and changing more lives.

ESG is gradually becoming the consensus of more and more people, and sustainable development has become the main theme of social development, profoundly impacting and guiding the operation and development of enterprises. Therefore, through this *Sustainability Report*, we hope to enable more people to understand the management philosophy, practice principles, strategic thinking and our commitment to social responsibility behind Bloomage Biotech's business performance. In the future, Bloomage Biotech will continue to uphold sustainable development principles, optimize ESG management, unwaveringly promote the Company's sustainable development, create greater value, and achieve the long—term development of the enterprise and the shared progress of society.





Company Overview

Established in 2000 and publicly listed on the A-share Science and Technology Innovation Board (Stock Code: 688363. SH) in November 2019, Bloomage Biotech is a biotechnology company propelled by innovation in synthetic biology and a platform company for the whole industrial chain of biological materials, dedicated to improving people's quality of life by creating healthier experiences. Driven by industry demands, we prioritize fundamental and applied basic research. We have established six major research and development (R&D) platforms including the synthetic biology research and development platform, microbial fermentation platform, application mechanism research and development platform, pilot-scale testing platform, crosslinking technology platform, and formula & process research and development platform, enabling us to cover the entire product lifecycle from cell establishment to commercial application.

Embracing the development logic of "science → technology → product → branding", Bloomage Biotech firmly believes that technological innovation is the primary engine of progress. We consider talent as the cornerstone and guarantee of our advancement. Guided by the corporate mission of "Creative Technology For Vibrant Life", we concentrate on the development and industrial application of six major categories of biologically active substances conducive to life health: functional sugars, proteins, polypeptides, amino acids, nucleotides, and natural active compounds. We are advancing a diversified business strategy represented by our "four-wheel drive" model, encompassing biologically active substance raw materials, medical terminal products, functional skincare products, and functional foods. Moreover, we continuously expand our market share domestically and internationally, establishing competitive advantages, with our industrial scale at the forefront of the world. Bloomage Biotech's raw material products, medical terminal products, and functional skincare products are distributed to over 70 countries and regions worldwide. Additionally, the Company holds the distinction of being the world's largest developer, producer, and distributor of hyaluronic acid (HA).







Major Business

As a biotechnology all-industrial-chain platform company, Bloomage Biotech focuses on innovation and transformation in the synthetic biology field, gradually forming a business layout driven by "four-wheel": biologically active substance raw materials, medical terminal products, functional skincare products, and functional foods.

Biologically Active Substance Raw Materials

Leveraging microbial fermentation platforms as well as our advantages in industrialization, we develop biologically active products beneficial to life health, including functional sugars, proteins, polypeptides, amino acids, nucleotides, and natural active compound. Our range includes hyaluronic acid in over 200 specifications of pharmaceutical-grade, cosmetic-grade, and food-grade products, widely applied in pharmaceuticals, medical devices, cosmetics, functional foods, and ordinary food fields, spanning new areas such as pets, reproductive health, oral care, fabrics, and paper products. Other biologically active products include gamma-aminobutyric acid (GABA), sodium polyglutamate, Ectoine, Ergothioneine, collagen, SCLEROTIUM ROLFSSII, natto extract, brown rice ferment filtrate, and Microecobeauty

Medical Terminal Products

Our medical cosmetic products encompass soft tissue fillers, medical skin protectants, and postoperative repair products, offering comprehensive solutions for facial rejuvenation. Notably, our BIOHYALUX* Modified Sodium Hyaluronate Gel for Injection was the first domestically produced cross-linked hyaluronic acid soft tissue filler approved by the National Medical Products Administration (NMPA) for market in 2012. Following this success, in 2016, our modified sodium hyaluronate gel for injection, enriched with lidocaine, took the lead to achieve NMPA certification. Then, in 2019, we unveiled our self-developed single-phase hyaluronic acid soft tissue filler with anesthetic the first of its kind in China. Building on this momentum, in the latter half of 2020, we introduced Aqualuna Modified Sodium Hyaluronate Gel for Injection, a micro-crosslinked HA product infused with lidocaine, designed for wrinkle correction spanning from the surface to the middle layers of facial dermis. Continuing our commitment to innovation, in 2021, we launched an upgraded version of our micro-crosslinked hyaluronic acid dermal revitalization product called Wrinkle Remover, a modified sodium hyaluronate gel for injection tailored for comprehensive facial rejuvenation and subtle wrinkle filler injection on the top of the skin. And most recently, in 2022, we unveiled our latest endeavor, the Aqualuna Skincare, focusing on post-operation recovery in the medical aesthetics domain, offering a range of products including repair essences, spray dressings, skin repair masks, and repair creams, the current Aqualuna series includes micro cross-linked doll needles, single-phase Natural and dual-phase products such as Aqualuna 2, 3 and 5.

In the realm of pharmaceuticals and healthcare, our portfolio encompasses medical devices such as ophthalmic viscoelastic devices (OVDs) and medical lubricants, as well as pharmaceutical products such as intra-articular injections for joint in the treatment of osteoarthritis. As the only distributor of RegenLab (Switzerland) in China, we continued our efforts in 2022 to promote and distribute products of Platelet-Rich Plasma (PRP) preparation kits for orthopedics, sports medicine, plastic surgery, and pain management across multiple medical specialties domestically.

Bloomage Biotech's medical terminal products currently comprise seven brands: Aqualuna, BIOHYALUX, Hyprojoint, HYMOIS, HyaBricant, Meiyu, and RegenACR.

Functional Skincare Products

Drawing on six R&D platforms including the synthetic biology research and development platform, microbial fermentation platform, application mechanism research and development platform, pilot-scale testing platform, crosslinking technology platform, and the formula & process research and development platform, we conduct in-depth research into the effects of hyaluronic acid with different molecular weight, gammaaminobutyric acid (GABA), Ectoine, and other biologically active substances along with their cross-linked derivatives on human skin. Based on these bioactive substances researched as the core ingredients, and focusing on streamlining formulations, boosting the concentration of active ingredients and targeted efficacy, we develop a series of functional skincare products, tailored to address a range of skin concerns, including sensitive skin, damaged skin barriers, facial redness, and acne. Leveraging our extensive expertise and experience in the biopharmaceutical industry, we employ the Blow, Fill, Seal (BFS) integrated technology to produce small packaging Hyaluronic Acid Essence series products.

Bloomage Biotech's functional skincare products embrace multiple brands, including BIOHYALUX, QuadHA, MedRepair, and Bio-MESO.

Functional Foods

The Company has maintained a longstanding dedication to researching oral hyaluronic acid. After a persistent effort spanning 16 years, in 2021, the National Health Commission approved Bloomage Biotech's application for sodium hyaluronic acid as a novel food ingredient, permitting its integration into common foods. Presently, the Company has established both the Wuxi Functional Food Basic Research Center and the Shanghai Food Research Center. Within the realm of functional food development, we prioritize beauty, joint health, and sleep health as its primary R&D and application areas. Leveraging the capabilities of our six major R&D platforms, Bloomage Biotech has developed a wide range of bioactive raw materials for functional beverages, dietary supplements, dairy products, and beyond. Among these offerings are brands like WHATER, which is a drinking water product with comestible hyaluronic acid.



Annual Major Honors

In recent years, Bloomage Biotech has garnered numerous national and provincial honors and awards, including the Second Prize of National Award for Science and Technology Progress, Champion Demonstration Enterprise of National Enterprise Technology Center and National Manufacturing, National Green Factory, China Patent Gold Award, First Prize of Scientific and Technological Progress in the Shandong Province and Quality Award in Shandong Provine. Additionally, we have received honors from various national associations, including the Science and Technology Award of the China Food Industry Association, the Gold Bridge Award of the China Technology Market Association and China Hi-Tech of the China Association of Productivity Promotion Center.

In 2023, Bloomage Biotech continued to engage with relevant government departments, industry associations, research institutions, media, and other stakeholders, maintaining good relationships and jointly promoting industry and societal development. Our Chairwoman and CEO, Ms. Zhao Yan, received recognition and awards from all walks of life. Some of these honors are listed below:

Honors Received by Bloomage Biotech in 2023 (Partial)	
Award or Honor	Organizer/Awarding Institution
Quancheng Outstanding Enterprise	Jinan Municipal Committee of the Communist Party of China, Jinan Municipal People's Government

Honors Received by Bloomage Biotech in 2023 (Continued)		
Award or Honor	Organizer/Awarding Institution	
Shandong Province 2023 (First Batch) Provincial Green Manufacturing List: Provincial Green Supply Chain Management Enterprise	Department of Industry and Information Technology of Shandong	
Pilot Enterprise in Shandong Province for the Construction of Pilot Zones for Green, Low-Carbon, and High-Quality Development	Shandong Development and Reform Commission	
The 24th China Patent Excellence Award	National Intellectual Property Administration	
2023 Enterprise Brand Innovation Outstanding Achievement Award of Shandong Province	Quality Evaluation Association of Shandong Province	
Top 100 Innovation List of Public Companies in National High-tech Zone	Chinese High-tech Zone Research Center, Institute of Scientific and Development, Chinese Academy of Sciences	
Rated A in the 2023 Information Disclosure Evaluation of Listed Companies on the STAR Market	Shanghai Stock Exchange (SSE)	
2023 Best Practice Case in Corporate Governance	China Association for Public Companies	
2023 Best Practice Case for Public Company Boards	China Association for Public Companies	
"Enabling Biologically Active Raw Materials, Synthetic Biology Helps Achieve 'Dual Carbon' Goals" recognized as one of the "Top Ten Typical Applications" of synthetic biology in China	Science and Technology Daily, Chinese Society of Biotechnology	
The 25th Golden Bull Award for Listed Companies-Golden Bull Science and Technology Innovation Award, Golden Information Disclosure Award	China Securities Journal	
The 17th China Listed Company Value Awards "Top 30 Value of Listed Companies on the STAR Market"	Securities Times	
Outstanding Cutting-edge Technology Enterprise of the 12th "Golden Wisdom Award"	Listed Company Research Institute of JRJ	
2023 China Medical Aesthetics Industry Overall Evaluation List- 2023 Outstanding Enterprise Award of China Medical Aesthetics Industry Overall Evaluation List	National Business Daily Think Tank, hosted by Medical Beauty Industry Blue Book Think Tank	
2023 Yicai Capital Market Annual Value List-2023 Annual Innovation Enterprise	Yicai	
2023 Outstanding Development Award of 50 Best Company	Shanghai United Media Group, Jiemian.com	

Honors Received by Ms. Zhao Yan, Chairwoman and CEO of Bloomage Bio tech in 2023 (Partial)		
Award or Honor	Organizer/Awarding Institution	
Shandong Province Private Entrepreneurs "Leading the Way" the Top 100 List-Elite Entrepreneur	Office of the Leading Group for Promoting the Development of the Non-Public Sector of the Economy in Shandong Province	
2023 Forbes China Power Businesswomen	Forbes China	
2023 Herose Club · Hurun Richest Women in China	Hurun Report	
2023 Top 100 Annual Brands List-2023 Top 10 Annual Brand Figures	Sina Finance	
Top 10 Newsmakers in the Chinese Cosmetics Industry 2022	China Cosmetics Review-First China Cosmetics Science and Technology Conference	
The 18th "Golden Round Table Award" for Boards of Listed Companies-Entrepreneurship Award	Directors & Board Magazine	

Sustainable Development Management

Bloomage Biotech embeds the principles of sustainable development into its operation, placing a strong emphasis on Environmental, Social, and Governance (ESG) management. By establishing an ESG management structure, formulating ESG strategic plans, and actively engaging in cooperation and communication with stakeholders, the Company ceaselessly enhances its management on material topics and analysis of ESG issues.

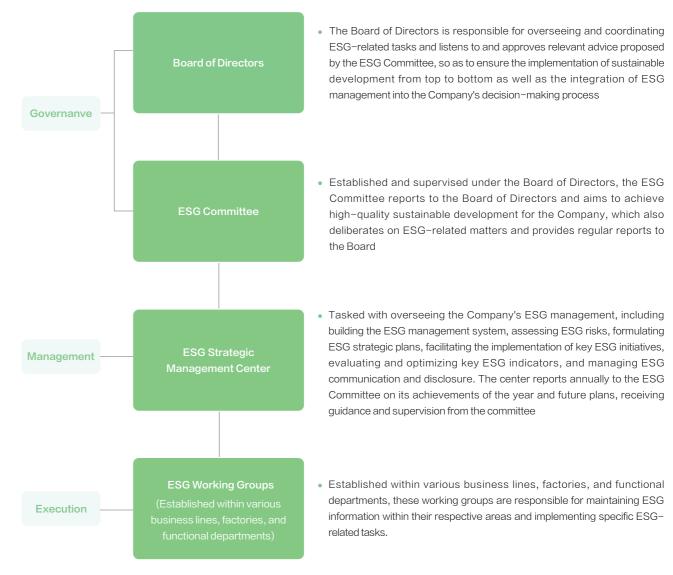






ESG Management System

Bloomage Biotech is committed to refining its sustainable development management and has established an effective ESG management mechanism. This has resulted in a clear and well-defined ESG governance structure, providing robust support for the Company's stable operations and sustainable growth. The Company established an ESG Committee under the Board of Directors and formulated and published the Work Regulations for the ESG Committee of Bloomage Biotech Corporation Limited, reinforcing the roles and responsibilities of the Board of Directors and its ESG Committee in the ESG strategy research and formulation, material topics identification, ESG risks and opportunities management, ESG performance management, capital market ratings and so forth, thus enhancing the Company's governance transparency and sustainable development management. Meanwhile, after the Board of Directors' consideration and approval, the Company has newly established the ESG Strategic Management Center, which is responsible for the Company's ESG management.



Bloomage Biotech's ESG Management and Governance Structure

During the reporting period, the Company's Chairwoman and CEO, along with the ESG Committee and relevant executives, reviewed the Company's ESG management plans and annual ESG work summaries. They also approved the 2024 special action plan on corporate governance and ESG enhancement, covering ESG strategy, green and low-carbon environmental production, supply chain ESG management, labor rights, ESG digital management, as well as sustainable corporate culture development.



The Company has developed its distinctive ESG strategic plan, aiming to advance ESG initiatives guided by strategies and scientifically promoting ESG tasks, thus enhancing resilience of corporate operation and capabilities adapting to the future development.

> • In the realm of operation sustainability, we aim to continuously promoting corporate governance and ESG risk management. We strive to identify, assess, and address key risks while consistently fostering a healthy, transparent, and equitable corporate governance framework to underpin the Company's enduring stability and operations



- In terms of sustainable product development, we firmly believe that research and innovation are key drivers to our sustainable development. We will continue to invest in R&D to develop more efficient and environmentally friendly technologies and products. Additionally, we are committed to reducing the environmental impact of our products by optimizing processes such as purchasing and production, and reduce waste emission as well as energy and resource consumption, so as to achieve sustainability throughout the product lifecycle
- Regarding social sustainability, we prioritize safeguarding employee rights and creating a diverse, inclusive, and fair work environment. Moreover, we remain dedicated to actively participating in social empowerment and public welfare activities, leveraging our technology and resources to create greater value for society

Stakeholders Engagement

Bloomage Biotech highly values the expectations and demands of all stakeholders and is devoted to establishing a normalized stakeholder engagement mechanism. We actively listen to and solicit opinions and suggestions from all stakeholders including regulatory agencies, shareholders, employees, clients, partners, and communities through various channels such as reports, emails, phone calls, meetings, surveys, forums, and questionnaires. These ongoing dialogues aim to deepen internal and external stakeholders' understanding and recognition of Bloomage Biotech. Meanwhile, we incorporate stakeholders' expectations and concerns into our operations and decisionmaking, publicly disclosing them in our annual reports to continually enhance stakeholders' recognition and confidence in the Company.

Moreover, we prioritize addressing the concerns of regulatory agencies, customers, capital markets and other stakeholders regarding our ESG management practices. While ensuring compliance with ESG information disclosure, we establish connections with major domestic and international ESG rating agencies and respond to their assessments. During the reporting period, the Company's performance in MSCI, Carbon Disclosure Project (CDP), EcoVadis, and other ratings has improved.

During the reporting period, the Company established a standardized audit mechanism for factory ESG audits to efficiently address client demands for factory ESG audits and implement corrective actions for all identified problems. Furthermore, we engaged internationally renowned audit firms to conduct Sedex Members Ethical Trade Audit (SMETA) audits on our factories in Jinan, Dongying, and Tianjin. Based on the SMETA audit reports, we proactively communicated with clients to reduce ESG risks in supply chain and continuous improve our ESG management practices.

Bloomage Biotech Stakeholder Engagement Mechanism				
Stakeholder	Expectations and Demands	Engagement and Response		
Government and Regulatory Agencies	 Compliant operations Economic development Product responsibility Tax compliance Anti-corruption 	 Supervision and inspection Meetings and exchanges Public consultation 		
Shareholders and Investors	 Corporate governance Shareholder rights Information transparency Risk management ESG performance Business ethics 	 Shareholders' meetings Information disclosure Roadshow activities Email and online engagement platforms Investor exchanges Field investigations Conference calls 		
Employees	 Employee rights protection Employee compensation and benefits Employee training and development Employee safety and health 	 Employee forums Performance evaluations Employee training Employee satisfaction surveys 		
Clients and Consumers	 Product responsibility Product accessibility Client privacy protection High-quality service Product affordability 	 Client satisfaction surveys Client follow-up Social media platforms Client service hotline 		
Suppliers and Partners	 Sustainable purchasing Product responsibility Anti-corruption Intellectual property protection Honorable fulfillment of contracts 	Supplier assessmentsStrategic cooperationSupplier meetings and exchangesSupplier training		
Community	 Public welfare and charity Environmental protection Community development 	 Public welfare activities Media communication Community events Public consultations 		
Industry Associations and Chambers of Commerce	 Scientific and technological innovation Industry development Product responsibility 	Industry exchangesField visitsFormulation of industry standards		
Media	 Product responsibility Employee rights protection Business performance Response to climate change 	 Press conferences Social media platforms Public opinion monitoring 		
Universities and Research Institutes	Scientific research innovation Talent development	 Education assistance Technology cooperation University-enterprise cooperation 		

Case: Bloomage Biotech participates in UN SDG Summit Official Side Event and signs initiative

In September 2023, Bloomage Biotech was invited to participate in the side event of the 2023 SDG Summit held in New York under the theme of Innovation for Industrial Sustainability. During the event, Bloomage Biotech signed the "Business in Action-Consensus on Sustainable Industrial Development" initiative initiated by the Sustainable China Industry Development Action. This initiative aims to foster consensus and commitments among businesses and industries regarding sustainable industrial development, focusing on areas such as sustainable consumption and production patterns, efficient utilization and sustainable management of natural resources, technological innovation, inclusive development, and sustainable international cooperation. Ms. Zhao Yan, Chairwoman of Bloomage Biotech, emphasized on the event that corporate development must align with the requirement of sustainable development. She stated, "All corporate endeavors must adhere to the principles of sustainable development to effectively promote beauty and value, enhance quality of life, and extend lifespan."



The chairwomen of Bloomage Biotech, Ms. Zhao Yan, attended the SDG Summit Side Event

Case: Bloomage Biotech hosts China (Jinan) Hyaluronic Acid Industry Conference (HAIC)

In June 2023, Bloomage Biotech hosted the China (Jinan) Hyaluronic Acid Industry Conference in Jinan, Shandong Province. Themed "Technology Builds the Foundation, Innovation Lead the Way", the conference featured a wide range of activities including thematic forums, specialized forums, strategic signings, and project unveilings, bringing together experts from diverse industries, academic scholars, investment leaders, government and corporate representatives, high-tech enterprises, and experienced media professionals. Discussions at the conference revolved around academic and industrial issues related to hyaluronic acid, aiming to envision the future of high-quality development in the hyaluronic acid industry through multidimensional, interdisciplinary and cross-category perspectives.



Bloomage Biotech hosted the China (Jinan) Hyaluronic Acid Industry Conference

ESG Materiality Assessment

Bloomage Biotech has established a systematic process for screening, researching, and analyzing ESG material topics, helping the Company to understand the concerns of various stakeholders on ESG material topics and provides a reference for future ESG management.

In 2023, with the assistance of external professional teams, Bloomage Biotech conducted an assessment on material topics in three steps, which are as follows:

Material Topics

Taking into account international standards and disclosure frameworks, capital market rating indicators, peer performance, national policies, and Bloomage Biotech's business development, 29 sustainable development topics closely related to the Company's operations were identified, which formed a repository for material topics

Stakeholders both within and outside the Company were invited to assess the materiality through online questionnaires. The questionnaire survey covered 11 categories of stakeholders, including company management, employees, government or regulatory agencies, shareholders or investors, clients or consumers, suppliers or partners, universities or research institutions, industry associations or chambers of commerce, non-profit organizations, the public, and sustainable development industry experts

Material topics ranking: Survey data was handled and analyzed to quantitatively evaluate rankings based on two dimensions: "materiality to the Company's sustainable development" and "materiality to stakeholders"

Material topics review: External experts provided suggestions for major material topics and rankings, which were then reviewed by the Company's management

Applying the double materiality principle, Bloomage Biotech assessed dozens of ESG material topics, resulting in the formation of a material topics matrix and list, with 30 major material topics identified, determining the focus of this report. Bloomage Biotech's 2023 ESG material topics list is as follows:

	Environment	Social	Governance
Material Issues with High Importance	 Environmental Management Pollutant Management Waste Management Energy Management Water Resource Management Material Management 	 Research and Innovation • Product Quality Chemicals Safety Management Information Security Employee Rights Employee Training and Development Occupational Health and Safety 	 Corporate Governance Compliant Operations Risk Management Business Ethics Intellectual Property Protection
Material Issues with Medium Importance	 Product Environmental Impact Environmental Permits and Certifications Response to Climate Change 	 Health Accessibility Responsible Marketing Supplier Management Industry Collaboration and Development 	Sustainable Development Management
Material Issues with Low Importance	Biodiversity	Research Ethics Social Welfare and Community Relations	

Major Accolades in the ESG Domain

Award or Honor	Organizer/Awarding Instituion
2023 United Nations SDG Summit Side Event Outstanding Corporate Practice Case	the United Nations
2023 Best ESG Practice Case for Listed Companies	China Association for Public Companies
Distinguished ESG Practice in the Flavor, Fragrance, and Cosmetics Industry	China Association of Fragrance Flavour and Cosmetic Industries
Social Responsibility Award of 2023	CNR News
Global Trend Practice 2023-Outstanding ESG Development Practice Case of the Year	Huanqiu.com
The 10th China Financial V Forum-Outstanding ESG Contribution Enterprise	Economic View
The 3rd Golden Cane Awards-Outstanding ESG Enterprise in China Comprehensive Health of 2023	China Times
2023 ESG Star Green Company, Pioneer of Dual Carbon in Beautiful China 2023	tzsbw.com.cn
2023 Sustainability Green Award of Caijing Award	Caijing.com.cn
2023 Boao Forum for Entrepreneurs-2023 Outstanding Corporate Social Responsibility Practice Case	Hexun.com
The 2nd China Businesses Social Responsibility Forum Outstanding Social Responsibility Practice Case	Organizing Committee of China Businesses Social Responsibility Forum

BLOOMAGE BIOTECH 2023 Sustainability Report

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Compliance Governance: Enhancing Development Capacity

Robust compliance governance forms the bedrock of corporate advancement. Bloomage Biotech steadfastly upholds legal compliance as the prerequisite for all operational endeavors. Through continuously reinforcing corporate governance fundamentals, bolstering risk management frameworks, and nurturing a culture of integrity, the Company comprehensively elevates its long-term competitiveness, productivity, and operational resilience.

Major Material Topics of Sustainability Covered in this Chapter:

Corporate Governance

Compliance Operations

Risk Management

Business Ethics

Responsiible Marketing

SDGs Addressed in this Chapter:



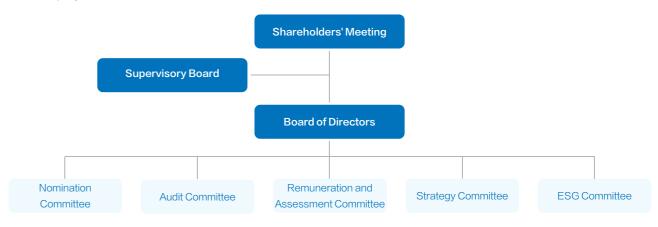






Board of Directors

Bloomage Biotech rigorously adheres to pertinent laws and regulations as well as requirements of the exchanges, such as the Company Law of the PRC, the Securities Law of the PRC, the Code of Corporate Governance for Listed Companies, and the Rules Governing the Science and Technology Innovation Board Stock Listing Rules of the Shanghai Stock Exchange. The Company continually refines its corporate legal person management system, strengthens internal control systems, and establishes a robust and efficient corporate governance structure comprising the shareholders' meeting, the Board of directors and its subcommittees, management, and operational executives. This governance framework ensures clear delineation, coordination, and checks and balances among the power, decision-making, supervision, and execution bodies, providing robust protection for the Company's stable development and safeguarding the legitimate rights and interests of the Company and shareholders.



Bloomage Biotech's management centers, operation and management departments of business lines, opeeration and management centers of platforms

Bloomage Biotech corporate governance structure

The Company strictly follows procedures outlined in the Articles of Association for the election of directors. Embracing a diversity policy that includes, but is not limited to, considerations such as gender, age, cultural and educational backgrounds, expertise, skills, knowledge, and past achievements, ensures diversity, comprehensiveness, and professionalism in member composition and viewpoints. We continuously monitor the proportion of female directors and independent directors in the Board. Moreover, the nomination and appointment of board members are based on the skills and experience required for the overall operation of the Board to ensure that board members possess the necessary knowledge and professional experience to carry out their duties. Independent directors are appointed by relevant laws, regulations, and regulatory requirements, and independent director remuneration is also issued based on standards approved by the shareholders' meeting. Additionally, the directors of the Company have backgrounds, skills, and international perspectives in biomedicine, skincare products, risk management, finance and accounting, law, and sustainable development, enabling them to make positive contributions to comprehensive decision-making for the Company.

The Company actively provides continuous training to all board members on topics such as integrity in practice, normative operations, and information disclosure to ensure that corporate governance is conducted in compliance and orderliness.

Bloomage Biotech Board composition and governance overview:



Number of female directors in the Board

33.3 % Proportion of female directors in the Board

66.7 % Proportion of independent





Compliance Management

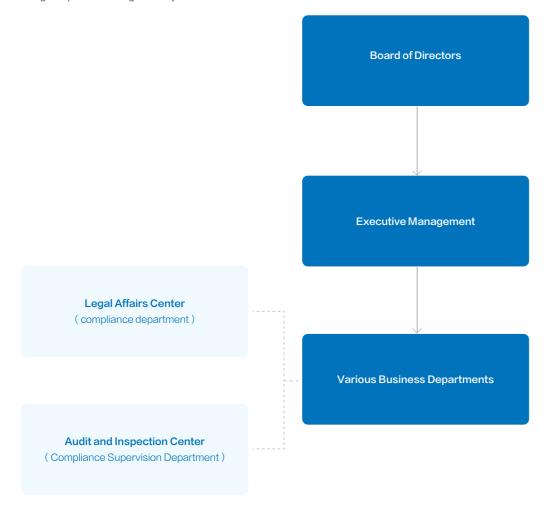
Bloomage Biotech has established a robust compliance management system, constructing a comprehensive organizational structure and operating mechanism for compliance management. Simultaneously, the Company instils the concept of "compliance with laws and integrity" among all employees, conducts continuous compliance advocacy and cultural development activities, and follows rigorous and pragmatic tax management principles to pay taxes in accordance with the law, thereby building a solid foundation for the Company's stable operation.

Compliance Management System

Bloomage Biotech complies with laws and regulations such as the Company Law of the People's Republic of China and the Anti-Unfair Competition Law of the People's Republic of China. In accordance with the requirements of ISO 37301 Compliance Management System Standard, we have revised and issued twelve compliance management policies for the current year, including the Compliance (Anti-Bribery) Management Measures. These policies cover not only all employees and external business partners but also various aspects of compliance management. From due diligence investigations and compliance consultations in the early stage to compliance obligation identification, risk assessment, performance management in the middle stage, and compliance review, non-conformity, and corrective and preventive measures in the later stage, the Company has formulated specific management measures to ensure that the entire process of compliance management is standardized and systematic following regulations and instructions.

The Company has meticulously outlined a comprehensive array of procedures for compliance management, encompassing policies, organizational structures, compliance controls and operational mechanisms, performance evaluations, cultural development, as well as compliance internal auditing and improvement processes. Through the establishment of a robust compliance management system, we have obtained ISO 37301 external certification for the compliance management system, effectively bolstering our resilience against compliance risks.

The Company has built a top-down three-tier compliance management structure, with the compliance department (Legal Affairs Center) responsible for overall coordination, planning, and implementation of compliance management tasks. In addition, we have included the Company's compliance system and major compliance risk prevention and control within the scope of audit supervision, in order to continuously improve the existing compliance management system.



Bloomage Biotech Compliance Management Structure

Bloomage Biotech continues to strengthen its compliance system to improve the standardization level of compliance management, and we formulated and implemented the following major management regulations:

Compliance Management System

- Compliance (Anti-Bribery) Management Measures
- Business Partner Compliance Management Measures
- Due Diligence Management Regulations
- Management Measures on Compliance Performance Information Collection
- Management Measures on Non-Compliance, Corrective and Preventive Action
- Management Measures for Compliance Reporting, Investigation and Handling
- Employee Compliance and Anti-Bribery Handbook nonconformance and corrective and preventive action
- Management Measures on Compliance Obligations Identification and Risk Assessment

Business Ethics

- Bloomage Biotech Anti-Corruption and Anti-Fraud Regulations
- Regulations on Sales Personnel and Sales Behavior Management
- Professional Code of Ethics and Conduct
- Guidelines for Anti-Commercial Bribery Compliance

Regulations on Compliance Consultation and Reporting

• Implementation Methods on the Compliance Review

• Legal Affairs Management Regulations

Responsible Marketing and Purchasing

- Purchasing Management Regulations
- Regulations for Reviews on External Promotional Copywriting
- Compliance Guidelines for Live Streaming Promotion

Bloomage Biotech Code of Conduct for Advertising Release

Sensitive Term Base for Cosmetics and Daily Chemical Products (2022 Edition)

Compliance Culture Development

Bloomage Biotech places a strong emphasis on fostering and promoting a culture of compliance operations, advocating the principles of "Compliance with law and integrity" as the cornerstone for the Company's sustainable growth. This ethos has shaped Bloomage Biotech's compliance policy, which is disseminated to all employees through the signing of compliance commitments, comprehensive compliance training programs, and compliance performance evaluations.

In terms of compliance training, Bloomage Biotech integrates compliance topics into its employee training regimen. Following the guidelines outlined in the Training Management Regulations, the Company devises an annual compliance training plan and hosts training sessions to ensure that employees are well-versed in compliance protocols and abreast of the latest changes of laws and regulations. The effectiveness of these training initiatives is also assessed through examinations. Personnel in key positions, including leaders, purchasing managers, and finance and sales personnel, are required to complete the training and learning of Employee Compliance Handbook within 30 days of joining the Company.

Regarding compliance performance assessment, Bloomage Biotech has established the Management Measures on Compliance Performance Information Collection and Management Measures on Examination Evaluation. These frameworks incorporate reward and penalty mechanisms and implement results throughout various business departments and to employees themselves and third-party personnel, fostering a culture of compliance and reinforcing the Company's commitment to ethical conduct.

100 %

The employees sign rate of the Compliance Commitment

Cover the Bloomage Biotech to conduct the number of special compliance training

100 %

Key positions personnel compliance training coverage rate

Tax Compliance Management

Bloomage Biotech diligently fulfills fundamental obligations to pay taxes in accordance with laws. The Company establishes and regularly updates tax-related management systems, including tax internal control manuals and invoice compliance guidelines. We systematically monitor the implementation of tax policies on a regular basis and conscientiously fulfill our social responsibility to pay tax.

In the realm of tax risk mitigation, the Company diligently monitors and identifies potential tax risks as part of its standard operating procedures. This entails employing a multi-tiered review process for tax declarations, actively engaging with external entities for tax inspections, regularly analyzing the latest tax policies, and maintaining open channels of communication with external stakeholders. These proactive measures are designed to fortify the Company against tax-related risks and bolster the predictability of tax management outcomes. For further insights into the Company's tax management practices, please refer to the Bloomage Biotech 2023 Annual Report.

Internal Control and Risk Management

At Bloomage Biotech, we prioritize the establishment of robust systems for internal control and risk management, integrating them throughout our operational framework. Regular internal audits and inspections are conducted to ensure their effectiveness, with ongoing enhancements made to our internal control systems. This proactive approach aims to effectively manage and mitigate risks, thus ensuring the steady advancement of our Company's development.

Internal Control

Adhering strictly to the laws and regulations, including the Company Law of the People's Republic of China, Bloomage Biotech conducts timely assessments, updates, and improvements to its internal control system, guided by the Basic Norms for Internal Control of Enterprises.

Our internal control mechanisms cover critical aspects of operational management, with emphasis on high-risk areas such as sales receivables, purchasing payments, production warehousing, quality control, financial management, asset management, and contract management processes. During the reporting period, we collaborated with renowned external consulting firms to conduct comprehensive business operation diagnostics and process reforms across the Company, so as to bolster the refinement of internal control systems and enhance their effectiveness.

During the reporting period, external auditors were engaged to conduct annual audits of internal controls, affirming the soundness, reasonableness, and effectiveness of our internal control construction. No significant defects affecting the Company's business development were identified. For more details on internal control and internal control audits, please refer to the Bloomage Biotech 2023 Annual Report or our Company announcements.

Risk Management

Bloomage Biotech ceaselessly enhances its risk management framework through the establishment of the Risk Management Regulations, which delineates objectives, principles, organizational structures, management processes, supervision and improvement mechanisms, cultural development initiatives, and assessment protocols for risk management. Following the PDCA cycle, this ensures a closed-loop approach to risk management, driving systematic risk mitigation efforts.

Risk Management System

Regarding the organizational structure for risk management, the Company has established a four-tiered framework comprising the Board of Directors, the Executive Management, the Risk Responsibility Departments (across various business departments), and the Risk Management Department. This structured hierarchy ensures comprehensive management and leadership of internal risk governance from top to bottom. Specifically, the Board of Directors, serving as the highest decision-making body in risk management, holds accountability for ensuring the effectiveness of risk management endeavors.

Our risk management efforts are bolstered by an internal control "three-line of defense" model. All business units (Risk Responsibility Departments) constitute the first line of defense, managing and controlling business risks within their purview. The Risk Management Department serves as the second line of defense, overseeing overall risk management throughout the Company and conducting daily supervision and follow-up on improvements. The Audit and Inspection Center acts as the third line of defense, responsible for reviewing and evaluating the Company's risk management practices and supervising risk management efforts.



Bloomage Biotech Risk Management Strucutre and Supervision Mechanisms

In terms of the risk management process, the Company carries out activities such as risk collection, identification, assessment, response, monitoring, and early warning, based on our business management and operational practices. We've established a regular mechanism for reporting major risks and emergency situations.

With regard to the culture development of risk management, we are dedicated to fostering a positive value of risk and management awareness, not only providing training for directors, supervisors and senior management, but also organizing courses and practical projects for managers and business operators at all levels, so as to enhance the quality of risk management talents and improve their capabilities in risk management.

Furthermore, we've integrated risk management into our target management and annual performance evaluation system. We're also promoting the informatization of risk management, gradually establishing a risk management information system covering risk information collection, assessment analysis, monitoring and early warning, response, and disposal, to promote the establishment of a systematic, standardized, and efficient risk management system for the Company.

Risk Identification and Response

Confronting the persistent operational risks in the business landscape, Bloomage Biotech is committed not only to refining its internal risk management protocols and organizational frameworks but also to implementing comprehensive measures across all business departments. These efforts encompass risk prevention and control, ongoing scrutiny for hidden risks, and effective management of operations on a regular basis.

We classify risks into five major categories: strategic risks, financial risks, market risks, operational risks, and legal compliance risks. Additionally, we break down these risks into 26 specific dimensions based on their sources, covering corporate governance risks, environmental risks, security risks, human resources risks, and product quality and measurement risks, so as to establish our risk classification framework. In 2023, Bloomage Biotech conducted risk identification activities and updated the Risk Identification Checklist based on this risk classification framework, covering the 5 major risk types and 26 risk dimensions mentioned above.

The Company has also developed the Risk Management Matrix, which amalgamates industry and market insights, while giving due consideration to both internal and external factors that impact the achievement of the Company's strategic goals. These factors encompass historical data, future projections, operational workflows, and product lifecycle management. The matrix is designed to meticulously monitor risks and their implications across all departments, delineating specifics such as risk types, descriptions, severity levels, pivotal control points, accountable departments, regulatory frameworks, and management tools, facilitating an efficient response to all kinds of risks.

Number of risk issues identified

Number of significant risks detected during audits

100 %

Risk management initiatives involved of the business

Internal Audit and Supervision

Complying with the laws and regulations, including the Audit Law of the People's Republic of China, Bloomage Biotech has established and implemented regulations such as the Internal Audit Charter, Internal Audit Management System, and Post-audit Follow-up Management System, clearly defining the conduct, scope of work, and workflow requirements for internal auditors. The Company also regularly organizes revisions and updates to these regulations to continuously enhance audit efficiency and quality, thereby strengthening compliance risk

Considering strategic objectives, development plans, significant business decisions, and the risk status of each department, the Company has assembled a team of professional auditors to form an internal audit task force. This team formulates an annual internal audit plan and carries out internal audits focusing on the effectiveness of internal controls and risk management, the authenticity and integrity of financial information, as well as the efficiency and effectiveness of operational activities. In the event of internal control deficiencies identified during audits, the Company promptly implements corrective actions and conducts subsequent reviews to ensure the thorough implementation of these corrections.

In 2023, the Company conducted internal specific audits in phases, covering core management areas such as purchasing, production, sales, research and development, investment, and performance. Special attention was paid to supervising and evaluating business processes, information systems, and risk controls at key points. The results of internal audits were reported to the Board of Directors.

Number of Bloomage Biotech to conducted internal audit projects



At Bloomage Biotech, the management of business ethics stands as the top priority of corporate governance. We remain steadfast in our adherence to legal statutes and regulatory mandates while continuously refining internal control mechanisms across all business processes. By establishing robust auditing mechanism, we ensure rigorous supervision of business ethical affairs such as integrity in professional conduct, anti-corruption measures, reporting and whistleblowing, and responsible marketing practices, effectively preventing instances of improper behaviours, regulatory breaches, and fraudulent activities.

Number of Bloomage Biotech to conduct corruption risk assessments and due diligence investigations

Number of Bloomage Biotech to conduct business ethics standards audits

Professional Ethics

At Bloomage Biotech, we uphold the ethos of honesty management, demanding that all employees conduct themselves with integrity and honesty, strictly prohibiting falsehoods, fraud, or unlawful activities. To this end, we have established documents such as the Professional Code of Ethics and Conduct and the Employee Handbook, outlining fundamental behavioural guidelines that employees should abide by, responsibilities to the Company, clients, and the market, as well as confidentiality requirements. All employees are required to sign a confirmation form acknowledging their adherence to the Professional Code of Ethics and Conduct. Moreover, we provide periodic professional ethics training for both new and existing employees and make a series of relevant management policy documents publicly available on the Company's internal communication platform and office systems, ensuring accessibility to all employees. Additionally, in 2023, we revised and updated the Employee Compliance and Anti-Bribery Manual, further guiding employees on compliance standards during recruitment, employment, and departure, ensuring integrity and probity in all interactions with internal and external stakeholders.



Ω Compliance with laws and company regulations

 Avoidance of conflicts of interest

Bloomage Biotech highly regards integrity, compliance with laws and company regulations, and the avoidance of conflicts of interest as the unwavering foundation of professional ethics. Employees are expected to uphold the core values of integrity in all business activities, comply with laws, social norms, and professional ethics, and refrain from engaging in any behavior that may compromise the objectivity of their duties due to personal activities or interests.

Bloomage Biotech stipulates the following responsibilities of all employees to the Company, clients, and the market:

Responsibilities to the Company

Respect for every employee; prohibit using one's position for personal gain, accepting unreasonable hospitality from suppliers, or making payments to achieve sales, purchases, or special favours; prohibit using company assets for activities unrelated to work; adhere to safety and health-related rules and policies to maintain workplace safety

Responsibilities to clients

Keep confidentiality of all client information; prohibit unauthorized disclosure; timely notify potential conflicts of interest to relevant parties; carefully select business partners and clients

Responsibilities to the market

Fairly trade with the Company's customers, suppliers, and competitors; prohibit manipulation, concealment, damage, defamation, abuse of proprietary information, or false reporting of significant facts; prohibit providing illegal, improper, or suspicious payments or promises to others for undue benefits

Summary of *Professional Code of Ethics and Conduct*

Bloomage Biotech is committed to honest and ethical business practices, whether in external interactions or within the Company. All employees must adhere to the letter and spirit of the law, treating clients, suppliers, and colleagues with honesty and respect.

Adherence to these regulations is a prerequisite for employees to receive bonuses and for suppliers to continue cooperation with the Company. Consistent and fair code of conduct provides employees with ample opportunities for improvement.

Employees found to violate the Professional Code of Ethics and Conduct will face corresponding penalties upon confirmation by the Company. The Company reserves the right to reduce or cancel any bonuses or promotions that should be paid, and severe cases may result in the termination of the labour contract. Suppliers found to violate the Code will have their business relationship with the Company terminated.

Regarding confidentiality, Bloomage Biotech requires employees not to disclose or use proprietary, confidential, or commercially sensitive information or materials encountered for any reason or purpose during their employment with the Company. Employees are required to sign a Confidentiality Agreement upon signing the labour contract, and core positions are also required to sign a Non-Compete Agreement as required by the Company. Moreover, personal information is considered confidential material by the Company, and employees should maintain the confidentiality of such information.

Any behaviour that violates relevant professional ethics regulations, once discovered by the Company, will be subject to verbal warnings, written warnings, contract termination, or other corresponding penalties.

Summary of the *Manager's Red Line Behavior – 12 Articles*

To strengthen the supervision of core managers and better promote the Company's compliance management system, creating a transparent, efficient, and collaborative working environment, Bloomage Biotech has formulated the Manager's Red Line Behavior - 12 Articles, clearly defining the red line behaviours of company management. This document is issued for implementation by the chairwoman of the board and is publicly disclosed to all employees, along with reporting channels, to earnestly accept supervision from all parties.

- 1. Falsification
- 2. Misappropriation of company property
- 3. Misappropriation of public funds, private borrowing of funds, or unauthorized guarantees
- 4. Unauthorized loans or credit sales
- 5. Speculative use of enterprise funds
- 6. Disclosure of company trade secrets

- 7. Doing business with relatives that harms company interests
- 8. Unauthorized part-time work for remuneration
- 9. Spreading illegal or reputation-damaging remarks that affect the Company's reputation, brand image, or organizational unity
- 10. Soliciting benefits from partners, customers, subordinates, or affiliated companies
- 11. Provocation or causing troubles
- 12. Dereliction of duty or gross negligence

Anti-Bribery Management

Anti-bribery stands as a crucial focus within Bloomage Biotech's business ethics management. The Company strictly abides by national laws, policies, and regulations such as the Anti-Unfair Competition Law of the People's Republic of China and the Interim Provisions on Banning Commercial Bribery, instituting anti-corruption regulations including the Bloomage Biotech Anti-Corruption and Anti-Fraud Regulations and the Guidelines for Anti-Commercial Bribery Compliance. These regulations are communicated and interpreted across the Company and subjected to training sessions organized for management and relevant departments to ensure effective implementation.

Bloomage Biotech has established a corporate ethics governance system comprising the Board of Directors, Audit Committee, and relevant departments. The Legal Affairs Center, Audit and Supervision Center, and Risk Management Department oversee the effective implementation and monitoring of relevant policies from the perspectives of compliance management, internal control, and risk management, and they directly report to the board of directors. The Company has initiated the ISO 37001 Anti-Bribery Management System Standard introduction project, building its antibribery management system through policy revisions, procedural improvements, training initiatives, and operational implementations. Consequently, we have also obtained ISO 37001 external certification for the Anti-Bribery Management System.

Identified risk areas such as daily operations, sales business, and client interactions are scrutinized, and activities prohibited or permitted are summarized for each risk area, thus preventing abuses of power, favouritism, improper gain-seeking, and any actions detrimental to the Company's interests. During the reporting period, Bloomage Biotech conducted a new round of internal audits, including anti-bribery, anti-fraud, and anti-corruption issues, across key areas like sales and purchasing in its domestic subsidiaries. No instances of bribery, corruption, or related illegalities were detected within Bloomage Biotech during the reporting period.

Sessions of Bloomage Biotech to conduct specialized anti-bribery

100 %

Key positions personnel specialized anti-bribery training coverage rate

Session of the board of directors participated in anti-corruption (integrity in employment) training

Percentage of directors attended the anti-corruption training

In the culture development of integrity, the Company strives to foster a working atmosphere of integrity and honesty. We regularly provide anticorruption and anti-bribery training to board members and all employees, with specialized training for high-risk positions like marketing. In 2023, themed articles on "How to Prevent Economic Crimes" were published in our internal publication, elucidating definitions, citing examples. interpreting legal regulations, and explaining company policies, thus educating all staff on the definitions, types, and consequences of such crimes, raising legal awareness and staying away from crimes.

Furthermore, Bloomage Biotech is willing to collaborate with all stakeholders to create a fair and upright business ecosystem. We require all parties involved in business with Bloomage Biotech (including suppliers, clients, etc.) to adhere to our anti-corruption regulations, and have established clauses for integrity and self-discipline in various purchasing contracts or appendices to the Anti-Commercial Bribery Agreement. During the reporting period, the signing rate for the Anti-Commercial Bribery Agreement among suppliers was 94%.

Whistle-blowing Management Mechanism

Bloomage Biotech encourages employees, clients, suppliers, and other stakeholders to jointly supervise and maintain integrity. The Company has established a normalized reporting mechanism, formulated and strictly followed the Management Measures for Compliance Reporting, Investigation and Handling, and carried out reporting and investigation tasks. We comply with the principles of handling issues according to laws and regulations, seeking truth from facts, safeguarding the legitimate rights and interests of the parties involved, handling issues promptly, and combining investigation, handling, and prevention when conducting compliance reporting management, ensuring that reports are handled objectively, independently, and safely.

We have established a wide range of complaint and reporting channels, which are publicized to all employees, distribution clients, and suppliers. Whistleblowers can report violations through telephone, internet, written, or face-to-face methods. A dedicated reporting email address is maintained by a specialist, with single-line contact established with whistleblowers to ensure their protection and the confidentiality of information. The Company uniformly accepts and categorizes all reported matters and clues, and when necessary, sets up investigation teams to conduct investigations and gather evidence. For cases confirmed to involve violations of the company's compliance management system, the Company will impose penalties in accordance with relevant regulations; for suspected criminal behaviours, the Company will refer them to judicial authorities according to relevant procedures to pursue their responsibilities. If the reported matters are confirmed to be true and result in the recovery or reduction of losses for the Company, the whistleblowers may be rewarded materially or spiritually under relevant reward systems as appropriate.



Whistleblowers have the right to know the progress of the investigation into the issues they reported and may request relevant personnel to recuse themselves. The department receiving the report and the investigating personnel must strictly keep confidential the personal information of the whistleblowers and the reported information, regulate the transmission of report materials, strictly control the number of people who know, properly keep the report materials, and verify the situation without exposing the identity of the whistleblower. The Company will strictly hold accountable any individuals who violate the provisions related to the protection of whistleblowers and effectively safeguard their rights and interests.

Reporting Channels:

Email: jubao@bloomagebiotech.com Phone: 010-85670099-1503

Responsible Marketing

Bloomage Biotech rigorously complies with laws and regulations in terms of responsible marketing such as the Law of the People's Republic of China on the Protection of Consumer Rights and Interests, Advertising Law of the People's Republic of China, and Provisions for the Clear Marking of Prices and the Prohibition of Price Fraud. The Company has devised policies like the Bloomage Biotech Code of Conduct for Advertising Release, Bloomage Biotech Code of Conduct for Advertising Release (Applicable to Cosmetics), Compliance Guidelines for Live Streaming Promotion, Sensitive Term Base for Cosmetics and Daily Chemical Products to regulate marketing and communication practices. Tailored compliance procedures have been established for different product categories and promotional channels, with regular internal training sessions organized. For instance, within the functional food and health products business line. Bloomage Biotech invited law firms to conduct specialized seminars on the theme of *The Path to Food Compliance*, providing comprehensive explanations and discussions on food safety-related laws and regulations, regulatory systems, and clauses of the advertising law to enhance employees' awareness of compliant marketing and understanding of relevant laws and regulations. All claims regarding product efficacy must be based on results of external authoritative testing and verification, to ensure the compliant disclosure of authentic product information. During the reporting period, no violations of marketing communications occurred, nor were there any lawsuits related to false marketing claims that resulted in financial losses.

The Company places great emphasis on the timely disclosure of product ingredients. In addition to complying with laws and regulations regarding product ingredient labelling, Bloomage Biotech enhances product information transparency by clearly stating product ingredients in promotional materials and publicly disclosing product information across multiple platforms, thereby inviting scrutiny from a wide range of

Online platform stores and e-commerce livestreams serve as the primary sales channels for Bloomage Biotech's functional skincare and food products. To raise employees' awareness of responsible marketing and ensure compliance during the sales process, the Company conducts compliance promotion training for key marketing position employees, summarizing and sharing regulatory and policy consultations related to compliant product promotion promptly. External experts are occasionally invited to conduct compliance promotion training for sales personnel. Furthermore, the Company regularly reviews prohibited marketing keywords and other online sales risks, reinforcing the compliance and operational capabilities of relevant personnel through post-event analysis and internal training so as to avoid providing consumers with negative experiences due to violation.

Bloomage Biotech responsible marketing training overview				
Indicator Unit 2023				
Number of Participants	-	8,585		
Cumulative Training Duration	Hours	2,714		

The Company respects and complies with management requirements from platforms such as Tmall, TikTok, and JD.com, by providing highquality products, efficient logistics, and high-standard customer service, earnestly maintaining the reputation and image of our online stores. The company sets limits on online store purchases to prevent scenarios like click farming and distributor restocking, ensuring the authenticity and effectiveness of store performance. During the reporting period, all brands under Bloomage Biotech maintained high DSR¹ scores on major mainstream online platforms without serious violations.

In terms of external collaborations for sales, the Company includes marketing risk clauses in marketing promotion contracts, which require cooperation agencies and influencers to sign the Commitment Letter for marketing compliance, strictly adhering to all applicable laws, regulations, company policies, and promotion platform regulations related to internet promotion activities.

DSR scores of Bloomage Biotech's online stores			
Brand	DSR Scores on Online Platforms		
Brand	TikTok ²	Tmall ³	JD.com ⁴
BIOHYALUX	5	4.9	4.8
QuadHA	5	4.9	_
MedRepair	5	4.8	4.6
Bio-MESO	5	4.8	4.6
Bloomage Biotech Skincare Flagship Store	5	-	-

("-": Indicates that no store is set up on that platform)

¹ DSR score is the detailed evaluation score given by buyers on e-commerce platforms to sellers, reflecting the performance of sellers in aspects such as product description, logistics service, communication, and transaction experience.

² The comprehensive experience score of stores on TikTok is on a 5-point scale, with a minimum of 3 points, calculated by weighting the scores of product experience, logistics experience, and service experience of the seller in the last 90 days.

³ Tmall store ratings are on a 5-point scale, including description matching, service attitude, and logistics service, with data here representing the average of the three ratings over the past six months.

⁴ Ratings of store on JD.com mainly consist of user evaluation, customer service consultation, logistics performance, after-sales service, and transaction dispute resolution, with data here representing the average of the five ratings.

Cybersecurity and Privacy

Information technology and digitization serve as pivotal foundations for the stable and efficient advancement of modern enterprises. As the depth of digital transformation intensifies, Bloomage Biotech keenly acknowledges the core value of cybersecurity and privacy protection for corporate growth in today's digital landscape. The Company is dedicated to navigating the challenges and opportunities presented by cybersecurity and privacy protection by leveraging innovative management practices and the application of cutting-edge technologies.

Cybersecurity and Privacy Management System

Complying with relevant laws and regulations such as the Cybersecurity Law of the People's Republic of China, Data Security Law of the People's Republic of China, and Personal Information Protection Law of the People's Republic of China and drawing from the ISO/IEC 27001 Information Security Management Standard, Bloomage Biotech has established a robust information security management system encompassing organization, management, technology, training, and supervision. This system articulates clear policies for cybersecurity and privacy protection, which are implemented across the spectrum of production, testing, operation, and marketing. In addition, the Information Security Management Committee oversees and coordinates the Company's efforts in this regard, with dedicated departments entrusted to execute information security protection strategies and procedures. During the reporting period, the Company once again achieved ISO 27001 certification for information security management systems. Additionally, in 2023, two systems, namely the anti-counterfeiting tracing system and the raw material portal website system, obtained Level 2 Certification for National Information Security.

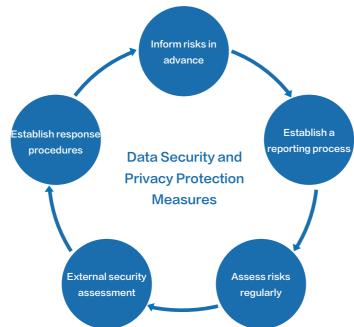
In 2023, the Company updated and issued several regulations related to cybersecurity and privacy protection, including the Bloomage Biotech Public Internet Access Management System for Information Systems, Account, Password, and Authority Management System, and Data Backup and Recovery Management System, building upon existing policies such as the Information Security Control Policy and Specifications on Vulnerability Handling Process. These regulations aim to standardize and fortify cybersecurity risk prevention and control, account, password, and authority management, as well as ensure the security and stability of information systems, thereby enhancing the Company's proactive and reactive capabilities in addressing contingencies.

Data Security and Privacy Protection Measures

At the technological level, Bloomage Biotech integrates a variety of mature information security technologies and products, guided by the principle of defense in depth. This approach facilitates the implementation of security functions such as identity authentication, access control, data integrity, and data confidentiality across multiple layers, thus fostering an effective security technology protection framework. In 2023. the Company undertook various projects to enhance information and data security, including bolstering access control for core applications, preventing data leakage from terminals, managing off-site backups, and establishing a self-inspection platform for vulnerability management. These endeavors significantly elevated the security of critical applications to a higher echelon and further fortified the Company's information security monitoring and protection capabilities across all business segments.

The Bloomage Biotech official website serves as a vital platform for showcasing, communicating, and delivering services. Consequently, the Company has crafted and issued a website privacy policy to transparently elucidate the policies and practices concerning the collection, processing, and protection of personal information for users/visitors.

Concerning the protection of user personal information, the Company employs encryption, de-identification, and other technologies to ensure its security, utilizing trusted protection mechanisms to thwart malicious cyberattacks and deploying strict access control mechanisms to avert unauthorized access or use of personal information. To facilitate users' exercise of their rights to access, rectify, delete, etc., their personal information, corresponding operational settings are provided on the website and related services. Moreover, in collaboration with third parties and business partners, the Company strictly adheres to laws and regulations, requiring third parties to sign agreements and implement necessary security measures to handle relevant user personal data in accordance with privacy policy requirements.



The Company conducts regular internal and external information security risk assessments each year, evaluating the security levels of the anti-counterfeiting tracing system and portal website and completing records. We comprehensively identify and analyze risks and vulnerabilities across various aspects such as company network infrastructure, data storage, transmission and processing, access control, and physical environment of devices. Based on assessment results, corresponding plans and corrective measures are established to continuously refine the data security risk prevention system.

Each year, necessary information security training and awareness promotion campaigns are conducted for company employees, relevant contractors, and other external personnel to continuously bolster the information security awareness of all staff. Simultaneously, employees engaged in information security positions are encouraged and supported to continuously enhance their professional skills and actively pursue professional qualification certification for information security. Presently, members of the Company's information security team have obtained the national certification of Certified Information Security Professional (CISP).

Investor Rights Protection

Bloomage Biotech prioritizes investor relations, strictly adhering to laws and regulations such as the Measures for the Administration of Information Disclosure by Listed Companies issued by regulatory authorities. The Company has established robust systems including the Information Disclosure Management System and the Investor Relations Management System, consistently implementing them to enhance the quality of information disclosure and safequard the interests of investors and other stakeholders.

The Company is committed to upholding the core principles of information disclosure, ensuring that all disclosures are truthful, accurate, comprehensive, and easily understandable. This commitment ensures that investors have timely and equal access to information. In addition, we offer a variety of communication channels for investors and patiently address their inquiries, thereby cultivating a reputation for responsibility and reliability. Moreover, we actively foster communication with investors through diverse forms, including organizing largescale public exchanges, participating in strategy meetings organized by securities firms, hosting investor visits to our facilities for research purposes, conducting conference calls, utilizing the Shanghai Stock Exchange Interactive Platform, holding roadshows, and maintaining regular contact with investors via email. These efforts aim to proactively disclose and update the Company's operational status to the capital markets, thereby strengthening our effective communication with investors. In 2023, the Company issued 81 announcements, produced and disseminated the Company's 2022 performance interpretation videos and the long charts of 2022 performance through new media platforms, held 6 performance presentations, received hundreds of investors, and participated in more than 100 strategy sessions and roadshows organized by brokerage firms.

81 Issued announcements

6 Held earning briefings

Achieved the highest rating of grade in the annual information disclosure evaluation conducted by the Shanghai Stock Exchange



Technological Innovation to Enhance Product **Efficacy**

Bloomage Biotech adheres to the logical progression of "science \rightarrow technology \rightarrow product \rightarrow branding" in corporate development, with synthetic biology as a key direction. The Company persistently invests in both fundamental and applied research, complying with relevant laws, regulations, and regulatory requirements while integrating various resources. We continuously establish and improve our research and development innovation management system, to create high-standard R&D centers and pilot-scale transformation centers. Through technological innovation, material expansion, technology transfer, intellectual property protection, and deep integration of industry, academia, and research, our technological capabilities are further improved. The Company is committed to strengthening the quality management of products and services, managing customer needs and satisfaction, and providing the market with fair, accessible, healthy, and environmentally friendly products and services, that empower people with healthy, beautiful, and joyful life experiences through biotechnology.

Major Material Topics of Sustainability Covered in this Chapter:

- Research and Innovation
- Chemicals Safety Management
- Research Ethics
- Health Accessibility
- Information Security

- Product Environmental Impact
- Industry Collaboration and Development
- Product Quality
- Client Service
- Intellectual Property Protection

SDGs Addressed in this Chapter:











R&D Innovation

R&D innovation is at the core of enhancing corporate competitiveness. Bloomage Biotech emphasizes independent innovation capabilities to construct a distinctive research and development innovation platform. We coordinate innovative management structures and resource elements, facilitating in-depth integration of industry, academia, and research for innovation. We explore sustainable management throughout the product lifecycle and composition, actively leveraging our advantages in innovation platforms, resource allocation, talent aggregation, and technological foundations, focusing on core technology breakthroughs to promote high-quality development for the Company and the

Construction of R&D Innovation Platform

Bloomage Biotech continues to establish and refine a research and development innovation platform primarily composed of 1 national enterprise technology center, 2 core research areas, 6 high-end scientific research platforms, and 8 research laboratory bases. We coordinate efforts to strengthen the aggregation capacity of innovative resources, effectively enhancing the level of technology transfer and industrialization. The Company focuses on the R&D, innovation, and production of 6 categories of biologically active substances related to human health, including functional sugars, proteins, peptides, amino acids, nucleotides, and natural active compounds, covering the entire industry chain from cell construction to commercial applications. We adhere to a research and development strategy with a global multi-point layout, achieving global collaborative innovation to provide research support for the entire industry chain and long-term development.



Bloomage Biotech R&D innovation platform

The Company continues to increase its investment in scientific research funds to strengthen R&D capabilities. During the reporting period, the total R&D investment amounted to 4.46 RMB 100 million, representing a year-on-year growth of 14.95%. The proportion of R&D investment to total revenue accounts for approximately 7.35%.

(RMB 100 million)

7.35 % Proportion of R&D investment to revenue

Additionally, during the reporting period, the Company has been awarded a series of awards and honors in technological R&D, including the "Annual Biotechnology Innovation Award", the "Innovation Award for National High-tech Zone Listed Company", and the "Top Ten Outstanding Applications of Synthetic Biology" in China. Over the years, the Company has also received other national and local awards in related to major technological innovations (as shown in the table below).

Major technological innovation awards received by Bloomage Biotech			
Category	Number of awards	Fields	
China patent award	2	Enzyme cutting technology, cross-linking technology	
National scientific and technological progress award	2	Research and development of sodium hyaluronate and its pharmaceutical preparations	
Provincial scientific and technological progress award	4	Fermentation technology, enzyme cutting technology, cross-linking technology	
Shandong provincial patent award	2	Enzyme cutting technology, cross-linking technology	

Technology and Product Innovation

Bloomage Biotech strictly adheres to relevant laws, regulations, and regulatory requirements to ensure that the identification and R&D of new materials, and the design and production of new products meet human health and environmental standards. The Company is committed to developing and producing products with no by-products, low or no toxicity, minimal impurities, low impurity content, and high safety and stability. Through measures like source substitution and process optimization, the Company achieves energy saving, pollution reduction, and consumption reduction, thereby reducing the negative impact of the product's entire lifecycle on the environment and biodiversity. If green processes have deficiencies in purity, the Company will use low-toxicity organic reagents such as ethanol as much as possible in product development.

- In source substitution, the Company uses fermentation instead of extraction to produce Rhodiola extract, reducing the consumption of Rhodiola, a plant protected at the national level
- In the product R&D process, the Company strives to use green processes for product purification and refinement, such as membrane filtration and enzymatic hydrolysis, instead of traditional methods such as alcohol precipitation and acid-base processes
- In the process of design and optimization, the Company avoids the use of environmentally unfriendly reagents, consumables, etc., For instance, concentrated crystallization is used instead of traditional acid and organic reagent crystallization in part of the product development process

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Total number of various types of R&D projects

Number of participated in national key R&D projects

Number of participated in provincial key R&D projects

Case: Leading the upgrade of the regenerative medicine industry

The Key Laboratory of Regenerative Medicine Technology and Material Transformation in Hainan Province (hereinafter referred to as the "Key Laboratory"), established and applied for by Bloomage Biotech, was officially inaugurated in December 2023 at the Bloomage Biotech (Hainan) Science and Technology Industrial Park. This laboratory is the first provincial-level key laboratory for regenerative medicine in Hainan Province, focusing primarily on three research directions Basic Research and Application Transformation of Biomedical New Materials, Design and Development of Stem Cell Culture Medium and Innovative Application Research of Stem Cell-Derived Bioproducts, and hiPSC Regeneration and Transformation Research.

Leveraging the Company's layout in regenerative medicine and its advantages in the industrial chain, this key laboratory aims to achieve synergistic innovation and development across the entire industrial chain, from technological innovation to industrial and market transformation, leading the upgrade of the regenerative medicine industry.

Case: Recombinant collagen technology and products with health, safety, and green attributes

Based on the analysis of the functional, structural, and sequence correspondence of human type III collagen, Bloomage Biotech designed, tested, and ultimately selected protein sequences with composite efficacy, excellent safety, and the ability to meet terminal cost control requirements. The product is expressed by yeast, which is endotoxin-free, and free from viral contamination. It possesses powerful repair and healing, as well as collagen regeneration promotion effects. This product can be widely used in wound repair, post-medical aesthetic surgery wound recovery, skin problem treatment, and facial rejuvenation care, meeting the needs of human health and beauty. At the same time, this technology addresses environmental pollution caused by large amounts of acid and alkali in the extraction process of animal collagen, thus embodying green environmental protection and sustainable development attributes.

Case: BloomStem becomes a key contracted project for China-Japan green low-carbon cooperation

Bloomage Biotech's subsidiary, BloomStem (Hainan) Co., Ltd., along with Japan's Otsuka Pharmaceutical Co., Ltd., BioMimetics Sympathies, and other relevant partners, invested in the establishment of a joint venture named BloomStem Biotechnology (Hainan) Co., Ltd. (referred to as BloomStem) in 2022. As a Key Contracted Project for China-Japan Green Low-Carbon Cooperation, BloomStem will mainly focus on expanding research in the biomedical field. It will introduce leading Animal Origin Free (AOF) mesenchymal stem cell culture technology from Japan and launch the BloomStem" series of AOF mesenchymal stem cell expansion culture media, various high-performance cell culture media, and cell culture derivatives, among other regenerative medical products and customized development services.

Cell culture media, as a cornerstone of the biopharmaceutical and biotechnology industry, plays a crucial role in the development of the biotechnology industry with a green and low-carbon nature. This contracted project will help promote biotechnology cooperation and green development cooperation between China and Japan.

R&D Innovation Management Structure and Systems

Bloomage Biotech has established an R&D Management Committee led by the Chairwoman, with senior management and key technical managers involved in the comprehensive management of the Company's R&D system. Each center or studio is responsible for implementing specific projects and related tasks. The Company emphasizes the integration of advantageous resources to enhance its core competitiveness in R&D.

In line with the diversified market and the operation of the entire industry chain, the Company adopts a business-oriented approach and establishes R&D studios in different directions with full authorization granted. This initiative promotes stronger collaboration among studios, breaks down internal barriers, and facilitates the efficient flow of information.

• Responsible for the comprehensive management of the R&D Management Committee Company's R&D system Management Committee Management Committee Management Committee for Raw Material R&D for Medical Device R&D for Personal Care Appliance R&D

- Members of the committees report to the chairwoman of the Board of Directors
- Each management committee is responsible for the R&D management and operation of each business line

R&D management structure at Bloomage Biotech

Bloomage Biotech strictly adheres to laws and regulations, including the Regulations on the Safety Management of Biotechnology Research and Development, the Regulations on Drug Registration Management, the Regulations on Cosmetics Supervision and Administration, the Food Safety Law, and the Ethical Review Measures for Life Sciences and Medical Research Involving Humans. The Company has formulated internal systems such as the Public Laboratory Management Regulations, the Research and Development Center Equipment Lifecycle Management Procedures, the Design and Development Control Procedures, the Patent Management Regulations, the Patent Incentive Measures, and the Implementation Rules for Research and Development Center Performance Management. These systems are implemented to standardize the Company's project development processes, talent recruitment and management, research outcomes, and talent reward criteria. Furthermore, the Company has established research project management regulations to ensure that relevant activities are conducted legally and compliantly throughout stages such as project initiation, design, development, review, validation, transformation, and confirmation.

Talent Development for R&D Innovation

Talent is at the core of innovative development. Bloomage Biotech fully recognizes the critical role of talent in R&D innovation and continually broadens channels for talent introduction with increasing efforts. The Company emphasizes internal talent mobility, optimizes the structure of its talent pool, establishes pathways for talent development, formulates and updates mechanisms for talent assessment and incentives, and improves talent cultivation and management models to achieve comprehensive talent acquisition, cultivation, and utilization.

Aligned with an R&D talent management culture guided by corporate strategy and customercentered philosophy, the Company constructs an R&D Management Committee to coordinate supervision and guidance, adopts a collaborative management model among departments. and strengthens talent organization construction and management to attract high-level talents within the industry. Moreover, we encourage internal job rotations and transfers among relevant personnel to vibrate and manage the internal talent market.

Bloomage Biotech boasts a multidisciplinary, professionally structured, industry-experienced, deeply capable, and efficiently collaborative talent team, providing fundamental support for the Company's technological innovation. As of the end of the reporting period, the Company has 926 R&D personnel, accounting for 20% of the total workforce, nearly 50% of whom come from renowned domestic and international institutions, holding postgraduate or above degrees. We have 2 experts enjoying special allowances from the State Council, 2 provinciallevel experts with outstanding contributions, 3 Taishan Industry leading talents, 1 leading talent at the municipal level, and 30 key technical personnel in critical fields such as senior/ deputy engineers and pharmacists. Additionally, the Company forms external scientific research expert teams and has successfully attracted more than 50 professionals in relevant fields through flexible recruitment, further enhancing the strength of the Company's research team and providing strong support for favorable business development.



Case: Facilitating the green transformation of biotechnology packaging materials

Bloomage Biotech has completed R&D of sugarcane-based plastics in the disposable packaging materials through technological extraction and semi-automatic wet pressing processes. This simple and recyclable product packaging, compared to traditional petroleum-based plastic packaging, can reduce approximately 3 tons of carbon dioxide emissions per ton, achieving multiple environmental benefits such as resource conservation, energy consumption reduction, and greenhouse gas emission reduction.

Case: Environmentally friendly production technology for skincare ingredients

During the reporting period, Bloomage Biotech completed the production development of 2 probiotic skincare products with antioxidant and barrier function effects (Microgeometry ME-2 and ME-3). The Company used natural and sustainable materials and significantly reduced the addition of carbon and nitrogen sources during fermentation through process optimization. Moreover, all products obtained after fermentation can be used for skincare ingredient development, and no wastewater is generated during the production process, resulting in benevolent environmental influences.

Ingredient Sustainability

Bloomage Biotech places great emphasis on the green, safe, and reliable nature of product ingredients, strictly adhering to domestic and international regulations such as the Cosmetic Safety Technical Specifications and the Regulation on Registration, the Evaluation, Authorization, and Restriction of Chemicals (REACH Regulation). Necessary qualifications or certifications related to ingredient safety and natural organic properties are obtained for products. The Company extensively refers to industry and market authoritative standards, formulates systems such as the Chemical Use List for Research and Development, establishes chemical use and management mechanisms, and identifies hazardous factors. By continuously reducing, substituting, or prohibiting controversial ingredients, the negative impact of product ingredients on human health and the environment is minimized. During this reporting period, no penalty from regulatory agencies occurred due to non-compliance with chemical usage in products.

Furthermore, the Company is committed to promoting the sustainability of product ingredients in the industry and actively participates in the "Cosmetic Mercury-free Action" advocated by the Skin Health Industry China Science and Technology Alliance as a member of the formulation of the first domestic group standard for low-mercury cosmetics. The Action is an important initiative concerning consumer safety and environmental protection, which Bloomage Biotech continues to invest in, willing to collaborate with enterprises, research institutions, and consumers, to provide consumers with higher quality and safer products.

Case: Focus on the R&D and application of green surfactant lipopeptides

During this reporting period, Bloomage Biotech successfully launched its first bio-surfactant product, Bloomsurfact Bacillus lipopeptide sodium to the market. This product utilizes natural sugarcane-derived brown sugar as a carbon source to efficiently synthesize lipopeptide skeletons, replacing traditional surfactants and oils derived from fossil fuels and plants. Moreover, it enhances fermentation yield through low-foam fermentation technology. The production process of this product is environmentally friendly, as it does not involve organic solvent synthesis steps, leaves no chemical toxic residue, exhibits high biodegradability, and reduces the use of petroleum and plant resources, hence promoting the safety, greenness, and sustainability of bioactive substances.

Industry-Academia-Research Collaboration

Bloomage Biotech emphasizes the establishment of high-quality standards, the deep integration of industry, academia, and research, and collaborative technological innovation to continuously build brand advantages. The Company actively forms links between industry, academia, and research through strategic cooperation agreements, joint research center establishment, leading pilot conversion platforms, and applied basic research in related technologies and manufacturing fields. It has also engaged in extensive research collaboration with prestigious domestic and international research institutions such as the Chinese Academy of Sciences, the China National Institute of Metrology, Cornell University, the University of Oxford and other professional institutions and enterprises, to put forward research and product innovation as well as high-quality development of the industry.



During the reporting period, the Company has actively carried out more than 70 collaborative projects with research institutions, peers, customers and other parties in raw materials, pharmaceuticals, medical devices, functional skincare products, etc. These collaborations provide technical support for the Company and industry development, promote comprehensive advancement of the industrial chain, and further strengthen the Company's leadership and influence in the hyaluronic acid industry.

Case: Collaboration between Bloomage Biotech and China National Institute of Metrology (CNIM)

Since the strategic cooperation agreement signed by Bloomage Biotech and CNIM in July 2021, the two parties have collaborated on various aspects including "quality control research, the establishment of quality standards, research on standard substances, new measurement methods, characterization technology research", and have achieved remarkable results over the past two years. In June 2023, the collaboration between the Company and CNIM was comprehensively upgraded with a cooperation agreement signed for the project "Technological Innovation of the Full Industry Chain of Bioactive Substances and Standard-Setting Leading High-Quality Development". This project will focus on 6 categories of bioactive substances of Bloomage Biotech (functional sugars, amino acids and derivatives, peptides, proteins, nucleotides and derivatives, natural active compounds), conducting comprehensive and multi-field cooperation on quality and standardization research, achieving complementary advantages and strong alliances.

Case: The Belt and Road scientists delegation visiting Bloomage Biotech

In November 2023, more than 20 professors and young scientists from over ten Belt and Road (hereinafter referred to as "B&R") countries such as Pakistan and Iran, accompanied by representatives from the Tianjin Institute of Industrial Biotechnology, Chinese Academy of Sciences, visited the Bloomage Biotech Tianjin factory. They engaged in in-depth exchanges and discussions on scientific research, technology, and products.

The visit is an active response of the Company to the national B&R strategic policy and demonstrates the crucial role of large national enterprises. It will provide a platform and sample for national industry-academia-research cooperation, the transformation of scientific research achievements, and more exchanges and cooperation with scientists from countries and regions along the B&R, which will facilitate expansion businesses in countries involved in the initiative and promote the high-quality development accordingly.



The B&R scientists delegation visits Bloomage Biotech

Collaborative Development

Bloomage Biotech leverages its own technological innovation capabilities and technical platform advantages to implement open cooperation, actively collaborating with governments, industry organizations, research institutions, etc., to promote the establishment of standardized norms and industry knowledge popularization, driving the sustainable and healthy development of related industries.

Standard Setting

To promote new materials, technologies, processes, and advanced management concepts and to eliminate technological barriers to facilitate the transformation of scientific and technological achievements, Bloomage Biotech takes the initiative to lead and participate in the formulation and implementation of national, group, and industry standards, which not only enhances its own influence and discourse power but also promotes the industry to have clear guidelines and standards to follow.

Bloomage Biotech has led or participated in the formulation of 8 industry standards and 36 group standards, among which 15 group standards were released during the reporting period. Additionally, the Company is currently involved in the development of 30 national, industry, and group standards.

Industry Education

As part of its commitment to popularize knowledge related to life sciences and biomanufacturing, Bloomage Biotech has established exhibition halls in its main offices, factories, and R&D centers to conduct science popularization activities for visiting groups.

We have established the World Hyaluronic Acid Museum and the Synthetic Biology Science Museum. The World Hyaluronic Acid Museum is the world's first hyaluronic acid theme museum, showcasing its knowledge and applications through scientific videos, historical documents, and simulated displays, etc. The Synthetic Biology Science Museum is the world's first science museum dedicated to synthetic biology, using technology-driven and interactive methods to explore topics such as the origin of life, global crises, and sustainable development, while introducing the definition, significance, development, technological foundation, industrial applications, and underlying support for carbon peaking and carbon neutrality brought by synthetic biology. Since the official opening, the World Hyaluronic Acid Museum has welcomed 27,692 visitors, while the Synthetic Biology Science Museum has seen 2,243.

The Company integrates internal and external professional resources to conduct online public education. This involves producing and releasing themed video series including "Amazing Life Science," "Amazing Hyaluronic Acid," and "Amazing GABA" on the Company's official website. Additionally, the Company has established the "Bloomage Science Popularization" column on Weibo, where it carried out 153 science popularization activities related to bioactive substances throughout the year.

In addition, to further assist customers in developing a logical and scientific view on skincare, the Company also works with businesses and universities to develop projects and publish a Scientific Skincare Guide for Oily Skin, a White Paper on Insights into Eye Anti-Aging, and a White Paper on Trends in Anti-Aging for Sensitive Skin in China.

Ethical Testing

Bloomage Biotech strictly adheres to the laws and regulations of the PRC, including the Civil Code, the Basic Healthcare and Health Promotion Law, the Law on Scientific and Technological Progress, the Biosafety Law, the Regulations on the Management of Laboratory Animals, and the Regulations on the Quality Management of Clinical Trials of Drugs. Following the principles of the 3R⁵ for animal experimentation, the Company respects the Declaration of Helsinki by the World Medical Association and relevant national or regional ethical systems, conducting internal and external trials legally and compliantly. During the reporting period, the Company did not incur fines from regulatory bodies for breaking ethical testing guidelines.

- Bloomage Biotech uses human subjects, cell testing, ex vivo skin testing, and 3D skin model testing in place of animal testing for efficacy trials on functional skincare products. Participants may opt out at any moment and is completely voluntary
- The Company gives preference to alternative methodologies for medical device efficacy trials to minimize the need for animal and human clinical trials

Bloomage Biotech does not directly conduct animal or human testing, nor does it have any regulations regarding the care or welfare of its test subjects. All necessary animal and human clinical trials are entrusted to qualified Contract Research Organizations (CROs) or hospitals, with contracts stipulating compliance according to national regulations on trial ethics and related measures for the welfare of human/animal subjects.

The third-party animal experimentation and inspection institution admission requirements of Bloomage Biotech:

Possession of professional qualifications

The Company ensures that third-party collaboration institutions possess nationally recognized laboratory qualifications, as well as relevant certifications and approvals from animal experimentation ethics committees

Experience and technical proficiency

The Company assesses the technical capabilities and experience of the institutions through observations and on-site visits

Suitable facility conditions

The Company inspects whether the facilities and equipment of third-party collaboration institutions meet the requirements, including but not limited to the size, ventilation, temperature, humidity, and hygiene conditions of animal rooms, to ensure they are suitable for animal survival and experimentation

Legal and regulatory compliance

The Company undertakes relevant measures to ensure that third-party collaboration institutions comply with applicable laws, regulations, and ethical requirements for experimentation, following ethical review procedures

Pilot Scale Results Transformation

Bloomage Biotech aims to establish a world-class intelligent pilot scale results transformation center, focusing on achieving highquality, efficient product transformation and creating value for domestic and international customers through "smart manufacturing" of 6 categories of bioactive substances. The Company follows Integrated Product Development (IPD) principles, constructing a product planning and development management system centered on market and customer needs. This system aims to swiftly respond to market changes, significantly shorten product development cycles, reduce project rejection rates, lower development costs and resource waste, and ensure products not only have excellent stability but are also easy to produce and service, bringing higher value experiences to the Company and its customers. 4 key business competencies are integrated into the pilot scale results transformation center: process research and validation, sample preparation and inspection testing, medium and small-scale commercial production, and process optimization and quality improvement. It is committed to optimizing value, assisting creative achievements in realizing the leap from the lab to the market, and satisfying internal and external needs for product transformation.

Make it possible for cell factories to produce everything and build a platform where achivements of digital intelligence can be transformed

Positioning

The key step for laboratory results to achieve commercial transformation

Vision-the next 30 years

Biomaterials for biomanufacturing: 1.Substitute 50 % of the materials extracted from animals and plants 2.Substitute 70% of petrochemical-based

Mission, vision, and positioning of Bloomage Biotech's pilot scale results transformation center

The Company strictly adheres to relevant laws and regulations such as the Law of the PRC on Promoting the Transformation of Scientific and Technological Achievements, the Notice of the General Office of the State Council on Printing and Distributing the Action Plan for Promoting the Transfer and Transformation of Scientific and Technological Achievements, and the Interim Measures for the Filing and Management of Pilot Demonstration Bases for the Transformation of Scientific and Technological Achievements in Shandong Province. It has meticulously formulated and implemented a series of internal management systems such as the Pilot and Trial Production Development Control Procedure, the Research and Development Results Production Transfer and Production Introduction Management System, and the Pilot and Process Verification Management System, clarifying the execution standards at different key points of the products, enhancing the standardization, compliance, and effectiveness of product process transformation and technology transfer, and building a sound and efficient chain for the transformation of scientific and technological achievements.



 $^{^{5}}$ The "3R" principle is the principle of Reduction, Refinement and Replacement of animal experiments.

The Company deeply understands the importance of sustainable development and is committed to optimizing the product development and assessment process. It integrates environmental protection and safety concepts throughout the project research and development process. Comprehensive reviews are conducted on EHS risks, including the use of organic solvents, potential human hazards, and analysis of pathogenic bacteria, to ensure that every R&D outcome meets green and safety standards. Additionally, the Company utilizes bio-based carbon sources aimed at reducing greenhouse gas emissions, improving wastewater treatment, reducing air emissions, and minimizing waste generation. The overall goal is to minimize the negative impact on both personnel and the environment while promoting project research and development.

Case: Continuous improvement of organizational capacity in the pilot transformation center

Talent is the core driving the transformation of research achievements. Bloomage Biotech has established and optimized a talent training system and a pilot knowledge management system. It adheres to diversified and multi-channel pilot talent training, forming a professional team proficient in pilot research in related fields and possessing R&D capabilities. During the reporting period, the Company implemented the following series of measures to improve the organizational capacity of the pilot transformation center:

- · Organized multiple research and pilot issue communication meetings and co-creation sessions, actively integrating internal and external resources, and conducting over 30 trainings covering standardization, lean production, management skills, internal processes, etc
- Established a "Problem-solving Camp" to enhance employees' abilities to identify, analyze, and solve problems
- · Launched online pilot classrooms to provide employees with a platform for learning safety, quality, and general skills
- Conducted a 5-month "Peak Camp" management empowerment training program to equip employees with enhanced project management capabilities
- · Conducted pilot personnel capability testing and competency inventory, and constructed job competency models to guide employees' career development and growth paths
- · Promoted cross-department cooperation and talent mobility, implemented project team systems, and established cross-functional team operation mechanisms to enhance overall synergy
- Established a pilot knowledge system to accelerate the precipitation and dissemination of knowledge and experience, gradually forming an internal culture of sharing to provide strong support for the organization's continuous development and innovation



Professional training for pilot personnel at Bloomage Biotech

Case: Optimizing processes and management to achieve win-win economic and environmental performance

Bloomage Biotech actively promotes lean management, delying deep into the pain points of production, and meticulously analyzing the root causes of issues. Focusing on key influencing factors, we employ simulation analysis and repeated validation to continuously optimize processes and operational workflows, significantly improving the quality and pass rate of pilot production. The Company's competitive advantages of the company's products on key indicators has been reinforced by this improvement. Through optimizing production processes, we minimize our dependency on raw materials and energy while shortening R&D and production cycles, which lowers the amount of solid waste and wastewater that is produced. These measures help us reduce costs and increase efficiency, also demonstrate our commitment to green environmental principles. Furthermore, the Company has established a rapid and compliant commercial release system. Through cross-department collaboration and stringent quality control, we have effectively accelerated the pace of research and development commercialization, facilitating faster product launches into the market.

Quality Management

Bloomage Biotech follows the quality management policy and principles of "leading technology, standardized management, safe and reliable, and professional service," with product quality always prioritized. The Company constantly strengthens technological innovation, pursues excellent quality, practices and improves the construction of a quality system throughout the entire lifecycle, thereby promoting a culture of quality, guiding quality consumption, assuming primary responsibility for quality and safety, and guiding customers to enjoy high-quality products and services.

Annual key quality objectives for Bloomage Biotech			
Item	Objective	Status	
Customer satisfaction	≥ 90%	Achieved	
Qualified rate of finished products at one time	≥ 98%	Achieved	

Quality Management System

Bloomage Biotech strictly complies with laws and regulations of the Product Quality Law of the PRC, the Drug Administration Law of the PRC, the Food Safety Law of the PRC, the Regulations on the Implementation of the Food Safety Law of the PRC, the Drug Alert Quality Management Specification, and Cosmetic Production Quality Management Specification. The Company has formulated and implemented regulations such as the Quality, Food Safety, HACCP Management Manual and Product Surveillance and Measurement Control Procedures, carrying out full-process quality management from product design, R&D, and production to post-launch quality and safety assurance to ensure product safety and efficacy.

The Company has established and continuously improved the quality management system for the entire lifecycle of products to ensure the controllability of product quality and safety. We have obtained ISO 9001 quality management system certification, ISO 13485 medical device quality management system certification, laboratory national accreditation certification⁶, and high-standard production lines that meet US cGMP, China GMP, and IC HQ7 requirements, as well as on-site inspections by the US FDA, South Korea MFDS, and China GMP standards.



The Company is promoting the construction and application of digitalized systems in the comprehensive quality management systems of various products, continuously refining the quality management model. The implementation of the QMS system (Quality Management System), which aims to optimize quality decision-making processes, shorten the cycle of quality event handling, and improve daily quality management levels, is advancing compliance and refinement of quality management, thereby improving our quality management system. Additionally, the Company has implemented the DMS system (Document Management System) to regulate and control document management activities while incorporating features such as security, confidentiality, and audit tracking, thereby increasing the efficiency of quality management.

The Company actively participates in numerous external quality audits by regulatory authorities, system certifications, and customers, all of which have passed without major faults or substantial flaws, with minor errors corrected. During this reporting period, the Company formed an internal quality inspection and audit team, which conducted 6 internal audits on the construction and operation of each factory's quality management system, for a total of 9,252 product tests.

The Company has long viewed quality as a vital basis and lifeline for company development and has been constantly developing the enterprise's quality management system. Currently, the Company has implemented a quality management system that covers the whole lifecycle and operation of medications, cosmetics, food, health food, disinfectants, sanitary goods, and medical devices. With technological innovation as its foundation, the Company monitors product quality with high standards and strict requirements, continuously improving an excellent and lean quality management system, achieving enterprise standards that exceed industry, domestic, and international standards, and becoming a benchmark enterprise for promoting high-quality development.

Case: Bloomage Biotech wins the "8th Shandong provincial governor's quality award"

Bloomage Biotech received the "8th Shandong Provincial Governor's Quality Award" at the Shandong Provincial Quality Conference in 2023. As one of the first firms in Shandong Province to apply the "Chief Quality Officer" system internally, the Company's quality management, product quality, independent innovation capability, and management level are among the best in the local sector.

⁶ Bloomage Biotech testing center officially passed the CNAS ISO/IEC 17025:2017 laboratory accreditation in 2022, and the Company's laboratory owns first-class testing and calibration capabilities, reaching the internationally recognized standardization level with authoritative test results.

Quality Risk Management

To actively address and manage quality risks, Bloomage Biotech has developed management regulations and related systems such as the Quality Risk Management Procedures, the Risk and Opportunity Control Procedures, the Emergency Response Plans for Sudden Incidents, and the Food Safety Traceability Management Procedures about relevant laws and regulations. The Company consistently identifies, assesses, controls, communicates, audits, and minimizes quality risks throughout its product's lifecycle to decrease the likelihood and impact of risks to an acceptable level while protecting consumer safety, health, and rights. The Company conducts comprehensive quality risk assessments annually and rectifies any defects found. During this reporting period, the Company invited third-party organizations to audit the quality management system a total of 62 times, and no major quality risks were identified.

Case: Smart QR code traceability system facilitating quality risk control

Bloomage Biotech continues to promote the digitalization of the industry and has established a smart QR code traceability system to strengthen the control of key elements' risks such as new product introduction management, supplier management, raw material certification, production control, laboratory management, and warehousing and transportation management. The Company has achieved direct traceability from raw material warehousing to final product packaging. Additionally, we've conducted forward and backward traceability simulations annually to ensure that products can be traced throughout their entire lifecycle from project initiation, R&D, and production, to market launch, thereby implementing the Company's primary responsibility for product quality and safety.

R&D Quality

Bloomage Biotech combines raw material procurement as well as technical and process research and development into its product quality management systems. It continuously improves the evaluation of project proposals, expands market involvement in research and development projects, strengthens quality management, improves product quality, and produces high-quality goods to satisfy customer and market demands. For various categories of product development stages, including R&D initiation, experimental design, pilot testing to initial scale-up trials, pilot-scale amplification, and trial release, the Company has established quality control requirements and management procedures. It follows internal quality management guidelines to the letter, which are even stricter than industry and national guidelines.



Production Quality

Bloomage Biotech rigorously manages the work environment that affects product quality and safety, including production workshops, warehouses, and factory premises. According to relevant laws, regulations, and the requirements of the quality management system, the Company formulates production and quality inspection procedures, which are implemented at different stages of production activities. The Company focuses on quality control from the source of raw materials, and closely monitors the production process, from raw material procurement to pre-production material testing, equipment selection, and maintenance, to standardized operating instructions and production processes, strictly controlling the quality of products at every stage of manufacturing operations.

The Company conducts performance and functional testing during the production process and comprehensive quality testing after the production is concluded. It has established the *Procedures for* Monitoring and Controlling Products, specifying the management processes for packaging materials, raw materials, process water, intermediate products, finished product acceptance, inspection, and testing. The Company ensures the reliability of process monitoring and measurement devices by managing their calibration and issues a qualified inspection report as the basis for the release of qualified batch products. Otherwise, an unqualified inspection report is issued, and non-conforming products are handled according to Company procedures, ensuring the quality, efficacy, and safety of products before they leave the factory.

The Company continuously conducts lean production activities, adhering to the 5S⁷ management concept, creating a visual environment, and consolidating the foundation for continuous improvement. It adopts standardized production operations, optimizes workflows, strengthens work accuracy, and improves production skills and efficiency while reducing human errors and deviations.



The Company has also introduced a sorting machine to replace manual product inspection, which comprehensively detects the quality of products, distributing only qualified products to the next process step and rejecting non-conforming products to the defective products area. This enhances the qualification rate of outgoing products, ensuring product quality with greater precision and efficiency.

Case: Empowering quality management and enhancement of functional skincare products through digital transformation

Bloomage Biotech's functional skincare product workshop employs a visual inspection system. This system captures inspection images through cameras, converts them into digital signals, and utilizes advanced computer hardware and software technology to process and analyze the digital signals, promoting fine and intelligent management of product quality.



^{7 5}S management concept (Seiri, Seiton, Seiso, Seiketsu, and Shitsuke management).

Management Quality

Bloomage Biotech complies with laws and regulations such as the Product Quality Law of the PRC and the Quality Management Standards for Medical Device Operations, establishing a compliant product quality management system that includes formulating quality standards, inspection procedures, and records to ensure the execution of product quality management in the operational process. To enhance compliance and capabilities in quality management during operations, the Company regularly conducts compliance training for employees. doctors, and distributors, in line with relevant regulatory requirements. Additionally, the Company conducts at least one routine audit for all products each year and collaborates with regulatory authorities, customers, and other parties for special and routine supervision and inspection. During this reporting period, no serious defects in product quality were found, indicating manageable quality management risks in the operational phase.

Product Labeling and Instruction Management

The Company continuously tracks updates in regulations and policies related to product instructions, labels, and packaging, conducting internal inspections promptly to ensure compliance with regulatory requirements. Adhering to the principle of transparent disclosure of product information, the Company accurately labels ingredient composition, content, recommended usage, contraindications, and other necessary information in product instructions. For instance, for disinfectant products containing alcohol, the Company labels the effective disinfectant components and ethanol content on the packaging, enabling customers to make informed choices based on their needs and skin sensitivity, thus preventing misuse.

Product Traceability Management

Complying with standards of ISO 9001, ISO 22000, and GB/T 27341-2009, the Company establishes a product traceability management mechanism covering the entire process to ensure the management of traceability records and channels. The Company ensures the integrity and clarity of product packaging for various delivered products, maintaining accurate, reliable, and standardized records to ensure the accessibility, retrieval, and traceability of product-related information. The Company implements a Code Reassurance Traceability System for drugs to ensure traceability and manages medical devices under the Unique Device Identifier (UDI) system, enhancing product quality control and transparency of information.

Product Recall

The Company has formulated the Product Recall Management Regulations for different types of products, standardizing the conditions and procedures for recalls, effectively handling defective products, and taking corresponding measures to control risks promptly. The Company has separate recall plans for pharmaceutical and non-pharmaceutical products and conducts annual simulated recall and disposal exercises. In 2023, a total of 5 product recall simulation drills were carried out. During the reporting period, no incidents requiring the recall of sold or inspected products due to safety and health reasons occurred. However, one recall for functional skincare products due to packaging defects was reported, involving 179 boxes of defective products, all of which were recalled and disposed of.



Bloomage Biotech product recall process

Management of Non-conforming Products

Non-conforming products, including raw materials, packaging materials, intermediate products, finished products, and recalled/withdrawn products that do not meet the Company's quality standards, are managed following regulations and procedures to prevent confusion between conforming and non-conforming products. The Company isolates and stores non-conforming and returned products separately, promptly changing the quality status labels and conducting investigations, corrective actions, and inspections. Non-conforming items that fulfill rework requirements are reworked until they meet quality standards, while those that cannot be reworked are destroyed by protocols and under onsite supervision to prevent non-conforming products from entering the market.

Quality Emergency Management

To guide and standardize the emergency response to product safety incidents, effectively prevent and control various product safety incidents, and minimize harm to public health and safety, the Company has developed management systems such as the Emergency Preparedness and Response Control Procedure and the Food Safety Incident Handling Plan. These systems follow principles of unified leadership, graded responsibilities, prevention as the primary focus, combining prevention and control, swift and coordinated response, legal compliance, and scientific disposal to occurrences involving product safety.

The Company's product safety incident handling process includes monitoring, early warning, reporting, emergency response, follow-up disposal, and safeguard measures. We conduct one emergency response training annually for drug safety and emergency drills, allowing relevant personnel to understand the content and procedures of emergency response, thereby enhancing the Company's emergency management capabilities. To make sure that the appropriate departments can react quickly to occurrences and stop and address any potential effects on food safety, we also hold an annual emergency drill for food safety events.

Quality Culture

Bloomage Biotech clearly defines quality management goals, emphasizes the development of a quality system, promotes lean production, encourages cross-site collaboration and empowerment, advocates quality training and education, values practical quality management exercises, implements quality assessments and incentive mechanisms, and has created a distinct quality management culture. The Company actively fosters a good quality management atmosphere by organizing quality month activities, providing quality training and promotion, participating in the construction of quality standards, maintaining cooperation and communication with external parties, etc., to nurture employees' quality concepts and awareness.

Quality Month Activities

To fully leverage the influences of "Quality Month" activities, innovative activities are continuously carried out to strengthen quality awareness and improve quality levels. The execution of quality initiatives promotes the development of quality management while also improving the enterprise's cohesion and competitiveness. Therefore, the Company, together with relevant departments in various factories, has organized a series of quality month activities themed "I Promise, Building Quality Bloomage" including knowledge competitions, billboard evaluations, inspection skills competitions, and "Most Beautiful Quality Person" photography contests.



Quality Management Training and Promotion

The Company has scheduled 10 sessions of the "Emphasizing Quality and Strengthening Compliance" series of quality learning activities for all workers. Monthly quality verification knowledge lectures are conducted, quality regulations are collected and trained on, and quality knowledge is shared through learning groups to promote internal capacity transformation and comprehensive improvement of all staff's quality management capabilities. During the reporting period, the Company conducted hundreds of offline/online quality-related trainings, covering all relevant personnel involved in product quality management.

Construction of Quality Standards

The Company actively participates in the construction of international, national, industry, and group quality-related standards, thereby boosting the high-quality development of the industry. During this reporting period, the Company contributed to drafting standards for pharmaceutical raw materials such as sodium hyaluronate and was involved in the development and validation of industry standards such as the Medical Sodium Hyaluronate Dressing and Sodium Hyaluronate, as well as group standards of the Sodium Hyaluronate for Nursing, Protection, and Oral Equipment. Additionally, the Company provided professional support with product samples and methodology to relevant research institutions, to help with building industry standards and project themes.

External Cooperation and Exchange

The Company actively participates in industry exchanges related to quality management. During this reporting period, the Company participated in several training sessions organized by the regulatory authorities of Shandong Province, attended forums on high-quality innovation and development of the medical device industry, and took part in training sessions organized by local pharmaceutical industry associations, to learn regulations and standards, draw on excellent quality management experiences, extensively conduct industry exchanges, and jointly advance with various sectors of the industry.

Product Accessibility and Affordability

Driven by making products and services better quality, more accessible, more inclusive, safer and longer-lasting, Bloomage Biotech has always expanded product application areas and consumption scenarios, to bring healthy, beautiful and happy life experiences to mankind.

Product Accessibility

As the first company in China to use microbial fermentation to produce hyaluronic acid on a large scale, Bloomage Biotech has become the world's largest hyaluronic acid developer, producer and seller since 2007. We have made originally expensive and scarce hyaluronic acid available to the public. Initiating to use enzymatic digestion method to produce oligomeric hyaluronic acid, we have expanded the application space of hyaluronic acid. Bloomage Biotech has expanded from the earliest fields of ophthalmology to orthopedics, plastic surgery, dermatology and other pharmaceutical and medical fields, and also to cosmetics and food, and then to emerging fields such as daily necessities and targeted cancer drugs. In this way, we have expanded product application scenarios to reach and benefit more people.

The Company has conducted more international operations to explore emerging markets at home and abroad. The Company's various terminal products have been successfully registered/filed internationally in many countries and regions, such as Europe, America, Asia and so on. The products include products of hyaluronic acid other bioactive raw materials, medical devices, functional skin care products and food. So far, the Company's products have been sold to over 70 countries and regions overseas. The Company has leveraged its core advantages of the raw material business to serve domestic and overseas customers and enterprises. By doing so, we have promoted industry development and product accessibility, making safe and effective products benefit the world.

The Company is committed to improving drug accessibility and medical levels in underdeveloped areas. We have actively cooperated with sectors of society, such as governments, medical institutions, and non-governmental organizations, to carry out "the Patient Care Charity Campaign". Each year, the Chairwoman and senior managers lead their charity walk campaign to help solve the health problems of people in underdeveloped areas.

In addition, the Company has leveraged its strong scientific research capabilities to improve the treatment of difficult diseases. For example, the Company has conducted R&D on cancer treatment and successfully obtained an invention patent titled "A 3D Cross-linked Hyaluronic Acid Gel and Preparation Method thereof for Radiotherapy Protection".

Case: Bloomage Biotech helps cancer treatment

Based on hyaluronic acid, an endogenous material in the human body, Bloomage Biotech has developed biomaterials for radiotherapy protection isolation with excellent biocompatibility, which can isolate tumor tissues and reduce organ damage. We have obtained an invention patent for the product which is undergoing large-scale clinical trials. It is expected to obtain a Class III medical device registration certificate in 2026, realizing localized substitution and innovation of similar products. In addition, this product can be expanded for various clinical scenarios, such as interventional therapy and postoperative auxiliary radiotherapy. We have promoted the R&D of biomedical materials in China to the internationally advanced level, which is clinically significant for tumor treatment.

Product Affordability

Bloomage Biotech strives to provide customers and consumers with high-quality raw materials and terminal products at reasonable prices. To continuously improve the affordability of our products in the global market, we fully consider the level of economic development in each region in product pricing.

While abiding by the market pricing mechanism, the Company has taken into account factors such as the affordability and amount purchased from different countries and regions. Adhering to business ethics rules such as anti-monopoly and anti-unfair competition, the Company has priced fairly in accordance with the local market, industry pricing and regulatory requirements.

At present, the Company owns one ophthalmic pharmaceutical product and one orthopedic drug, both of which have been included in the medical insurance to benefit the whole country, reducing the economic burden of patients and benefiting more patients.



Pharmacovigilance

Bloomage Biotech has established a pharmacovigilance system for post-market drugs and formulated pharmacovigilance management procedures. We have maintained communication with regulators and other stakeholders and continued to enhance and improve pharmacovigilance management. For the safety of medication for the public, we have ensured that pharmacovigilance throughout the lifecycle of related products.

Pharmacovigilance Policies and Procedures

Bloomage Biotech complies with the requirements of laws and regulations, such as the *Drug Administration* Law of the PRC, the Good Pharmacovigilance Practice, and the Pharmacovigilance Inspection Guidelines. We have formulated pharmacovigilance systems and built pre- and post-market pharmacovigilance systems. The Company's chairman & CEO has led to managing the drug safety affairs and established a Drug Safety Committee. Other members of the Committee are composed of managers from various departments related to drug safety. The departments include pharmacovigilance, quality management, production, sales, R&D, and registration. We have ensured that pharmacovigilance and adverse reaction management throughout the product lifecycle.



The Company has revised and put into effect the Drug Safety Committee Charter, the Pharmacovigilance Quality Management Procedures and other management systems. We have formulated and implemented more than 50 control procedures, such as vigilance systems, adverse event reporting and disposal related to drugs, cosmetics and medical devices. The Company has analyzed and evaluated reports and monitoring data of product adverse reactions, which have been actively and passively collected. We ensure product traceability, and efficient and accurate pharmacovigilance management. The Company has ensured the effective operation of the pharmacovigilance system through continuous internal and external audits, training and exchanges.

The Company has provided smooth information feedback channels to stakeholders, and actively responded to adverse events or information fed back by customers and consumers. The Company has maintained continuous and smooth communication with regulators such as the Jinan Adverse Drug Reactions and Medical Device Adverse Event Monitoring Center in Shandong. We have proactively reported adverse events to relevant regulators on time and conducted signal detection and risk assessment.

Adverse reaction feedback telephone number of the Company: 0531-82685091 Adverse reaction feedback email of the Company: pv@bloomagebiotech.com

Continuous Improvement

Based on external policies and regulatory guidance, stakeholder demands and internal needs for compliance operations, the Company has continued to revise its pharmacovigilance management mechanism, procedures and operation specifications. By doing so, we have improved pharmacovigilance effectiveness. The Company has revised and dynamically adjusted the pharmacovigilance risk management system and formulated drug-related pharmacovigilance plans. We have conducted signal detection and analysis of drug safety, as well as risk monitoring, identification and assessment of adverse drug reactions and other harmful reactions related to drug use. In this way, we have developed a risk assessment report, and formulated control measures for risk management and minimization, based on relevant adverse reactions.

The Company has actively collected and understood national, local and foreign regulations and guidelines related to pharmacovigilance. We have searched the literature and collected regulations on product adverse events every month. To make relevant staff's work more standard, professional and efficient, we have also instructed and supervised them, and provided training and information exchange activities.

The Company has always maintained information exchange with external stakeholders and actively participated in relevant activities to understand their demands and expectations of the Company's pharmacovigilance management. The Company has actively participated in training activities, such as core pharmacovigilance technology training, improvement training on pharmacovigilance business skills, and core cosmetics technology training organized by regulators of all levels. We have enhanced our awareness and management capabilities in pharmacovigilance. Meanwhile, the Company has conducted more training on pharmacovigilance expertise, application of MedDRA (an international medical terminology dictionary), related product adverse events and adverse reactions, and cosmetics internal auditors. We have popularized and improved employees' pharmacovigilance knowledge systems and professional skills in responding to adverse events.

During the reporting period, the Company has actively cooperated with domestic and foreign official agencies in auditing adverse reactions and completed the rectification of deficiencies. The Company has received and handled 109 reports of adverse drug reactions and 66 reports of adverse medical device reactions. There were no product-related deaths or violations of the current Good Pharmacovigilance Practice.

High-quality Service

Bloomage Biotech strictly abides by laws and regulations, such as the Law of the PRC on the Protection of Consumer Rights and Interests. Attaching great importance to protecting consumer rights, we have continuously improved communication and service quality with the needs of customers and consumers at the center. We have provided timely, responsible and high-quality experiences.

Improving Customer Satisfaction

Bloomage Biotech has formulated the Operation Specifications on Customer Satisfaction Survey and Analysis and established a consumer research team. We have cooperated with a well-known external data analyzer to conduct customer satisfaction surveys on the quality of products sold and services. We have conducted in-depth analysis of the research results, continuously optimizing how and what we work.

With more than 4,000 stable customers in the global market, the Company has become a strategic partner of many international pharmaceutical, cosmetics and health food companies. To provide a high-quality service experience to global customers promptly, the Company has set up its subsidiaries in the United States, France, Japan, South Korea and other countries and regions. We have recruited local professionals, to realize localized offices. We have also developed an efficient "iron triangle" management team composed of customer managers, solution experts and delivery specialists. In this way, we have improved international customer response efficiency, customer satisfaction and brand stickiness. During the reporting period, the Company has conducted a satisfaction survey on 403 customers, with a comprehensive score of 96.59 (100-point scale) and a satisfaction rate of 100%, achieving the 2023 satisfaction target.



Customer Privacy Protection

Bloomage Biotech attaches great importance to customer privacy and security. To protect customer information and business secrets and prevent customer privacy leaks, we have required employees to strictly control and manage documents and other materials by relevant regulations. It is forbidden to arbitrarily leak any documents and materials of the Company to outsiders. In addition, the Company organizes special training on business secret protection on an irregular basis to enhance employees' confidentiality awareness.

The Company strictly protects the privacy and data security of B-end customers. We have confidentiality clauses in all contracts signed with customers. We disclose no customer privacy without his or her knowledge and consent. The Company abides by the Personal Information Protection Law of the PRC and the data protection policies of online shopping platforms. We have strengthened our internal self-discipline and autonomy. Based on legality and compliance, the Company has handled C-end consumers' personal information, following the principle of personal information notification and consent.

During the reporting period, the Company has received no confirmed complaints about infringement of customer privacy or loss of customer data. No customer complaints have occurred due to poor security management of customer data.

Customer Feedback and Complaints

To respond to customer feedback on time, handle customer complaints efficiently and improve service quality, Bloomage Biotech has formulated the Customer Complaint Handling Procedures and established handling and feedback procedures, customer service standards and specifications, and emergency handling procedures. The Company has optimized its service quality through daily inspections, research and analysis, and timely training for relevant employees. After investigating and evaluating the collected complaint information, we work out and implement corrective and preventive measures to properly handle each complaint.

The Company welcomes feedback from B-end customers through WeChat, email, phone calls and interviews. During the reporting period, the Company received a total of 14 complaints from such customers through various channels, with a response rate of 100% and a complaint resolution rate of 100%

The Company welcomes demands and suggestions from C-end consumers through online or offline channels. The Company has provided online customer service on e-commerce platforms, such as Tmall, JD.com and TikTok. If C-end consumers have any questions or complaints, they can contact us through customer service channels. Besides, we have participated in the "Return and Exchange Guarantee" plan promoted by the platforms, such as 7-day unconditional returns and exchanges, allergy refunds, fast refunds and compensation for counterfeits. During this reporting period, the Company has received a total of 90 C-end consumer complaints through various channels, with a response rate of 100% and a complaint resolution rate of 100%.

Intellectual Property Protection

Bloomage Biotech has conducted intellectual property management activities in product project initiation, R&D, small trials, pilot plant tests, production, and post-market operation and management. The Company has built and continuously improved its standardized and effective intellectual property management system by clarifying management policies and objectives, improving management structure and resource elements, strengthening lifecycle management of intellectual property and conducting operational control, inspection, analysis and continuous $improvement. \ The \ Company \ has \ been \ certified \ by \ GB/T \ 29490-2013 \ intellectual \ property \ management \ system.$

Intellectual Property Management Policies and Objectives

The Company has managed its intellectual property based on the principles of protecting technological innovation achievements, controlling intellectual property risks, fostering core competition advantages, and empowering itself to keep innovating and operating for profits. The Company has always been committed to:

- · Effectively implementing intellectual property strategies, improving systems and standardizing management
- Strengthening the creation, application and protection of intellectual property to stimulate innovation and promote the effective industrialization of innovation results
- Identifying, preventing and responding to intellectual property risks in all aspects
- Making every effort to foster current and future patent-based competitive advantages
- Establishing an inter-disciplinary talent team with technical and intellectual property management capabilities

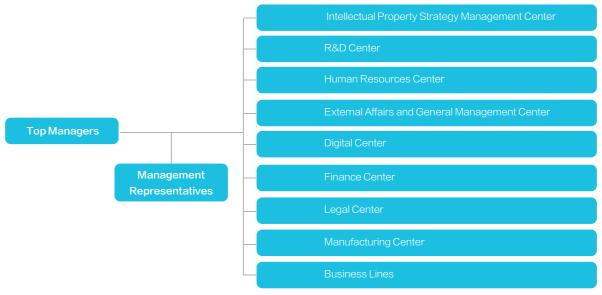
In the next 3 to 5 years, the Company will actively conduct intellectual property operations and continue to increase the number of patents, especially the number of patents for inventions. We will also promote the conversion rate of patented technology and steadily increase the proportion of sales revenue of products with intellectual property rights.

Bloomage Biotech strives to contribute to realizing the vision of world-inclusive health. We respect the outcomes and spirit of the Declaration on the TRIPS Agreement and Public Health, and abide by compulsory licensing requirements for public interests, public health and other purposes in the Patent Law of the PRC. We involuntarily transfer relevant patents when necessary to popularize and promote technologies. In this way, the Company can benefit more people with its innovative achievements and make them enjoy equal access to necessary medical and health services.

Intellectual Property Management Structure and System

The Company's Chairwoman and CEO is responsible for the operation and continuous improvement of the intellectual property management system. The Strategic Management Center of Intellectual Property is responsible for professional output and implementation of specific tasks. The Company reviews the suitability and effectiveness of the intellectual property management system every year.

The Company strictly abides by the latest regulations of the Patent Law of the PRC, the Trademark Law of the PRC, the Measures for the Implementation of the Mechanism for Early Settlement of Drug Patent Disputes(interim) and other relevant laws and regulations. We have referred to standards such as the Enterprise Intellectual Property Management. We have formulated and continued to improve its intellectual property protection management policies suitable for the Company's business development, such as the Intellectual Property Management Manual, the Intellectual Property Risk Management and Control Procedures, and the Intellectual Property Dispute Control Procedures. We have implemented them in intellectual property management activities. The Company has clarified its principles and division of responsibilities for intellectual property management in patents, trademarks, copyrights, domain names and business secrets. We have clearly defined the application, registration, use, management, transfer, and protection of intellectual property, and have managed intellectual property documents in a scientific and orderly manner.



Intellectual property management structure of Bloomage Biotech

Intellectual Property Risk Management

The Company has established a patent search mechanism for its products to conduct analyses on FTO (Freedom to Operate), circumvention and patentability before project initiation, during R&D, project conclusion and before marketing. By doing so, we have avoided involving technologies at risk of infringement during the R&D and marketing process. We have identified infringement risks from the source and taken preventive measures. The Company has established a monitoring mechanism for competitors' patents to monitor and assess the risk of infringing the Company's key products in real time. The Company pays attention to the regional characteristics of intellectual property protection. Based on business development needs, we have actively applied for international patents to fully protect our intellectual property and enhance our ability to respond to supply chain risks. The Company allocates necessary budgets every year to deal with possible intellectual property risks.

The main tasks of Bloomage Biotech's patent risk management:

Risk assessment before patent application

- Conduct patent and non-patent literature searches
- Predict potential infringement risks and patent disputes
- Evaluate patentability and commercial value to form an ETO report
- Develop risk response strategies
- Conduct supplemental search, update FTO reports and issue risk assessment reports

Risk assessment in patent application

- Write patent application documents
- Determine the scope and the countries where the patent rights are protected >>>
- Monitor the progress of patent application review
- Respond timely to review comments

Risk management after patent

- Manage patent renewal to ensure timeliness
- Monitor regularly competitors' products or technologies in the market to determine whether there is any infringement of our patent
- Analyze competitors' patent layouts to guide our own R&D and patent strategy planning
- Monitor the legal compliance of patent marks used internally and externally

Intellectual Property Digital Management

The Company has purchased well-known patents and literature databases in the industry and conducted training for relevant personnel. In this way, we have achieved a more comprehensive search of patented technologies, improved the quality of patent applications, and strengthened intellectual property awareness and capabilities of researching and applying information. The Company ensures that it does not infringe on others' patents. At the same time, the Company has introduced a management system for professional intellectual property operation and maintenance to improve efficiency. We can manage intellectual property materials in a centralized manner, such as patents, trademarks and copyrights, and automatically monitor patents' progress.

Intellectual Property Training and Exchange

To enhance employees' intellectual property awareness and capabilities and effectively protect its innovative achievements and intellectual property assets, the Company carries out intellectual property training activities for its employees every year, such as professional internal training and bi-weekly sharing sessions. During the reporting period, the Company has carried out 11 intellectual property-related publicity and training sessions, with more than 400 participants and more than 20 training hours.

In addition, we have actively participated in relevant external exchange activities and received investigations and research of relevant supervisory and management departments on our intellectual property management. We have also been involved in various seminars, training classes and other activities. By doing so, we have better understood and implemented the work programs on the intellectual property of the state and regulators and have standardized and promoted our intellectual property operations.

Intellectual Property Performance Appraisal

To strengthen the intellectual property appraisal, improve the balanced distribution system of interests, and improve the effectiveness of the technology transfer, the Company has the requirements clarified intellectual property rewards and punishments, decomposed the intellectual property management objectives and carried out assessments. We have formulated the Patent Reward Measures and the Intellectual Property Reward and Punishment Regulations. We have followed the principles of openness, fairness and impartiality in conducting patent awards and penalties for violations. Based on their relevance and contribution to Bloomage Biotech's business, the Company provides corresponding rewards for domestic invention patents. The Company also provides rewards for overseas patents, utility model patents and design patents authorized in other countries through the PCT (Patent Cooperation Treaty) or Paris Convention on the Protection of Industrial Property. For violations of relevant rules and regulations that cause damage or economic losses to its intellectual property rights or customers' intellectual property, the Company makes claims based on actual losses and holds people accountable for their actions During this reporting period, the Company has provided intellectual property performance rewards to 274 employees, with bonuses totaling RMB 2.33 million.

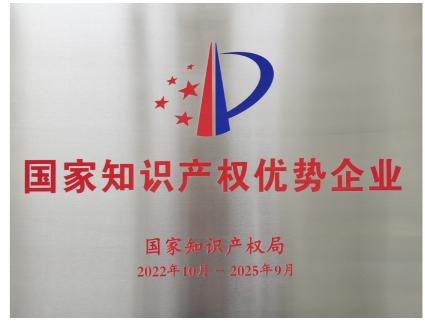
Intellectual Property Rights Protection

To protect intellectual property rights, Bloomage Biotech has actively cooperated with police and judicial authorities in many places by assisting in handling cases of counterfeit production and sale. The Company has entrusted professional third-party organizations to follow up on infringements of its trade names, trademarks, patents and other intellectual property rights. During the reporting period, the Company filed 143 rights protection litigation cases. The Company has not been punished by relevant competent authorities or held liable by court judgments for infringement of others' intellectual property rights. There have been no major infringement litigation cases of intellectual property (including abuse of a dominant position, counterfeiting and piracy).

Intellectual Property Honors and Performance

During this reporting period, Bloomage Biotech's patent of "Modified Sodium Hyaluronate Gel for Injection" has won the 24th China Patent Excellence Award. The company was not only honored with the title of 'National Intellectual Property Advantage Enterprise', but also won the honorary title of Business Secret Protection Leader issued by the Jinan Innovation Zone and Jinan Area, China (Shandong) Pilot Free Trade





Bloomage Biotech's intellectual property licensing				
	Category	Total licensed patents	Number of licenses in 2023	Number of applications in 2023
Total patent	ts	452	115	189
Patents for	invention	296	87	142
Design patents		58	16	21
Utility model patents		98	12	26
Trademark rights		4,346	585	822
Copyrights of software and works		100	17	19
	Domestic patents	445	112	167
By region	Overseas patents	7	3	22
	Domestic trademarks	3,749	530	404
	Overseas trademarks	597	55	418

Fair and Regulated Employment

Adhering to the principles of legal and equal employment, Bloomage Biotech has standardized the employee recruitment and hiring process and continuously improved the employment management system. We have clarified the code of conduct and ethics to fully respect and protect human rights as well as workers' rights and interests.

Compliance Employment

Bloomage Biotech respects the relevant regulations of the Universal Declaration of Human Rights and strictly abides by the Labor Law of the People's Republic of China, the Labor Contract Law of the People's Republic of China and the Provisions on Prohibition of Child Labor, as well as the laws and regulations of the countries and regions where it operates, along with relevant international conventions approved by the Chinese government. We have referred to the requirements of the SA8000 Social Accountability 8000 International standard, ISO 26000 social responsibility management system standard, and ETI (Ethical Trade Initiative) basic principles. We have formulated and implemented our Employee Handbook and several related management systems. We treat employees of different races, colors, nationalities, genders, ages, religious beliefs, and cultural backgrounds fairly and impartially. We strictly prohibit any form of child labor, and forced labor through violence, threats, or illegal restrictions on personal freedom. Besides, we prohibit physical punishment, intimidation, harassment, abuse and any form of discrimination against employees.

We have made employee recruitment and management standard, including but not limited to:

Formulate the Recruitment Management Regulations adhere to the principle of openness and fairness in recruitment, with no regard for factors such as ethnicity, religion, disability, gender, and marital status. Conduct necessary background checks when informing applicants and getting their consent to ensure that no identity frauds and conflicts of interest

During work

Formulate the Attendance and Leave Management System and implement the standard workhour system and comprehensive workhour system. In this way, we have protected the Company's operation and production order while ensuring employees' legitimate rights and interests in rest and vacation

Employee-initiated termination of labor contract:

- Respect employees' willingness to resign voluntarily and carry out the resignation process in accordance with regulations Unilateral termination of labor contract by the Company:
- Respect laws and labor contracts: abide by local laws, regulations, and labor contracts to ensure the legality and fairness of dismissal or layoff procedures
- Make communication smooth and transparent: communicate with employees to make information transparent before the formal dismissal process. We clarify the specific reasons for dismissal or layoff, the implementation process, and
- · Provide support and compensation: respect employees' rights and interests and provide corresponding compensation and benefits; help employees get re-employed, including providing career counseling, training opportunities, internal recommendations, and job transfer opportunities

The Company prohibits the use of child labor, formulates and implements management procedures for prohibiting child labor and protecting underage workers. We have conducted identity and background investigations on employees and ensured effective management by taking

- Statements and principles: we firmly oppose any use of child labor and any suppliers who intentionally use child labor
- Recruitment and employment: we have established personnel files, and verify and identify employees' true identity information to prevent misrecruitment of child labor due to false information
- Protection of underage workers: we forbid underage workers of over 16 but under 18 to engage in or to be arranged to engage in high-altitude, underground, radioactive, highly toxic, flammable, and explosive work, or work of level IV physical labor intensity stipulated by the state and other internship labor with potential hazards. Besides, we have conducted regular health examinations in accordance with legal requirements
- Child labor relief procedures: Once the misuse of child labor is discovered, we must stop his or her work immediately, and escort him or her home after physical examinations. We also inform the child's quardian and relevant departments

The Company prohibits any form of forced labor and abuse, including but not limited to sexual coercion, sexual assault, threats, body searches, abuse, humiliation, exploitation, or harassment. We have formulated relevant management systems to explain employees' rights and interests and to define requirements for managers. The Company has set up a complaint channel and a specialized department to conduct investigations, supervising and improving management quality.

During this reporting period, the Company's labor contract signing rate was 100%, and all employees were adult workers. There has been no employment of child labor or forced labor, and no serious violations of human rights requirements such as bonded labor, labor trafficking or transfer

Building Competitiveness Based on People-**Oriented Principle**

Bloomage Biotech firmly believes that talents underlie its sustainable development. We have always been devoted to creating a diverse, inclusive, and safe workplace, actively investing resources to promote employee development, and providing excellent career advancement opportunities. We have continued to improve occupational health and safety management, protecting employees' occupational safety and physical and mental health. In this way, we can achieve our vision of sustainable development together.

Major Material Topics of Sustainability Covered in this Chapter:

- Rights and Interests of Employees
- Employee Training and Development
- Occupational Health and Safety
- Safety Management of Chemicals

SDGs Addressed in this Chapter:













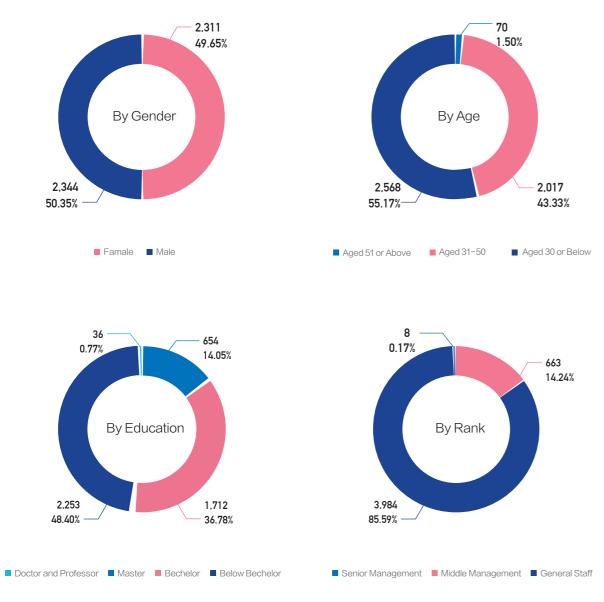


Case: Bloomage Biotech communicated with the Women's Federation on child labor and forced labor

Bloomage Biotech and Jinan Women's Federation have cooperated and exchanged to promote the Company to adopt responsible practices on child labor and forced labor. In this exchange, Bloomage Biotech has shared its current policies, measures, and results of child labor and forced labor. The Jinan Women's Federation has also shared its research results and experience in intervention of related fields. Through indepth discussions, both parties have put forward specific suggestions in corporate management, supply chain supervision, employee training. In this way, the Company aims to further improve itself in these aspects. Bloomage Biotech has expressed its willingness to maintain close communication and cooperation with the majority of stakeholders to improve corporate social responsibility and contribute to making social environment fairer, more just and harmonious.

Staff Structure

Bloomage Biotech continues to its reasonable talent team and expand it. As of the end of this reporting period, the Company has had a total of 4,655 employees, with an employee turnover rate of 28.46%.



Employment of Bloomage Biotech in 2023 (person, %)

Diversity and Inclusion

Bloomage Biotech attaches great importance to creating a diverse, inclusive, and equal workplace, and respects employees of different ages, races, genders, nationalities, and physical conditions. To ensure the fairness and justice of the Company's procedures and processes in recruitment, salary incentives, training, and promotion, we have formulated and implemented the Professional Code of Ethics and Conduct and other systems. In this way, we ensure that employees enjoy equal rights, prohibiting any form of discrimination and accepting employees' complaints when necessary.

The Company has actively built a diversified workforce and provided equal opportunities to all employees. We have fully utilize the respective advantages of gender differences and capability differences at work to stimulate a diversified atmosphere and unleash the power of diversity. In addition, we respect and protect the rights and interests of female employees and clarify the scope of work for female employees:

- We forbid arranging female employees in super labor-intensive positions
- We prohibit arranging pregnant and lactating female employees to engage in any work that may endanger their and their children's health and safety

49.65 %

The proportion of female employees of Bloomage Biotech in total employees The proportion of female employees of Bloomage

Biotech in senior management

49.47 % The proportion of female employees of Bloomage Biotech in middle management

The proportion of female employees of Bloomage Biotech in technical personnel

In addition, we have formulated the Management Regulations on Retirement and Re-employment. We have not restricted the opportunities for employees to develop old employees' abilities. Oriented to personal expertise and industry experience, we conduct retirement and reemployment when necessary to fully protect the rights and interests of re-employed employees. As of the end of the reporting period, Bloomage Biotech has had 6 re-employed employees.

The Company respects and embraces multiculturalism by widely absorbing talents from different cultural backgrounds. We have currently established 4 subsidiaries in the United States, France, Japan, and South Korea, with its business reaching more than 70 countries and regions around the world. We pay attention to the lives of employees of different races and ethnicities, fully respecting their emotions and cultural habits. By the end of the reporting period, the Company has employed a total of 18 foreign employees and a total of 131 minority employees.

The Company supports the employment of special groups such as people with disabilities. Adhering to the principle of fairness and justice, we have prohibited discrimination against the disabled in the recruitment and appointment process. When conditions permit, we provide suitable positions for such individuals to protect their legitimate rights and interests. By the end of the reporting period, Bloomage Biotech has employed a total of 12 disabled employees.

 Case: Bloomage Biotech has carried out corporate culture promotion for foreign employees and organized diversified exchange activities

To make communication and collaboration in diverse backgrounds smoother, Bloomage Biotech has organized foreign employees to travel to China in July 2023 to visit its World Hyaluronic Acid Museum. Besides, we have also invited foreign employees to participate in many activities, such as the Company's anniversary celebrations, corporate culture promotion, and fun sports games. In this way, we have deepened their understanding and recognition of the Company and industry, eliminated their sense of cultural distance, and enhanced their cross-cultural awareness.



Foreign employees visited the World Hyaluronic Acid Museum and attended corporate culture promotion

Employee Development

Bloomage Biotech attaches great importance to attracting and retaining talents. We have strived to make career development channels smooth, continuously optimized employee training systems, and built a complete performance incentive mechanism. By doing so, we provide a broad platform for employee development.

Talent Introduction

Bloomage Biotech has established a reasonable talent recruitment management mechanism. We hire external human resources service agencies promptly to assist us in building its talent pool in technology, management, and profession. We carry out social and campus recruitment activities on mainstream social and recruitment platforms. Meanwhile, we encourage employees to recommend candidates as a way to support the Company in introducing high-quality talents.

In addition, the Company has drawn talents' attention by participating in industry activities, conducting training with schools, promoting employer brands, and providing competitive benefits.

Talent Cultivation

Employee Training System

Bloomage Biotech has improved employee qualities and fueled their career development through training. The Company has formulated its Employee Handbook and Training Management Regulations to clarify its talent cultivation strategy. By developing diversified promotion channels and establishing an open development platform, we have provided employees with more opportunities for training and further study.

We have built a systematic talent training system framework. To help build an internal talent echelon, we have provided multi-field and multilevel training programs covering management training, professional training, new staff training, and general skills training. In addition, we provide rich academic resources and platforms, such as various Al office tools and CNKI accounts, to help employees make efficient use of office and learning resources and support their development.

- Management sequence
- Professional sequence
- R&D sequence

Dpen development platform

- Establishment of R&D studio Internal job competition system
- Job rotation system
- Management trainee system

For all managers

- Provide hierarchical management training for all management levels
- Include leadership training for senior managers, leadership training for middle managers, management skills training for junior managers and management skills training for newly promoted managers

Professional training

For all employees

- For each professional sequence covered by marketing, R&D, production and functions
- Provide professional skills training courses, including three stages of beginners, intermediate and advanced levels

lewcomer training

For new employees

- Provide training on corporate culture, company system, job basics, knowledge and skills
- Enable newcomers to better integrate into their new positions and grasp the basic knowledge required by the position in a short time

Seneral training

For all employees

- Provide training on knowledge that all employees of different sequences are required to
- Include general management, general qualities, general skills and other related knowledge and skills, as well as related training courses

Lecturer resources

Internal lecturers, external experts

Offline courses

Cover managerial, technical, operational, general courses

Online platform (E-learning)

Case videos, learning courseware, knowledge base resources, etc.

Sharing of educational resources

Bloomage Biotech's all-round employee training system

In addition, the company formulated and promulgated the Implementation Rules for Learning and Growth Welfare, established vocational qualification training projects and learning education plans, covering all employees (including part-time workers and contract workers), and encouraged employees to obtain relevant professional qualification certificates or improve their academic qualifications, clearly Reimbursement of expenses for personal academic qualification improvement and subsidy for obtaining certificates. We provide different amounts of learning subsidies to all employees according to their different ranks. During the reporting period, the Company has invested a total of RMB 659,500 in subsidies to support employees in obtaining education and qualification certificates.

Employee Growth Channels

Bloomage Biotech provides a variety of career development channels to improve employee development paths in terms of three directions: "experiential and practical learning", "feedback and instruction" and "courses and skills training". At the same time, we have employed IDP (Individual Development Plan) tools to help employees improve their development plans. We have also established an employee training evaluation mechanism to continuously improve the training.

	Talent training practices of Bloomage Biotech
Courses and skills training	Leveraging its training system and learning platform, the Company has provided teaching resources and online and offline courses in management, professional, general, and other knowledge
Feedback and instruction	 Tutorial system: establish an internal teaching mechanism, develop a team of internal lecturers, and provide personalized instruction Daily communication: each department holds regular meetings to encourage communication and learning between old, middle-aged, and young employees, between current employees and new employees, and between employees in relevant departments. This aims to pass on excellent experience and help employees independently access to training resources needed
Experiential and practical learning	 Job-specific learning: match suitable positions according to personal abilities, and continue to accumulate skills and management experience at work Job rotation mechanism: provide three-year rotation opportunities for the head of first-line business to promote internal mobility of talents Personal improvement: provide learning subsidies to encourage employees to improve their academic level or professional and technical abilities, and obtain relevant qualifications and academic certificates, at their own will

We have always paid attention to employees' training needs and practical experience. For the management training path, we have formulated personal development plans and understood employees' personal development needs from the aspects of development goals, resource needs, and challenging tasks, while regularly tracking their progress. Furthermore, we regularly review and evaluate various training programs for all employees and continue to optimize training methods based on feedback.



Employee training of Bloomage Biotech in 2023 (%, hour)

Case: Bloomage Biotech established a growth channel for management trainees as reserve talents for its management positions

The Company has established a training path for management trainees and launched a two-year training plan for them. In the first year, we provide graduates with basic training including corporate culture, company systems, and job expertise through training courses, online learning platforms, and scene exercises. In this way, we ensure that they can adjust to their jobs and integrate into the team in a short time. In the second year, we determine suitable management trainee candidates based on their assessment results. We focus on training on management skills, such as project coordination and planning capabilities, and assign dedicated tutors to provide one-on-one instruction and

We conduct monthly, quarterly, and annual evaluations. We have established a complete evaluation system through knowledge assessment, performance assessment, and 360-degree surveys. The system focuses on management trainees' post-knowledge, professional skills, personal behaviors and abilities, and checks employees' learning capabilities and the effectiveness of training programs.

Case: Bloomage Biotech has launched diversified leadership training programs

Bloomage Biotech has continuously cultivated its successor candidates and conducted various forms of leadership development training.

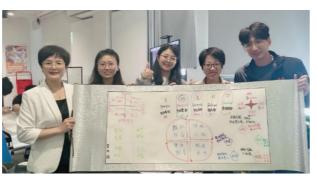
• Establishing the long-term leadership program of "Bloomage Biotech Institute of Advanced Studies in Management"

The Institute focuses on cultivating two types of managers: total management group and functional management group. The total management group learns courses and tools centering on strategy, organization, and management. Students are required to systematically think about the strategy, organization, and management of their business in a written manner. In addition to basic management courses, the functional management group learns additional courses. such as processes, products, and communication. The company also learns how to practise market-oriented closed-loop business and R&D transformation.

Carrying out leadership training activities of "Peak Camp"

In 2023, Bloomage Biotech launched its leadership training program of "Peak Camp" to promote and provide instruction on managerial roles, management responsibilities, management tasks, and management teams. More than 120 employees have participated in this program, including company executives, department-level managers, junior managers, and high-potential employees. There have been 61 female employees, accounting for 50.83%.





Bloomage Biotech leadership training activities

Employee Training Model

Bloomage Biotech continuously improves its employee training system and models including internal tutoring, external expert teaching, and school-enterprise cooperation. The Company has continued to enrich the existing teaching resource library to meet employees' diverse growth needs.

The Company has formulated internal documents, such as the Interim Regulations on the Management of Tutoring New Employees and Interim Regulations on the Management of Internal Trainers. By doing so, we have clarified the tutoring process, tutor qualifications and appointments, teaching responsibilities, and assessment methods. We have regulated internally established tutorial system and apprenticeship to build a stable and high-quality team of trainers and improve the training quality for new employees.

To effectively improve its management, the Company has invited well-known external consulting agencies to offer 8 types of training courses on strategy, digital transformation, and supply chain management in 2023. In this way, we have helped all employees reshape process thinking and develop management tools, thereby improving the competitiveness of individuals and organizations.

The Company has also strengthened school-enterprise cooperation to contribute to developing the industry-education integration community. In 2023, Bloomage Biotechnology has participated in constructing the communities in biotechnology industry, technical service industry for medical equipment, and pharmaceutical industry. We have coordinated with universities of various industries to carry out joint enrollment, pre-job training, and other training models to improve talent training quality and unblock talent growth paths.

Talent Development

Promotion Mechanism

Committed to building a growth system consistent with job requirements and employees' career goals, Bloomage Biotech has designed scientific and rigorous evaluation standards for employees' promotions. We have formulated our Performance Management System to standardize the performance management process including performance indicator setting, performance communication and counseling, performance evaluation, performance interviews, and feedback. We have adopted an assessment method combining quarterly and annual assessments, and managed performance regularly to provide data support for salary distribution, talent selection, and training. In addition, the Company has established its performance appeal process. When having doubts about their performance results, employees can submit reasonable appeals to the Human Resources Center in terms of the appeal process.

To further optimize talent allocation and promote employees' all-round development, we have formulated the Internal Competition Management Regulations to encourage employees to find more suitable career development opportunities. Additionally, we have implemented a fair, just, and standardized internal competition assessment process to assist the Company in better allocating and managing talent resources.

All employees

undergo performance assessment

Incentives and Recognition

On talent incentives, Bloomage Biotech implements the Management Measures of Honors and Recognition for all employees. We have improved the selection mechanism for honors and recognition and incorporated both spiritual and material incentives into the employee performance evaluation system.

Honor and recognition system of Bloomage Biotech

Objects of recognition

- Teams or individuals awarded in the quarterly honors recognition
- Exemplars from each business line
- Employees making outstanding contributions to important projects/tasks
- Employees involved in Bloomage Biotech's milestones

Forms of recognition

- Spiritual incentives: customized medals/trophies, certificates, commemorative medals/souvenirs. We have improved employees' sense of honor and achievement by awarding medals of honor and titles
- Material incentives: we select annual outstanding projects and provide bonus incentives to groups and individuals
- Talent development incentives: we record key matters in personal development files. We include employees in the core reserve echelon for special training. We also provide promotion opportunities and a priority to medium and long-term incentives such as equities

- Awards will be given in the annual/quarterly summing-up meeting
 - Prompt awards after important projects/tasks are completed

Case: Commendation activities on Bloomage Biotech's anniversary

In August 2023, Bloomage Biotech honored benchmarking and model employees at its anniversary celebration. The Company awarded a total of 17 categories of individual and team honorary awards, including Chairman's Special Award, Excellent Teamwork Award, and Outstanding Contribution Award. While expressing gratitude for employees' hard work, we also inspired outstanding employees to continue to yield outstanding achievements with us.



Commendation scene on Bloomage Biotech's anniversary

Safety and Health

Strictly abiding by laws and regulations including the Production Safety Law of the People's Republic of China and the Law of the People's Republic of China on Prevention and Control of Occupational Diseases, Bloomage Biotech have established a complete management system for safety production and occupational health, as a way to provide a safe and healthy workplace for all employees, and to ensure our occupational health and safety management.

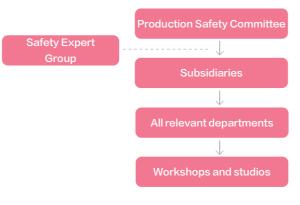
Safety Management

By benchmarking ISO 45001 standards and international best practices, we have formulated policies to conduct safety and health management, such as the Safety Production Management System and Occupational Health Management System. By the end of this reporting period, Bloomage Biotech's Jinan, Tianjin, and Dongying factories have all been certified by ISO 45001 occupational health and safety management system.

Security Structure

Bloomage Biotech attaches great importance to standardizing production safety and has established its Production Safety Committee. The Committee is directed by the Chairwoman & CEO, with relevant senior executives and safety directors of factories serving as deputy directors, and heads of relevant departments at each factory participating as members. Besides, workshop managers and core personnel have been appointed as safety officers. Bloomage Biotech has established a top-down approach to organize, instruct, and coordinate each subsidiary's implementation of the safety production tasks while holding safety production meetings regularly.

In addition, we have specially set up a Safety Expert Group composed of safety experts from each factory. They assist in formulating safety production regulations, conducting safety audits, and academic discussions on production safety.



Safety production management structure of Bloomage Biotech

Safety Goals

Guided by relevant policies, the Company sets goals related to occupational health and safety production every year, as a guide to promote various safety production management tasks. In 2023, the Company adjusted the safety production goals of 2023 by combining the safety audit rectification opinions and national laws and regulations related to safety production. We have finally developed 13 annual goals and decomposed them to each subsidiary, ensuring their implementation at each factory.

Safety Production Targets of Bloomage Biotech	Target Completion in 2023
Minor injury rate ≤ 1%	Accomplished
The number of larger or greater events is 0	Accomplished
The number of accidents is 0	Accomplished
The pass rate of hidden danger rectification reaches over 95%	Accomplished
Promote the model of safety culture workshop, with the coverage rate of up–to–standard workshops reaching more than 95%	Accomplished
The employment rate of full-time safety management personnel, special operations personnel, and special equipment operators with certificates is 100%. The periodic review rate is 100%	Accomplished
The training coverage rate of "three-level safety education" for new employees is 100%. The safety training coverage rate for all employees is 100%	Accomplished
The regular inspection rate of special equipment and safety accessories is 100%	Accomplished
100% of safety equipment and facilities are in good condition	Accomplished
The reporting rate of runaway loss events is 100%	Accomplished
The "Three Simultaneities" completion rate of safety facilities in new, renovated, and expanded projects is 100%	Accomplished
The permit rate for special operations is 100%	Accomplished
The compliance rate of contractor qualification is 100%	Accomplished

To achieve its safety production targets successfully, the Company has decomposed the targets into subsidiaries, departments, manufacturing workshops, teams, and individuals. We have completed the targets from top to bottom by standardizing the production system, improving the safety management structure, constructing a safety culture, and assessing safety performance.

Based on its realities, each factory has formulated its management measures for performance appraisal, which are related to safety production and occupational health. These measures stipulated safety performance appraisal standards and procedures covering all relevant employees. We also require general managers of all factories and employees to sign a safety target responsibility letter. In 2023, the signing rate of employee safety target responsibility letters in all factories of Bloomage Biotech has been 100%.

Employees' occupational health and safety conditions of Bloomage Biotech		
Indicators	2023	
Number of work-related deaths	0 person	
Number of work-related injuries	3 accidents	
Number of working days lost due to work-related injuries	53 Days	
Work-related accidents per million work hours	0.32	

Bloomage Biotech has formulated the Safety Investment Management System. We have increased safety investment, continuously improved, transformed, and maintained safety protection facilities and equipment, and updated new technologies, standards, and processes suitable for safe production. To eliminate potential risks, we have also strengthened the construction of emergency rescue teams and safety production education and publicity. During the reporting period, Bloomage Biotech invested a total of RMB 5.1968 million⁸ in production safety and occupational health.

Production Safety

To promote the standardized management of safe production, the Company has formulated a series of regulations, such as the Compilation of Safety Production Management Systems and the Management System for Responsibility System of Safety Production. To guide actual tasks, we have also specially formulated relevant policies in each link of safety production management, such as risk identification and evaluation, safety hazard investigation, chemical management, occupational health management, emergency response, and accident

Coverage rate of internal safety audit

We implement a dual prevention system for production safety, involving hierarchical control of risks and investigation and management of potential accident hazards. We organize safety education and training activities regularly, and continue to promote the production digitalization. Through regular internal and external safety audits, we achieve standardized closed-loop management throughout the production.

100 % Rectification rate of safety hazard



Safety management system of Bloomage Biotech

In addition, the Company pays attention to the safety management of engineering contractors and other suppliers in the industrial park. We have formulated and strictly implemented the Contractor and Supplier Safety Management System. We conduct compliance inspections on contractor qualifications, clarify safety requirements in advance for all engineering contractors. To prevent safety risks for contractors and suppliers operating in the park, we also conduct safety training and assessment for external construction personnel, as well as safety supervision and management throughout the process.

The Company has also actively promoted the digitalization of production safety by:

- Building an integrated security platform and equipping an intelligent system to realize real-time dynamic monitoring through electronic maps and to achieve all-round security monitoring of the industrial park
- Equipping an automatic fire alarm system including combustible gas detectors, automatic fire alarms, temperature detectors, sound and light alarms, etc

⁸ The statistical caliber covers all of Bloomage Biotech's wholly-owned operating factories in China.

Chemical Safety

To prevent hazardous chemical accidents, Bloomage Biotech abides by relevant laws and regulations, such as the *Production Safety* Law of the People's Republic of China and the Regulations on the Safety Management of Hazardous Chemicals. We have formulated and implemented a series of internal rules and regulations, such as the Regulations on the Safety Management of Hazardous Chemicals and the Regulations on the Safety Management of Precursor and Explosive Chemicals to define the responsibilities of each department. We have established the List of Hazardous Chemicals and the Special Emergency Plan for Hazardous Chemicals (Major Hazardous Sources) Accidents, and organized regular drills to standardize management such chemicals' entire process of procurement, storage, loading and unloading, transportation, use, disposal, and accident handling.

Laboratory Safety

As Bloomage Biotech's core to promote its continuous innovation and development, the laboratory serves as a centralized place for hazardous chemicals. To standardize laboratory safety management, Bloomage Biotech has formulated and implemented strict laboratory safety procedures, clarifying standard operating procedures for the management of chemicals, biological materials, and laboratory equipment. We have taken multiple measures to ensure the safe operation of the laboratories.

Safety measures of Bloomage Biotech's laboratories:

System construction	We have formulated and continued to improve the <i>Public Laboratory Management System, Reporting System for Precursor and Explosive Chemicals, Flow System for Precursor</i> and <i>Explosive Chemicals, Safety Management System for Synthetic Biology R&D Laboratory, Special Equipment Management Regulations</i> , and <i>Full Life Cycle Management Regulations of R&D Center Equipment</i>
Hazardous chemicals management	We properly classify, label, store, and dispose of all biological materials and chemicals to reduce the risks of cross-contamination and accidental exposures
Personal protection management	We provide necessary personal protective equipment, such as lab coats, safety glasses, gloves, and masks, and ensure that employees can use them correctly
Facility and equipment management	We regularly maintain and inspect all laboratory equipment to ensure it is in good condition
Emergency preparedness	We have assigned safety commissioners responsible for preparing laboratory emergency plans and conducting drills. In 2023, the raw material R&D line conducted 2 fire evacuation drills and 1 special chemical leakage drill
Personnel training	We regularly organized training on laboratory operations and equipment use. In 2023, the Company hired specialist agencies to carry out training on laboratory personal protection, full life cycle management of laboratory chemicals, and safety management of laboratory equipment

Safety Culture

Safety Training

Bloomage Biotech has developed and implemented its internal documents such as the Regulations on the Management of Occupational Safety and Health Education and Safety Training and Education System to develop the awareness of "inadequate training causing a major safety hazard". We have also required the chief persons in charge, safety managers, and transferred employees of each factory base to receive safety education. Special operations personnel and special equipment operators must have relevant professional qualifications. New employees must receive three-level education on production safety.

Case: Safety education and training for new employees of Bloomage Biotech

In 2023, each factory base of Bloomage Biotech carried out activities of three-level safety education and training for new employees, providing comprehensive safety education and training on basic knowledge of production safety laws and regulations, basic knowledge of production safety (such as common knowledge of using labor protection supplies, electricity safety, and fire prevention), hazard identification, hidden danger investigation, and accident emergency response. We have required a passing rate of 100% to raise new employees' awareness of prevention and reduce accidents.

Case: Bloomage Biotech carried out activities in "Production Safety Month" in many places

In June 2023, multiple factory bases of Bloomage Biotech carried out the activities themed "Safety for All, Emergency Response for All", with all employees participating. The activities include but are not limited to holding safety knowledge competitions, making publicity boards and banners, organizing special emergency drills, conducting centralized self-investigation and rectification of hidden dangers, and holding meetings to review safety issues. In this way, we have created a strong atmosphere for safety learning.

Occupational health and safety training of Bloomage Biotech ⁹		
Indicators	Unit	2023
Number of occupational health and safety training	times	640
Number of employees trained on occupational health and safety	person	16,675
Total hours of occupational health and safety training	hours	23,533

Safety Drills

Bloomage Biotech has formulated comprehensive emergency plans, special emergency plans and on-site disposal plans, such as the Emergency Plan for Production Safety Accidents and the Special Emergency Plan for Fire and Explosion Accidents. The plans cover a total of 13 categories, including fire, vehicle injuries, electric shocks, alcohol accidents and scalding accidents, and the relevant plans have been registered for the record. We carry out safety emergency drills in various factories and offices every year based on relevant plans to help employees apply the knowledge and skills learned in safety training to practice.

Case: Bloomage Biotech carried out fire safety awareness promotion activities

Special fire safety training

In November 2023, the Jinan factory of Bloomage Biotech carried out its fire safety training activities for the third quarter. We have organized all employees from the production center of the functional skin care products to watch warning educational films themed chemical fires and residential community fires. We have also strengthened front-line employees' awareness of fire safety and production standards by sharing accident cases with them and conducting group discussions.



In 2023, Bloomage Biotech carried out fire safety emergency drills at each factory base, and further improved emergency plans and disposal plans based on the results of the drills.



Fire safety training and day emergency drills

Occupational Health

Bloomage Biotech has implemented the Law of the People's Republic of China on Prevention and Control of Occupational Diseases and the Labor Law of the People's Republic of China. We have formulated, released, and implemented the Compilation of Occupational Health Management Systems, Special Operations Management System, Personal Occupational Health Management Regulations, Labor Protection Supplies Management System, and other occupational health-related systems. We have also hired external agencies every two years to detect occupational hazard factors in the factory and provided employees with comprehensive occupational disease risk protection in terms of personal safety protection, and environmental and equipment safety. This helps us address our main occupational disease risks, such as dust, high temperature, noise, power frequency electric fields, and chemicals. During this reporting period, the health examination coverage rate of Bloomage Biotech employees has been 100%.

- On personal protection, we provide employees and other personnel entering the production site with a full set of labor protection equipment for free, and guide and supervise employees to use and wear them correctly
- On equipment management, we regularly maintain special equipment such as boilers and elevators in accordance with regulations, and develop strict procedures for the placement, operation, and maintenance of dangerous facilities
- . On operational safety, we have clear operation and protection requirements for special operations, such as high-altitude operations and electrical operations. We also require relevant personnel to pass professional training and obtain certificates before operations
- On risk prevention, we post warning signs of occupational health and safety risks at necessary locations of the production site. In accordance with regulations, we also provide regular physical examinations for employees in positions with potential occupational disease hazards

In addition, the Company pays attention to preventing the risks of repetitive strain injuries that may be caused to employees by daily operations. We have reduced the risks of discomfort and injuries to workers caused by repeated movements or overuse. For this, we have improved the operating environment and methods, such as upgrading the manual packaging process to automatic or semi-automatic packaging machines and installing fans to displace air and offset the impact of high temperatures in the workshop.

⁹ The statistical caliber covers all of Bloomage Biotech's wholly-owned operating factories in China.

Employee Rights and Benefits

Bloomage Biotech has established a standardized salary and performance management system to protect and improve employees' welfare in daily management. It has also strived to make employee communication channels smooth to effectively care for employees and to improve their sense of happiness and belonging.

Employee Compensation

Bloomage Biotech adheres to the principle of equal pay for equal work and has formulated the Salary Management System. To match salary with employees' contributions and performance and to boost their motivation, we have built a scientific and reasonable salary system, optimized the income distribution structure, and clarified the salary incentive orientation. The Company's remuneration payments are based on the following principles:

- Principle of job value payment: we have gradually established a salary deciding and adjustment mechanism in line with job value and market best practices. In this way, we have recognized job value and enhanced internal fairness
- Principle of performance results payment: we link remuneration with organizational and individual performance while improving the performance management mechanism linking corporate economic benefits with job performance. By doing so, we have tilted income distribution toward key positions and personnel
- The principles of openness, fairness, and transparency

Employee Benefits

Bloomage Biotech adheres to its people-oriented principle and builds an employee welfare system covering three categories: statutory benefits, corporate independent benefits, and supplemental benefits. Based on employee feedback, we continuously optimize the welfare composition to meet employees' various needs. In addition, we provide diversified care to our female employees by setting up a dedicated lactation room in the Company and organizing regular care activities

Committed to keeping employees' work-life balance and boosting their motivation, we have carried out various care activities, including holiday celebrations, periodic consolations and, team-building activities. We have also continuously made the office environment more comfortable to provide employees with a more pleasant and humane workplace.

The social insurance payment ratio of the employees

The coverage of supplementary medical insurance and physical examination for regular employees

Statutory benefits

Provide benefits to employees to meet national statutory requirements according to the Leave and Attendance Management System:

Statutory holidays, annual leave, sick leave, marriage leave, maternity and paternity leave, funeral leave, social insurance (medical insurance, pension insurance, unemployment insurance, work-related injury insurance, maternity insurance), housing fund

Corporate-owned benefits

Provide additional benefits to all regular employees to enhance welfare benefits and satisfaction, including:

Additional paid vacation, holiday benefits, employee mall discounts

Meal allowance, factory canteen, team building/annual meeting activities, etc.

Supplementary benefits

Care benefits: supplementary medical insurance, annual physical examination, high temperature subsidy, holiday gift, wedding gift,

Economic benefits: subsidies in lunch, business trip, transportation, communication, overtime

Learning and growth benefits: provide a certification allowance while in service Corporate culture benefits: application for Beijing work-type residence permits

Welfare system of Bloomage Biotech

Case: Bloomage Biotech's subsidiaries jointly carried out theme activities of the Women's Day

In March 2023, all subsidiaries and bases of Bloomage Biotech jointly launched the Women's Day activities themed "Your Beauty Need not be Defined". The scope of the event covered more than 10 provinces and cities, where various activities were carried out. The activities included flower arrangement learning, Ukulele making, and painting, with employees' happy work and life promoted.



Case: Bloomage Biotech's "Happiness Proposal" Plan

Bloomage Biotech has launched its "Happiness Proposal" plan to provide periodic congratulations and gifts on key dates, such as employees' induction, regularization, promotion, anniversaries, and birthdays. By doing so, we have expressed our care and gratitude to them to improve their sense of belonging and boost their motivation.

Case: Teacher' Day theme activities of Bloomage Biotech

In September 2023, Bloomage Biotech launched Teacher's Day theme activities by sending exclusive gift packs and sincere blessings to its internal lecturers. In this way, we have enabled employees to feel they were valued and cared for to create a warm and harmonious workplace.





Employee Communication

Bloomage Biotech attaches importance to communicating with employees and has established multiple and open channels for it. Employees can report their problems and suggestions to department heads or the Human Resources Department through online feedback channels like emails, dedicated feedback boxes, and face-to-face communication activities such as staff assemblies and department meetings to collect employee opinions. The company is committed to protecting employees' rights and interests, maintaining fairness and justice, and providing timely feedback to employees.

To protect employees' legitimate rights, interests, and privacy, the Company has established an anonymous complaint and reporting channel and kept employees' complaints and reporting information confidential. Employees can anonymously report any violations and workplace misconduct to their superiors or the Human Resources Department. Then, the relevant responsible departments conduct follow-up investigations and handling based on employees' complaints or reports.

In 2023, we conducted an employee satisfaction survey anonymously, covering five dimensions: job duties, management process, working environment, career development, salary, and benefits. We have also analyzed data with a third-party professional research platform. We have made organizational improvement plans based on the survey and analysis results. We have paid attention to employees' working conditions through the survey data and provided appropriate care to gradually improve employee satisfaction. In 2023, the average score of average score's overall employee satisfaction was 84.4 points.

In addition, Bloomage Biotech explicitly respects employees' rights to freedom of association. We do not interfere with employees' legal establishment, operation, or management of collective bargaining and provide convenience for communication between labor and management. As of the end of the reporting period, each of Bloomage Biotech's production bases has established its trade union. According to the Trade Union Management System, we listen to employees' opinions, safeguard their legitimate interests and democratic rights, and regularly carry out union welfare activities to improve their lives.

06

Green and Low Carbon to Protect Ecological Force

The genes of green technology have been deeply rooted throughout Bloomage Biotech's production and operation. We have always improved the environmental management system, product design and production processes, as a way to practice the concept of green manufacturing. We constantly explore new ways of comprehensive utilization of resources and energy to practice green and low-carbon production and operation.

Major Material Topics of Sustainability Covered in this Chapter:

- Environmental Management
- Biodiversity
- Product Environmental Impact
- Energy Management
- Material Management

- Environmental Permits and Certification
- Waste Management
- Pollutant Management
- Water Resources Management
- Response to Climate Change

SDGs Addressed in this Chapter:











Improving Environmental Management

Upholding the concept of green manufacturing and the management policy of "preventing accidents, complying with regulations, protecting the environment and continuously improving", Bloomage Biotech has established and continued to improve the environmental management system to ensure environmental compliance while reducing the impact of operations on the environment.

Environmental Management System

Bloomage Biotech has strictly abided by the requirements of laws and regulations, such as the Environmental Protection Law of the People's Republic of China and the Energy Conservation Law of the People's Republic of China. With reference to the standards and requirements of ISO 14001 Environmental Management System, we have formulated internal environmental management systems, such as the Environmental Management Handbook, Internal Audit Control Procedures, the Energy Management, Energy Saving and Consumption Reduction Regulations as well as management regulations on air emissions, wastewater and waste discharge.

The Company has set up dedicated safety and environmental protection centers in each factory. They are responsible for identifying, investigating, and evaluating environmental factors, determining important environmental factors and relevant goals and indicators, formulating corresponding management plans, and supervising the implementation of the plans. To further clarify the responsibilities of relevant departments, standardize employees' environmental protection and energy-saving behaviors, and ensure that rewards and punishments are well-founded, we have formulated the Safety, Environmental Protection, and Occupational Health Performance Appraisal Management Procedures and an energy efficiency incentive mechanism. We monthly assess employees of each level on rationalized suggestions, environmental protection and energy-saving technologies, operations against regulations, and relevant penalties.

During the reporting period, Bloomage Biotech has invested a total of RMB 15.41 million 10 in environmental protection. No major environmental pollution incidents occurred, and the following annual environmental management goals were achieved:

Wastewater discharge compliance rate

100 %

Air emission compliance rate

100 %

Compliance rate of hazardous waste treatment

100 %

The pass rate of environmental hazards rectification

Certifications

- Bloomage Biotech's Jinan factory, Dongying factory and Tianjin factory have been certified by ISO 14001 Environmental Management System
- 1 national-level green factory
- 1 municipal green factory



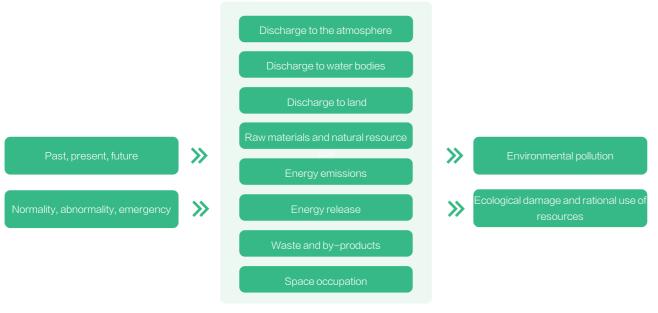


 $^{^{10}}$ The statistical caliber covers all of Bloomage Biotech's wholly-owned operating factories in China.

Environmental Risk Management and Control

Daily Risk Management and Control

To step up its daily environmental risk management and control, Bloomage Biotech has established its environmental factor identification and evaluation control procedures. We regularly identify, evaluate, and update the environmental factors involved in the Company's production, R&D and operation processes from 3 temporal perspectives, 3 states, 8 types, and 2 aspects. We regularly evaluate the effectiveness of control measures for important environmental factors.



Flow chart of environmental factor identification

The Company has effectively inspected environmental protection facilities, monitored the environment, and managed emergency response to minimize environmental risks:

Daily inspection

We assign dedicated personnel to conduct regular inspections of environmental protection facilities to check their operation and equipment wear. We also carry out timely maintenance to ensure the safe and effective operation of all kinds of environmental protection facilities

Environmental monitoring

In accordance with the *Management Regulations on Pollutant Discharge Permits* and the requirements of the pollutant discharge permit, we conduct regular environmental monitoring to effectively monitor the discharge of pollutants and disclose the environmental test results in a timely manner as required. The results are subject to review by regulators and public supervision

Emergency management

We have established and improved the response mechanism for environmental emergencies, and prepared documents, such as the *Emergency Plan for Environmental Emergencies* and the *Emergency Plan for Heavily Polluted Weather*. In this way, we have standardized the response to environmental emergencies and ensured that on-site response to environmental emergencies can be conducted in a quick, orderly, and efficient manner

Case: Each factory of Bloomage Biotech developed response strategies for environmental pollution and conducted necessary drills

- The Jinan factory has actively communicated with the local ecology and environment bureau. It formulated an emergency plan for heavily polluted weather in November 2023 and publicized the "One Strategy for One Factory" notice board. During the orange alert and red alert, the Company's production and relevant departments promptly implement factory shutdown and production restriction measures. The use of freight vehicles with emissions below National IV Standards for transportation are strictly prohibited. These measures ensure Bloomage Biotech's compliant production in the emergency of heavily polluted weather.
- To improve employees' emergency response capabilities, the sewage treatment workshop of the Dongying factory has organized employees to conduct 4 emergency plan drills in 2023, including 2 on-site drills for limited space accidents, 1 on-site drill for hazardous waste leakage accidents, and 1 on-site drill for chemical leakage accidents.

Environmental Supervision and Audit

Bloomage Biotech strictly implements the "three simultaneous" system of environmental protection (environmental protection facilities and the main project must be designed, constructed, and put into use simultaneously). We conduct timely environmental impact assessments before project construction to obtain approval and organize acceptance of environmental protection after project completion to ensure that new projects meet environmental compliance requirements. We regularly conduct internal and external audits to discover problems and deficiencies in environmental management. We also take timely corrective measures to prevent potential environmental accidents and pollution incidents and to protect environmental and public interests.

In accordance with the requirements of the *Internal Audit Control Procedure*, the Company conducts at least 1 internal audit covering its systems of environment/occupational health and safety management every year. Through personnel interviews, document reviews, and on–site visits, we conduct inspections and develop our *Audit Report* on environmental management policies, documented information, pollutant prevention and control measures, and emergency preparedness and response. For problems discovered in the internal audit, the audited department analyzes the causes of the non–conformities and prepares a report. Subsequently, the department makes its rectification plan based on the *Corrective and Preventive Control Procedures* and completes rectification within a time limit. Internal auditors are responsible for confirming the rectification results.

We regularly invite external third-party agencies to conduct ISO 14001 Environmental Management System audits on the Company to ensure the applicability and effectiveness of the management system. We regularly promote cleaner production audits and tap our emission reduction potential to continuously improve resource utilization and pollution prevention and control. In 2023, Bloomage Biotech hired specialist agencies to conduct clean production audits on Jinan and Dongying factories, covering energy consumption, pollution discharge, production processes, operation of environmental protection facilities, and environmental management status. We have also implemented clean production plans to further enhance economic and environmental benefits. In addition, each factory accepts irregular inspections from relevant government departments of all levels and clients' on-site audits to continuously improve the credibility and transparency of environmental management.

Improving Environmental Protection Capabilities

The Company regularly conducts environmental protection training to provide in-depth interpretations of environmental laws, regulations, and standards. In this way, we have enhanced employees' environmental awareness and created a corporate atmosphere in which all employees participate in environmental protection. In addition, we have developed guidance documents for relevant positions of environmental protection, such as environmental protection equipment operating procedures. We have also provided special training for corresponding employees to strengthen professional capabilities in environmental management, ensure their compliant operations, and prevent violations.

Environmental protection training of Bloomage Biotech ¹¹		
Indicators	Unit	2023
Number of training sessions on environmental protection and pollution prevention and control	times	43
Number of employees trained in environmental protection and pollution prevention and control	person	3,622
Total hours of training on environmental protection and pollution prevention and control	hours	3,313

Case: Comprehensive and special environmental protection training

- The Jinan factory organized 4 environmental protection-related training sessions in 2023 to promote the popularization and improvement
 of its internal environmental awareness. A total of more than 600 people have participated in the training. Besides, the factory has actively
 participated in more than 10 training and exchange activities of Ecology and Environment Bureau of Jinan to better understand policies and
 improve the Company's environmental management.
- In 2023, the Dongying factory has invited external lecturers to conduct training on special solid waste management for relevant personnel
 of the safety and environmental department and production department. They have provided in-depth interpretations of laws, regulations,
 and standards related to environmental protection and solid waste pollution prevention and control. They have also further defined daily
 management requirements of general solid waste and hazardous wastes, such as classified storage, labeling, and ledger recording. The
 passing rate of the training assessment was 100%.

Biodiversity Assessment

Bloomage Biotech identifies and monitors the negative impacts that its operations may have on the surrounding ecology. To understand the current situation of biodiversity around the operation site, the Company conducted a biodiversity assessment in 2023 to thoroughly investigate the surrounding ecosystems, animal, and plant species. We have developed corresponding prevention and control measures in terms of potential risk sources, scope of affected areas, probability of occurrence, extent of harm, and risk levels. The assessment results have shown that there are no nature reserves, scenic spots, national and local key protected wild plants, and rare or endangered wild animals within 1km of the area where the Company is located. The Company causes no significant negative impacts on biodiversity while maintaining the normal and effective operation of environmental protection facilities and detecting and disinfecting foreign objects.

¹¹ The statistical caliber covers all of Bloomage Biotech's wholly-owned operating factories in China.

Strengthening Pollution Prevention and Control

Bloomage Biotech abides by relevant regulations and standards of pollutant prevention and control. To minimize the negative impact of pollutants on the environment, we have always upgraded environmental protection design, transformed environmental protection equipment, and improved the treatment efficiency of environmental protection facilities.

Air Emissions

Bloomage Biotech abides by the Law of the People's Republic of China on the Prevention of Atmospheric Pollution and national and local waste gas emission standards applicable to the Company. We also implement the "three simultaneous" system for environmental protection in construction projects. We promptly install waste gas treatment facilities in newly built workshops and continuously optimize existing waste gas treatment designs and equipment. We adopt advanced waste gas treatment technology for pollutants generated during production and operations, such as nitrogen oxides (NOx) and volatile organic compounds (VOCs). Each factory has formulated its own air emission management system and established its emission management ledger. To ensure the stable operation of waste gas treatment facilities and the compliance of waste gas emissions, the factories assign dedicated personnel to maintain the facilities and regularly entrust third-party agencies to conduct tests.

In terms of air emission management, the Company takes emission reduction measures for organic waste gas. We have also improved treatment efficiency and reduced emissions by upgrading process design and transforming environmental protection equipment. For example, the Chaohu factory has phased out and replaced two BFS 3-in-1 equipment, which is expected to reduce waste gas emissions with non-methane total hydrocarbon by 5.4 million cubic meters per year. At the same time, the Jinan factory has developed its collection and treatment plan for the waste gas from alcohol storage tanks. After completing the project, the factory can further reduce the fugitive emissions of VOCs (ethanol).

Emissions of major air pollutants of Bloomage Biotech ¹²		
Indicators	Total emissions in 2023	
Nitrogen oxides	7.46 Tons	
Volatile organic compounds	3.30 Tons	

Waste Water

Bloomage Biotech abides by the Law of the People's Republic of China on Prevention and Control of Water Pollution and national and local wastewater discharge standards applicable to the Company. We have strengthened the management of water pollution prevention and control facilities and effectively controlled various water body risks. The Company has formulated its wastewater management system to strictly control all aspects of wastewater discharge and treatment to ensure compliance.

Factories listed as key sewage discharge units have established wastewater treatment workshops within their parks to ensure that wastewater treatment meets the requirements of the Wastewater Quality Standards for Discharge to Municipal Sewers (GB/T31962-2015) before being discharged into the municipal sewage pipe network. Besides, in accordance with the requirements of the Management Regulations on Pollutant Discharge Permits, they have installed wastewater online monitoring equipment and networked with the government's environmental protection department to achieve internal and external collaborative and dynamic supervision of wastewater discharge. The wastewater quality of other factories is regularly tested by the government and can be directly discharged into the municipal sewage pipe network. 100% of such wastewater discharged into the municipal sewage pipe network meets the discharge requirements.

During the reporting period, Bloomage Biotech has strengthened daily inspections of potential wastewater discharge hazards. We promptly handle potential risks identified in the inspections to ensure the stable operation of wastewater treatment facilities and prevent leakage and venting during production. Bloomage Biotech has been continuously improving precise monitoring and efficient end-of-pipe treatment of wastewater treatment processes. Through digital management and upgrading of wastewater treatment facilities, the Company has further ensured the stability and compliance of wastewater treatment. For example, the Dongying factory has installed an alarm system in the wastewater treatment workshop to conduct real-time monitoring of the pretreatment system, anaerobic system, AO system, and dosing equipment. We issue timely early warnings for abnormalities to enable operators to quickly reset faults remotely. At the same time, the Jinan factory has upgraded its fans and aerating system to reduce the mud content of the effluent, enhancing the aeration effect and the effluent quality. In this way, we have improved wastewater treatment efficiency and reduced power consumption.

Bloomage Biotech has the business of producing pharmaceutical-grade products. The Company's related products (hyaluronic acid and related products) may flow into the wastewater treatment system during production due to container cleaning and other reasons. Such products are discharged after treatment, meeting the pollution discharge supervision requirements. In addition, the products themselves are non-toxic, so they can also be used as a raw-food material without bioactivity. Therefore, they have no significant negative impact on the environment and no substantial negative impact on employees' health.

Wastewater discharge of Bloomage Biotech ¹³	
Indicators	Total emissions in 2023
Total amount of wastewater discharge	123.85 (in 10,000 tons)
COD	54.01 Tons
Ammonia nitrogen	2.03 Tons

¹² The Company monitors, collects, and treats air pollutant emissions in accordance with regulatory requirements, including pollutants such as sulfur dioxide and particulate matter which are insignificant in information disclosure. The statistical caliber covers all of Bloomage Biotech's wholly-owned operating factories in China.

Wastes

Bloomage Biotech adheres to the sustainable development concept of green operation. We thoroughly implement the requirements of the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste. We also uphold the principle of "reduction, recycling and harmlessness" of solid waste to promote comprehensive solid waste management and utilization. The Company has formulated systems, such as the Waste Discharge Management Regulations and Hazardous Waste Management Regulations to standardize the classified management of waste. Each of the Company's factories has built storage areas for general solid waste and temporary storerooms for hazardous waste to store the classified waste. The factories have also established ledgers for the generation, transfer, and storage of waste to realize traceability throughout the waste management.

On hazardous waste management, the Company has installed ground anti-seepage facilities, gas collection systems, and exhaust tube equipment in the temporary storerooms in strict accordance with the relevant requirements of the Standard for Pollution Control on Hazardous Waste Storage and Technical Specifications for Collection, Storage, Transportation of Hazardous Waste. We classify and store various hazardous wastes, such as waste liquid, waste packaging, used oil, waste lamp tubes, and spent activated carbon, and set prominent warning signs of hazardous waste in the storage area. The Company has entrusted qualified third parties to transport and dispose of all hazardous waste.

Bloomage Biotech's disposal measures for various wastes mainly include:

Source reduction

- Optimize production processes and improve product quality and productivity to reduce solid waste generation
- Recycle cleaning solution to reduce chemical consumption and hazardous waste production
- Optimize the wastewater treatment process to reduce the amount of dosing and sludge generation

Recycling

- Recycle waste plastics, waste packaging cartons, and other wastes
- Entrust a qualified third party to fire waste perlite and sludge into building materials, and turn waste plastics into recycled plastic particles

Harmlessness

• Entrust a qualified third party to dispose of unrecyclable general industrial waste and hazardous waste

Waste Discharge of Bloomage Biotech ¹⁴			
Indicators	Unit	Total amount in 2023	
General industrial waste	Tons	9,599.45	
Hazardous waste	Tons	85.01	
Domestic waste	Tons	581.09	
Food waste	Tons	658	
Total hazardous waste	Tons	10,923.55	
Recycled waste	Tons	7,331	



¹⁴ The statistical caliber covers all of Bloomage Biotech's wholly-owned operating factories in China.

¹³ The Company monitors, collects, and treats wastewater pollutant emissions in accordance with the requirements of regulators, including pollutants such as total nitrogen, total phosphorus, and others that are insignificant in information disclosure. The statistical caliber covers all of Bloomage Biotech's wholly-owned operating factories in China.

Optimizing Resource Use

Bloomage Biotech continues to consolidate normalized resource use management, reduce its resource consumption, and recycle and reuse its resources in details. We have improved resource utilization efficiency comprehensively and given full play to its innovation advantages. We have also pushed forward the implementation of programs for resource recycling and green alternatives.

Energy Management

Bloomage Biotech strives to reduce energy consumption and carbon emissions during production and operations. We have actively promoted the establishment of an energy management system and formulated system documents, such as the Energy Management, Energy Saving and Consumption Reduction Regulations and Energy Management Implementation Plan. We have implemented a multi-level energy management post-responsibility system. As of the end of the reporting period, the Jinan factory has been certified by the ISO 50001 energy management system, achieving scientific, standardized, and procedural energy management.

Energy management measures of Bloomage Biotech mainly include:

Energy-consuming equipment management

- Forbid the use of equipment phased out by the state and use the latest energy-saving products recommended by
- Carry out regular equipment maintenance and repair to eliminate faults, leakage, and venting and to keep the equipment at top performance for a long time

Energy metering statistics

- Equip qualified measuring instruments as required, and continuously upgrade and optimize the IoT(Internet of Things)based online collection system of energy consumption data to facilitate energy planning and management in advance
- Carry out weekly energy statistics and monthly summary, analysis, and benchmarking. Analyze the reasons and develop rectification measures promptly in the case of a large increase or decrease in energy consumption

Energy performance management

- Hire specialist agencies to assist factories in conducting energy-saving diagnosis
- Implement a daily inspection system for energy management and a joint inspection system. Reward and punish individuals and departments for their performance.
- Encourage employees to put forward rationalized proposals and participate in technological transformations of energy-saving and consumptionreducing. Provide positive incentives based on cost savings when the proposals are implemented and evaluated to be effective

We implement low-carbon emission reduction measures in details and actively recycle and reuse energy in production. For example, we use the steam and heat generated during the fermentation process for factory heating, hot water supply, and heat energy consumption in employee canteens. In addition, we vigorously promote the comprehensive utilization of energy and utilize biogas generated in the anaerobic stage of wastewater treatment for power generation. We have actively developed and utilized clean energy, introducing rooftop solar photovoltaic power generation systems for production and office use. In this way, we have enhanced the proportion of green energy.

- The Tianjin factory and the Jinan factory have built rooftop photovoltaic and biogas power generation equipment, with a total annual power generation of approximately 3.522 million kilowatt hours (kWh) and greenhouse gas (GHG) emission reduction of approximately 2,008 tons of carbon dioxide equivalent
- . During the reporting period, the Jinan factory introduced external biomass heating for a total of 38,283 GJ, replacing the original natural gas boiler. We have reduced GHG emissions by approximately 5,000 tons of carbon dioxide equivalent

Energy Use of Bloomage Biotech ¹⁵			
Indicators	Unit	Amount in 2023	
Natural gas	cubic meter	15,686,836	
Gasoline	litre	21,706	
Diesel oil	litre	8,939	
Purchased electricity	kWh	66,931,210	
Purchased heat from fossil fuels	GJ	174,332	
Self-generated renewable electricity	kWh	3,521,913	
Purchased heat from biomass fuel	GJ	38,283	

 $^{^{\}rm 15}$ The statistical caliber covers all of Bloomage Biotech's wholly–owned operating factories in China.

Water Resources Management

Bloomage Biotech attaches importance to the rational utilization of water resources and continuously strengthens scientific water management. The Company has formulated the Energy Management, Energy Saving and Consumption Reduction Regulations, adding water consumption management indicators into the daily indicator management system of each workshop and team, and clarifying water metering requirements. Besides, we formulate annual water use plans and entrust third parties to conduct water balance tests and industrial watersaving diagnoses. By doing so, we have laid a solid foundation for the long-term improvement of water resource utilization efficiency. All the Company's office and production are supplied by municipal water. The types of water used mainly include production water, make-up water for cooling circulating water, boiler replenishment water, water for environmental protection facilities, and domestic water.

In the production process, the Company has actively used water-saving equipment, optimized production processes, and recycled industrial water, steam, and wastewater to avoid unnecessary drainage, flushing, and overflow. Besides, we continue to improve water metering, identify weak links in water use, and replace old water facilities to prevent water resource waste, such as leakage and venting in the water supply pipe network.

Aiming to build a water-saving enterprise, the Company has vigorously promoted the use of advanced water-saving technologies and processes to enhance its water-saving management. The Dongying factory has been honored as a Water-saving Enterprise of Shandong

Water-saving measures of Bloomage Biotech mainly include:

Cooling water recycling

- The Dongying factory carried out a technical transformation project to transform the cooling water discharge pipes in the power workshop, fermentation workshop, and alcohol recovery workshop. It has also installed cooling circulating water tanks to achieve reuse of production water, saving approximately 30,000 cubic meters of water annually
- The Jinan factory has achieved 97% indirect cooling water circulation and 95% industrial water recycling

Troubleshooting for water pipelines

. The Chaohu factory has replaced the rusted galvanized pipelines in the production workshop, and de-rusted and insulated all chilled water and steam pipelines. The annual maintained pipelines exceeded 300 meters

Water consumption of Bloomage Biotech ¹⁶		
Indicators	Unit	Consumption in 2023
Total water consumption	10,000 tons	142.12
Circulating water consumption	Tons	6,734



¹⁶ The statistical caliber covers all of Bloomage Biotech's wholly-owned operating factories in China.

Packaging Material Management

Bloomage Biotech strictly complies with the laws and regulations, such as the Product Quality Law of the People's Republic of China, the Food Safety Law of the People's Republic of China, the Drug Administration Law of the People's Republic of China, the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste, Regulations Concerning Hygiene Supervision over Cosmetics and the Regulation on the Supervision and Administration of Medical Devices. We conduct packaging design, procurement, and processing according to the laws and regulations' requirements. Besides, we implement the concept of green and low-carbon high-quality development in accordance with the requirements of the national standard of the Requirements of Restricting Excessive Package—Foods and Cosmetics and documents, such as the Sustainable Packaging Initiative for Cosmetics. To lessen the impact of packaging on the environment and health, we focus on reducing packaging weight and quantities in packaging design, material transportation, production, packaging procurement, and other links.

Green packaging initiatives of Bloomage Biotech mainly include:

Green packaging design

- Conduct research on the application of sugarcane-based plastics in disposable packaging materials. Compared with traditional petroleum-based plastics, each ton of bio-based plastics can reduce carbon dioxide
- Employ BOPP environmentally friendly film in place of PVC cigarette wrapping film to avoid the impact of harmful substances contained in PVC on the environment and employees' health

Optimization of material transportation

- Use reusable material transfer tanks to transport materials and reduce the use of polyethylene plastic bags
- Strengthen the linkage between equipment and reduce material turnover to save the use of packaging materials
- Packaging recycling
- Recycle secondarily waste plastics, waste outer packaging cartons, and other waste generated during the production process to minimize the amount of waste packaging
- Green packaging procurement
- Obtain FSC-COC (Forest Chain of Custody) certification and have the ability to purchase FSC (Forest Stewardship Council) certified packaging materials. More than 95% of the purchased external packaging materials for functional skin care products have been certified by FSC
- Actively purchase biodegradable plastics, recyclable plastics and other environmentally friendly materials to replace traditional plastic packaging

Case: BIOHYALUX's "Empty Tube Recycling" program for single-use products

As Bloomage Biotech's brand of functional skin care, BIOHYALUX has carried out the "Empty Tube Recycling" program for four consecutive years since 2020. It has encouraged more consumers to participate in sustainable consumption by distributing unconditional coupons and exchanging empty tubes for genuine products. By the end of 2023, it has conducted 13 sessions of the "Empty Tube Recycling" campaign and recovered over 9.08 million tubes. A total of nearly 100,000 people have participated, with the recycling weight of 13.62 tons.

Case: Integration of skin care and environmental protection concepts

Bloomage Biotech is oriented to consumer demands. While focusing on R&D and innovation in skin care, the Company's major functional skincare brands are committed to practicing green and environmentally friendly sustainable concepts. We are convinced that we can shape a more sustainable consumer market alongside our customers with our products. While pursuing product effectiveness, we have always fulfilled our responsibility to the environment. To lessen the burden on the environment as much as possible, we have continued to optimize packaging design and effectively reduced the use of paper, plastic, and other materials. Besides, we have also launched refill products to encourage consumers to recycle containers to reduce resource waste. In addition, we use FSC-certified paper packaging materials in our product packaging to support the protection and sustainable development of the forest ecosystem.

Packaging Materials Procurement of Bloomage Biotech			
Indicators	Unit	Amount in 2023	
Total procurement of packaging materials ¹⁷	Tons	5,270	
Purchase volume of FSC-certified paper packaging materials	Tons	846	

 $^{^{17} \ \}text{The packaging materials purchased by the Company mainly include paper, plastic, glass, and aluminum.}$

Addressing Climate Change

Bloomage Biotech actively explores the development path of green manufacturing. The Company has been less dependent on natural resources and chemicals and continuously reduced resource consumption and GHG emissions. While reducing its own emissions, the Company strives to provide green manufacturing solutions to achieve the "dual carbon" goals and support sustainable development.

The Company has realized the necessity and urgency of responding to climate change. We have proactively identified the impacts and risks that climate change may bring to all aspects of our operations. We have established a top-down ESG management mechanism to advance the effective implementation of tasks, such as responding to climate change, conserving energy, and reducing emissions. We have also set up an ESG Strategic Management Center responsible for policy research, path planning, carbon management, information disclosure, and other climate change-related tasks. The Company attaches great importance to managing carbon emissions at the organization and product levels and has conducted GHG inventory based on ISO 14064 standards for all factories in China for two consecutive years, as well as an accounting on product carbon footprint and carbon emissions for our main products of hyaluronic acid, which have all obtained verification statements from well-known auditing organizations.

GHG emissions of Bloomage Biotech ¹⁸		
Indicators	Unit	2023
Direct emissions (Scope 1)	tCO ₂ e	43,554.73
Indirect emissions (Scope 2)	tCO ₂ e	57,347.36
Total GHG emissions (Scope 1 + Scope 2)	tCO ₂ e	100,902.09

Case: Product carbon footprint certification

Carbon footprint accounting serves as the foundation and key for Bloomage Biotech to achieve low-carbon and green development. It is also essential for the Company to reach the international market. During this reporting period, we have carried out cradle-to-gate carbon footprint accounting on our product of hyaluronic acid in accordance with ISO 14067, PAS 2050, the GHG Protocol Product Life Cycle Accounting and Reporting Standard and the General Rules for Product Carbon Footprint Evaluation in Shandong Province. We have obtained the carbon footprint certification statement.

Climate Risks and Opportunities

Bloomage Biotech pays close attention to the impact of climate change on its production and operations. We have issued and implemented the Natural Disaster Emergency Plan to improve our relief system and operating mechanism for responding to natural disasters. In addition, for the first time in 2023, we referred to the TCFD framework to identify climate risks and opportunities and developed countermeasures, focusing on our operating locations. With the complicated and changeable impacts of climate risks, the Company will continue to track and assess the risks, timely adjust, and update their objective expressions. We will promote the continuous integration of climate risks and our risk management system, and gradually develop risk response strategies to push forward the implementation of tasks.



¹⁸ The report of Bloomage Biotech's GHG emission data in 2023 covers all of Bloomage Biotech's offices, R&D centers, and wholly-owned operating factories in China. The emissions from offices and R&D centers are negligible and excluded from quantification based on international norms. Scope 1 GHG emissions refer to the emissions generated from the consumption of natural gas, diesel, gasoline, fugitive emissions of methane in waster water, and refrigerant filling. GHG emissions in Scope 2 refer to the emissions generated from the consumption of purchased electricity and heat. The Company has accounted its GHG statistics in accordance with the requirements of ISO14064-1: 2018 Specification with Guidance at the Organization Level for Quantification and the GHG Protocol Enterprise Greenhouse Gas Emission Accounting and Reporting Standard and Reporting of Greenhouse Gas Emission and Removal. The emission factors refer to the requirements of technical documents, such as the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and the latest average grid emission factor of 0.5703 $tCO_{\text{Z}}/\,\text{MWh}\,\text{issued}\,\text{by}\,\text{the Ministry}\,\text{of Ecology}\,\text{and Environment}\,\text{of the People's Republic}\,\text{of China}.$

Physical Risks

We have conducted the scenario analysis based on the two Representative Concentration Pathways (RCPs) of the Intergovernmental Panel on Climate Change (IPCC), namely RCP4.5 (low carbon emissions scenario) and RCP8.5 (high carbon emissions scenario). We have comprehensively identified our potential physical risks in the short term (2030), medium term (2050), and long term (2080) as follows:

Risk Type	Risk Level	Expected Occurrence Time	Potential Impacts	Response
Extreme Precipitation	High	Near, interim, long terms	 Possible damages or faults to devices and infrastructure, resulting in production interruption and reduced production efficiency, as well as more additional costs in device maintenance and replacement. An increase in short-term wastewater disposal burdens leads to larger external 	 Develop Preparedness Plan to Respond to Natural Disasters, Environmental Emergency Plan, and Production Safety Accident Response, combined with regular drills to continuously improve and optimize emergency response mechanisms. Plan and prepare sufficient flood prevention resources in advance, such as sandbags, sump
Tropical Cyclone	Moderate	Interim term	drainage volumes and severer water pollution risks, affecting production stability. The normal operation of logistics and supply chain may be affected with logistics delays, inventory shortages, and even overdue delivery, incurring a big threat to business continuity and customer satisfaction.	pumps, raincoats, waterproof boots. Optimize water supply and drainage facilities to increase the capacity of wastewater disposal system or apply more efficient treatment technologies with external outlet shut-off valves arranged.
Extremely high temperatures	Moderate	Near, interim, long terms	 A need produced to equip more refrigeration equipment in an increased operational cost. Some raw materials and products go bad during storage and shipment, affecting the quality and marketability of products. Fire and explosion risks rise in the warehousing. 	 Develop Preparedness Plan to Respond to Natural Disasters, combined with regular drills to continuously improve emergency response mechanisms. Strictly monitor and ensure raw materials and products stored and shipped under appropriate conditions involving timely adjustments to ventilation, temperature, and humidity. Strengthen fire prevention, including regular inspections and maintenance of fire-fighting equipment and facilities, and fire drills.
Water Shortage	Moderate	Near, interim terms	Long term drought may cause a water shortage in production and affect production stability.	 Stick to optimization of production processes, employ water-saving devices instead of old ones for highly efficient water resource utilization. Make a scientific schedule for production and strictly act with it.
Sea-level Rise	Low	Long term	 Flooding risks increased in coastal areas cause damage or faults to equipment and infrastructure, and put factories, warehouses, and office buildings in danger of seawater erosion and drowning, as a result of which production may be interrupted, or relocation needed. Potential damages to coastal ports and transportation channels are associated with supply chain disruption or logistics delays. 	 Strengthen the resilience of buildings and infrastructure to disasters, such as a design of higher building foundation, more efficient drainage systems. Assess risks related to sea-level rise in coastal operation bases so as to adjust investment and development plans in a timely manner that potential risks are addressed.
Floods	Low	Near, interim, long terms	 An increase in short-term wastewater disposal burdens leads to larger external drainage volumes and severer water pollution risks. Possible damages or faults to devices and infrastructure, resulting in production interruption and reduced production efficiency, as well as more additional costs in device maintenance and replacement 	 Develop Preparedness Plan to Respond to Natural Disasters, combined with regular drills to continuously improve emergency response mechanisms. Optimize water supply and drainage facilities to increase the capacity of wastewater disposal system or apply more efficient treatment technologies with external outlet shut-off valves arranged. Plan and prepare sufficient flood prevention resources in advance, such as sandbags, sump pumps.

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Transition Risks and Opportunities

Driven by the national "dual carbon" strategy and global carbon neutrality trend, Bloomage Biotech is well aware of the necessity of low-carbon transition, as well as potential compliance risks in long term operation and business expansion and cost burdens increased therefor. At the point, we analyze climate-related transition risks and opportunities facing the Company with two shared socio-economic pathways (SSPs) of Intergovernmental Panel on Climate Change (IPCC), namely SSP1-1.9 (low carbon emission scenario) and SSP2-4.5 (high carbon emission scenario).

Туре	Risk/ Opportunity Type	Potential Impacts	Response
	Policies and regulations	 China's Carbon Emissions Trading System operates with carbon pricing. If included in the carbon quota allocation list, the Company will cost more to support related compliant operation. As stricter national policies and regulations are enacted to mitigate climate change, the Company is faced with more pressures on compliance activities and related litigation risks. 	that the Company can plan and carry out annual carbon emission review and measurement in advance, and gradual carbon footprint verification, etc.
Risk	Technologies	Technological cost in low-carbon transition. Investments in low-carbon technology failed and the Company lagged behind peers in low-carbon transition.	 Work harder in the feasibility study of new technologies to ensure rationality and applicability. Focus on the cultivation and retention of R&D talents, consolidate for stronger R&D capabilities.
KISK	Markets	Raw material costs may rise due to the climate-affecting quality and quantity. The demand for our products may decrease as customers/consumers become stricter about low-carbon products and ESG performance of their suppliers.	 Pay attention to any change in raw material market and plan to reserve raw materials in advance. Take an active part in energy conservation and emission reduction and increase the proportion of clean energies used. Integrate the concept of sustainability into product design and research and development to meet the need of customers/consumers for green products.
	Reputation	 As the Company's ESG performance remains as a focus for stakeholders, failure to address climate change risks or fulfill environmental responsibilities may incur a negative impact on its reputation, and further damage its brand image and market position. 	 Actively respond to concerns of stakeholders about climate related issues by disclosing ESG reports, updating information disclosed on the official website, and completing questionnaires.
Opportunity	Market	Incentive policies involving carbon reduction subsidies and support are formulated by the government. The Company can count on new financing channels and support policies attributable to development of green financing and sustainable investment. The demand of customers/consumers for green products increases.	 Actively engage in the development and implementation of carbon reduction projects, and timely apply for relevant subsidies. Build the capability of advancing green transformation and expand funding sources. Achieve non-hazardous disposal and low-carbon production of products by means of research and development innovation, process optimization, etc. and try to obtain product carbon footprint certification and environmental declaration for higher product competitiveness.
	Technologies	 Opportunities are provided by industrial energy– saving technologies and equipment for companies to reduce costs and increase production efficiency. 	 Employ high-efficiency production equipment to improve resource recovery and utilization, and further reduce costs related to energy and resource consumption.

Greenhouse Gas Emission Reduction

Well understanding how necessary it is to accelerate low-carbon transition, Bloomage Biotech focuses on short-term emission reduction projects with long-term reduction strategies. As of the disclosure of this report, the Company strengthened its renewable electricity capacity by means of photovoltaic distributed generation facilities, and facilities for biogas to electricity conversion.

In time to come, we will continue to improve our carbon emission management system with measures taken, including professional talent allocation, and external cooperation and exchanges. At first, we will integrate internal and external resources to optimize the energy structure and reduce dependence on fossil fuels, thermal power generation, and steam power by fossil fuels, aiming at a decrease in greenhouse gas emissions resulting from energy consumption. Secondly, we will work toward improved energy efficiency through technological and process innovation so as to reduce intensity of energy use and greenhouse gas emissions.

In addition, we understand the importance of joint efforts by all parties to achieve the low-carbon transition and prepare to work with value chain partners for greenhouse gas emission reduction projects conducted in the full life cycle of products, because we know expectations of our customers, regulatory agencies, and other stakeholders for the Company's low-carbon development.

Reciprocal Cooperation and Cohesive Development

A stable and reliable supply chain is crucial for corporate development. Bloomage Biotech actively collaborates with suppliers for greater value in the supply chain, which yields a win-win result. We develop close partnerships to practice responsible procurement, aiming at a positive impact on the environment and society while product quality is guaranteed.

Major Material Topics of Sustainability Covered in this Chapter:

Supplier Management

SDGs Addressed in this Chapter:







Supply Chain Management System

Committed to building and maintaining a reliable and sustainable supply chain that is important to its development, Bloomage Biotech continuously optimizes the supply chain management system to meet diverse procurement needs. In addition, we have developed multidimensional management methods for various suppliers in a targeted manner, which are effective to enhance the resilience of the supply chain.

Supply Chain Management System and Structure

Strictly abiding by relevant laws and regulations such as the Company Law of the People's Republic of China and the Tendering and Bidding Law of the People's Republic of China, the Company formulated procedural documents including Regulations on Material Procurement Management and On-Site Supplier Audit Regulations according to its own business needs, as a guide to standardized management in all aspects such as supplier entry, evaluation and review, routine management, and quality management. In the year of reporting, the Company integrated, planned and implemented tendering and procurement strategies, put into practice supplier management plans, and strengthened supply chain risk management capabilities, while promoting collaborative actions among procurement-related departments for the improved supply chain management process, in order to achieve better supply chain management, and further improve functions of the procurement strategy management center.

In 2023, the Company revised and newly established regulations including the Cosmetics Supplier Entry, Supervision and Management Regulations to further refine and clarify the management processes of different procurement areas and categories, and to enhance the multi-dimensional supplier management capabilities . In addition, the Company has improved the efficiency of supply chain management by means of digital intelligence, and has completed the acceptance of the Supplier Relationship Management (SRM) project. SRM is a system that can enhance cross-departmental business collaboration, standardize and implement a series of management processes related to procurement and supplier supervision.

Case: Bloomage Biotech was honored as "Green Supply Chain Management Enterprise"

Bloomage Biotech is committed to more efficient and targeted management and communication with suppliers, by improving centralized procurement management system, launching and applying platforms like Supplier Relationship Management (SRM), and cooperating with partners for lean production management. Moreover, the Company actively builds itself into a green manufacturing benchmark with a focus on green supply chain development. To be specific, we establish green procurement standards and supplier performance evaluation mechanisms, and strengthen special exchanges with downstream enterprises through technical exchanges, new product promotion and other activities. On the basis that supply quality is ensured, we prioritize cooperation with suppliers with outstanding performance in green production. In 2023, Bloomage Biotech was selected as one of provincial-level green manufacturing enterprises in Shandong Province and honored as "Green Supply Chain Management Enterprise".

Supplier Entry and Classification Management

Bloomage Biotech has established a strict supplier entry mechanism used for comprehensive evaluations of potential suppliers in respects such as basic qualifications, quality assurance, scale and strength, competitiveness, etc., and necessary on-site audits. Eligible suppliers are included in the annual Qualified Supplier List.

The Company implements classified management of qualified suppliers, and the suppliers are classified according to their procurement amount, importance of goods, and impact on the Company's products and production, and other dimensions. By stratifying suppliers according to these dimensions, we manage suppliers in a tiered manner, effectively controlling supplier risks and ensuring high-quality, stable, and safe operation of the supply chain.

As per our requirements, suppliers of raw materials, packaging materials, and other types must be qualified with certificates for production and operation, necessary management system (eg. Quality management system, GMP, etc.), and for purchased items (such as production process description, safety assessment, quarantine certificates, toxicology and efficacy study data or inspection reports of raw materials, etc.), accompanied with appropriate production conditions. Besides, the Company assesses performances of suppliers in environmental protection, occupational health and safety, energy management, and labor rights, and rewards additional credits to excellent suppliers with well-established management systems and certifications.

In the reporting period, Bloomage Biotech has developed partnerships with 712 production suppliers, distributed as follows:

Country/region	Unit	Number
China's mainland	Supplier	601
Taiwan of China	Supplier	2
Overseas	Supplier	109

Supply Chain Quality Supervision and Review

Supplier quality management is an important part of the corporate quality management system. Bloomage Biotech attaches great importance to the quality of supply chain and has established an effective evaluation and management mechanism, which works to strictly control quality of goods provided by suppliers through routine monitoring and regular evaluation. Additionally, the Company cooperated with suppliers to improve the quality of supply chain and provide customers with reliable and safe products and services.

To ensure the stable and reliable quality of materials provided by suppliers, Bloomage Biotech has established a comprehensive supplier management system and a series of management documents and audit forms in alignment with regulations, standards, and other requirements, such as Regulations on Selection, Evaluation, and Management of Raw Material Suppliers, Supplier Entry, Supervision and Management Regulations, Class A Raw Material Supplier Quality Management Regulations, and On-Site Supplier Audit Regulations. The Company has established a rigorous supplier quality audit process requiring a 2-3 year-round of on-site quality audits for all suppliers of important materials. The audit encompasses various aspects of suppliers' operations, including management, production, logistics, and warehousing, etc. Any non-compliance issues, if found during the audit, will be rectified by suppliers referring to the corrective action plan the Company helps develop. Also, we will regularly communicate with suppliers on the implementation of the plan and arrange necessary reaudits to confirm the effectiveness of the corrective measures, ensuring continuous oversight until issues are resolved.

We stick to communications and sign Quality Assurance Agreement with suppliers, and conduct annual evaluations and assessments. At the beginning of each year, the Qualified Supplier List is updated annually based on the evaluation of qualified suppliers. Suppliers assessed as "excellent", "good", and "eligible" will be provided with corporate comments on their shortcomings and urged to improve; suppliers found to be rejected in critical items or "ineligible" in review conclusions will no longer be included in the Qualified Supplier List in this year, and if reactivated, they will be evaluated according to the admission process for new suppliers. In the period of reporting, the Company conducted quality audits and reviews on 261 suppliers and no supplier was assessed as "ineligible" in the annual evaluation.



Supplier Access Flow Chart

Case: Continuous supplier quality exchanges for quality improvement among the industry

In Sep 2023, Bloomage Biotech invited 9 leading suppliers in the cosmetics raw material industry (including raw material and packaging suppliers) to visit Jinan factory and exchange experience and insights in supply chain management and quality management. The exchange activities intended to actively promote joint efforts by all enterprises in high-quality production and further advance quality improvement in the entire industry. While communicating, we introduced our quality culture and management philosophy to visitors, which were widely recognized.



Supply Chain ESG Management

Adhering to the concept of "clear and transparent, healthy and orderly", the Company practices the principle of "equal, fair, just, transparent, willing and free negotiation" in procurement, and fulfills responsibilities strictly in accordance with relevant systems and requirements to protect legitimate rights and interests of suppliers and ensure the legal and compliant procurement.

Bloomage Biotech continues to explore how to deepen the supply chain ESG management mechanism and expand communication channels and cooperation approaches. We manage important ESG issues such as green development, labor rights, safety and health, and business ethics, etc., aiming to reduce supply chain risks, promote sustainability, and maintain corporate reputation for mutual prosperity for the company, society, and the environment.

Suppliers are required to comply with ESG-related laws and regulations and encouraged to practice high-standard management systems and business ethics. In addition to the Anti-Bribery Agreement signed by suppliers, we also clearly specified in the contract that environmental protection, safety, quality, and others are responsibilities suppliers must assume.

Bloomage Biotech's supply chain ESG management indicators include but are not limited to:

ESG dimensions	Requirements
Environment	 Comply with national and regional environmental laws and regulations Complete necessary environmental impact assessments and pollutant discharge permit application Be certified to Environmental Management System
Safety	 Be certified to Occupational Health and Safety Management System Complete necessary safety evaluations and safe production permit application Standardize chemical management documents and ledger records
Labor	 Comply with applicable national labor laws and regulations No child labor or forced labor Regular health examinations Necessary employee training
Business ethics	 Integrity management qualifications Positive track record of ethical business conduct Sign anti-bribery agreement
Procurement	 Established procedures for selection, confirmation, and audit of suppliers Established relevant regulations on supplier evaluations and retained evaluation records Established a qualified supplier list and updated in a timely manner
Customer relationship	 Customer complaint investigation, corrective, and preventive measures management procedures Recall procedures Customer service performance evaluation

While promoting suppliers to improve ESG performance, the Company actively practices sustainable procurement, prioritizing products with a nature in sustainability, and builds a sustainable supply chain from the source. We delve deeply into the sourcing and production methods of purchased materials, ensuring compliance with pertinent sustainable standards to reduce our impact on environment and society. The Company has been certified to FSC-COC (chain of custody), allowed to purchase FSC (Forest Stewardship Council) certified packaging materials, and over 95% of outsourced materials purchased for functional skincare products are FSC certified.

Care for society inspires vitality

Bloomage Biotech cares about society, and actively practicing corporate responsibilities through high-quality public welfare initiatives such as "In Cloud" and "Bloomage Health Tour". These initiatives promote the integration between technology and art while supporting advancements in medical education. The company continuously pays attention to social needs and leverages corporate advantages, integrating internal and external resources, and working together with all sectors of society to lay a solid foundation for the construction of a mutually beneficial and harmonious society.

Major Material Topics of Sustainability Covered in this Chapter:

Healthcare Availability

- Social Welfare and Community Relations
- Industrial Cooperation and Development

SDGs Addressed in this Chapter:









Bloomage Biotech strives to create sustainable social value and concerns diverse social issues. For years, we continued to conduct two major public welfare activities, "In Cloud" and "Bloomage Health Tour", aiming to explore and enrich public welfare practices in medical inclusion, rural revitalization, cultural inheritance, and other fields so that the corporate social influence grows increasingly.

At the same time, we actively seek the industry-university-research cooperation. Thus, we engage in in-depth cooperation with universities including the Central Academy of Fine Arts, Shandong University and other colleges by providing scholarships, and innovation and development funds, as part of our public welfare activities, to contribute to the development of science, technology, art, and medical education.

Total investment

2.68 RMB million

In social welfare, Bloomage Biotech totally invested

Distributed by form

1.68 RMB million Provision of goods and services

RMB million Cash donations

Distributed by Impact

- "In Cloud" has lasted for 13 years, traveled more than 150,000 kilometers, penetrated into ethnic minority settlements in more than 60 cities, and helped nearly 400 ethnic culture and intangible cultural heritage inheritors from 38 ethnic groups to go to domestic and international stages. During the period of reporting, the project was included in excellent cases at the Pavilion, UN SDG Summit 2023 and ESG best practices for Chinese Listed Companies 2023 by China Association for Public Companies
- "Bloomage Health Tour", has been carried out for 10 years, with volunteer medical activities covering Yexian county of Henan Province, Seda county of Sichuan Province, Yinchuan city of Ningxia Province, Zibo city of Shandong Province, Bole city of Xinjiang Province, and other areas
- P Case: In Cloud has been conducted for 13 years, supporting the vigorous development of ethnic cultural inheritance

"I hope, an increasing number of people will pay attention to ethnic culture and become a member who explores, inherits, and promotes the disappearing cultures nourished on the land of China. I look forward to a future in which we grow with our ethnic cultures."

---- Ms. Zhao Yan, Chairwoman and CEO of Bloomage Biotech, initiator of "In Cloud"

In 2011, Zhao Yan, Chairwoman and CEO of the Company, initiated the "In Cloud" project with a mission to protect China's original cultures. This project explores how to preserve the intangible cultural heritage of various ethnic groups in China through art exhibitions, immersive experiences, singing and dancing performances, and culinary events. Additionally, it supports rural development by promoting the inheritance of ethnic cultures and improving local residents' living standards. In general, it contributes to rural prosperity.

To date, the "In Cloud" series has been developed creatively with the times, both in content and form, including 13 thematic projects. It has covered more than 60 cities in ten provinces and autonomous regions where ethnic groups gather, it cumulatively helping nearly 400 inheritors of ethnic cultures and intangible cultures from 38 ethnic groups along the tour of over 150,000 kilometers come into view of domestic and international communities.

. Bloomage Biotech carried out a series of folk art activities and held "Know Xinjiang" music theme party

In 2023, the "In Cloud" team embarked on a one-year folk art collection tour deep in northern Xinjiang, searching for endangered intangible cultural heritages and folk arts. A series of "Know Xinjiang" activities were held, including music parties, art exhibitions, live forum chat, etc., which presented the public with a feast of diverse ethnic cultures via such comprehensive experiences as singing and dancing, art exhibitions, enjoying delicacies, and cultural forums. The music theme party of "Know Xinjiang · In Cloud" was broadcast simultaneously on the CCTV4 TikTok account, WeChat channel, CCTV-channel Homeland Dreamland, Bloomage Biotech official Weibo and other channels, sharing and exploring the inheritance of intangible culture with netizens amounting to nearly one million.



Case: In Cloud has been conducted for 13 years, supporting the vigorous development of ethnic cultural inheritance (Continued)

• Bloomage Biotech supported development of local special agricultural products

In 2023, during the cultural tour in Gansu province, the "In Cloud" team discovered a special fruit called Piteguo fruit. However, due to its astringent taste it had limited economic value. To address this issue, Bloomage Biotech utilized its professional technical expertise in synthetic biology by applying microbial fermentation to increase the assay of active substances in the fruit. This effectively improved its economic value and facilitated product transformation and upgrading within the local market. In addition, the Company utilized online and offline sales channels to expand markets for Piteguo and processed products thereof, which helped increase economic incomes in the local area and improve the economic situation of its residents.

Bloomage Biotech contributed to childhood education in rural areas

The public welfare activity "In Cloud" actively participates in funding education for children in remote areas. In 2023, sub-brands of Bloomage Biotech, such as "Biohyalux" and "Bio-MESO", sponsored the construction of schools in poverty-stricken areas, including Yecha Primary School in Qinggangtang Town, Suiyang County, Zunyi City, Guizhou Province and Zhongshiwanxiao Primary School in Yongning Town, Ninglang County, Yunnan Province through the public welfare project. They donated classrooms and educational materials to create a more suitable environment where students can enjoy reading and learning while promoting the development of rural childhood education.

Case: Bloomage Health Tour focuses on medical inclusion welfare, with practices following the concept that "life is to live"

With a focus on social health, Bloomage Biotech has long provided support for medical inclusion welfare which plays an advantageous role. The company initiated the public welfare activity called "Bloomage Health Tour" in 2013 and has been providing free surgical consumables for cataract patients in areas with relatively scarce medical resources for many years. It invited nationally renowned ophthalmologists to screen and treat local patients with eye problems and expanded its support to other life sciences and health fields - orthopedics and dermatology - in 2021. The aim is to include more people in need into its public welfare projects as a way to fulfill corporate social responsibilities.

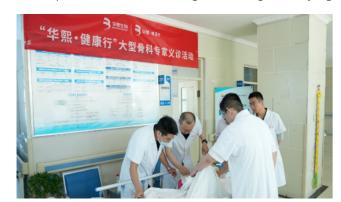
Furthermore, its ophthalmic products "Hymois" (medical sodium hyaluronate gel) and "Hyprojoint" (sodium hyaluronate injection) have been included on the list of medical consumables covered by health insurance nationwide, improving the level of medical security and healthcare.

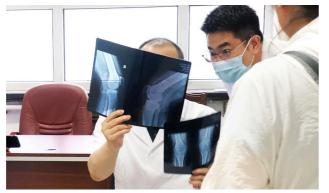
• Bloomage Biotech invited orthopedic specialists to provide free medical services in the "Bloomage Health Tour" project

In Aug 2023, the "Bloomage Health Tour" team visited Bole, a northern border city in Xinjiang Province. Accompanying the team were two well-known domestic orthopedic experts from the First Teaching Hospital of Xinjiang Medical University we invited to screen and treat nearly 100 local patients with osteoarticular diseases for free, and provide treatment suggestions. In addition, under the help of the Beijing Charity Association, the Company donated 1000 vials of "Hyprojoinz" (sodium hyaluronate injection) and 500 vials of "Hymois" (medical sodium hyaluronate gel) to the Fifth Division Hospital of Xinjiang Production and Construction Corps, which will be used in the treatment of osteoarticular diseases and ophthalmic diseases including cataracts. The Company puts its advantages to good use, providing free medical services and health consultation services for residents in impoverished and remote areas.

Bloomage Biotech sponsored Guangming Xing charity

In Jul 2023, the "Guangming Xing along the Silk Road" public welfare activity was held in Baisha County, Hainan Province as its 20th stop, aiming to provide free diagnosis and surgical treatment for cataract patients in medically weak and underdeveloped areas. Bloomage Biotech took an active part by sponsoring 200 vials of "Hymois" viscoelastic used as high-quality medical products for cataract patients, in order to help cataract patients from local disadvantaged families regain their eyesight.





Orthopedic specialists are providing free medical services in the "Bloomage Health Tour" project

Case: Bloomage Biotech sets up "Synthetic Biology Scholarship" to promote close collaboration and integration between synthetic biology and arts

Technical Art is a discipline that promotes the integration of technological ideas and knowledge in art schools, as well as artistic thinking in technology schools. Bloomage Biotech aims to foster industry-university-research cooperation to develop technical art. In June 2023, it entered into an official cooperation agreement with the Central Academy of Fine Arts and donated RMB 1 million for the "Synthetic Biology Scholarship". This scholarship encourages and inspires artists to create artwork related to synthetic biology, identifies innovative artists with unique perspectives, and provides them with financial support and experimental conditions.

With the support of this scholarship, the first group of selected artists visited various laboratories and factories at Bloomage Biotech during the summer of 2023 for on-site art creation. They had extensive exchanges with frontline scientists, engineers, and production personnel while experiencing firsthand the innovative nature of synthetic biotechnology. The establishment of the "Synthetic Biology Scholarship" aims to popularize synthetic biology through artistic creations so that more people can intuitively appreciate its charm and power.



Award-winning works by honored artists (Partial)

Case: Ms. Zhao Yan, Chairwoman and CEO of Bloomage Biotech, donated equity holding to Shandong University as a support to the development of medical education and technology

In Oct 2023, Ms. Zhao Yan, Chairwoman and President of Bloomage Biotech, donated a portion of her holdings in the Company to Shandong University, accounting for 1% of the total share capital, which is to support scholars and researchers at the university who have made outstanding contributions in the field of biomedicine.

The donated shares will be used for the advancement of medical education and technology at Shandong University through the establishment of the Bloomage Biotech Medical Innovation and Development Fund. This fund will provide further support for Shandong University's efforts in constructing medical disciplines and transforming medical research across various areas such as synthetic biology, organ regeneration and stem cell research (anti-aging), new biomedical technologies and materials research and development, as well as other life sciences and health fields.

Bloomage Biotech, taking into account its own technological strength, decided on this donation to contribute towards the development of medical education with an intention to promote science and technology transformation into productivity while empowering life sciences for societal progress that supports human healthy living standards characterized by beauty and happiness.



Bloomage Biotech stock donation ceremony

Appendix

Index of Indicators

GRI Index

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·DI 207: T	207-2 Tax governance, control, and risk management	P19
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ODLOOA Birdir avail	304-2 Significant impacts of activities, products and services on biodiversity	P65
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051400 0	403-5 Worker training on occupational health and safety	P58-59
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00.447.14 : "	417–1 Requirements for product and service information and labeling	P25、P40
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and Laboling	417-3 Incidents of non-compliance concerning marketing communications	P25
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GHG Verification Statement



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Greenhouse Gases Verification Statement

is awarded to

BLOOMAGE BIOTECHNOLOGY CORP., LTD.

Bureau Veritas Certification (Beijing) Co., Ltd. (hereinafter referred to as BVC) was engaged to conduct an independent verification of the greenhouse gases (GHG) emissions reported by BLOOMAGE BIOTECHNOLOGY CORP., LTD. for the period stated below. This verification statement applies to the related information included within the scope of work described below. The determination of the GHG emissions is the sole responsibility of BLOOMAGE BIOTECHNOLOGY CORP., LTD. BVC's sole responsibility was to provide independent verification on the accuracy of the GHG emissions reported, and on the underlying systems and processes used to collect, analyze, and review the information.

Boundaries covered by the verification:

Site address: No.678 Tianchen St., High-Tech Development Zone, Jinan, Shandong Province, China (BLOOMAGE BIOTECHNOLOGY CORP., LTD. hereinafter referred to as Jinan No.1 Factory Zone)

No.3333, Middle of Century Avenue, High-Tech Development Zone, Jinan, Shandong Province, China (BLOOMAGE BIOTECHNOLOGY CORP., LTD. hereinafter referred to as Jinan No.2 Factory Zone)

No.1 Zhinuhe Road, Dongying District, Dongying City, Shandong Province, China (DONGYING FIRST BIOCHEM INDUSTRIAL Co., Ltd. hereinafter referred to as Dongying Company)

No.33, Fangyi Road, Central District, Tianjin Economic and Technological Development Zone, Tianjin City, China (BLOOMAGE BIOTECH(TIANJIN) Co., Ltd. hereinafter referred to as Tianjin Company)

No.8 Zhenxing Road, Chaohu Economic Development Zone, Anhui Province, China (ANHUI LEMEIDA BIOTECHNOLOGY Co., Ltd. hereinafter referred to as Chaohu Company)

No.33 Ankang Street, Mei'an Science and Technology New City, Xiuying District, Haikou City, Hainan Province, China (BLOOMAGE BIOTECH(HAINAN) Co., Ltd. hereinafter referred to as Hainan Company)

Room 1013-1016, 10th Floor, Building 1, Innovation and Entrepreneurship Center, No. 31 Dongfeng Road, Xiangtan Economic and Technological Development Zone, Xiangtan City, Hunan Province, China (BLOOMAGE BIOTECH(XIANGTAN) Co., Ltd. hereinafter referred to as Xiangtan Company)

Reporting period covered: 01/01/2023 to 31/12/2023

Organizational boundaries: Activities and facilities of Jinan No.1 Factory Zone、Jinan No.2 Factory Zone、 Dongying Company , Tianjin Company , Chaohu Company , Hainan Company , Xiangtan Company of BLOOMAGE BIOTECHNOLOGY CORP., LTD. under operational control approach

Reporting boundaries: Direct GHG emissions generated in production of bioactive material, medical terminal products, functional skincare products, etc and related management activities within the organizational boundaries, as well as significant indirect greenhouse gases emissions

Emissions data verified under reporting boundaries:

- Category 1: Direct GHG emissions: 43,554.73 tonnes of CO₂e
- Category 2: Indirect GHG emissions from imported energy: 57,347.36 tonnes of CO₂e

Total quantified emissions: 100,902.09 tonnes of CO2e

Limitations and exclusions: Unquantified other significant indirect GHG emissions

GHG reporting protocol against which verification was conducted:

ISO 14064-1:2018 Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals

GHG verification protocol used to conduct the verification:

ISO 14064-3:2019 Greenhouse gases — Part 3: Specification with guidance for the verification and validation of greenhouse gas statements

Level of assurance and qualifications:

Certification body address: Room 02, 9 / F, West Office Building 1, Oriental Economic and Trade City, Oriental Plaza, No.1 East Chang'an Street, Dongcheng District, Beijing, China. 100738 Further clarifications regarding the verification scope of this statement may be obtained by consulting the organization. To check this statement validity please call: +86 010-59683888 Page 1 of 2



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Reasonable(Category 1, Category 2)

GHG verification methodology:

- · Interviews with relevant personnel;
- Review of documentary evidence;
- Review of data and information systems and methodology for GHG emissions data collection, aggregation, analysis, and review of information used to determine GHG emissions;
- · Sample verification of data to determine GHG emissions.

Assurance opinion:

Based on the verification process and findings, the Category 1. Category 2 GHG emission data in the GHG inventory report from BLOOMAGE BIOTECHNOLOGY CORP., LTD. is in conformance with ISO 14064-1-2018

Statement of independence, impartiality, and competence

Bureau Veritas Group is an independent professional services company that specializes in Quality, Health, Safety, Social and Environmental management with over 190 years' history in providing independent assurance

No member of the verification team has a business relationship with BLOOMAGE BIOTECHNOLOGY CORP., LTD.and its directors or managers beyond that required by this assignment. We conducted this verification independently and to our knowledge there has been no conflict of interest.

Bureau Veritas Group has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day-to-day business activities.

Lead verifier: Carbon HU

Statment No.: EMICN100340A

Version No.: No.1

Verification date: 03/23/2024

Issue date: 04/09/2024



Signed on behalf of BVC (Beijing) Co., Ltd.

Certification body address: Room 02, 9 / F, West Office Building 1, Oriental Economic and Trade City, Oriental Plaza, No.1 East Chang'an Street, Dongcheng District, Beijing, China. 100738
Further clarifications regarding the verification scope of this statement may be obtained by consulting the organization.

To check this statement validity please call: +86 010-59683888

ESG Key Performance Tables

Environmental Performance

	Indicators	Unit	2023
	Total GHG emissions (Scope 1, 2)	tCO2e	100,902.09
Greenhouse gases	Scope 1 emissions	tCO2e	43,554.73
	Scope 2 emissions	tCO2e	57,347.36
	Natural gas	cubic meter	15,686,836
	Gasoline	litre	21,706
	Diesel oil	litre	8,939
Energy	Purchased electricity	KWh	66,931,210
	Purchased heat from fossil fuels	GJ	174,332
	Self-generated renewable electricity	KWh	3,521,913
	Purchased heat from biomass fuel	GJ	38,283
	Total water consumption	10,000 tons	142.12
Water Resource	Circulating water consumption	tons	6,734
De desire melodele	Total procurement of packaging materials	tons	5,270
Packaging materials	Purchase volume of FSC-certified paper packaging materials	tons	846
	Total hazardous waste	tons	10,923.55
	General industrial waste	tons	9,599.45
Wasta	Hazardous waste	tons	85.01
Waste	Domestic waste	tons	581.09
	Food waste	tons	658
	Recycled waste	tons	7,331
Wests are	Nitrogen oxides	tons	7.46
Waste gas	Volatile organic compounds	tons	3.30
	Total amount of wastewater discharge	10,000 tons	123.85
Wastewater	Chemical oxygen demand (cod)	tons	54.01
	Ammonia nitrogen	tons	2.03
Training on environmental protection and pollution prevention and control	Number of training sessions on environmental protection and pollution prevention and control	times	43
	Number of employees trained in environmental protection and pollution prevention and control	person	3,622
	Total hours of training on environmental protection and pollution prevention and control	hours	3,313

Social Performance

	Indicators	Unit	2023		
Employment	Total number of employees	person	4,655		
	Number of employees by gender				
	Male	person	2,344		
	Female	person	2,311		
	Number of employees by age				
	51 and over	person	70		
	31 to 50	person	2,017		
	30 and below	person	2,568		
	Number of Employees by rank				
	Senior Management	person	8		
	Middle Management	person	663		
	General staff	person	3,984		
	Number of employees by geographic location				
	Mainland China	person	4,637		
	Regions or countries outside the mainland (including Hong Kong, Macao and Taiwan)	person	18		
	Number and proportion of women in management				
	Female senior management (executives)	person	4		
	Proportion of women in senior management	%	50.00		
	Female middle management (above the manager level)	person	328		
	Proportion of women in middle management	%	49.47		
	The number and proportion of R&D employees				
	Number of R&D employees	person	926		
	The proportion of R&D employees	%	19.87		
	Number of female R&D employees	person	576		
	The proportion of female R&D employees	%	62.20		
Employee Diversity	Number of employees by physical condition				
,	General employees	person	4,643		
	Disabled employees	person	12		
	Number of employees by ethnic group				
	Number of employees of ethnic minorities	person	131		
	Number of employees of non-ethnic minorities	person	4,524		
	Number of employees by education				
	Doctor and Professor	person	36		
	Master	person	654		
	Bachelor	person	1,712		
	Below bachelor	person	2,253		

Social Performance (Continued)

	Indicators	Unit	2023		
Employee turnover	Total employee turnover rate	%	28.46		
	Proportion of trained employees by gender				
	Male	%	53.39		
	Female	%	46.61		
	Proportion of trained employees by rank				
	Management Level	%	20.72		
Employee Training	General staff	%	79.28		
Employee training	Average training hours by gender				
	Male	hours	22.19		
	Female	hours	23.15		
	Average training hours by rank				
	Management Level	hours	38.52		
	General staff	hours	18.49		
	Number of occupational health and safety training	times	640		
	Number of employees trained on occupational health and safety	person	16,675		
	Total hours of occupational health and safety training	hours	23,533		
Employee health and safety	Number of work-related injuries	accident	3		
	Number of work-related deaths	person	0		
	Number of working days lost due to work-related injuries	days	53		
	Work-related accidents per million work hours	-	0.32		
Social welfare	Total investment in public welfare	RMB million	2.68		

Economic Performance

Indicators	Unit	2023
Operating Revenue	RMB 100 million	60.76
Net Profit	RMB 100 million	5.93
R&D investment	RMB 100 million	4.46
Proportion of R&D investment to revenue	%	7.35

Governance Performance

	Indicators	Unit	2023
	Number of directors in the Board	person	9
	Number of female directors in the Board	person	3
	Proportion of female directors in the Board	%	33.3
	Number of independent directors in the Board	person	3
	Proportion of independent directors in the Board	%	33.3
	Number of directors with industry experience	person	5
	Number of directors with risk management experience	person	6
	Number of directors with financial management experience	person	3
	Proportion of independent directors of the Audit Committee	%	66.7 / 100 ¹⁹
	Proportion of independent directors of the Nomination Committee	%	66.7
Board composition and governance overview	Proportion of independent directors of the Remuneration and Assessment Committee	%	66.7
	Proportion of independent Directors of the Strategy Committee	%	20.0
	Proportion of independent directors in the ESG Committee	%	66.7
	Number of supervisors	person	3
	Number of female supervisors	person	3
	Number of employee supervisors in the Board of Supervisors	person	1
	Proportion of employee supervisors in the Board of Supervisors	%	33.3
	Number of the Board meetings held	times	6
	Number of the Supervisory Board meetings held	times	4
	Number of the Shareholders' meetings held	times	1
	Number of the Committee meetings held	times	7

¹⁹ On December 29, 2023, the Company convened the 10th meeting of the second board of directors. During this meeting, the *Proposal to Adjust the Composition of the Audit Committee of the Second Board of Directors* was deliberated and approved. Following the adjustment, the proportion of independent directors on the Audit Committee of the Company reached 100%.





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