Ningbo Shanshan Co., Ltd.

# About This Report

This Report is the 15th ESG report released by Ningbo Shanshan Co., Ltd. to its stakeholders. The Report details the practice and performance of Ningbo Shanshan Co., Ltd. on the aspects of economy, environment, society and corporate governance in 2023. Its purpose is to facilitate effective communication with stakeholders and systematically respond to their expectations and requirements.

### Time Frame

From January 1, 2023 to December 31, 2023, but with some contents moderately extended to previous and future years to enhance the comparability and forward-looking nature of the Report.

### Report Boundary

The Report discloses the information about and typical cases of Ningbo Shanshan Co., Ltd. and its directly controlled subsidiaries in fulfilling their responsibilities in economy, environment, society and corporate governance.

### Report Title

- Ningbo Shanshan Co., Ltd. (referred to as "Shanshan", "Company" or "We")
- Shanghai Shanshan Lithium Battery Material Technology Co., Ltd. and its subsidiaries (referred to as "Shanghai Shanshan Lithium Battery" or "Lithium Battery")
- Shanjin Optoelectronics (Suzhou) Co., Ltd. and its subsidiaries (referred to as "Shanjin Optoelectronics" or "Shanjin")

### Information Source

The information disclosed in this Report is sourced from official internal documents, statistical reports and annual reports of Shanshan.

The data disclosed in this Report comes from the actual operation data of Shanshan, public data announced by government departments, annual financial data, internal statistical reports, third-party questionnaires, and third-party evaluation interviews. The financial data in this Report is presented in RMB. In case of any discrepancies between this Report and the financial report, the financial report shall prevail.

### Preparation Basis

- United Nations Sustainable Development Goals (SDGs) 2030
- Global Reporting Initiative (GRI) Standards released by the Global Sustainability Standards Board
- Guidelines for Preparing Corporate Social Responsibility Reports in China (CASS-ESG 5.0) released by Chinese Academy of Social Sciences
- Guidelines for Preparing Social Responsibility Reports (GB/T36001-2015), a national standard in China
- ISO 26000:2010 Guidance on Social Responsibility released by the International Organization for Standardization
- Guidelines No. 1 of the Shanghai Stock Exchange for the Self-regulation of Listed Companies - Standard Operation released by Shanghai Stock Exchange

### Report Accessibility

This Report is available for your reading in electronic format and can be accessed on the Company's official website http://www.ssgf.net/ or the website of Shanghai Stock Exchange www.sse.com.cn. If you have any questions or suggestions regarding this Report, please send an email to ssgf@shanshan.com or call 0574-88208337.

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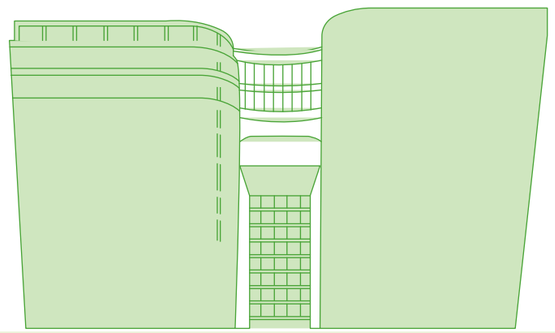

# Chairman's Message

Currently, the global new energy industry is experiencing rapid growth, with the display panel sector accelerating its shift towards China. This shift has brought global attention to China's lithium battery and new visual technology industry chains. However, amidst the complex and ever-changing global economic environment, industry competition is intensifying, and uncertainty factors are on the rise. Facing industrial opportunities and challenges, Shanshan keeps its business focus on the development of anode materials and polarizers and sticks to the business philosophy of creating long-term values for customers, in a bid to fulfill more industrial achievements. In 2023, Shanshan unswervingly implemented the product leadership strategy, deepened its cooperation with customers, and carried out measures to reduce costs and improve efficiency on all fronts. Under its partners' strong support, Shanshan continued to stand at the leading position in global market share with its two core businesses, anode materials and polarizers. The Company also further enhanced its leadership in the industry and reinforced its business resilience.

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Shanshan pursues industry-based and innovation-driven development and is committed to exploring cutting-edge technologies and business growth. Meanwhile, the Company has always insisted on shouldering the corporate responsibilities for ecological development and social development, and making contributions to achieving sustainable development goals.

Scientific and efficient corporate governance is the cornerstone of sustainable development. Realizing that, Shanshan has devised a modern corporate governance system to fortify the corporate governance foundation. The Company has always adhered to the normative organizational structure and three-institution operation, and attached great importance to investors' right and interest protection. Moreover, Shanshan has established a complete internal control system and cultivated a work style of being clean and credible to ensure steady and efficient corporate operation.

The Company adheres to the EHS policy of "compliance with regulations, pollution prevention, people orientation, and continuous improvement", and has established a thorough EHS management responsibility system. To respond to climate change, we have set up carbon neutrality goals and the path to realize them. We have adopted measures such as using clean energy, reducing energy consumption, and recycling to save energy and cut emissions. We also have

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# Shanshan in 2023

## About Shanshan

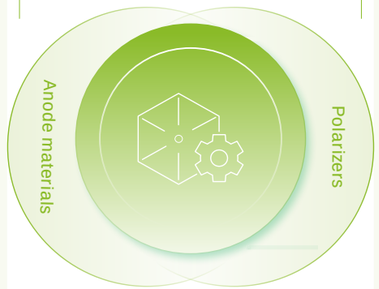
Founded in Ningbo, Zhejiang in 1989, Ningbo Shanshan Co., Ltd. ("Shanshan", A-share code: 600884) has been listed on the A-share market of the main board of Shanghai Stock Exchange. The Company's journey began in the apparel industry, but in 1999, it shifted its focus to lithium battery materials, becoming the first Chinese enterprise to industrialize anode materials. Over the past 20 years, it has evolved into a global leader in this field. In 2021, the Company acquired LG Chem's polarizer business, cementing its global leadership in this sector. This strategic move propelled it onto a lucrative "golden track," ushering in a new era of "dual primary businesses and dual drives". In recent years, the Company has consistently pursued a focus strategy and made every effort to develop the two core advantageous businesses: lithium battery anode materials and polarizers. This has led to the establishment of a dual technology engine of "anode materials for lithium batteries + polarizers", creating a dual development power business pattern.

The Company continues to deepen its corporate vision of "building a respected global high-tech enterprise and achieving sustainable and high-quality development", while centering on developing two core businesses, i.e., anode materials and polarizers. To cater to customer needs, the Company has always implemented the strategy of product technology and cost leadership, i.e., strengthening R&D investment and product innovation, continuously upgrading manufacturing and operation capabilities, intensifying cost reduction and expense control efforts, firmly maintaining its global leading position, and steadily enhancing the medium and long-term profitability levels.

## Business Layout

Shanshan continues to focus on the development of its two core businesses, anode materials and polarizers, and is committed to becoming a global leader in the two market segments of anode materials and polarizers. The Company fully grasps the historic opportunities brought by the global development of new energy vehicles and energy storage, as well as the shift towards domestic display panels, continuously strengthens its leading position in anode materials and polarizers, and achieves a steady growth in global market share and long-term profitability.

- The Company has been deeply engaged in lithium battery anode materials for more than 20 years, establishing itself as a pioneer and technological leader in this industry. The Company adheres to the value orientation of "deeply empowering customer needs" and is committed to providing customers with world-class products and services.
- Main products of the Company's anode material business cover artificial graphite, natural graphite, silicon-based anodes, and soft/hard carbon new materials, which are widely used in industries such as new energy vehicles, consumer electronics and energy storage. According to the statistics from ICCSINO, the Company's artificial graphite continues to dominate the market, with year-on-year increases in the market share.




Main business layout

- The Company always adheres to the core values of "quality and innovation" in terms of its polarizer business, and is committed to becoming a global leader in polarizers. According to CINNO Research, in 2023, the Company's shipment area share of large-size polarizers (including TFT-LCD televisions/ monitors/laptops) increased from 30% in 2022 to 33%, and remained the first in the world.
- The Company's polarizer business includes the research, development, production and sales of polarizers. The products are widely applied in consumer electronic products such as televisions, monitors, laptops, tablets, mobile phones and commercial displays.

## Corporate Culture and Core Values

Corporate Culture

- Return to Society and Contribute to the Cause of Environmental Protection
- Value Creation and Common Development with Shareholders
- Care for Employees and Help Them Grow
- Expand Innovation and Strengthen Technological R&D

Core Values

- Integrity
- Responsibility
- Innovation
- and Responsibility

# Development History

**May 1992**

Mr. Zheng Yonggang, the then Chairman of the Company, founded Shanshan in Ningbo, Zhejiang, pioneering the branding operation of the clothing industry.

**January 1996**

Shanshan was listed on the A-share market, becoming the first listed company in China's clothing industry.

**September 1999**

Shanghai Shanshan Technology Co., Ltd., the first lithium ion battery anode material manufacturer in China, was established.

**November 2003**

Shanshan initiated the research, development and production of lithium ion battery cathode materials and established Hunan Shanshan Energy Technology Co., Ltd.

**March 2005**

Shanshan tapped into the lithium battery electrolyte industry and completed the layout of three core materials for lithium batteries.

**November 2018**

Shanshan Energy was recognized as a national enterprise technology center, a national technology innovation demonstration enterprise, and

**November 2019**

Ningbo Shanshan New Materials Technology Co., Ltd. was included in the list of national enterprise technology centers and the list of national enterprises leading an individual field of the manufacturing industry.

**June 2020**

Shanshan announced the

**February 2021**

Shanshan completed the acquisition of LG Chem's LCD polarizer business in Chinese Mainland, and Shanjin Optoelectronics became the largest polarizer supplier in the world.

**May 2021**

Shanshan and BASF concluded a contract to set up a joint venture, expediting the international expansion of the cathode business.

**April 2022**

With the signing and landing of the integrated base for 200,000 tons of anode materials in Meishan and 300,000 tons of anode materials in Kunming, Shanshan Technology completed the strategic layout of a domestic production capacity of 700,000 tons of artificial graphit

**July 2022**

Shanshan successfully issued GDR and landed on the SWX Swiss Exchange, being among the first to come under the "China-Switzerland Stock Connect" mechanism in China's new energy industry and fully launching its

**September 2023**

Shanshan announced the construction of an integrated base project for lithium ion battery anode materials with an annual production capacity of 100,000 tons in Finland, further improving its global production capacity layout of anode materials.

Shanshan announced that it intended to acquire the OLED, automotive LCD and Apple-specific polarizer related assets of LG Chem in Chinese Mainland, South Korea and Vietnam, accelerating the leap from LCD polarizer to LCD+OLED polarizer.

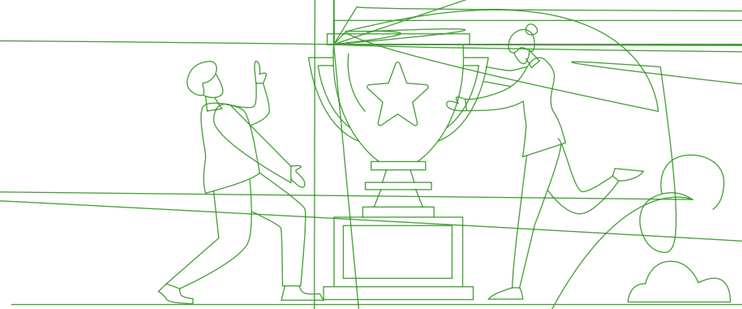
**November 2023**

Shanjin Optoelectronics (Nanjing) Co., Ltd. was successfully selected as a national "green factory".

# Focus on 2023

| Name of honor | Issuing authority |
| --- | --- |
| Listed in the "Top 500 Chinese Enterprises" | China Enterprise Confederation and China Enterprise Directors Association |
| Listed in the "Top 500 Chinese Private Enterprises" | All-China Federation of Industry and Commerce |
| Awarded as one of the "Top 100 Enterprises in Shanghai in 2023" | Shanghai Enterprise Confederation, Shanghai Enterprise Directors Association, Shanghai Federation of Economic Organization, and Liberation Daily |

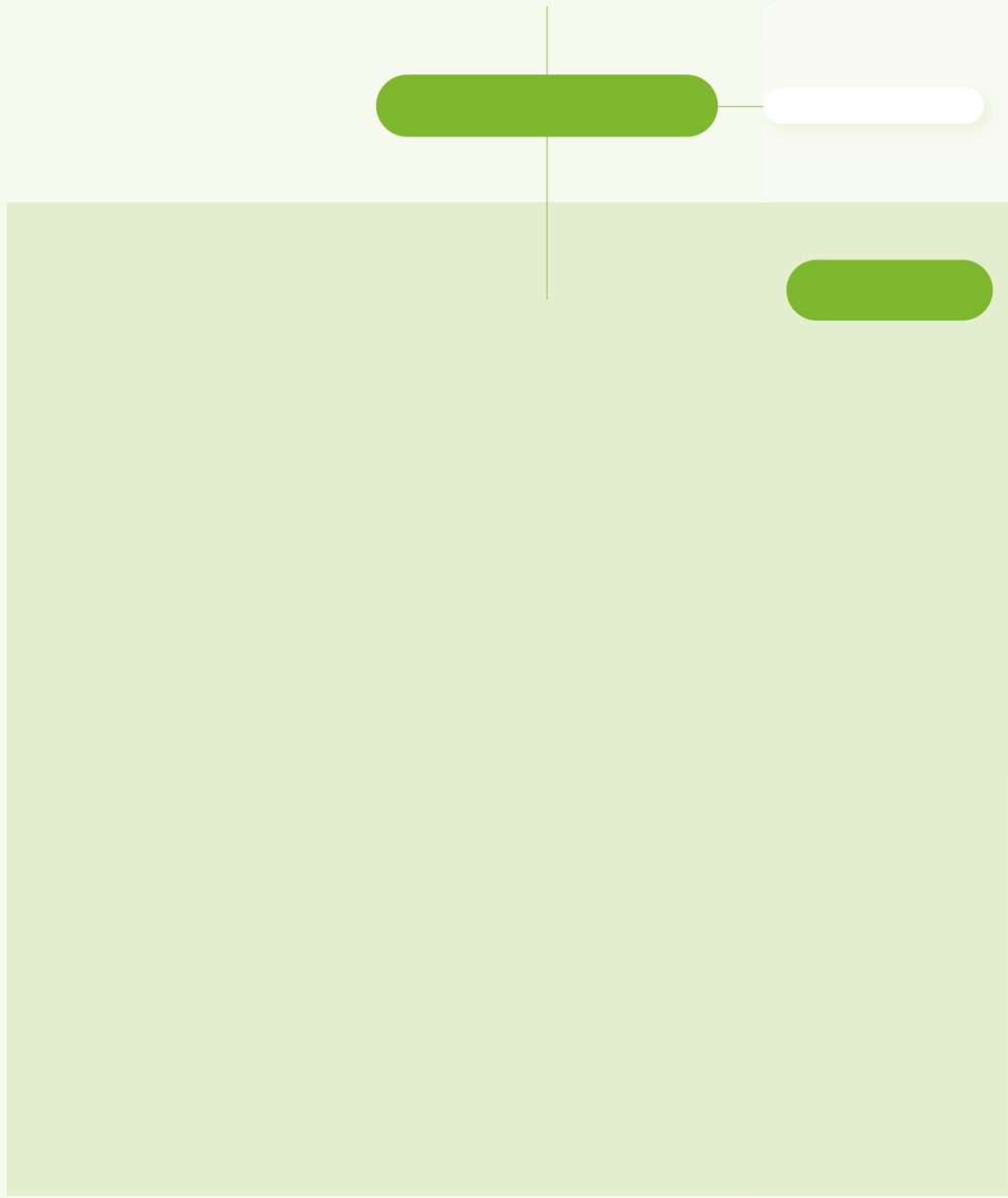
| Name of honor | Issuing authority |
| --- | --- |
| National Level Green Factory | Department of Energy Conservation and Comprehensive Utilization, the Ministry of Industry and Information Technology |
| High-tech Enterprise | National High-tech Enterprise Recognition Management |
| 2023 National Scenario of Excellence in Smart Manufacturing | Industry and Information Technology Department of Jiangsu and Jiangsu Development & Reform Commission |
| Jiangsu Premium Brand Certification Enterprise | Jiangsu Quality Development Committee |
| Top 100 Enterprises in Nanjing in 2023 | Nanjing Enterprise Confederation and Nanjing Enterprise Directors Association |
| 2023 Nanjing Engineering and Technology Research Center | Nanjing Municipal Commission of Development & Reform |
| 2023 Nanjing Engineering and Technology Research Center | Nanjing Municipal Science and Technology Bureau |
| Rising Star in the Display Industry and Silver Award for Display Material Innovation | Organizing Committee of China (Shanghai) International Display Technology and Application Innovation Exhibition and Organizing Committee of China (Shanghai) International Display Industry Summit Forum |
| List of Enterprises (Groups) Targeting Ten Billion Yuan Milestone | Nanjing Economic and Technological Development Zone Management Committee |



# Our Path to Sustainable Development

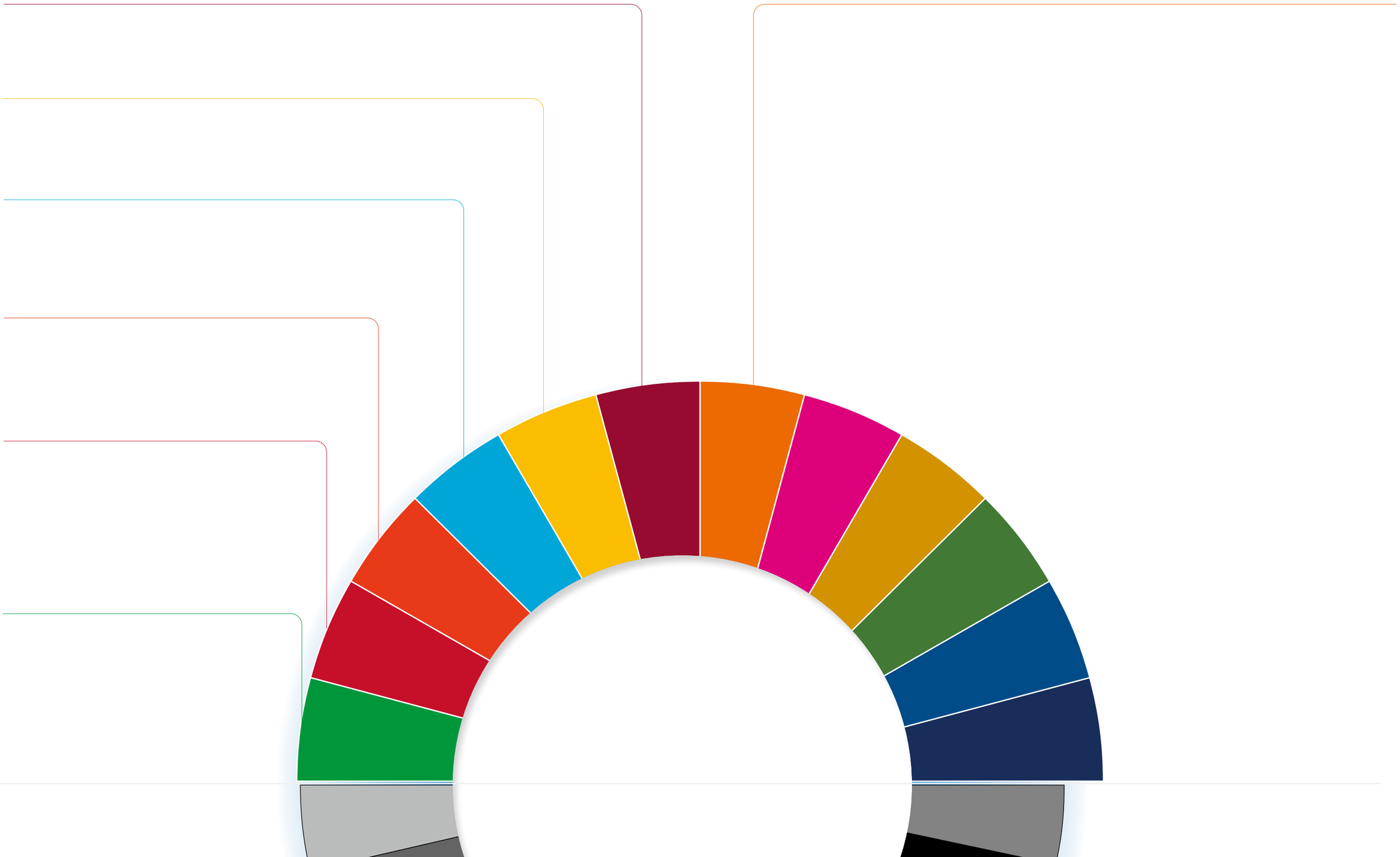
## ESG Management System

With a view to actively responding to national policies, better satisfying customers' requirements and comprehensively enhancing the international management level of sustainable development (ESG), Shanghai Shanshan Lithium Battery combines its development plans with the vision goal of "driving new energy revolution with new materials, new processes and new management" (We CHANGE), and decomposes and refines it into "CHANGE". Shanghai Shanshan Lithium Battery proposes that sustainable development cannot be achieved without the base support of digital information management, and that digital transformation will enhance the basic power of the Company's comprehensive management and become the core of sustainable development management.



| | | |
|---|---|---|
| well as laws and regulations | | |
| • Fair Salary<br>• Harmonious working atmosphere<br>• Good space for career development<br>• Personal value affirmation and enhancement | **Employees** | • Company website<br>• Employee mailbox, symposium and employee congress<br>• Employee training and activities |
| • Reducing the impact of production and operation on the environment<br>• Guiding the green development of industrial chain<br>• Advocating green consumption | **Environment** | • Advocating green office<br>• Pushing forward green production<br>• Strengthening energy conservation and emission reduction<br>• Promoting low-carbon environmental protection publicity |
| • Implementing industry development policies<br>• Conducting integrity and law-abiding business<br>• Paying taxes according to law<br>• Driving employment<br>• Guarding against business risks | **Government** | • Participating in policy and planning research and development<br>• Carrying out thematic report<br>• Accepting supervision and assessment<br>• Performing law-abiding operations and fair competition |
| • Promoting regional economic and cultural development<br>• Helping socially disadvantaged groups | **Community and the public** | • Taking part in regional economic construction<br>• Holding public welfare activities, cultural and sports activities, charity activities, etc. |

## Sustainable Development Goals (SDGs) Response



# 01

# Steady Cultivation and Lean Governance

**Philosophy**

Scientific and efficient corporate governance is the cornerstone for Shanshan's sustainable development. The Company formulates a modernized corporate governance system in strict compliance with the legal and regulatory requirements, attaches importance to integrity and anti-corruption and information security management, earnestly studies and listens to the Party's program, promotes long-term development with practical actions, and guarantees efficient operations while continuing to improve the level of lean governance.

**Our initiatives**

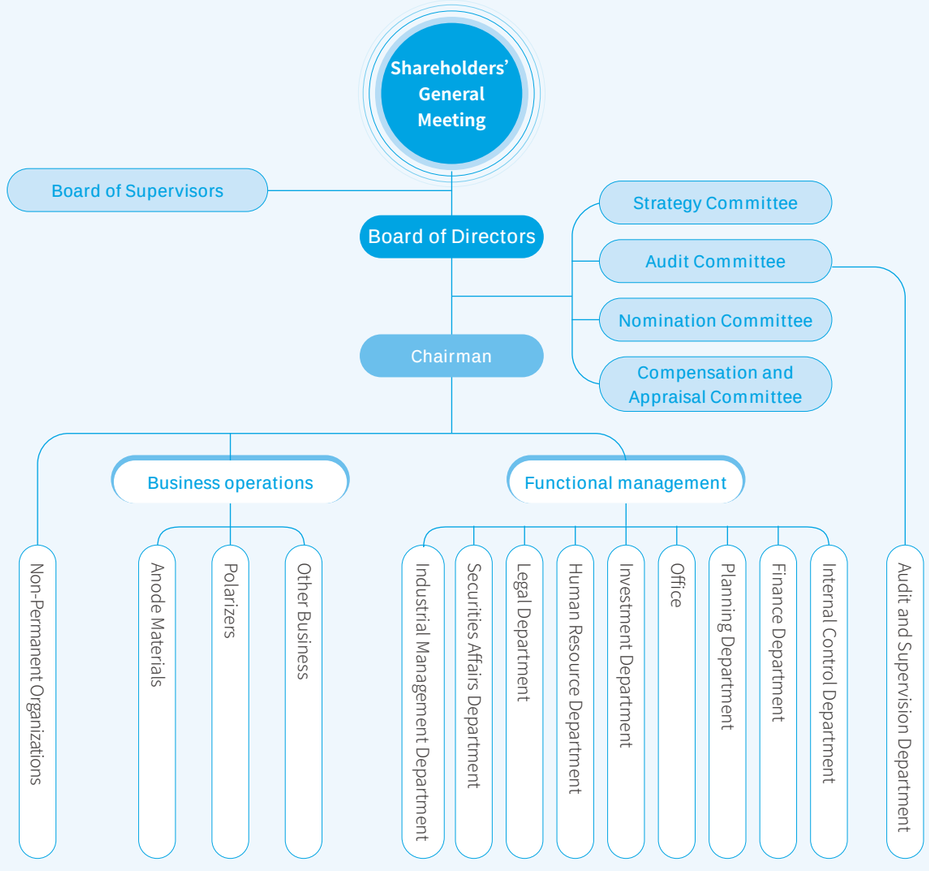
- Consolidating corporate governance
- Conducting internal control and risk management
- Adhering to business ethics
- Leading development with Party building

# Consolidating Corporate Governance

Based on actual developments, the Company continuously perfects internal management system, enhances information disclosure quality and investor relations management, continuously upgrades the level of corporate governance, safeguards the rights and interests of the Company itself and its shareholders, contributes to standardizing operations as well as realizes sustainable development based on independent and diversified three-institution and modern corporate governance system.

## Three-institution operation

In light of the provisions of the *Company Law of the People's Republic of China*, *the Securities Law of the People's Republic of China*, the *Corporate Governance Guidelines for Listed Companies* as well as other relevant laws, regulations and normative documents, the Company has set up its Shareholders' General Meeting, the Board of Directors and its subordinate special committees and the Board of Supervisors. By giving full play to the functions of the Shareholders' General Meeting, the Board of Directors and the Board of Supervisors, the Company has continuously optimized its corporate governance structure, and promptly improved its rules and regulations based on operational needs, so as to ensure compliant and legal business decisions and escort long-term high-quality development.




Company organization chart structure chart

**Three-institution responsibilities of the Company**

**Shareholders' General Meeting**

- The Shareholders' General Meeting is an authority of the Company, which decides the Company's business policies and investment plans according to law, and also deliberates and approves reports of the Board of Directors.
- In light of the *Rules for Shareholders' General Meeting of Listed Companies*, the Company standardizes the procedures for convening, holding, and voting in the Shareholders' General Meetings. This ensures equal shareholder status and rights while fully safeguarding their legitimate rights and interests.
- The Shareholders' General Meetings are consistently accompanied by legal opinions from hired attorneys regarding their compliance and legality, which are subsequently made public.

**Board of Directors**

- The Board of Directors shall operate in a standardized manner in accordance with the relevant requirements of the *Company Law*, the *Articles of Association and the Rules of Procedure of the Board of Directors*, and all directors shall conscientiously perform their duties and actively participate in relevant business training.
- The Board of Directors has established the Strategy Committee, the Audit Committee, the Nomination Committee and the Remuneration and Assessment Committee, and shall formulate working procedures for such specialized committees and regulate their operations.

**Board of Supervisors**

- In strict accordance with the requirements of the *Company Law*, the *Securities Law*, the *Articles of Association* and other relevant laws, regulations and rules, the Board of Supervisors independently exercises its functions and powers, conscientiously performs its supervisory duties, and effectively oversees the Company's operations, financial conditions and the performance of duties by the directors and senior executives. This supervision aims to standardize the Company's operations and safeguard the legitimate rights and interests of the Company and all of its shareholders.

Three-institution responsibilities of the Company

**In 2023**

The Company held

**4** Shareholders' General Meetings at which a total of **23** proposals were approved

**10** Board of Directors meetings at which a total of **51** proposals were approved

**6** Board of Supervisors meetings at which a total of **18** proposals were approved

## Independence and diversity of the Board of Directors

The Company takes into account various factors such as cultural and educational background, gender, age, industry exp and professional competence of these candidates for the Board of Directors, aiming at further building an independe diversified Board of Directors and enhancing the decision-making rationality and scientificity of the Board of Directors.

**In 2023**

the Board of Directors of the Company was composed of

**11** members, including

**7** non-independent directors

**4**
directors with professional background or experience in the industry

**3**
directors with risk management experience or legal expertise

**2**
directors with financial expertise or financial management experience

## Nomination and selection by the Board of Directors

The Company has established standardized nomination and selection procedures for the Board of Directors and its m embers so as to promote efficient and compliant corporate governance, enhance operational efficiency and advance long-ter steady development through scientific and effective internal governance.

**In 2023**

the Company conducted more than

**40** performance briefings

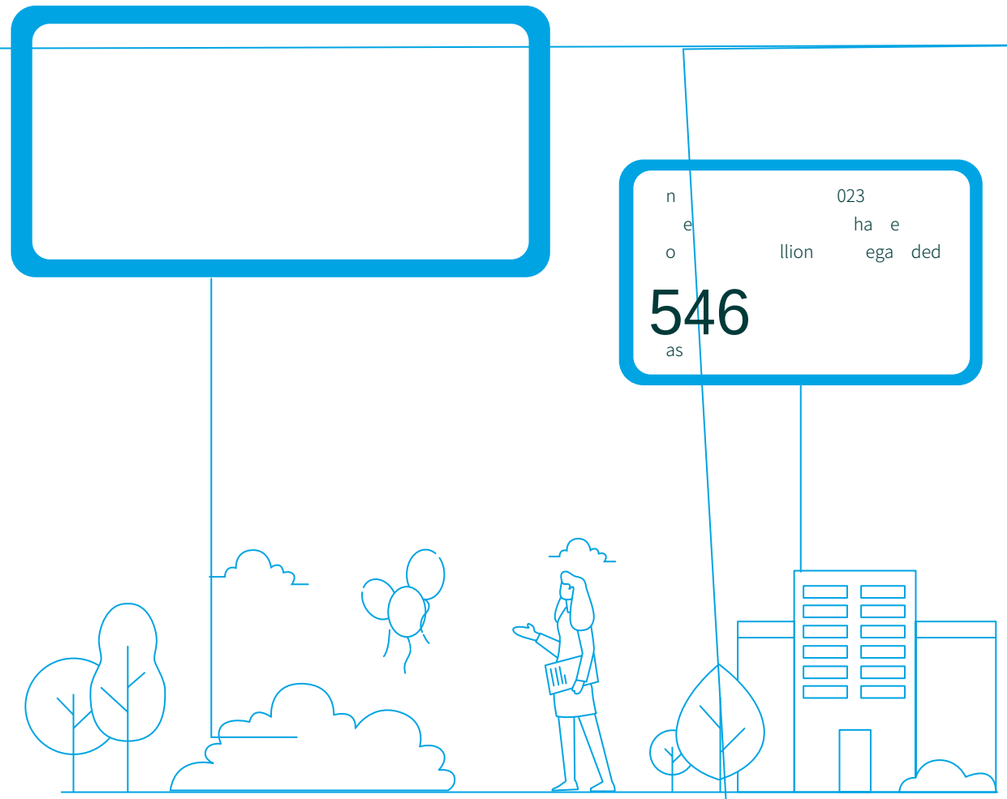
and online and offline investor researches, with a total of more than

**500** organizations

with a response rate of

**100** %

The Company has always regarded the return to shareholders as its core concept. In accordance with the *Articles of Association of the Company* and relevant rules and regulations, while ensuring normal operations and in combination with its operation status and business development goals, the Company adheres to providing continuous and stable cash dividends to investors, bringing long-term investment returns to shareholders, sharing development achievements with investors, safeguarding the interests of all shareholders and enhancing the sense of gain for investors.

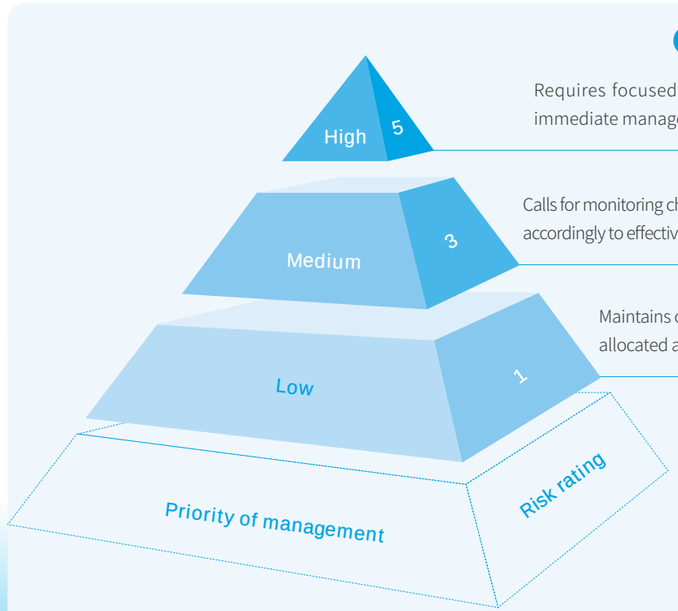


# Risk management

The Company has established and continuously optimized its risk management system, which is vertically managed by the internal control department to ensure effective execution of risk prevention and control measures, and has set up a risk asset management committee and a risk management team to be responsible for conducting risk level assessment, prevention and control, closely tracking risk changes, deeply analyzing the external situations and the Company's actual situations, as well as promptly identifying and responding to new risks.

## Risk level assessment criteria

Based on the severity of potential consequences and the likelihood of occurrence, the Company has devised an assessment matrix that includes high, moderate, and low-risk categories. The risk management team members are tasked with assigning risk scores according to these levels.




Risk levels and countermeasures

Upon evaluation, the Company has classified five categories of risks closely related to itself, i.e., strategic risk, financial risk, market risk, operational risk and legal risk; and has formulated initiatives to strengthen risk management to ensure effective management and resolution of various risk matters, and meanwhile has constructed a solid line of defense against risks to safeguard the Company's sound and sustainable development.

**Measures to strengthen risk management**

- Regularly send information about risky assets and risky customers to industrial companies, and give early warning.
- Regularly and statistically analyze the inventories and idle fixed assets of each industrial company, and pay special attention to them.
- Continue to strengthen the pre-settlement management of engineering projects and on-site inspections.
- Convene meetings on internal control lines.
- Organize trainings on easy-to-manage internal control system by the Internal Control Department

**Case**

### Conducting trainings on risk management for overseas investment by enterprises

In December 2023, the Company invited lawyers to provide training on overseas investment risk management for Chinese enterprises. The training covers the main types of overseas investment, possible risks, evaluation of investment failure cases, and risk control of investment in the USA, aiming to enhance employees' risk awareness and provide guidance for future overseas investment.

Training on overseas investment risk management and control

**In 2023**

the Company

**did not experience any significant**

internal or external operational risks.

# Adherence to Business Ethics

The Company pursues the business philosophy of "creating value for customers" and "operating with respect for personalities", obeys the free and fair market economy order, and makes continuous efforts to create a world-class enterprise based on mutual trust and cooperation. The Company continuously optimizes its business ethics management system; Shanghai Shanshan Lithium Battery incorporates business ethics and anti-corruption work into the scope of responsibilities of the Sustainable Development Management Committee and sets up a company-specific governance group under the Committee to report to the Board of Directors on a regular basis; and Shanjin Optoelectronics formulates the Code of Ethics that all employees should abide by and clarifies the six guidelines for proper business operation to ensure smooth operations.

### Responsibilities and obligations to customers

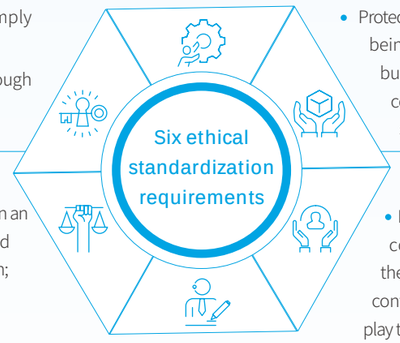
- Firmly believe that customers are the true foundation of our business and always respect their opinions;
- Continuously create value that benefits customers and gain their absolute trust.

### Fair competition

- All business activities should comply with laws and regulations;
- Ensure competitive advantage through legitimate means

### Responsibility to the country and society

- Protect the interests of shareholders through being a healthy company by conducting business appropriately, and meanwhile contribute to improving people's living standards and social development.




### Fair trade

- All transactions should be carried out in an environment of equal participation and follow the principle of free competition;
- Build a cooperative relationship of mutual trust through transparent and fair transactions, and seek common development from a long-term perspective.

### Responsibility to employees

- Respect every employee, give them corresponding treatment based on their ability and performance, and make continuous efforts to make them give full play to their individual creativity.

### Basic ethics of employees

- Employees should establish integrity and fairness as the proper values for being a human being;
- Fulfill the assigned mission through continuous self-development and impartial duty performance.

## Integrity practice

The Company establishes and improves its integrity and anti-corruption system. Shanghai Shanshan Lithium Battery has established management systems such as Employee Handbook, Supervision of Reporting Special Matters and Procurement Management Policy to strengthen risk prevention and control. It has stipulated the prohibition of accepting gifts, entertainments and other types of similar behaviors, as well as the procedures for addressing such situations, so as to promote a business environment that is honest, fair, and free from corruption or bribery.

### Integrity and anti-corruption measures taken by Shanghai Shanshan Lithium Battery

- Meanwhile, it has developed a procurement system about "Signing and Issuing Procurement Contracts and Orders", which requires the signing of the Sunshine Agreement/ integrity clauses for any procurement amount in excess of RMB30,000. For continuous supply across years, the Sunshine Agreement must be signed once a year.
- The Procurement Department has issued the Integrity Notification Letter to stakeholders before major festivals to advocate a clean and transparent cooperative relationship and resolutely resist the occurrence of improper and irregular matters such as corruption and bribery; and in 2023, more than 800 copies were sent to various factories.
- In the internal control system under the Supervision of Reporting Special Matters, special reporting matters are stipulated, complaint reporting channels are established, and reports in good faith are encouraged.
- In the Employee Handbook and the Labor Relations Management, employees are explicitly required to refrain from corruption and bribery and to receive interest investigations.

Shanjin Optoelectronics requires that employees must sign and submit commitment letters such as Anti-Corruption Law Compliance Guarantee Letter and Integrity Discipline Commitment Letter to the Company during their entry, promotion and appointment, and that other employees shall update their signatures regularly. In addition, the Company requires all employees to refrain from receiving any benefits from stakeholders that could harm the fairness of their judgments during the performance of their duties, so as to prevent corruption.

Anti-Corruption Law Compliance Guarantee Letter

Integrity Discipline Commitment Letter

The Company actively carries out special internal anti-corruption audits, and conducts risk reviews every year on the management system, various positions and business processes of integrity and anti-corruption, including major faults, major violations of laws and regulations, unethical behaviors, fraud and other behaviors, so as to further create a clean and positive atmosphere for development.

### Measures for integrity and anti-corruption audit results

In October 2023,Shanghai Shanshan Lithium Battery sorted out the list of key risk positions, and added a rotation cycle for relevant positions, requiring logistics engineers, weighers and solid waste warehouse managers to rotate once every 1 year and purchasers to rotate once every 2 years to strengthen the management of integrity practice.

In November 2023, Shanghai Shanshan Lithium Battery started to sort out the relatives of its employees, and took measures such as position transfer and key monitoring for those who might have conflicts of interest.

The Company carries out special training on integrity and anti-corruption on a regular basis to publicize its specific policies and procedures, so as to ensure that integrity and anti-corruption becomes a conscious code of conduct for employees, enhance the judgment and decision-making ability of employees in practicing with integrity, circumvent any improper transfer of benefits in business activities and foster an ethical environment.

### Carrying out integrity training and system publicity to strengthen integrity and anti-corruption management

In August 2023, Shanghai Shanshan Lithium Battery issued the Notice on Further Strengthening the Company's Integrity Management, and posted a notice of integrity management norms in 30 places throughout the plant to increase the channels for employees and outsiders to report corruption. In September 2023, Shanghai Shanshan Lithium Battery conducted an integrity interview with suppliers, mainly to find out whether the employees have the illegal acts of "eating, taking, obstructing, and requesting" and to inform the feedback channels and feedback incentives to encourage suppliers to actively participate.

Notice of integrity management norms posted in the plant area

Shanjin Optoelectronics has always been committed to the "ethical business practices". Ahead of holidays, the Company sends letters to suppliers to underscore this commitment. It strictly prohibits employees from accepting gifts, red envelopes, or other valuable items and provides clear channels for whistleblowing. In the meantime, the Company regularly conducts comic promotion to reinforce employees' anti-corruption and integrity principles.

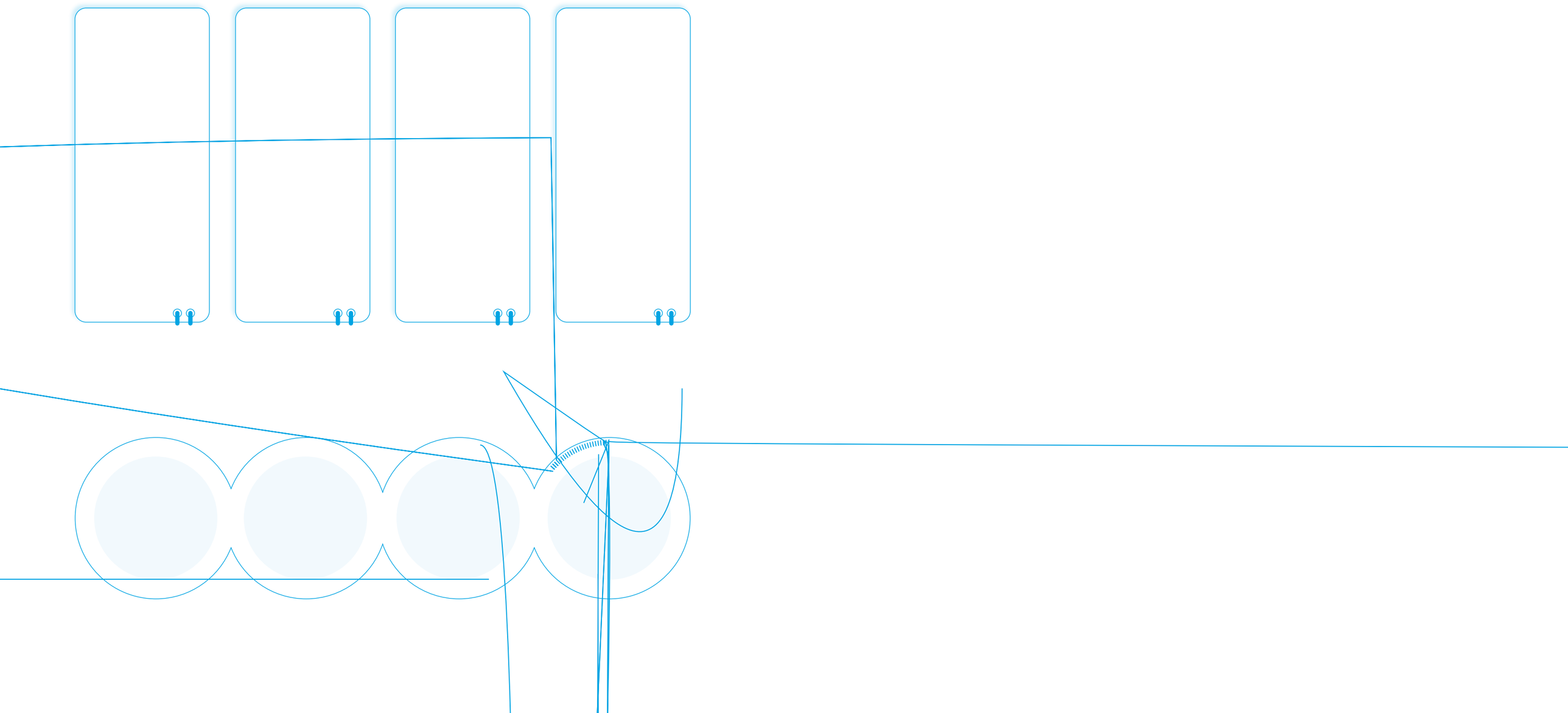
No gift acceptance publicity by Shanjin Optoelectronics

with a per capita length of integrity and anti-corruption training of

1.5 hours

and a cumulative employee coverage rate of

% for all training initil 4 ☒o i or q /



# Leading Development with Party Building

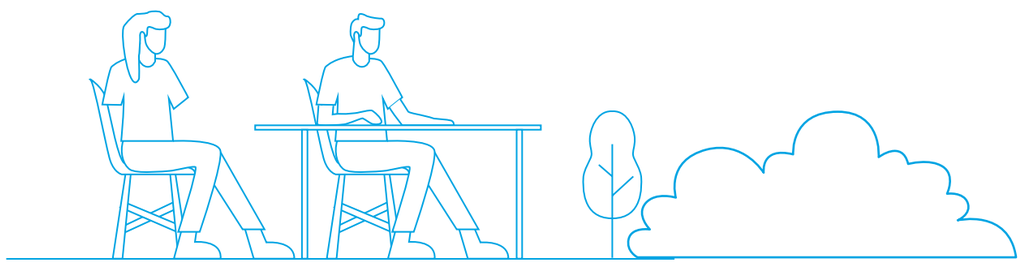
The Company adheres to the guidance by Xi Jinping's thought of socialism with Chinese characteristics in the new era, comprehensively implements the spirit of the 20th National Congress of the Communist Party of China, constantly deepens ideological and political education for the Party members, strengthens the construction of organizational style, gives full play to the Party branch's leading role and the Party members' exemplary role, as well as leads development with Party building and strives for excellence. In 2023, while Shanghai Shanshan Lithium Battery Fujian Plant was selected among the "Leading Units of Private Enterprises That Drive Work with Party Building", Ningbo Shanshan Party Branch was approved for establishment and the Party Building Activity Room was set up to further strengthen the Party building team.

Party Building Activity Room of Ningbo Shanshan

## Carrying out Party history learning and education, and promoting fine traditions of the Party

Shanghai Shanshan Lithium Battery Fujian Plant organized Party history-related study and education, deeply promoted the Party's fine traditions and spirit, systematically studied special excerpts of Xi Jinping's thought of socialism with Chinese characteristics in the new era, and guided Party members to deeply understand the Party's glorious history and great spirit so as to inherit the red gene.

Themed education and learning about Party history



## Celebrating the anniversary of the founding of the Party and jointly building a brilliant new chapter

In July 2023, Shanghai Shanshan Lithium Battery Sichuan Plant held a celebration activity for the 102nd anniversary of the founding of the Party themed "Celebrating July 1 and Praising the Party's Kindness", during which all Party members and cadres were organized to visit the former residence of Guo Zhusan in Pengshan District to pay tribute to the great achievements of revolutionary predecessors, review the glorious history of the Party, praise the great achievements made by the Party, stimulate the enthusiasm and vitality of Party organizations and Party members and cadres, and guide corporate development with the spirit of red revolution.

A visit to the red education base under the theme of "Celebrating July 1 and Praising the Party's Kindness" by Sichuan Shanshan Party Branch

## Reviewing the history of the Party and the country and strengthening mission and responsibility

In November 2023, Shanjin Optoelectronics organized an activity themed "Reviewing the History of the Party and the Country and Strengthening Mission and Responsibility" to experience the expansion activities such as retracing the Long March and eating Red Army meals in the Dajinshan Revolutionary Base, so as to review the turbulent times, consolidate ideals and beliefs, and strengthen mission and responsibility.

Party building themed activities

**In 2023**

including **5** newly developed regular members

and **13** probationary members

# Environmental Management System

The Company adheres to the EHS policy of "compliance with regulations, pollution prevention, people orientation, and continuous improvement", and continuously promotes the systematization, standardization, and scientificization of its EHS management. In light of the Work Safety Law as well as other laws and regulations, the Company regularly conducts environmental risk identification and management, and environmental impact factor audits, and has established a top-down management framework, and concluded the "2023 EHS Management Responsibility Letter" with all responsible subjects. In this way, tasks related to environmental management are systematically delegated to ensure the effective operation of the environmental management system and continuously improve the Company's environmental performance. In 2023, the Company obtained the ISO 14001 environmental management system certification for its **10** factories, with a coverage rate of **83.33%**.

All factories of Shanghai Shanshan Lithium Battery (left) and Shanjin Optoelectronics (right) have obtained the ISO 14001 environmental management system certification (partially displayed)

# Response to Climate Change

The Company actively responds to the national double-carbon strategy, sets and publicly declares its ambitious double-carbon goal, and fulfills its environmental commitment with practical inputs and practices. In the future, the Company will continue to deepen its efforts in energy conservation, emission reduction and climate change. While controlling and reducing its own carbon emissions, it will effectively drive carbon reduction in the value chain, and contribute Shanshan Power to the industry and society as a whole.

Due to the fact that the subsidiaries and plant bases of the Company are distributed in many regions and feature a large regional span, their geographical environment, business types, energy consumption structure and emission source types are different. With a view to making the goals more appropriate and enforceable, the Company has collaborated to formulate independent carbon reduction goals for each subsidiary and plant. Specifically, they could carry out carbon emission management work based on the requirements of ISO 14064 and in combination with their own emissions and carbon reduction goals. The work includes setting up a climate change management framework, promoting renewable energy alternatives, and carrying out special energy-saving and carbon-reduction practices. The Company has established the Energy Management System and actively carried out energy management practice. The digital energy online monitoring platform is used to monitor energy consumption. As a result, all its subsidiaries and factories obtained the ISO 50001 energy management system certification.

**In 2023**

the Company obtained the ISO 14064 carbon verification with a coverage rate of **75** %

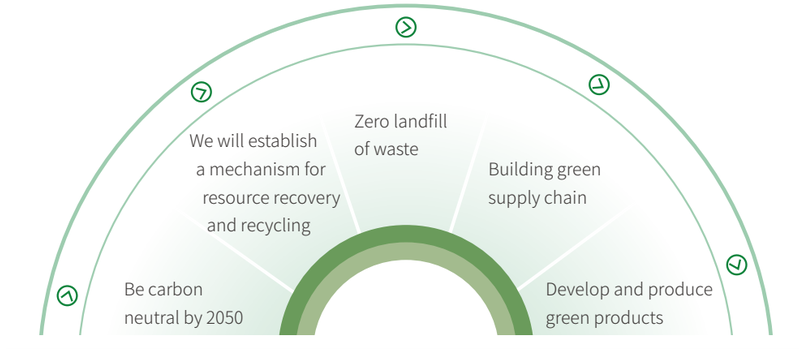
the Company obtained the ISO 50001 energy management system which included **2** new factories with a coverage rate of **25** %

ISO 14064 greenhouse gas verification statement of Shanghai Shanshan Lithium Battery (left) and Shanjin Optoelectronics (right) (partially displayed)

ISO 50001 energy management system certification of Shanghai Shanshan Lithium Battery (left) and Shanjin Optoelectronics (right) (partially displayed)

## Shanjin Optoelectronics

Shanjin Optoelectronics set and publicized carbon goals, formulated action plans for emission reduction and sustainable development, and implemented various emission reduction measures to promote the progress of achieving carbon neutrality.




Sustainable development strategy direction of Shanjin Optoelectronics

**Shanjin Optoelectronics implemented the medium- and long-term green development plan for 2022-2024**

Shanjin Optoelectronics (Nanjing) aimed to achieve comprehensive carbon neutrality by 2050, and established clear basic environmental health and safety ideas, prioritizing environmental health and safety in all its business activities. In terms of green product research and development, green factories and green procurement, it actively carried out medium- and long-term plans. By continuously strengthening investment in environmental research, using renewable energy, carrying out energy saving and emission reduction, practicing "carbon reduction" actions, and building a green responsible supply chain, it led transformation and upgrading of the industry, promoted low-carbon development of China's new display industry and manufacturing industry, and helped achieve China's goals of "carbon peak and carbon neutrality".

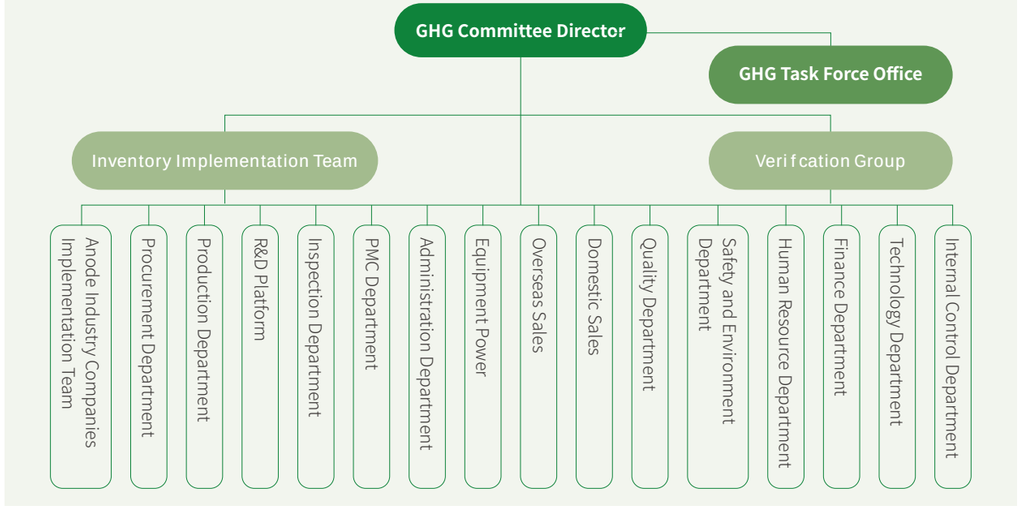
**Various energy-saving and carbon reduction practices of Shanjin Optoelectronics**

Shanjin Optoelectronics (Guangzhou) significantly saved electricity and steam flow by recycling and reusing the exhaust gas, thereby reducing energy consumption and lowering carbon emissions. In 2023, such a measure helped save a total of 592,900 kWh of electricity and reduce carbon emissions by 569.2 $tCO_2e$ throughout the year.

Shanjin Optoelectronics (Nanjing) laid rooftop photovoltaics to supply power to the plant. In 2023, Shanjin Optoelectronics (Nanjing) achieved a total photovoltaic power generation of 2.168 million kWh and reduced carbon emissions by 2,081.4$tCO_2e$. Shanjin Optoelectronics (Nanjing) also used exhaust gas to produce hot water, raising the water inlet temperature of the 90°C water system to 80°C , reducing the use of steam in the 90°C water system, and hence saving 22,630 tons of steam throughout the year.

## Shanghai Shanshan Lithium Battery

Shanghai Shanshan Lithium Battery set and publicized carbon goals. Based on the Company's 2021 (base year) GHG verification results, such goals were broken down and subdivided into various factories. According to the requirements of the Science Based Targets initiative (SBTi), Shanghai Shanshan Lithium Battery planned its medium- and long-term goals for carbon reduction and sustainable development, and also formulated action plans for emission reduction and sustainable development. In order to further respond to the national strategy and ensure the realization of the double-carbon goal, Shanghai Shanshan Lithium Battery set up a greenhouse gas inventory and implementation committee to push forward carbon reduction.




GHG Inventory and Implementation Committee of Shanghai Shanshan Lithium Battery

### Carbon reduction policy of Shanghai Shanshan Lithium Battery

Adhere to green, circular and low-carbon development, strive to control and slow down greenhouse gas emissions, and promote sustainable development of the industry

Adopt new processes, new technologies, new equipment and new materials to accelerate the construction of resource-saving and environmentally friendly new production bases

Gradually improve the energy utilization structure, vigorously utilize renewable energy sources such as hydropower, wind power, solar energy and biomass energy, build low-carbon and zero-carbon factories, and achieve the strategic goal of supply chain carbon neutrality by 2060

Shanghai Shanshan Lithium Battery developed a "four-step" energy and carbon management action plan to drive the achievement of the 2060 carbon neutrality goal from energy, carbon emissions, recycled materials and sustainable procurement. In addition, the newly built Shanghai Shanshan Lithium Battery Sichuan Plant joined the RE100 "Green Initiative" and cooperated with State Grid, with 100% of its outsourced electricity from hydroelectric power generation.

### Energy and Carbon Management Plan Action Program

- Promoting energy management reviews and setting up management systems (some plants have achieved ISO 50001 certification)
- Technological energy savings by optimizing processes
- Management-based energy savings by applying the PDCA cycle and equipment upgrades
- Structural energy savings by implementing integrated proce
- Industry support from the government

**ESG governance**

- Procuring green electricity: 100% by 2030
  Facilitating self-built photovoltaic projects by implementing photovoltaic projects in all new plants
- New bases: Prioritize clean energy, adopt streamlined integrated processes for enhanced efficiency and reduced emissions, and use large automated equipment to

- Incorporating recycled materials into R&D

- Incorporating carbon emission into upstream supplier metrics

### Carbon Reduction Measures in 2023

**Ningde**

30% of electricity souress%

/

**Meishan**
**Kunming**
**Yinzhou**

**Shanghai Shanshan Lithium Battery Jiuyuan Plant effectively promoted carbon reduction** Case

In 2023, Shanghai Shanshan Lithium Battery Jiuyuan Plant actively used renewable energy and procured 20% of the total electricity from green power stations. It applied waste heat recovery boilers and utilized the kiln waste heat from the roasting process for heating instead of natural gas boilers to reduce natural gas consumption. It adopted commuter buses to effectively reduce the Company's carbon emissions. In 2023, such various emission reduction measures taken by Shanghai Shanshan Lithium Battery Jiuyuan Plant helped it reduce the total emissions by 68,400 tons of $CO_2e$.

**Shanghai Shanshan Lithium Battery took multiple measures to promote the achievement of double-carbon goals** Case

Shanghai Shanshan Lithium Battery formulated its annual carbon reduction sub-goals and implementation actions based on double-carbon goals.

Through measures such as replacing crucible furnaces with box furnaces and increasing the filling capacity of graphitization furnaces, the graphitization production efficiency has been greatly improvedand the electricity consumption per unit output has been reduced by more than 15%;

Through measures such as carbonization equipment renovation and continuous feeding production,the carbonization production efficiency has been significantly improved, with the heat loss reducedby more than 20% and the electricity consumption per unit output reduced by more than 5%;

Vigorously promote new energy vehicles, replace traditional diesel forklifts with electric forklifts.with the electric forklifts accounting for 50% of the total fleet in 2023;

Reduce carbon emissions from electricity through green power procurement, with green powerprocurement accounting for over 30% of the total.

Shanghai Shanshan Lithium Battery promoted energy saving and emission reduction using multiple initiatives

## Achievement and performance

The Company carried out greenhouse gas management in an all-round way. In 2023, Shanjin Optoelectronics (Nanjing) was shortlisted as a green factory in Jiangsu Province and a national level green factory in 2022, and Shanghai Shanshan Lithium Battery Chenzhou Plant was rated as "Green Factory in Hunan Province" and selected as "Green Factory Demonstration Unit in Hunan Province in 2022".

**Green factory list**

| SN | Region | Factory name | Name of third-party evaluation agency |
|---|---|---|---|
| 347 | Jiangsu | Shanjin Optoelectronics (Nanjing) Co., Ltd. | China Electronics Standardization Institute |

Shanjin Optoelectronics (Nanjing) was shortlisted as a national level green factory

Shanghai Shanshan Lithium Battery Chenzhou Plant was rated as "Green Factory in Hunan Province"

**Greenhouse gas emissions of the Company in 2023**

| Type | Unit | Shanghai Shanshan Lithium Battery | Shanjin Optoelectronics[1] |
|---|---|---|---|
| Scope 1 | Tons of carbon dioxide equivalent | 17,079.38 | 19,655.07 |
| Scope 2 | Tons of carbon dioxide equivalent | 586,803.22 | 175,554.58 |
| Scope 3 | Tons of carbon dioxide equivalent | 1,074,997.85 | / |
| Total emission | Tons of carbon dioxide equivalent | 1,678,880.45 | 195,209.65 |

Note1: The GHG emission of Shanjin Optoelectronics includes Guangzhou Plant and Zhangjiagang Plant.

On the basis of carbon reduction in the production and operation stages, the Company gradually promoted carbon reduction practices to the product category. Every year, according to Standards ISO 14044 and ISO 14067, the Company conducts full lifecycle carbon footprint management from cradle to gate, providing data and practice for carbon reduction in the industrial chain and contributing low-carbon products to the society.

**In 2023**

the greenhouse gas emissions during the lifecycle of QCG-N2 type 1kg battery anode materials (specially artificial graphite) were 13.993kg CO2e. Among them, the greenhouse gas emissions in each stage of the lifecycle were as follows:

| Lifecycle | Greenhouse gas emissions (kg $CO_2e$/kg) | Proportion |
|---|---|---|
| Raw material production | 1.638 | 11.7% |
| Raw material transport | 0.377 | 2.7% |
| Product production | 11.773 | 84.1% |
| Product transport | 0.205 | 1.4% |
| Total | 13.993 | 100% |

the Company obtained the ISO 14044 lifecycle assessment verification statement for its

1 plant

an increase of

1 compared to the previous year

Shanghai Shanshan Lithium Battery obtained the ISO 14044 lifecycle assessment verification statement (partially displayed)

the greenhouse gas emissions during the lifecycle of a 1 square meter polarizing panel were 3.56kg CO2e. Among them, the greenhouse gas emissions in each stage were as follows:

| Lifecycle | Greenhouse gas emissions (kg $CO_2e$/kg) | Proportion |
|---|---|---|
| Raw material acquisition | 2.14 | 60.30% |
| Product production | 1. 42 | 39.70% |
| Total | 3.56 | 100% |

the Company obtained the ISO 14067 product carbon footprint certificate for its

2 factories

an increase of

1 compared to the previous year

Shanghai Shanshan Lithium Battery (left) and Shanjin Optoelectronics (right) have obtained the ISO 14067 product carbon footprint certificate (partially displayed)

# Enhancing Emission Management

The Company abides by the *Environmental Protection Law*, the *Water Pollution Prevention and Control Law*, the *Atmospheric Pollution Prevention and Control Law*, the *Law on the Prevention and Control of Environmental Pollution by Solid Waste* as well as relevant local laws and regulations, continuously strengthens investment in environmental protection, regularly maintains environmental protection facilities to reduce emission pollution caused by their failures, as well as actively carries out environmental pollution control and emission management, and regulates the environmental protection work regarding wastewater, exhaust gas and garbage.

**In 2023**

the Company's total investment in environmental protection was approximately up to RMB

**280.8596** million

## Wastewater and water resources management

The Company strictly complies with laws and regulations such as the Water Pollution Prevention and Control Law, formulates internal management documents, and clearly regulates the generation and control of wastewater in the production process of each plant. The Company's wastewater mainly consists of domestic sewage and production wastewater, both of which have been preliminarily treated and meet the takeover standards before being connected to the pipeline network for unified treatment and discharge. The Company collects its wastewater monitoring records on a monthly basis, and continues to explore initiatives to recycle wastewater and reduce wastewater discharge, so as to achieve the goal of water saving and emission reduction.

**In 2023**

the total amount of wastewater discharged by the Company was

**1.7178** million tons

with a discharge compliance rate of

**100** %

The Company attaches great importance to the conservation and management of water resources, strictly abides by relevant laws and regulations such as the Water Law and the Water Pollution Prevention and Control Law, and has formulated

**In 2023**

the total water consumption of the Company was

**4,001,617.45** tons

and the circulating water consumption of the Company was

**1,148,292.76** tons

In addition

**7,922** tons of rainwater were recycled by

accounting for

**0.7** % of its total water consumption

The Company firmly believes that carrying out water resource risk management is its due environmental responsibility, and is also an essential ESG management measure to maintain leadership in the industry. As part of its strategy to manage water risks for environmental optimization, the Company assesses annual water risk changes at its location using the AqueductTM tools developed by the World Resource Institute (WRI), which cover indicators such as physical risk quantity (e.g., baseline water pressure, and meteorological disaster impact), physical risk quality (e.g., water quality impact), and regulatory and reputational risks.**As of the end of the Reporting Period, all of the Company's plant sites were not located in or adjacent to water resource protection areas, and the Company has not had any negative impact on local water sources due to water intake and discharge.**

### Data collection and analysis

- Collect water resource data required for operation, including water consumption, water sources, wastewater discharge, etc. Analyzing such data can help us understand our own water resource utilization situation.

### Full lifecycle assessment

- Comprehensively evaluate the impact of our activities on water resources from raw material procurement, production process, product use to final disposal. This helps to identify potential risks and opportunities.

### Continuous monitoring and reporting

- Establish a water resource monitoring system and regularly analyze the utilization and performance of water resources. By means of monitoring and reporting, problems can be

### Employee education and engagement

- Raise employees' awareness of the importance of water resources and encourage them to save water in their work and life. Employee engagement can drive an internal culture of water management.

### Technological innovation and improvement

- Seek innovative technologies and methods to reduce water consumption, improve water efficiency, and reduce wastewater discharge. Technological improvements can help achieve better performance in water resource management.

Water saving strategy of the Company

**Shanjin Optoelectronics took diversified measures to comprehensively promote water saving and emission reduction**

Shanjin Optoelectronics (Guangzhou) added a preheating plate exchanger which can utilize 95°C condensate water to preheat the return water from the production line equipment at 63°C . Such preheating process could raise the temperature of the hot water from 63°C to 90°C , which can save 20 tons of steam every day.

Low-concentration wastewater microfiltration system

**Various factories of Shanghai Shanshan Lithium Battery optimized water resources and wastewater management** — Case

### Excellent practice of rainwater reuse in Fujian Plant

Phase II of Fujian Plant was completed and put into operation in 2022. The rainwater tanks there were reconstructed. After substances in the rainwater were precipitated, rainwater entered the sewage lifting pump and was then lifted to a multi-media filter for the removal of pollutants. The purified rainwater was mainly used for replenishing water in the circulating water tanks of the cooling towers. In 2023, this rainwater reuse program managed to reuse a total of 7,922 cubic meters of rainwater.

### Excellent practice of wastewater treatment at Jiuyuan Plant

Jiuyuan Plant adopted an integrated grease trap to treat catering wastewater; and after treatment, such wastewater combined with domestic sewage, cooling drained water and drained water from soft water equipment, and then was discharged into the sewage pipe network in the park, meeting the third-level discharge requirements under the wastewater discharge standards. The cooling and circulating water used at Jiuyuan Plant accounted for 80% of the total production water consumption and 50% of the total water consumption.

### Excellent practice of water treatment at Yunnan Plant

The wastewater from Yunnan Plant's circulating cooling water system, the wastewater from the lime gypsum wet-process desulfurization system, and the concentrated water from the laboratory's pure water preparation system were all treated by the sewage treatment station and then reused in the circulating cooling water system after meeting the standards. Yunnan Plant also adopted the rainwater and sewage separation system, and set up sewage pipe networks for rainwater, greywater, and black water, respectively. The initial rainwater was collected by the initial rainwater tank, and then reused in the circulating cooling water system after being treated by the sewage treatment station.

## Exhaust gas control

In light of the *Atmospheric Pollution Prevention and Control Law* as well as other laws and regulations, the Company formulated the *Air Management Regulations*, the *Management Systems for Exhaust Gas Treatment*, etc., and carried out exhaust gas treatment and upgrading programs including upgrading exhaust gas treatment technologies and equipment every year to ensure that the discharged exhaust gas could meet environmental standards. Moreover, we continuously monitor the operation and effectiveness of these waste gas treatment upgrade projects to ensure successful emission reduction and treatment. In 2023, Shanghai Shanshan Lithium Battery's Jiuyuan Plant formulated and executed the One Plant, One Strategy Implementation Plan for Inner Mongolia Shanshan New Material Co., Ltd. in Response to Heavy Pollution Weather. This initiative aimed to enhance the Company's ability to address severe pollution weather events.

**In 2023**

he Company emitted a total of

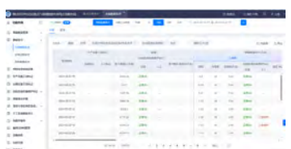
**309.72** tons of waste gas

achieving a compliance rate of

**100** %

**Introducing innovative waste gas monitoring techniques to facilitate smart waste gas treatment** — Case

In 2023, Shanghai Shanshan Lithium Battery's Ningbo Plant installed two new sets of real-time tail gas monitoring systems. These systems, which employ state-of-the-art Chinese technology, conduct continuous pollutant checks round the clock, providing data support for on-site tail gas treatment. By replacing outdated manual methods, these systems have ushered in a new era of intelligent and modernized tail gas monitoring, significantly enhancing precision in detection.



Real-time tail gas monitoring system

**Upgrading tail gas treatment facilities for emission reduction, cost savings, and efficiency improvement** — Case

In 2023, with a focus on reducing pollutant emissions and meeting future development needs, Shanghai Shanshan Lithium Battery's Ningbo Plant launched the Tail Gas Treatment Facility Upgrade Project. This initiative aimed to improve the efficiency of tail gas treatment and reduce overall pollutant emissions. Through round-the-clock data monitoring, the project focused on efficient treatment, cost reduction, and efficiency improvement. **It has received a special subsidy from the Chinese central government for atmospheric pollution prevention and control.**

Following the treatment of exhaust gas emissions by the thermal oxidizer (TO), the Ningbo Plant has effectively managed tail gas emissions from several of its workshops to ensure compliance with relevant standards.

| | Current requirements | Actual emissions |
|---|---|---|
| Particulate matters | ⩽ 30mg/m³ | ⩽ 30mg/m³, (compliant) |
| Sulfur dioxides | ⩽ 200mg/m³ | ⩽ 35mg/m³, (well below standard) |
| Nitrogen oxides | ⩽ 300mg/m³ | ⩽ 50mg/m³, (well below standard) |
| Volatile organic compounds (VOCs) | ⩽ 60mg/m³ | ⩽ 60mg/m³, (compliant) |

**Enhancing the RTO and CTO units for reduced VOCs emissions** — Case

In 2023, Shanjin Optoelectronics improved its approach to reducing VOC emissions by introducing additional catalytic thermal oxidizer (CTO) units and efficiently utilizing the internal heat from the existing regenerative thermal oxidizer (RTO) units. This combination allowed the CTO to achieve the optimal catalytic oxidation temperature, boosting the overall treatment efficiency of both RTOs and CTOs to 99.5%. This enhancement resulted in a reduction of 12.8 tons of VOC emissions.

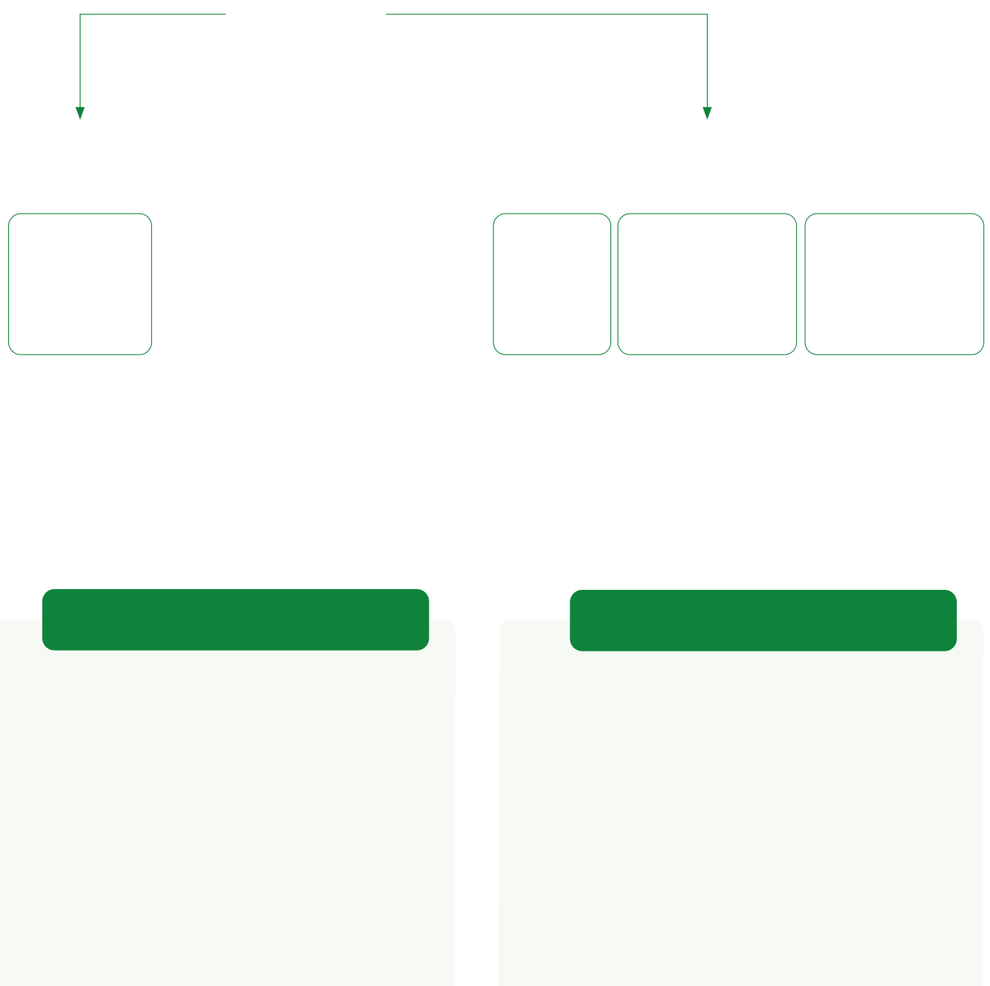
RTO and CTO

**Adjusting PSA for polarizers to reduce organic solvent evaporation and expand product applications, thus minimizing emissions** — Case

In 2023, Shanjin Optoelectronics (Nanjing) adjusted the thickness of pressure-sensitive adhesive (PSA) for polarizers, increased the proportion of high-solid-content main agents, and lowered the ratio of ethyl acetate (EA) to reduce VOC emissions from PSA and broaden its range of applications. This initiative is estimated to reduce VOC emissions by 10.5 tons.

## Waste management

The Company places a strong emphasis on managing waste effectively. We have established corporate systems such as the *Waste Management Standards*, the *Waste Warehouse Management Standards*, the *Standards for Hazardous Waste Management Operations*, and the *Environmental Permit Management Standards* in accordance with the *Environmental Protection Law*, the Law on the Prevention and Control of Environmental Pollution by Solid Waste, and other relevant Chinese laws and regulations. We categorize and manage waste responsibly, engaging qualified organizations to handle waste disposal based on the types of solid and hazardous waste generated. Furthermore, we pursue innovative measures across our supply chain and production management to minimize waste generation and protect the environment.



To further ensure the safety and meet the expectations of all stakeholders, the Company has launched a comprehensive plan to strengthen safe and transparent chemical management. As part of this plan, we have included the replacement and elimination of hazardous chemicals in our product planning. This initiative aims to gradually reduce the presence of harmful substances in our products, providing society with cleaner, healthier, and safer products.

**Chemical safety commitment**

We commit to prioritizing environmental and health aspects throughout the development of new products, striving to enhance their health and safety standards. We will actively seek eco-friendly materials to replace harmful chemicals and keep stakeholders informed of our progress. Particularly, we will intensify efforts to raise awareness among customers and users regarding chemical safety, ensuring they are well-informed about the chemicals used in our products.

# Driving Green Operations

The Company is dedicated to running operations in a sustainable manner. We encourage all employees to embrace energy-saving practices and recycle resources to cut down on energy usage and waste, ultimately reducing production costs and boosting economic gains. Throughout our facilities, we conduct various activities and initiatives to fulfill the principles of green operations.

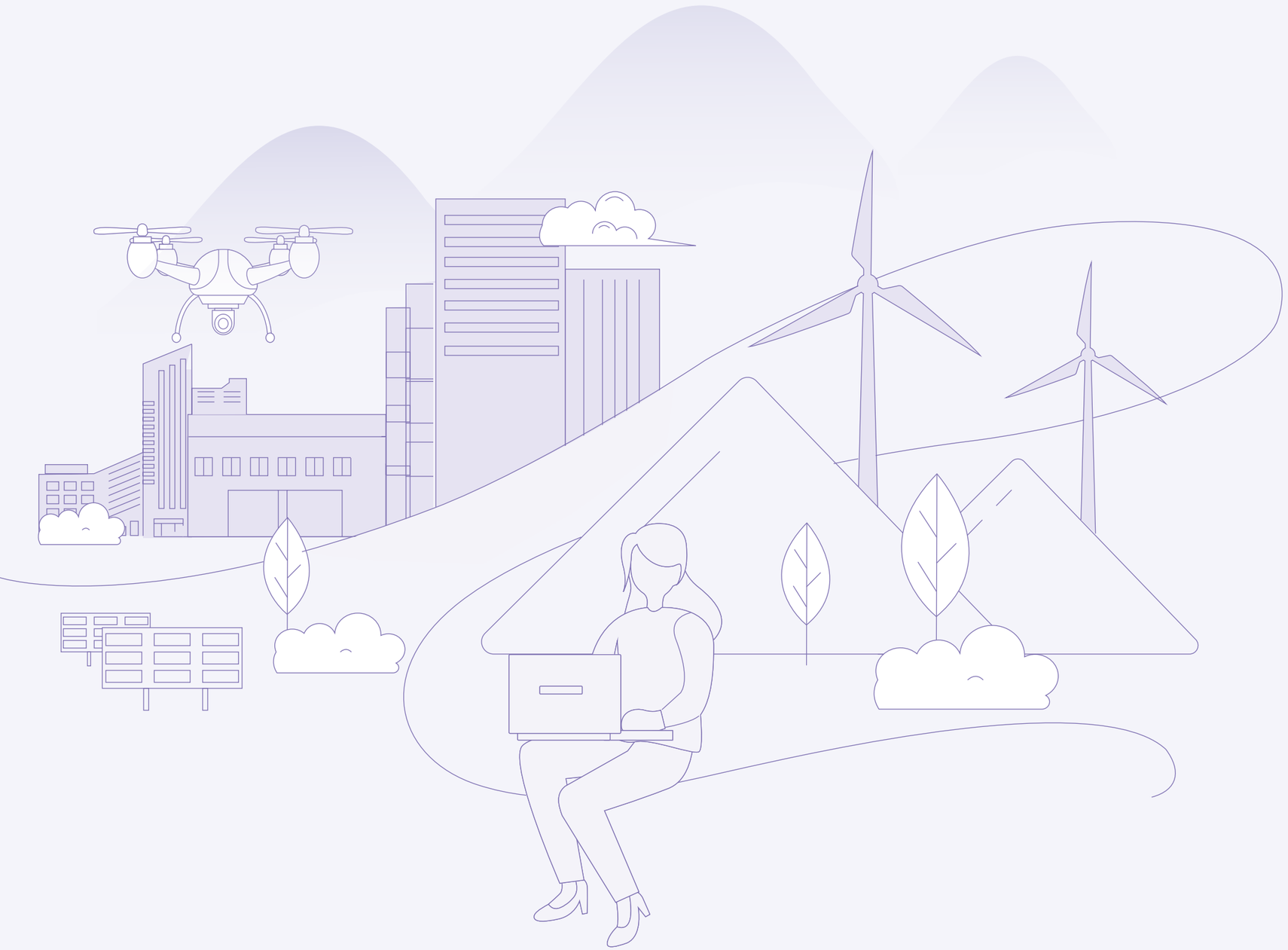
- We send out resource saving proposals to all departments, urging every employee to stat with small daily actions to promote a cuture of conservation. This includes using electricity, water, gasoline, and office supplies more efficiently to minimize waste and promote sustainable office practices.
- To raise environmental awareness among our employees, we implement measures such as promoting water and electricity conservation and displaying eco-friendly posters. We also take practical steps like printing on both sides of paper and eliminating paper-based check ins to reduce office resource consumption.
- We advocate for green office practices across the board, such as encouraging the use of personal water bottles in meetings to reduce disposable cup and bottled water usage. We also actively promote garbage sorting and recycline. We have established regulations on water, electricity, and official vehicle usage to encourage energy conservation and cost savings.
- Through various communication channels, we promote green operations and clean production to ensure that the green ethos is ingrained in allemployees. This includes organizing company-wide training sessions, facilitating centralized learning and selfstudy, conducting suggestion programs, and organizing exchanges between technical experts and employees.
- We actively promote green office practices by raising awareness and fostering a culture where conservation is prioritized in every action. We have launchedd the "four.One" campaign, encouraging everyone to do their best to conserve resources, starting from saving even just one kilowatt.hour of electricity, one drop of water, one drop of gasoline, and one piece of paper.

Green activities and initiatives

**Earth care extends beyond today** **Case**

In April 2023, Shanjin Optoelectronics (Nanjing) organized an environmental challenge event themed "Caring for the Earth" to raise awareness about World Earth Day among employees. The event aimed to inspire employees to embrace eco-friendly practices and cultivate good habits such as waste sorting. Through this challenge, the Company promoted resource conservation and green practices. The goal was to enhance employees' understanding of energy conservation and environmental protection and encourage them to translate their environmental knowledge into practical actions. This initiative reflects Shanshan's commitment to improving the environment and contributing to green and sustainable development.

"Caring for the Earth" environmental challenge event



# 03

# Innovative Development and Technology Empowerment

## Philosophy

With a strong emphasis on green R&D, the Company strives to advance the innovation and application of eco-friendly technologies to protect our planet using the power of science and technology. Moreover, we uphold strict quality standards to ensure that our products are reliable for our customers. We actively listen to and respond to customer needs. Our aim is to steadily progress on the path of green development and earn market recognition and trust through the delivery of high-quality products and services.

## Our initiatives

- Focusing on innovative R&D
- Ensuring strict quality control
- Responding to customer needs

# Focusing on Innovative R&D

The Company places **clean tech innovation as a central part of our strategy** and attaches great importance to our technology development and management practices. Thanks to our well-established R&D management system, we will continue to invest heavily in R&D innovation to advance our technological revolution. In 2023, Shanjin Optoelectronics made significant progress in exploring polarizer technology. It overcame the challenges of large-scale laser cutting and collaborated with customers to develop and mass-produce 115-inch polarizers for ultra-large TVs. Meanwhile, Shanghai Shanshan Lithium Battery created all-round pathways for lithium-ion insertion by adjusting the microcrystal structure of carbon materials and modifying the surface of graphite. This action has enhanced the charging and discharging performance of anode materials.

**Shanghai Shanshan Lithium Battery's fast-charging products continue to lead the industry, with its silicon-based anode products being the first to achieve mass production** Case

Since 2014, when Shanghai Shanshan Lithium Battery made an advanced strategic move into the R&D of fast-charging anode materials, the company has been enhancing its technological edge through innovations such as carbon coatings upgrades and improved conductivity of graphite anodes. Unique liquid-phase coating techniques and novel functional coating technologies have enabled Shanghai Shanshan Lithium Battery to achieve uniform layer application at the micrometer scale of graphite powders, facilitating rapid lithium-ion diffusion within the anode materials. The company's consumer fast-charging anode products with a 6C rate have been sent for sample validation, further solidifying its leading global position. The charge and discharge rates for power anode materials have also increased from 4C to 5C and 6C rates, making it a reality to achieve a 400-kilometer range with just a 10-minute charge.

The silicon-based anode products have continuously achieved technological breakthroughs. Through independent R&D, Shanghai Shanshan Lithium Battery has innovated proprietary technologies such as uniform ion doping, functional surface modification, and continuous chemical vapor deposition (CVD). These advancements have led to the creation of high-capacity, high-initial-efficiency, and low-expansion silicon-based materials such as the GS and SG series. These materials have consistently gained recognition from domestic and international clients, leading to their mass production and supply.

**Shanjin Optoelectronics has initiated mass production of 115-inch ultra-large size polarizers** Case

As displays like televisions increasingly feature larger screens, polarizers, as a core material for displays, are experiencing a noticeable shift towards larger dimensions. The manufacturing of large-size polarizers imposes higher demands in several areas, including the width capacity of the production lines, the sophistication of manufacturing techniques, the performance of materials, and the precision of cutting technologies. Notably, the standards for optical uniformity and yield rates are even more stringent for large-size polarizers than for regular display applications.

Shanjin Optoelectronics' 115-inch LCD VA polarizer is the largest globally, used for high-end TV products that can accommodate 4K/8K ultra-high-definition resolutions. It is exclusively manufactured by Shanjin Optoelectronics (Guangzhou) on a 2,600mm ultra-wide production line. This achievement is a result of continuous innovation in core technologies such as materials, production processes, and product performance. It further expands the Company's polarizer business into the ultra-large display market and lays a solid foundation for continuously creating new display scenarios.

115-inch ultra-large size polarizers produced by Shanjin Optoelectronics

## Protecting intellectual property

The Company places significant importance on managing and safeguarding intellectual property. By continuously enhancing our intellectual property management system, we have formulated policies such as the *Intellectual Property Management Measures*, the *Commercial Secrets Protection System*, and the *Patent Management System*. Moreover, we have obtained certification for our intellectual property management system. In 2023, our Shanghai Shanshan Lithium Battery's Jiuyuan Plant was recognized as a 2023 National Intellectual Property Advantage Enterprise.

Certificate of intellectual property management system certification

**Practical patent training at Shanghai Shanshan Lithium Battery's Ningbo Plant** Case

In August 2023, to help employees better understand patent laws and regulations and improve its patent application and management capabilities, Shanghai Shanshan Lithium Battery's Ningbo Plant organized practical patent training sessions. An expert from the Ningbo Intellectual Property Protection Association was invited to conduct the training, covering topics such as patent practice, patent search and techniques, and practical requirements for patent authorization. A total of 33 employees participated in the training, which significantly boosted the quality and efficiency of patent applications. The training also provides strong support for Shanghai Shanshan Lithium Battery's technological innovation and competitiveness in the market.

Training site

**In 2023**

Shanghai Shanshan Lithium Battery held a total of

279 valid patents

with

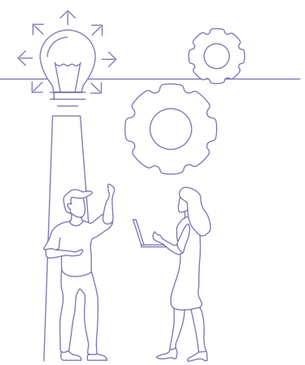
68 new patents granted

Shanjin Optoelectronics held a total of

1,149 valid patents

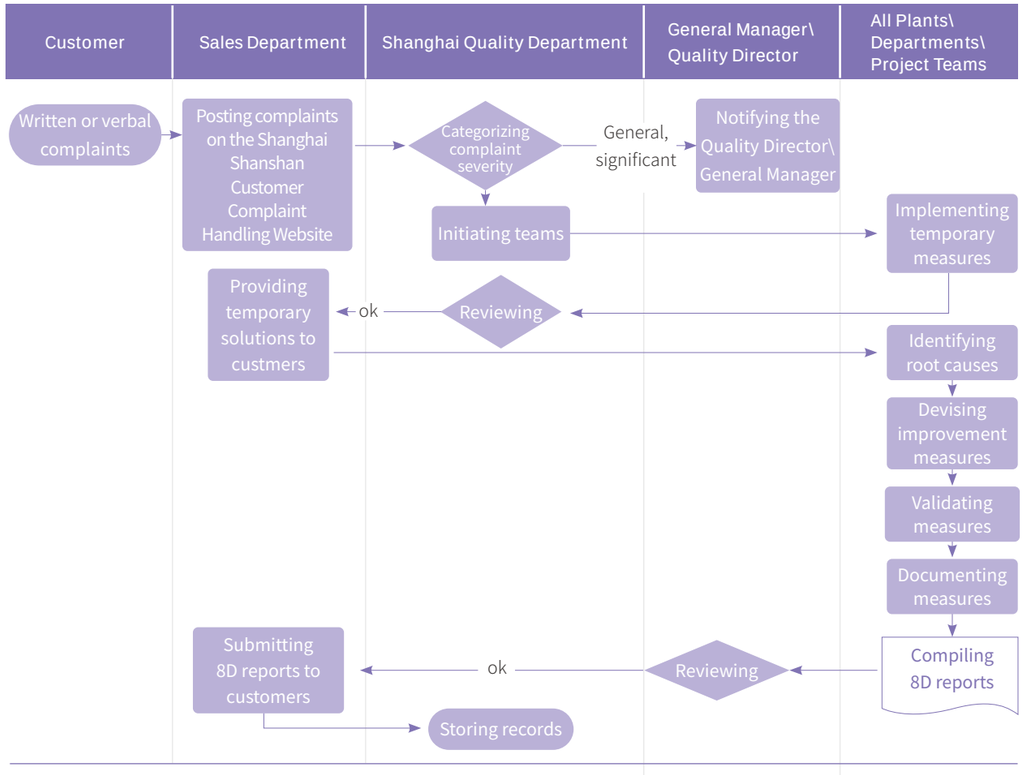
with

83 new patents granted

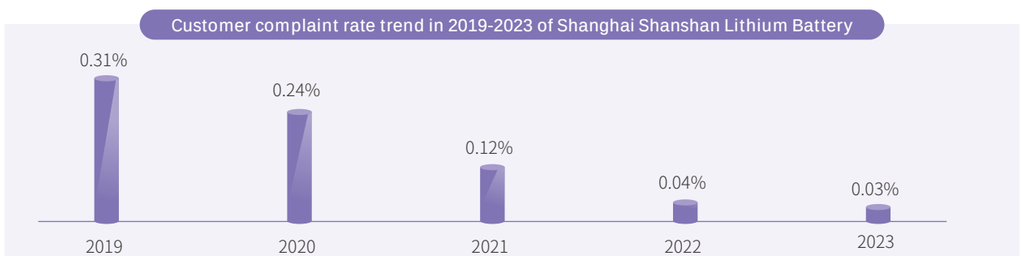


# Responding to Customer Needs

We always prioritize customer experience, embracing a holistic service philosophy where all departments collaborate in unity to serve our customers. To secure a prompt and effective resolution of customer complaints, we have established and keep improving our handling process for customer complaints. This is exemplified by management policies such as the Customer Complaint Handling Procedures developed by Shanjin Optoelectronics, as well as Customer Satisfaction Control Procedures and the Customer Complaint Handling Regulations developed by Shanghai Shanshan Lithium Battery. In particular, we have established dedicated working teams that bring together the expertise and resources from key departments across the Company to cater to the tailored needs of key accounts. All these efforts ensure a sustainable improvement in customer satisfaction.




Customer complaint handling process








Committed to a customer-centric approach, we actively conduct customer satisfaction surveys and maintain strict quality control over our products. This dedication has been recognized with numerous honors, bestowed by our customers.

## Key performance

The respective customer satisfaction results achieved by Shanghai Shanshan Lithium Battery and Shanjin Optoelectronics in 2023:

**96** % (based on domestic customers) and

**93** % (based on overseas customers) for Shanghai Shanshan Lithium Battery

**94.2** % for Shanjin Optoelectronics

## Key honors

LGD's "Best Partner Award" received by Shanjin Optoelectronics

The "CATL Supplier Quality Excellence Award" received by Shanghai Shanshan Lithium Battery in the second quarter of 2023

The "CATL Quality Excellence Award" received by Shanghai Shanshan Lithium Battery in 2023

BOE's "Diamond Award" received by Shanjin Optoelectronics

TCL's Partner Award received by Shanjin Optoelectronics

# Responsible Supply Chain Management

We remain committed to a long-term, high-quality and sustainable supply chain management system. Therefore, we have developed the *Procurement Management System* to regulate procurement procedures and supplier management. We maintain transparent procurement practices and integrate ESG considerations into our supplier management system. In collaboration with premier suppliers, we are dedicated to forging a sustainable supply chain, fulfilling our social responsibilities and promoting harmonious growth within the industry.

## Supplier management

We keep improving supplier management procedures by developing a set of guidelines, such as the *New Supplier Application Criteria*, *Procurement Management Policies*, and *Supplier Management Procedures*. These documents regulate the comprehensive life cycle management of suppliers, from review, selection, development, assessment, to withdrawal. We adopt the digital SRM system to elevate management efficiency and quality. We conduct extensive due diligence on prospective suppliers, evaluating their ESG practices, technical capabilities, and quality control standards to preemptively guard against any potential risks. We are dedicated to empowering our existing suppliers by requiring them to implement continuous improvement plans and encouraging active participation in capacity-building programs.

We have established a supplier evaluation system, whereby the Procurement Committee, by collaborating with relco t ris t c /
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- Contractors have appropriate construction qualifications, safety qualifications, and personnel qualification certificates;
- Contractors need to sign a Contractor Safety Agreement, which explicitly outlines the regulations to be adhered to and the safety measures to be implemented;
- Education sessions on safety and environmental protection are provided before contractors enter the plant for construction;
- Inspection and supervision of safety and environmental protection measures are conducted during the construction process;
- Safety supervision of contractors by supervisors is evaluated.

Moreover, we are committed to operating with the principle of fair competition, maintaining a transparent procurement that involves multi-department collaboration in the tender pricing. We enter into the *Supplier Code of Conduct*, *Transparent Agreement*, and *Transparent Commitment Letters* for major festivals with our suppliers. These agreements specify reporting channels and require suppliers to strictly adhere to ethical standards and confidentiality regulations. This enhances transparency in the procurement process and promotes the healthy development of the supply chain.

**In 2023**

## Conflict minerals management

We keep improving our management on conflict minerals through such efforts: developing the *Supply Chain Management Program for High-Risk Minerals*; establishing the Investigation Team for High-Risk Minerals Supply Chain; signing *Conflict Minerals Declaration Agreement* and *RoHS Substance Declaration* with suppliers; identifying and assessing risks associated o a aa ia eclm i t )w i nnt

# Industry Development Advancement

As an industry leader, we place utmost emphasis on bolstering technological innovation and the application of technological breakthroughs to establish our dominance in the two segments of lithium battery anode materials and polarizers on a global scale. In addition, we foster industry growth and bring domestic products to the international markets by collaborating closely with head enterprises and hidden champions worldwide, and by enhancing partnerships with colleges and universities.

## Industry-university-research collaboration

We are actively expanding our industry-university-research collaborations, partnering with esteemed institutions such as Zhejiang University, Huazhong University of Science and Technology, and the Ningbo Institute of Materials Technology & Engineering, CAS. Through a range of collaborative projects with these academic and research institutions, we aim to unlock the potential of underutilized patents held by universities and achieve their commercial purposes, thereby propelling the development of the industry.

- One of the Ningbo's 2025 Science and Technology Innovation Megaprojects — the R&D project of low-cost, high-energy density battery anode materials for 5G base stations
- The project was constructed from October 2020 to March 2023 and was accepted in November 2023.

- Ningbo's Key R&D Program — development of high-performance hard carbon anode materials for sodium-ion batteries
- The project period runs from January 2023 to December 2025.

Industry-university-research projects

**Shanghai Shanshan Lithium Battery's Sichuan Plant has joined hands with local universities to establish a long-term collaborative partnership aimed at fostering development.**

### Partnership with Chengdu University of Technology

Shanghai Shanshan Lithium Battery's Sichuan Plant has entered into a partnership agreement with Chengdu University of Technology to establish a Lithium Resources and Lithium Battery Industry Institute. This collaboration is founded on the principles of complementary strengths, shared resources, collaborative construction, mutual benefit, and collective development, aiming to enhance our talent pool and foster innovation within the industry through the integration of academic research and corporate expertise.

01 The establishment of the employment internship base and the provision of job referral services

Collaboration on the establishment of internship and practical training bases 02

Collaboration between Shanghai Shanshan Lithium Battery's Sichuan Plant and Chengdu University of Technology

### Partnership with Meishan Vocational and Technical College

Shanghai Shanshan Lithium Battery's Sichuan Plant has established a five-year cooperative relationship with Meishan Vocational and Technical College, supporting the development of the "1+3" industries (new energy and new material industry, plus electronic information, machinery and high-end equipment manufacturing, and biomedicine) in Meishan and promoting high-quality development of the city's industries.

Co-establishment of Tianfu New Energy and New Material Industry College

Joint cultivation of new energy and new materials professional cluster

Collaboration in talent development

Cooperation in vocational skills training

Joint building of a "dual-mentor" teaching team

Establishment of a consultation mechanism for school-enterprise cooperation

Collaboration between Shanghai Shanshan Lithium Battery's Sichuan Plant and Meishan Vocational and Technical College

## Integrated development

We focus on bolstering our internal integrated development and nurturing our inherent growth and core competencies. Moreover, we seek to broaden collaboration with upstream and downstream enterprises, aiming to establish strategic partnerships characterized by mutual benefit and sustainable development. We strive to drive collaborative development throughout the supply chain from within, ensuring supply chain stability and contributing to / / a adiF x f di 2 t

### Shanghai Shanshan Lithium Battery's Integration Project in Finland

Case

As green industry development gains momentum in overseas markets, particularly across Europe, the sectors of new energy vehicles and energy storage are experiencing swift growth. This growth is propelling an ongoing surge in global demand for lithium batteries. In September 2023, Shanghai Shanshan Lithium Battery planned to establish a project company in Finland, with the objective of developing an integrated facility capable of annually producing 100,000 tons of lithium-ion battery anode materials. Furthering this initiative, a project planning conference was held in December in Finland. This move helps improve our overseas production capacity, thereby continuously enhancing our global market share and reinforcing our competitive edge in global integrated production capacity.

The announcement of the Finland project at the press conference by Shanghai Shanshan Lithium Battery

## Industry advancement

Throughout our growth, we have actively engaged with various industry associations, joining them as a member. We contribute to technological innovation and sustainable growth in the industry by actively engaging in cross-strait events, including seminars, forums, and technical exhibitions and collaborating with top-tier enterprises worldwide.




Associations in which we participate

### Shanghai Shanshan Lithium Battery attended the ICCSINO Forum

Case

In November 2023, Mr. Ding Xiaoyang, the Executive General Manager of Shanghai Shanshan Lithium Battery, attended the 14th International Needle Coke and Application Market Forum hosted by ICCSINO, and delivered a keynote report on the market development trends of lithium battery anode materials.

Mr. Ding Xiaoyang, the Executive General Manager of Shanghai Shanshan Lithium Battery, was delivering a keynote report

### Shanghai Shanshan Lithium Battery attended the 2023 GGII Lithium Battery Annual Conference and Golden Globe Award Ceremony and received an award

Case

In November 2023, Ms. Li Fengfeng, Chairman of Shanghai Shanshan Lithium Battery, and Director and Deputy General Manager of Shanshan, attended the 2023 GGII Lithium Battery Annual Conference and Golden Globe Award Ceremony, at which the Company was honored with two awards: "Enterprise of the Year 2023" and "Fast-Growing Enterprise of the Year 2023".

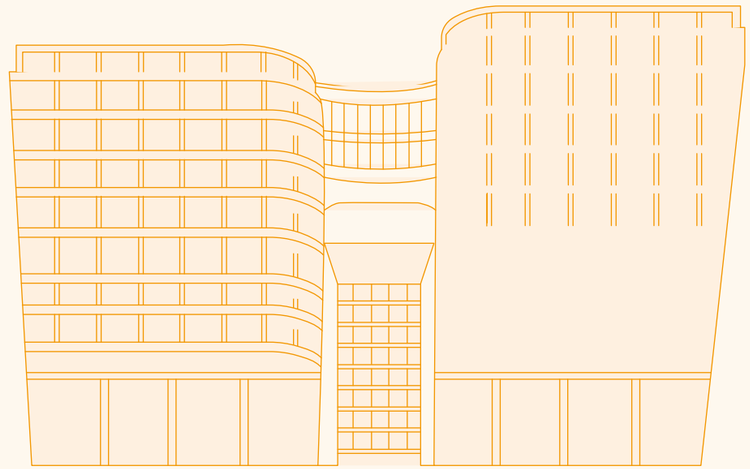
Shanghai Shanshan Lithium Battery attended the 2023 GGII Lithium Battery Annual Conference and Golden Globe Award Ceremony

### Shanjin Optoelectronics' participation in the parallel forum of New Display Industry Matchmaking Conference

Case

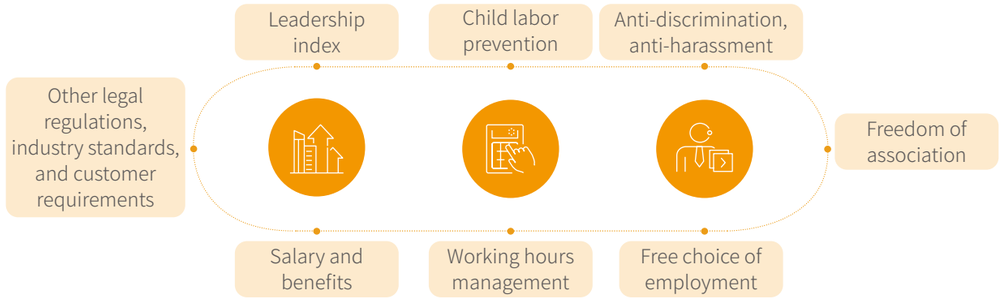
In September 2023, Mr. Wang Ning, Vice President of Shanjin Optoelectronics and General Manager of Shanjin Optoelectronics (Mianyang), delivered a speech titled "Collaborative Innovation for Boosting the High-Quality Development of the Display Industry" at the parallel forum of the New Display Industry Matchmaking Conference. He elaborated on various aspects, including the development trends of the new display industry, the market and technology of polarizers, and how technological innovation in polarizers can drive the development of the display industry.

The parallel forum of New Display Industry Matchmaking Conference



# Employee Welfare Assurance

We rigorously observe legal statutes including the Labor Law and are committed to upholding recruitment practices that are equitable, impartial, and transparent. We have established a suite of policies such as the *Corporate Social Responsibility Management Manual*, *Anti-Discrimination Rules*, *Child Labor and Juvenile Worker Management Rules*, *Labor Management and Work Objective Management Procedures*, and *Personnel Recruitment System*. These policies are crafted to align with national legislation, industry norms, our labor philosophy, and the expectations of our clients. We have set labor management objectives that are subject to biannual review and annual renewal, facilitating more effective talent management and nurturing a workforce that is loyal, exceptional, and embraces our corporate culture and values.




Labor objectives

## Employment compliance

We uphold the human rights of our employees and are committed to ensuring that none of our employment practices, including hiring, compensation, training, promotion, rewards, benefits, or retirement, are subject to discrimination or differential treatment based on factors such as race, skin color, age, gender, sexual orientation, gender identity and expression, ethnicity or nationality, disability, pregnancy, religious beliefs, political affiliation, union membership, status as a protected veteran, genetic information, or marital status. We guarantee that pregnancy tests or contraceptive requirements will not be demanded as conditions of employment, nor will female employees be dismissed due to pregnancy. We refrain from conducting any medical tests or physical examinations with discriminatory purposes, and we protect the religious beliefs of our employees, providing reasonable arrangements for religious activities as requested. All the efforts are aimed at fostering an inclusive and harmonious labor relationship.

**In 2023**

the labor contract signing rate was

100 %

Our total employee headcount stands at

8,095

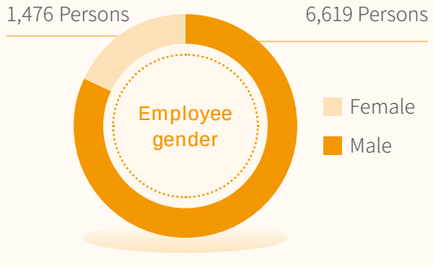
which includes

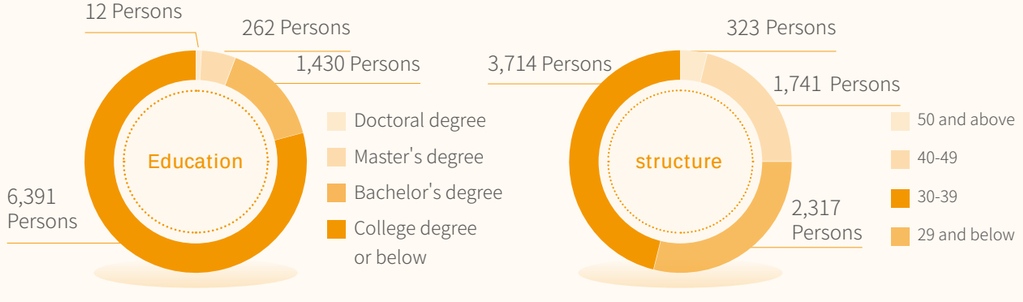
276 employees from ethnic minorities

3 employees with disabilities

and

28 foreign employees




## Democratic management

We are dedicated to a people-first philosophy, systematically promoting democratic management practices that respect and value the opinions from all employees at every level. We have established multiple channels for employee communication, such as the Chairman's mailbox and internal messaging platforms like DingTalk. By regularly conducting employee satisfaction surveys and promptly addressing employee feedback, we guarantee the right of all employees to freely express their opinions without interference. We are fully committed to safeguarding the legal rights and interests of our employees. To this end, we have established a trade union system, set up a Party branch and a youth league branch, and convene employees' representative assembly as needed. Moreover, our Corporate Social Responsibility Management Manual provides clear guidelines for resolving labor rights concerns raised by employees. We have crafted measures to support freedom of association and collective bargaining and have signed collective agreements with our employees. These efforts are aimed to enhance democratic management level and strengthen employee cohesion.

**In 2023**

we secured

90.75 %

execution of collective agreements.

**Member election of the Second Trade Union Committee of Shanjin Optoelectronics (Nanjing)**

**Case**

In December 2023, Shanjin Optoelectronics (Nanjing), in accordance with Constitution of the All-China Federation of Trade Unions and Regulations on the Election of Trade Union Grassroots Organizations, conducted its second election meeting for members of the Trade Union Committee after discussions and consultations by the Trade Union Preparatory Working Group. During the meeting, the trade union chairperson and the members for the First Auditing Committee presented a report on their activities over the previous year, and new committee members for the upcoming term were elected.

Election meeting

## Female rights and interests

We are dedicated to safeguarding the rights and interests o employees, committing to ensuring equal pay for equal opportunities oyment and promotion for both male and female employees. We offer a ca ronment and rights protection for our female employees, aiming to creat place that is equal, harmonious, and supportive for them. We firmly oppose iscrimination and harassment by implementing targeted welfare benefits a nitiatives for our female employees, safeguarding them from adverse wo events such as discrimination, abuse, and maltreatment. Furthermore, w stablished a Women's Employee Committee to guarantee fair employme emuneration for female employees. We have also integrated the protecti ir rights into our collective agreements, actively working to uphold and ad r the special interests and legal rights and interests of our female employees.

**In 2023**

we have

27.7 %

female middle managers

and

20 %

female senior executives

Resting areas for pregnant employees

Nursing rooms

# Employee Growth Support

We e / p l / gn0 ooms

## Shanghai Shanshan Lithium Battery

Shanghai Shanshan Lithium Battery has conducted a total of 32 training sessions for employees, covering areas such as quality assurance, production processes, technological know-how, and management skills. The completion rate for the 2023 training plan stood at 95%. Moreover, focusing on the buildup of internal resources, Shanghai Shanshan Lithium Battery introduced an E-learning platform in November 2023, which has enabled online training, thereby fostering the sharing of resources across the organization.

### Introducing E-learning Platform

In November 2023, Shanghai Shanshan Lithium Battery introduced E-learning platform, equipped with nail office system. To meet the daily needs of the headquarters, the establishment of E-learning platform as the ultimate goal, to create a combination of online and offline training ecology. Through the E-learning platform, Shanghai Shanshan Lithium Battery continuously precipitates internal courses, accelerates the dissemination speed and learning convenience of theoretical courses, improves the human efficiency of the training principals, and improves the online learning system.

E-learning Platform of Shanghai Shanshan Lithium Battery

## Shanjin Optoelectronics

In response to business growth and employee requirements, Shanjin Optoelectronics developed the 2023 Employee Training Program. Guided by this program, Shanjin Optoelectronics rolled out a wide range of training sessions, such as onboarding, technical understanding, and professional skills.In response to business growth and employee requirements, Shanjin Optoelectronics developed the 2023 Employee Training Program. Guided by this program, Shanjin Optoelectronics rolled out a wide range of training sessions, such as onboarding, technical understanding, and professional skills.

### Training session on optics knowledge

In May 2023, Shanjin Optoelectronics held a training session on optics, aimed at deepening the understanding of polarizer materials and polarizer industry among R&D employees. This training session lasted 1.5 hours with 16 participants achieving a 100% attendance rate and a 100% pass rate on the subsequent assessment.

Training session on optics knowledge

### Leadership workshop for team leaders

In November and December 2023, Shanjin Optoelectronics conducted a leadership workshop focused on transformative thinking for team leaders and higher-ranking staff. This initiative aims to enhance managers' cognitive awareness and facilitate a shift in their mindset, thereby elevating their leadership and managerial skills. This training lasted 6 hours with 35 participants achieving a 100% attendance rate and a 100% pass rate on the subsequent assessment.

Leadership workshop for team leaders

## Remuneration package

We are committed to establishing a fair and comprehensive remuneration package system by developing policies such as the Remuneration Package Management and the Employee Attendance and Leave Management. We ensure that salary adjustments are never based on gender, provide competitive salaries, pa pr ng n u e

Remuneration package system

## Corporate ladder

We hold in high regard the exceptional performance of every employee and have developed a thorough professional growth framework. By formulating policies such as Performance Assessment Management Measures, Role Assignment , Discharge, and Promotion Management System, and Job Description and Staffing, we have set clear position requirements and criteria for promotion eligibility. Our ongoing efforts to improve employee management aim to boost employee motivation, encourage them to fully apply their abilities, and thereby enhance the Company's overall competitiveness.

| | |
|---|---|
| Rules on implementation of the employee development plan | Long-term success, flexibility, coordination, fairness, efficiency, and innovation |

### Employee promotion pathway at Shanjin Optoelectronics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Rank progression | Assistant | Specialist | Supervisor | Senior | Supervisor | Section Chief | Deputy Director | Director |
| Position progression | Department Manager | Department Director | Senior Management | | | | | |

### Employee promotion pathway at Shanghai Shanshan Lithium Batter

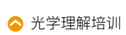
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Ranking of frontline operation positions | Operator | Team Leader | Production Supervisor | | | | |
| Ranking of management positions | Staff | Supervisor | Senior Supervisor | Assistant Director | Deputy Director | Director | |
| Ranking of professional positions | Technician | | | | | | |

# Diverse Employee Life

We strive to diversify the cultural and spiritual lives of our employees by organizing a range of activities, including anniversary celebrations, holiday-themed events, sports and cultural competitions, outdoor adventure programs, and charitable environmental initiatives. These activities offer our employees opportunities to relax and strengthen team unity beyond the work environment. Moreover, we strive to enhance employees' feeling of belonging and their satisfaction by establishing financial aid for employees in need and assist retirees with the retirement process, organizing send-off events for departing colleagues, and presenting them with commemorative trophies and gifts.

### 20th Anniversary Celebration of Shanghai Shanshan Lithium Battery's Ningbo Plant: Uniting for a New Chapter

In July 2023, Shanghai Shanshan Lithium Battery's Ningbo Plant hosted a 20th anniversary celebration. Executive representatives delivered speeches, reflecting on the robust growth of the base over the past two decades, and presented commemorative medals to veteran employees in recognition of their contributions and to express gratitude for their dedicated service. Employees gathered for a joyous occasion, engaging in fun and entertaining games. Meanwhile, those who remained at their posts received delicious snacks, further strengthening employees' cohesion and unity.

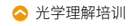



20th anniversary cake cutting

"Charades" game activity

### Charity sale to promote green, low-carbon and eco-friendly concepts

In September 2023, Shanghai Shanshan Lithium Battery heeded the call for environmental protection by organizing a charity sale to promote green, low-carbon and eco-friendly concepts. The charity sale was met with enthusiastic participation from our employees, serving not only to enrich their lives but also as a practical action to embrace a sustainable, low-carbon, and green lifestyle. This collective effort contributes to the shared goal of building a beautiful home for all.




Charity sale activity

### Employee sports event for health and well-being

Shanjin Optoelectronics consistently prioritizes the physical and mental health of employees. In May 2023, the Company held a playful sports event for employees, with participants from different departments joining together in friendly competition. This event, designed to uplift spirits and encourage a proactive approach to life, helps to ease work stress and enhance the health and well-being of employees.

Employee sports event for health and well-being

### Employee spring outing for team cohesion

Shanjin Optoelectronics arranged a spring outing for employees to enhance their leisure activities. Together, they experienced the beauty of the natural scenery and explored unique local landmarks, which not only deepened their friendships but also made them feel genuinely valued and cared for by the company.

Employee spring outing for team cohesion

# Occupational Health and Safety

We have implemented a robust occupational health and safety management framework to secure a safe and health workplace for our employees. For instance, we have formulated guidelines such as the *Occupational Health Management Procedures* and *Quality, Environmental & Occupational Health and Safety Manual*. In 2023, Shanghai Shanshan Lithium Battery and Shanjin Optoelectronics, along with seven subsidiaries in total, were awarded the ISO 45001 Occupational Health and Safety Management System certificates. In particular, Shanghai Shanshan Lithium Battery's Ningbo Plant was a newly certified company compared with the same period in 2022.

We are committed to enforcing regulations such as the *Work Safety Law of the People's Republic of China* and have formulated rules such as the Safety Production Target Management System, *Safety Inspection System*, and *Hazards Identification and Risk Assessment Standards*. Following a strategy of deconstructing complex safety objectives into manageable tasks, we implement these tasks categorically, advance step by step, and aim for overall improvement. We have established a Safety Risk Grading and Control Group to regularly conduct safety patrols and perform hazards identification and risk assessments, thereby strengthening risk management in our work environments. We prioritize the development of a safety culture within our organization by actively engaging in a variety of campaigns, including emergency response exercises and observance of National Safety Production Month, which are designed to bolster our employees' commitment to safe working practices.

In June 2023, as the nation celebrated the 22nd National Safety Production Month, Shanghai Shanshan Lithium Battery initiated safety-themed campaigns at its headquarters and across its subsidiaries with the slogan "Safety for All, Emergency Readiness for Everyone".

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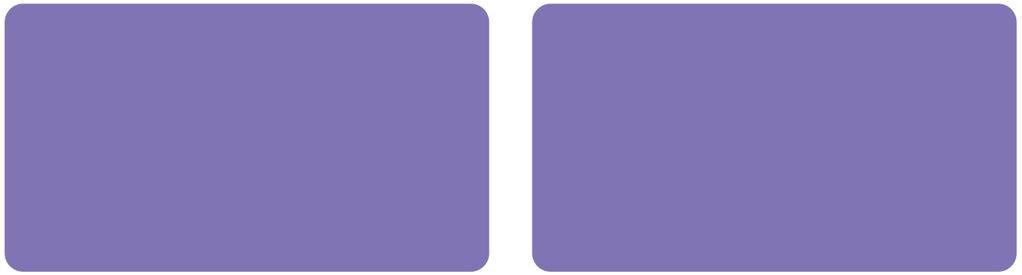
As part of our commitment to managing occupational health and safety risks, we vigorously engage in health and safety training to prevent and reduce workplace accidents, supply labor protection items, medical kits, and AED devices, and organize health screenings annually for employees who have been with us for a year and for new joiners, all to ensure their personal health and safety.



First aid kit and AED device

**Carry out pre-assessment of occupational hazards to prevent occupational health risks**

Case

In 2023, during the construction and pilot phase of its Ningbo silicon-based facility, Shanghai Shanshan Lithium Battery conducted a pre-assessment for occupational hazards as mandated by law. The Company formulated the Preliminary Occupational Hazard Risk Assessment Report, identified risk factors, and provided pre-employment health screenings for 50 employees at risk of exposure, and replaced employees with identified occupational health contraindications.

**Heatstroke emergency drill for employee safety**

Case

In June 2023, Shanghai Shanshan Lithium Battery's Jiuyuan Plant conducted a combined tabletop and on-site drill for heatstroke emergencies. This exercise aimed to test the emergency plan, train employees, refine the response mechanisms, and enhance preparedness, ensuring the ability to swiftly and effectively manage any such incidents.

Heatstroke emergency drill

**Focus on employees' mental health, conduct emotional management workshops**

Case

As an initiative to value employee mental health, in July 2023, Shanghai Shanshan Lithium Battery's Ningbo Plant invited an external instructor to lead a workshop for 35 workshop employees on managing and releasing stress and emotions during extreme heat and high-intensity work, aiming to help them alleviate pressure and ensure their mental and physical well-being.

Workshop on stress management and emotional release

**Occupational health campaigns for enhanced safety and emergency response**

Case

In 2023, Shanjin Optoelectronics (Nanjing) organized a safety and health-themed event, where an external doctor was invited to explain to employees the management of the Company's health supervision files, the details of occupational hazard notification cards, and the provision of personal protective equipment, aiming to enhance both individual and collective awareness and prevention of diseases.

A safety and health-themed event

**In 2023**

403
OHS-related trainings

260
emergency drills of various types

28
work-related injuries

First aiders totaled
98

Investment in employee safety and health totaled RMB
51.87 million

with a medical examination coverage rate of
100%

# Parti in Public Welfare Efforts

We champion
positive energy
to stay engaged
welfare trainin
charitable caus
and respect for

ring

2023, Shanjin Optoelectronics (Nanjing)
Red Cross Blood Center
titled

**In 2023**

80 of o

totaling

200

# Promoting Rural Revitalization

In 2023, guided by Xi Jinping's Thought on Socialism with Chinese Characteristics in the New Era, we fully implemented the central government's directives on consolidating and expanding the achievements of poverty alleviation and promoting rural revitalization comprehensively. We made detailed and practical efforts to implement the six initiatives, and actively fulfilled our political and social responsibilities in rural pairing assistance, so as to jointly create a better future for society.

## Claiming one mu of land to support rural prosperity and development

Case

In 2023, Shanghai Shanshan Lithium Battery's Fujian Plant actively participated in the "Claiming One Mu of Land and Becoming a Land Owner" activity organized in Dajia Town, Gutian County, Ningde City, Fujian Province, claiming a total of 40 mu (about 26 thousand square meters) of paddy fields. This action was a response to and implementation of the national rural revitalization strategy aimed at supporting, benefiting, and prospering farmers.

Certificate of claiming one mu of land

## Rural pairing assistance and support for impoverished communities

Case

In 2023, in line with the spirit of the 20th CPC National Congress, Shanghai Shanshan Lithium Battery's Fujian Plant collaborated with underprivileged individuals in its vicinity. *The company focused* on improving their quality of life, conducting quarterly *visits and providing* assistance, aiming to address the villagers' challenges and effectively fulfill its social responsibility.

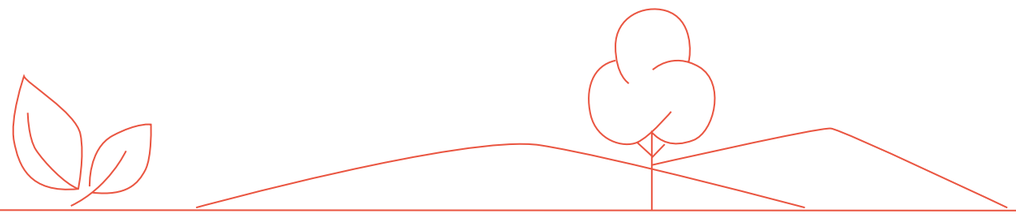
Consolation for the needy

## Compassionate support and consolation for the elderly living alone

Case

In October 2023, the Party Branch of Shanghai Shanshan Lithium Battery's Sichuan Plant joined forces with the Trade Union to organize an event titled "Consolation for the Needy", aimed at providing comfort and support to several elderly individuals living alone. By offering them essential supplies, the event allowed these seniors to deeply feel the care and warmth from both society and the corporate sector, embodying the principle of doing practical deeds for the people.

Supplies aid visit to solitary elders



# Key Performance Indicators

| Aspect | Indicator | Unit | Year 2021 | Year 2022 | Year 2023 |
|---|---|---|---|---|---|
| Economy | Revenue | RMB 10,000 | 2,069,938.26 | 2,170,161.73 | 1,907,022.52 |
| | Net profits | RMB 10,000 | 357,032.64 | 282,540.09 | 76,482.02 |
| | Total assets | RMB 10,000 | 4,028,846.90 | 4,492.549.12 | 4,847,496.60 |
| | Tax paid during the reporting period | RMB 10,000 | 137,925.41 | 87,280.19 | 104,614.29 |
| Society | Total number of employees | Person | 5,982 | 7,543 | 8,095 |
| | Number of R&D personnel | Person | 140 | 137 | 402 |
| | Proportion of R&D personnel | % | 2.34 | 1.82 | 4.97 |
| | Total amount of R&D investment | RMB 10,000 | 71,563.21 | 95,257.23 | 86,829.73 |
| | Number of safety incidents | Cases | 0 | 0 | 28 |
| | Total amount of safety and health investment | RMB 10,000 | 3,919.00 | 4,456.48 | 5,186.88 |
| | Safety and health training coverage | % | 100 | 100 | 100 |
| | Medical examination rate | % | 100 | 100 | 100 |
| | Number of newly added employees with occupational disease | Person | 0 | 0 | 0 |
| | Total amount of social welfare investment | RMB | 30,000 | 1,260,000 | 1,378,000 |
| | Social contribution value per share | RMB/share | 2.95 | 2.38 | 1.65 |
| Environment | Total amount of waste gas emissions | Tons | 70.60 | 89.52 | 309.72 |
| | Total amount of recyclable wastes | Tons | 28,185.05 | 31,990.83 | 13,782.23 |
| | Total amount of solid wastes | Tons | 46,313.93 | 60,132.48 | 50,301.11 |
| | Total amount of hazardous wastes | Tons | 7,303.51 | 7,662.26 | 8,179.78 |
| | Total amount of recycled hazardous wastes | Tons | 1,405.32 | 1,706.35 | 2,586.93 |
| | Total amount of wastewater | Tons | 1,627,074.94 | 1,555,865.60 | 1,717,750.77 |
| | Total water consumption | Tons | 2,409,716.23 | 2,501,502.20 | 4,001,617.45 |
| | Water use intensity | Tons/RMB 10,000 | 1.16 | 1.15 | 2.10 |





# Benchmarking

| | |
|---|---|
| Statement of used | Ningbo Shanshan Co,Ltd.has reported the inform ation cited in this GRI index for the period from January 1,2023 to December 31,2023 with reference to the GRI Standards. |
| GRI 1 Used | GRI 1:Foundation 2021 |

| GRI Indicator | Disclosure | | Location |
|---|---|---|---|
| GRI 2: General Disclosures | G2-1 | Organizational details | About This Report、About Shanshan |
| | G2-2 | Entities included in the organization’s sustainability reporting | About This Report |
| | G2-3 | Reporting period, frequency and contact point | About This Report |
| | G2-6 | Activities, value chain and other business relationships | About Shanshan、Responsible Supply Chain Management |
| | G2-7 | Employees | Employee Welfare Assurance |
| | G2-9 | Governance structure and composition | Consolidating Corporate Governance |
| | G2-10 | Nomination and selection of the highest governance body | Consolidating Corporate Governance |
| | G2-11 | Chair of the highest governance body | Consolidating Corporate Governance、Refer to Annual Report |
| | G2-12 | Role of the highest governance body in overseeing the management of impacts | Consolidating Corporate Governance、Refer to Annual Report |
| | G2-13 | Delegation of responsibility for managing impacts | Consolidating Corporate Governance |
| | G2-14 | Role of the highest governance body in sustainability reporting | Our Path to Sustainable Development |
| | G2-15 | Conflicts of interest | Refer to Code of Conduct |
| | G2-16 | Communication of critical concerns | Consolidating Corporate Governance、Our Path to Sustainable Development |
| | G2-17 | Collective knowledge of the highest governance body | Our Path to Sustainable Development |
| | G2-19 | Remuneration policies | Refer to Annual Report |
| | G2-20 | Process to determine remuneration | Refer to Annual Report |
| | G2-21 | Annual total compensation ratio | Refer to Annual Report |
| | G2-22 | Statement on sustainable development strategy | Our Path to Sustainable Development、Response to Climate Change |

| GRI Indicator | | Disclosure | Location |
|---|---|---|---|
| GRI 403 Occupational Health and Safety | G403-5 | Worker training on occupational health and safety | Occupational Health and Safety |
| | G403-6 | Promotion of worker health | Occupational Health and Safety |
| | G403-7 | Prevention and mitigation of occupational health and safety impacts directly linked by business relationships | Occupational Health and Safety |
| | G403-9 | Work-related injuries | Occupational Health and Safety |
| | G403-10 | Work-related ill health | Occupational Health and Safety |
| GRI 404 Training and Education | G404-1 | Average hours of training per year per employee | Employee Growth Support |
| | G404-2 | Programs for upgrading employee skills and transition assistance programs | Employee Growth Support |
| GRI 405 Diversity and Equal Opportunity | G405-1 | Diversity of governance bodies and employees | Consolidating Corporate Governance、Employee Welfare Assurance |
| GRI 406 Non-discrimination | G406-1 | Incidents of discrimination and corrective actions taken | Not Involved |
| GRI 408 Child Labor | G408-1 | Operations and suppliers at significant risk for incidents of child labor | Not Involved |
| GRI 409 Forced or Compulsory Labor | G409-1 | Operations and suppliers at significant risk for incidents of forced or compulsory labor | Not Involved |
| GRI 413 Local Communities | G413-1 | Operations with local community engagement, impact assessments, and development programs | Participating in Public Welfare Efforts、Promoting Rural Revitalization |
| GRI 414 Supplier Social Assessment | G414-1 | New suppliers that were screened using social criteria | Responsible Supply Chain Management |
| | G414-2 | Negative social impacts in the supply chain and actions taken | Not Involved |
| GRI 416 Public Policy | G416-1 | Assessment of the health and safety impacts of product and service categories | Ensuring Strict Quality Control、Chemical Safety Management |
| GRI 417 Marketing and Labeling | G417-1 | Requirements for product and service information and labeling | Ensuring Strict Quality Control、Chemical Safety Management |
| GRI 418:Customer Privacy | G418-1 | Substantiated complaints concerning breaches of customer privacy and losses of customer data | Not Involved |





# Reader Feedback

Dear readers,

Thank you for reading the Ningbo Shanshan Co., Ltd. 2023 Environmental, Social, and Governance (ESG) Report. Your feedback and suggestions are greatly appreciated as the Company strives to provide more valuable information to you and other stakeholders and to continuously improve its ability to fulfill its corporate social responsibility.

Check the box that applies:

1. How would you rate this report in general?
☐ Excellent ☐ Good ☐ Average ☐ Poor ☐ Very Poor

2.How responsive do you think the report is to stakeholder concerns and the level of disclosure?
☐ Excellent ☐ Good ☐ Average ☐ Poor ☐ Very Poor

3.How would you rate Shanshan's performance in fulfilling its financial responsibility?
☐ Excellent ☐ Good ☐ Average ☐ Poor ☐ Very Poor

4.How would you rate Shanshan's performance in fulfilling its environmental responsibility?
☐ Excellent ☐ Good ☐ Average ☐ Poor ☐ Very Poor

5.How would you rate Shanshan's security management performance?
☐ Excellent ☐ Good ☐ Average ☐ Poor ☐ Very Poor

6.How would you rate Shanshan's performance in fulfilling its employee responsibility?
☐ Excellent ☐ Good ☐ Average ☐ Poor ☐ Very Poor

7.How would you rate Shanshan's performance in fulfilling its community responsibility?
☐ Excellent ☐ Good ☐ Average ☐ Poor ☐ Very Poor

8.Are the information, indicators, and data disclosed in the report clear, accurate, and complete?
☐ Excellent ☐ Good ☐ Average ☐ Poor ☐ Very Poor

9.Do you find the content structure and format of the report to be reader-friendly?
☐ Yes ☐ Yes

Open-ended question:

Do you have any comments or suggestions regarding Shanshan's corporate social responsibility and this report?