

# Sany Heavy Equipment International Holdings Company Limited

(Limited company incorporated in the Cayman Islands)

Stock code: 631



**2023** Environmental, Social and Governance Report

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Sany Heavy Equipment International Holdings Company Limited is pleased to present its Environmental, Social and Governance Report 2023 (the "Report"), which summarizes the Group's policies, measures, and performance on key environmental, social and governance ("ESG") issues.

#### ⟨□⟩ Reporting Period

This Report sets out the Group's overall performance in environmental, social and governance aspects for the period from January 1, 2023 to December 31, 2023 (the "Reporting Period"). Some contents date back to previous years or involve 2024.

#### Reporting Scope

The reporting scope of this Report is mainly based on the importance of business income to the Group. The disclosed information covers the business sectors that are the main sources of revenue of the Group, including the mining equipment sector, logistics equipment sector, oil & gas equipment sector and emerging business sector. The different scope covered by the specific contents hereunder has been especially noted in the relevant parts of this Report, if any.

#### ⟨O⟩ Appellations

For the convenience of presentation, Sany Heavy Equipment International Holdings Company Limited is hereinafter referred to as "Sany International" or the "Company" in this Report. Sany Heavy Equipment Co., Ltd., the main subsidiary of the Company, is hereinafter referred to as "Sany Heavy Equipment", Sany Marine Heavy Industry Co., Ltd. is hereinafter referred to as "Sany Oil Technology Hongkong Limited is hereinafter referred to as "Sany Oil". The Company and its subsidiaries are hereinafter referred to as "the Group".

#### ⟨□⟩ Criteria of Reporting

This Report is prepared in accordance with the Environmental, Social and Governance Reporting Guide ("the Guide") in Appendix 27 of the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited ("Main Board Listing Rules") issued by The Stock Exchange of Hong Kong Ltd. ("SEHK"), and based on four reporting principles, Materiality, Quantitative, Balance and Consistency specified in the Guide. The contents disclosed in this Report comply with the requirements of "comply or explain" in the Guide of SEHK.

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Governance and

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#### Materiality:

The company follows a systematic process to identify materiality issues and determines the content and scope of disclosures through processes such as stakeholder communication and management assessment. For a more detailed materiality identification process, please see [ESG Governance - Materiality Assessment].

#### Quantitative:

The key quantitative performance indicators disclosed in this report follow scientific statistical standards, methods, calculation tools and common conversion factors, and we have explained the important cited sources, calculation methods and data changes (where applicable) in the report. Where applicable, quantitative performance targets have also been set.

#### Balance:

The purpose of this report is to provide objective and balanced disclosure of Sany International's efforts and performance in all aspects of ESG during the reporting period, and to avoid disclosures that may inappropriately influence stakeholders' decision making.

#### Consistency:

The content and data disclosed in this report, as well as the statistical methods and caliber used, are consistent with those of previous years. Changes that may affect meaningful comparisons with previous years' reports are explained where appropriate.

The information in this Report comes from the Company's official documents and statistical data, as well as the consolidated summary of monitoring, management and operational data provided by subsidiaries in accordance with the Group's relevant systems. The final chapter of this Report includes a full content index for quick reference. The Company undertakes that this Report does not contain any false records or misleading statements, and the Company is responsible for the authenticity, accuracy and completeness of the content. This Report has been approved by the Board of Directors.

#### ( Report Acquisition

This Report is prepared in both Chinese and English. In case of any discrepancy between the Chinese and English versions, the Chinese version shall prevail. The electronic version of this Report can be downloaded from the official website of the Company at www.sanyhe.com and the website of SEHK at www.hkexnews.hk.

#### Information and Feedback

If you have any questions or suggestions for the Report, please call us or consult us by letter. Our contact information is as follows:



Address: No. 25, No. 16 Street, Kaifa Road, Economic and Technological Development Zone, Shenyang City, Liaoning Province



Tel: +86 24 -89318000



E-mail: tanglin@sany.com.cn



# About the Group

#### ( Introduction of the Group

Sany Heavy Equipment International Holdings Company Limited (hereinafter referred to as "Sany International" or the Company) was listed on the main board of the Hong Kong Stock Exchange on November 25, 2009. As a leading company in technology innovation and market development, Sany International not only actively promotes the globalization, transformation and upgrade of digitalization and low-carbon development, but also strengthens its independent R&D ability constantly. The Group also enhances cooperation with excellent global enterprises as well as promotes the high-quality development of the industry, being a top domestic manufacturer in the mining equipment sector, logistics equipment sector, oil & gas equipment sector and new energy equipment manufacturing. In the meanwhile, the Company gives top priority to environmental protection and social responsibility, and is committed to promoting sustainable development.

## Mining Equipment

The mining equipment business sector includes coal machinery, non-coal excavation and mining vehicles, among which coal machinery products contain roadheaders and coal mining equipment. With the widest product coverage and the richest product lines of domestic coal machinery products, the Company is a leading energy equipment supplier in China. The Group is the first company that can provide integrated equipment, transportation equipment and complete solutions in China. The roadheaders, integrated mining, anchor and protection equipment, combined coal mining units and mining transport vehicles the Group promotes radically change the mode of procuring single-unit manufacturing equipment by Chinese coal companies. With the concept of "digital mining, intelligent mining and green mining", the Company leads the accelerated development of industrial products in the direction of a complete set, unmanned operation, electrification and intelligence.

## Logistics Equipment

As the world's leading marine heavy machinery R&D, manufacturing and sales of large-scale logistics equipment manufacturing enterprises, logistics equipment business segment is also the domestic production of the largest tonnage, with the most complete series, the most advanced technology, and is one of the port machinery equipment providers. Following the trend of electrification, unmanned operation and smart ports, the Company has widely researched the application of 5G communication technology to unmanned devices in smart ports, with actual application in automation projects of multiple wharves. Besides, we have developed products such as automated transtainers, unmanned and electric container trucks and remote monitoring for intelligent driving to meet the demands of seaport automation, remote control, energy conservation and environmental protection.

## Oil & Gas Equipment

As China's leading oil and gas equipment manufacturing enterprises, the oil and gas equipment segment mainly engages in oil and gas field fracturing equipment and accessories, research and development, production and sales, as well as oil and gas field well cementing to increase the production of related technical services and other businesses. This segment is committed to protecting the country's energy security, and providing customers with safety, high efficiency, intelligent, environmentally friendly complete sets of petroleum equipment and integrated solutions and integrated services.

#### **Emerging Industry Equipment**

The emerging industry equipment segment serves as the Group's exploration, design and trial in the fields of photovoltaic, hydrogen and lithium battery equipment, hoping to create more opportunities for the Group in the global energy transformation. It is principally engaged in the production and sale of lithium battery manufacturing equipment, solar modules and hydrogen production equipment and provision of related services.

### O Corporate Mission and Culture



### Sany mission:

Quality changes the world



## Corporate culture:

Build first-class enterprises, foster first-class talents, make first-class contributions



## Sany spirit:

Constantly strive to become stronger, serve the country through industry



## Sany style:

Strive for excellence, combat inefficiencies and slow-downs



#### Operation principles:

All for the customer, all from innovation



#### **Enterprise ethics:**

Be just and faithful, be thankful

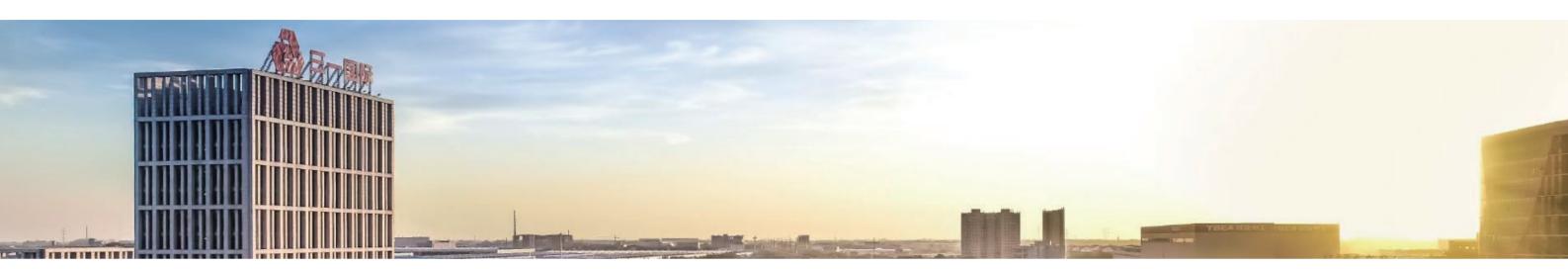


## Sany motto:

Dreams contribute to human advancement Try best to realize Sany's dream; realize self-value relying on Sany



2023 Environmental, Social and Governance Report



2023 is a critical year for us to build on the past successes of the 14th Five-Year Plan and open up a new future. General Secretary Xi Jinping has stressed the significance of building a Beautiful China, and called for more efforts to create a high-quality ecological environment to support high-quality development and accelerate the advancement of modernization featuring harmony between humanity and nature. Adhering to the national policies, Sany International has maintained the momentum of rapid growth, and further implemented the strategies of globalization, digitalization and decarbonization. In 2023, guided by the "Sustainable Development 2025 Strategy", the Group keeps focusing on and investing in the ESG field to orderly promote sustainable development.

In response to the national goal of "carbon peaking and carbon neutrality", we take "Actively Creating Low-Carbon Products and Solutions" as the development direction and work with stakeholders to address climate changes. In 2023, we conducted a scenario analysis of climate-related risks and opportunities, and performed a greenhouse gas (GHG) inventory of key categories along the value chain, laying a foundation for the formulation of a long-term carbon reduction strategy and a short- and medium-term action plan for energy-saving and emission reduction. We also take measures such as waste recycling and discharge control of waste gas and wastewater, sparing no effort to minimize our impacts on the environment. To this end, we actively promote clean energy, deploy photovoltaic modules, and advance the digital and intelligent transformation and upgrade of plants to improve production efficiency and reduce energy consumption. We also pursue a green office culture and advocate green development to facilitate the shift of employees toward a green and low-carbon lifestyle.

We respect employees' rights and interests and are committed to creating an inclusive, equal, and diverse workplace. Determined to strengthen local forces, we build talent teams in overseas operations where cultural diversity is embraced, and establish a sound overseas talent management system. Adhering to the principle of "Realize self-value relying on Sany", we provide diversified career development channels and a sound training system to help employees realize their values. Concerning employees' physical and mental health, we organize a variety of employee care activities, and continue perfecting the occupational health and safety management system to build a healthy and safe

working environment. In addition, we shoulder social responsibilities by engaging in community welfare and charity activities, aiming to promote the positive interaction between enterprises and society.

In terms of governance, the Group strives to establish a transparent, accountable and efficient governance mechanism. In improving our internal management structure, we have established an Environmental, Social and Governance Committee (ESG Committee) to set and review the Group's ESG goals and strategies and assist the Board of Directors in monitoring ESG-related matters. The management is responsible for overseeing the implementation of ESG strategies, while the ESG Working Group addresses specific ESG-related matters. Upholding honesty and self-discipline in business operations, Sany International strictly abides by laws and regulations as well as company rules and regulations, and protects the rights and interests of the Company and shareholders. Meanwhile, the internal control and risk management system are constantly optimized to protect the stability and sustainability of the Company.

With regard to intelligent and digital innovation, the Company endeavors to create smart, electrified and low-carbon products. Specifically, we increase R&D investment, and drive independent innovation in key technologies and products to deliver higher quality and performance, so as to continuously create value for customers. As part of our globalization strategy, we vigorously develop overseas businesses, bring our products to the international market and set up overseas production bases to expand our global presence.

We always translate our responsibilities into concrete actions. In 2024, we will advance the strategies of globalization, digitalization, and decarbonization, intensify investment and management in the ESG field, and promote the implementation of ESG strategies. To become a pioneer in sustainability, we will give full play to our established strengths, actively respond to environmental changes and deliver comprehensive economic, environmental, social and governance values to stakeholders and society.

Liang Zaizhong
Chairman



01

**ESG Governance** 

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ESG working

group

# **ESG Governance Structure**

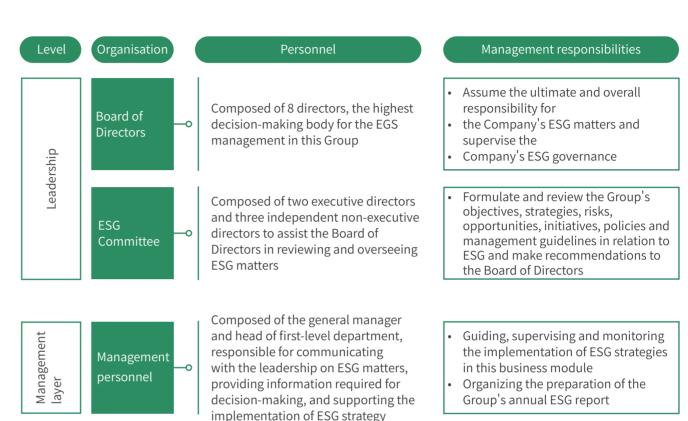
2023 Environmental, Social and Governance Report

Sany International always adheres to integrating environmental, social and governance factors into its operations to create sustainable value for stakeholders. To manage the Group's ESG matters more effectively, the Board of Directors formed an Environmental, Social and Governance Committee (ESG Committee) and established a governance structure of "Board of Directors - ESG Committee - Management Layer - Working Group" in February 2023.

As the highest governing body, the Board of Directors of the Group makes efforts to ensure that ESG factors are given sufficient attention at the decision-making level of the Group; the ESG Committee is responsible for setting and reviewing the ESG goals, strategies and other matters of the Group, assisting the Board of Directors in monitoring the ESG-related matters and is accountable to the Board of Directors; managers such as the general manager and heads of first-level departments, as the management coordination layer, are responsible for formulating ESG work plans, preparing the ESG report, tracking work progress and regularly reporting to the ESG Committee; the ESG Working Group, composed of various business departments, is responsible for implementing ESG-related matters and promoting the realization of ESG goals.

With a layered and collaborative governance model, Sany International effectively implemented the ESG strategies in 2023, fully demonstrating the Company's commitment and leadership in sustainable development.

#### Table: Sany International's ESG Governance Structure



theory into specific matters

- Composed of various operating departments, implementing the Company's instructions on ESG matters, and implementing the ESG

  \* Bearing the responsibility for ESG special work according to the functional positioning of the operating department
  - Participating in the preparation of the Group's annual ESG report







# Statement of the Board of **Directors**

# Responsibilities of the Board of Directors

The Board of Directors assumes overall supervision, guidance and review responsibilities for Sany International's ESGrelated work. The Company established an ESG Committee in 2023, comprising two executive directors and three independent non-executive directors. The ESG Committee is responsible for reviewing and overseeing ESG-related matters, making recommendations to the Board of Directors, and assisting the Board of Directors in its efforts to continually improve and deepen ESG management.

# Supervision of ESG Matters

To implement the "Sustainable Development Strategy 2025", the Company carries out material ESG issues assessment regularly, and presents the assessment results to the ESG Committee for review and assessment so that the management can be guided to optimize the ESG goals management system. The ESG Committee regularly reviews ESG goals and reports the results to the Board of Directors. In 2023, we disclosed the progress of our ESG work and performance against our ESG goals in the Environmental, Social and Governance Report.

# Issues of Materiality

Under the guidance of the Board of Directors and ESG Committee, the ESG Working Group maintains timely, close and transparent communication with stakeholders every year, and identifies and evaluates stakeholders' concerns on environmental, social and governance issues. The ESG Committee discusses and reviews the assessment results, determines the Group's environmental, social and governance risks and opportunities, and supervises and manages related content on an ongoing basis.





# **Sustainable Development Strategy**

The Company is committed to benefiting the environment and society in the course of development. We have formulated the "Sustainable Development Strategy 2025" based on 5 strategic pillars: quality first, operation based on responsibility, human orientation, environmental benefits and social benefits, and have set corresponding sustainable

Table: Sustainable Development 2025 Strategy

Dimension	Strategy	Goal and path
Quality first	Quality first is the core of our long-term development.	We aim to provide customers with a full range of high- quality products with stable performance and reliable quality that meet the needs of industrial development through high-quality production and technological innovation.
Operation based on responsibility	The development of win-win cooperation is our most basic operation concept.	We adhere to legal compliance and honest operation, provide first-rate services to customers, and work with suppliers to achieve mutually beneficial partnerships, striving to become an excellent enterprise trusted by employees, making customers satisfied, and enabling partners to obtain win-win results.
Human orientation	Talent is the source of power for the Company's development, and cultivating top talents is one of our important visions.	We aim to create a working environment that allows employees to work happily and efficiently, and give full play to their talents. We are committed to providing a good career development platform to achieve the common development of employees and the enterprise.
Environmental benefits	Environmental protection and green development are our consistent policies for sustainable development.	We aim to expedite the application of green technology and contribute green, energy-saving and efficient products to the industry; save resources and reduce emissions, and promote the production and construction of the enterprise with the policy of sustainable development.
Social benefits	As an enterprise with a sense of social responsibility, the Group is committed to promoting local economic development and contributing to local people's livelihood and harmony.	We aim to create a first-class enterprise, make a first-rate contribution, actively promote industrial development and are committed to community construction and volunteer services to achieve the unification of economic and social benefits.



# **Stakeholders Engagement**

While continuously pursuing sustainable development, the Company fully considers the demands of various stakeholders and incorporates them into operating decisions. The Company attaches great importance to communication with stakeholders and is committed to building fair, equitable, open and mutually beneficial

Table: List of Communication with Stakeholders

	Stakeholders	Expectations and requirements	Communication and response
	Customers	<ul> <li>Providing cost-effective services and products</li> <li>Improving product quality and service level</li> <li>Product after-sales service and guarantee</li> <li>Environment-friendly and low-carbon products</li> </ul>	<ul> <li>Customer satisfaction investigation</li> <li>Survey questionnaire</li> <li>New product introduction meeting</li> <li>Regular visits</li> </ul>
	Government and regulatory organizations	<ul> <li>Paying taxes in accordance with law</li> <li>Compliance operation</li> <li>Complying with laws and regulations</li> <li>Supporting local development</li> <li>Promoting local employment</li> <li>Protecting local environment</li> </ul>	<ul> <li>Daily email and telephone communication</li> <li>Working conference and training</li> <li>Irregular visits, supervision and inspection</li> </ul>
	Investment organizations/ Shareholders/ Analysts	<ul> <li>Information disclosure and transparency</li> <li>Corporate operation status</li> <li>Strengthening risk management and control</li> <li>Creating economic value</li> </ul>	<ul> <li>Annual report and periodic report</li> <li>Annual general meeting of stakeholders</li> <li>Performance release conference</li> <li>Announcement</li> <li>Investor hotline and mailbox</li> <li>Roadshow of investor relations</li> </ul>
(75th)	Suppliers/Partners	<ul> <li>Transparent and honest cooperation</li> <li>Win-win and mutual benefit</li> <li>Continuous operation</li> <li>Fairtrade</li> </ul>	<ul><li>Regular communication</li><li>Regular visits</li><li>Supplier training</li><li>Supplier audit</li></ul>

relationships with all stakeholders. To better identify various ESG risks and opportunities and set reasonable sustainability objectives, we have established a sound stakeholder communication mechanism to collect and respond to requests from all parties on a regular basis.

	Stakeholders	Expectations and requirements	Communication and response
	Employees	<ul> <li>Protecting the rights and interests of employees</li> <li>Safe and healthy working environment</li> <li>Good career development platform</li> <li>Competitive salary and welfare benefits</li> <li>Internal communication channels</li> </ul>	<ul> <li>Direct communication</li> <li>Employee mailbox</li> <li>Employee satisfaction survey</li> <li>Employee training</li> <li>Annual meeting/Team building activities</li> </ul>
	Academic/Research institutions	<ul> <li>Carrying out research cooperation</li> <li>Providing employment opportunities</li> <li>Conducting technical exchanges</li> </ul>	<ul><li>Visit</li><li>Daily email and telephone communication</li></ul>
000	Industrial association/ Professional organization	<ul><li>Driving industrial development</li><li>Improving product quality</li><li>Corporate social responsibility</li></ul>	<ul><li>Visit</li><li>Special sessions</li><li>Training</li></ul>
A A A A	Media	<ul><li>Services and products</li><li>Future development trends</li><li>Corporate social responsibility</li><li>Financial performance</li></ul>	<ul><li>Public reporting</li><li>Interviewing related personnel</li></ul>
	Non-government agency/Public benefit organization	<ul><li>Supporting public welfare</li><li>Fulfilling social responsibilities</li></ul>	<ul><li>Holding public benefit activities</li><li>Special sessions</li></ul>
	Local communities	<ul><li>Promoting employment</li><li>Enhancing community value</li><li>Promoting local development</li></ul>	<ul><li>Holding public benefit activities</li><li>Media report</li><li>Daily email and telephone communication</li></ul>

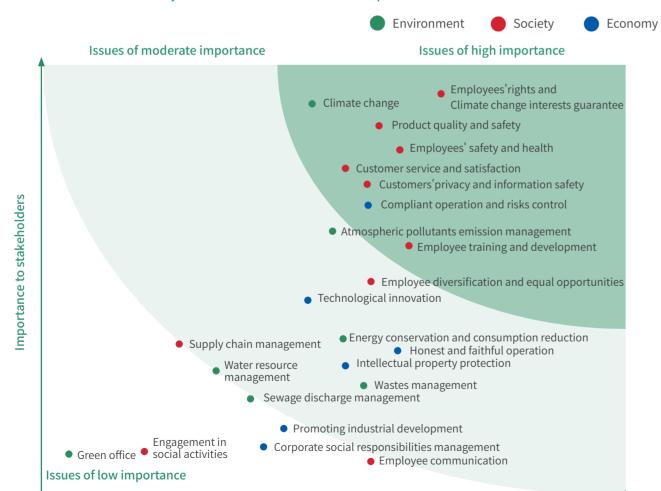




# **Materiality Assessment**

With reference to the requirements of the Environmental, Social and Governance Report Guide of the Hong Kong Stock Exchange, the Group has continuously improved the process for defining the report contents. To accurately identify material ESG issues, we have conducted a large-scale stakeholder survey to collect responses from both internal stakeholders (the management and general employees) and external stakeholders (customers, investors, suppliers and partners, academic institutions, public benefit organizations, and media). Following a comprehensive analysis of their responses, we have formed a material issues matrix. During the Reporting Period, we continuously tracked the changes in the level of concern on ESG issues among major stakeholders from two dimensions, namely the importance to the development of Sany International and the importance to stakeholders. By doing so, we ensured the reasonableness and feasibility of the material ESG issues database and the material issues matrix.

#### Material Issues Matrix for Sany International's Sustainable Development in 2023



#### Importance to corporate development

#### List of Sany International's Material Issues in 2023

#### Issues of high importance

- Employees'rights and interests guarantee
- 2 Product quality and safety
- 3 Climate change
- 4 Employees'safety and health
- Customers' privacy and information safety
- 6 Customer service and satisfaction
- Compliant operation and risks control
- 8 Employee training and development

#### Issues of moderate importance

- 9 Atmospheric pollutants emission management
- Employee diversification and equal opportunities
- 11 Technological innovation
- 12 Honest and faithful operation
- Energy conservation and consumption reduction
- Intellectual property protection
- 15 Wastes management

#### Issues of low importance

- 16 Supply chain management
- Sewage discharge management
- 18 Water resource management
- Promoting industrial development
- Corporate social responsibilities management
- 21 Green office
- 22 Employee communication
- 23 Engagement in social activities





02

# Governance and Compliance

Corporate Governance
Risk Management

Business Ethics Management 21

Protection of Intellectual Property Rights

Information Security and Privacy 25

Protection



Digital and Intelligent

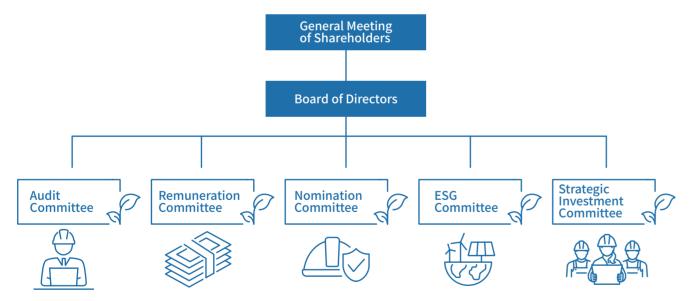
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# **Corporate Governance**

# **©** Governance Structure

To better realize the long-term steady development of the Company, Sany International strictly complies with laws and regulations such as the Company Law of the People's Republic of China, the Securities Law of the People's Republic of China, the Criminal Law of the People's Republic of China, the Anti-Unfair Competition Law of the People's Republic of China and the Interim Provisions on Prohibition of Commercial Bribery. Also, we strictly abide by the requirements of the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited and the Securities and Futures Ordinance, and carry out standard operations according to the governance structure of the general meeting of shareholders and the Board of Directors. By establishing and improving the Company's internal management system and process, we have detailed the Articles of Association and strengthened compliance operations to address the various risks and challenges faced by the Company in the process of operation and business development, thereby ensuring the healthy and stable development of the Company.

Table: Corporate Governance Structure



Sany International has established the Company's Board of Directors based on corporate governance principles, which is responsible for the Company's strategic decision-making, and supervision and management. The Board of Directors of the Company has 8 members with different professional backgrounds and industry experience, who can provide a wide range of ideas and diversified suggestions for the Company's strategic planning and business development. We plan to appoint an additional female director by the end of December 31, 2024.

# Board of Directors' Responsibilities

To better implement and allocate the work responsibilities of the Board of Directors, Sany International's Board of Directors has set up an Audit Committee, a Remuneration Committee, a Nomination Committee, an ESG Committee, and a Strategic Investment Committee, and formulated terms of reference and work procedure specifications for each committee at the company level. Each committee is composed of different directors, responsible for discussing and making decisions on specific matters of the Company, and regularly reporting to the Board of Directors. The composition and operation mode of the Board of Directors have been strictly regulated and supervised to ensure the scientific and reasonable decision-making of the Company. In 2023, we held a total of 4 general meetings of shareholders and 9 Board meetings.

Key performance: Board meetings in 2023



Number of general meetings of shareholders



Number of Board meetings

9

## Stakeholder Communication

Sany International has long attached great importance to investor relations management. According to the needs of different types of investors, we organize regular investor communication meetings, telephone conferences, website announcements, social media and other forms to realize positive interaction between the Company and investors, and give timely feedback on their suggestions and opinions. In March and August 2023, we conducted two "Investor Presentations" through a combination of on-line and off-line channels to keep close contact with investors and share the Company's business philosophy, development strategy and business achievements.







# Risk Management

To effectively manage corporate risks, Sany International has established a well-organized risk management system, which integrates risk management into all aspects of corporate management. We have established a risk management structure led by the Board of Directors and the Audit Committee, and assisted by the Risk Management Committee and Internal Audit Committee. By implementing corporate risk management in all aspects of corporate operation, we strive to reduce operational risks and ensure sustainable development of the Company.

In terms of risk identification, we use various means to conduct risk warnings and risk assessment, including internal monitoring and risk analysis, to comprehensively identify and assess corporate risks. In terms of risk response, the Company has established corresponding risk prevention and control measures to ensure timely treatment and control of risks. At the same time, we obtain all kinds of risk information in time through the risk communication and coordination mechanism, and take effective measures to address them, so as to reduce the negative impact of risks.



# © Ethical Management System

Sany International continues to strengthen the management of business ethics, constantly improves the management mechanism and process, and clarifies the code of conduct and professional ethics requirements of employees, so as to create an honest, fair, transparent and harmonious corporate culture.

In terms of management mechanism, we have established a business ethics management procedure under the guidance of the Company's Board of Directors and Audit Committee, with the cooperation of the Board of Supervisors, the Finance Department, the Human Resources Department, the Marketing Department and the Commerce Development, and conducted regular ethics audits every year. We jointly promote the Company's anti-fraud work and investigate suspicious or illegal behaviors related to bribery, extortion, fraud, and money laundering to ensure the integrity and legality of our operations.

In terms of institutional regulation, we have formulated a series of policies such as the Accountability Management System and the Conflict of Interests and Integrity Management System to regulate the business ethics of all employees and suppliers, intending to create a clean and efficient working atmosphere. We require our commercial purchasing personnel to strictly abide by the Commercial Personnel Behavior Management Regulations to ensure honesty and self-discipline, and improve their business operation capability as well as professional image. We require all employees to accept and pass the Negative List of Fraudulent Behaviors in Coping with Assessment and Accountability Examination to eliminate the occurrence of forgery, fabrication, tampering with records or vouchers, misrepresentation of administrative policies and systems, and concealing or covering up facts. Employees who violate the rules, according to the seriousness of specific events and their roles, will be subject to classified punishments such as fines, salary reduction, dismissal, and investigation by relevant judicial institutions.

# Anti-Corruption Training

Sany International regards the construction and management of business ethics as one of the important components of corporate governance. We strictly abide by the requirements of various laws and regulations, adhere to operating in compliance with the law, and hold regular anti-corruption training for all employees and contractors, so as to constantly improve the awareness of anti-corruption based on integrity. During the Reporting Period, we conducted 4 training sessions on business ethics (including anti-corruption training) for all employees (including contractors' employees and trainees), organized integrity education and training for all employees in the business system, and required the trainees to complete the relevant tests.

#### Case: Sany Oil's Integrity and Honesty Training for the Fourth Quarter of 2023

In December 2023, Sany Oil held the fourth-quarter integrity and honesty training for employees in the business system. The training further emphasized the regulations governing the behaviors of business personnel, including the 8 red lines that people must not cross. By presenting cases of non-compliance and reporting internal audit cases and procurement payment issues, we endeavor to promote an integrity culture and strengthen the awareness of business personnel in being honest and self-disciplined.

# Whistleblowing Management

Sany International pays attention to the voices from all walks of life, attaches importance to and supports supervision from all walks of life, establishes a standardized supervision mechanism, and joins the Chinese Enterprise Anti-fraud Alliance. We have formulated a comprehensive Whistleblowing Management System, standardized the processes of investigation and feedback, defined the authority of relevant departments, guided, protected and rewarded whistleblowers, and effectively investigated and dealt with violations of laws and disciplines. We have set up a smooth reporting channel, a suggestion box and a reporting hotline, providing both oral and written reporting forms, and keeping the personal information of the whistleblower and the provided reporting information strictly confidential. We promise that the whistleblower will not be treated unfairly, retaliated or hurt because of reporting. We offer the following channels for consulting and reporting:



Email: jiancha@sany.com.cn



WeChat: Sany Official Account



QQ: 2592689550



Tel: +86 024 89318111



Reception office: 073, 4th Floor, R&D Building, Shenyang Park

In addition, we systematically manage the report and complaint account through the "Sany Smart Supervision and Audit Platform", clearly identify the units involved and supervisory authorities, determine the secondary and tertiary treatment processes according to regulations, implement feedback and follow up on the work progress, so as to improve the efficiency of report supervision and management.

## Environmental

# Anti-Corruption in the Supply Chain

Sany International strictly implements anti-corruption work in the supply chain, requires suppliers to abide by national laws and regulations and business ethics, and strictly prohibits the use of illegal means to seek illegitimate interests. To strengthen the management and supervision of suppliers, we conduct quarterly integrity meetings that cover all suppliers, conduct regular supplier inspections, and require suppliers to sign the Statement of Requirements for Fairness and Integrity in Business Procurement Activities. Beyond that, we also include integrity clauses in annual contracts for supplier access to regulate and clarify the code of conduct and division of responsibilities for cooperation between the two parties. Suppliers who violate the law and the integrity clauses will be punished by 100 times the amount of the bribe and will be blacklisted from cooperation. During the Reporting Period, we signed integrity agreements with 1,050 suppliers.

### Key performance: Business ethics management in 2023



Number of litigation cases









# Protection of Intellectual **Property Rights**

Sany International attaches great importance to the protection of intellectual property rights, committed to developing into an intellectual property model enterprise, and actively creating a good corporate innovation culture. We strictly abide by the relevant laws and regulations such as the Patent Law of the People's Republic of China, the Tort Liability Law of the People's Republic of China and the Enterprise Intellectual Property Management Regulations. On this basis, we systematically manage different forms of intellectual property rights like patents and trademarks and have built a "Three-in-One" intellectual property protection strategy system comprising enterprise business strategy, research and development strategy, and intellectual property strategy. In accordance with the intellectual property management policy "Incentivized Creation, Effective Application, Legal Protection, and Scientific Management", we have formulated the R&D Patent Work and Management Regulations, the Overseas Patent Application Guide, and other intellectual property policies. Such policies are designed to standardize product patent management, protect the invention and creation results, and proactively avoid the risk of patent infringement. During the Reporting Period, we did not have any intellectual property infringement lawsuits.

#### **Development Strategy and Goals**

#### Short-term (3-5 years)

Apply for 500 invention patents and obtain 270 authorized invention patents.

## Medium-term goal

Establish a sound intellectual property management system and obtain relevant certifications, expand the contribution of patents to business operations and product research and development, and enhance brand value.

#### Long-term goal

The operation of intellectual property rights will become one of the Company's profit sources; intellectual property rights such as patents, trademarks, and copyrights (including software copyrights) will be managed in a centralized and unified manner.

#### **Intellectual Property Management System**

Establish the R&D Management **Leading Group Office** 

Responsible for patent application, patent risk analysis and coordination, patent information sharing, key patent risk processing support and supervision

**Undertake patent** risk analysis

Before the products are exhibited and exported, the research institutes of each business department should organize a patent risk analysis, and must sign a letter of commitment and report it to the R&D Management Office for filing to avoid patent risks

Establish a full-time position as patent engineer

The R&D Management Office publishes the qualification standards for patent engineers. The patent engineer needs to undergo qualification training and examinations and can start working only after passing the examination

Conduct patent training

New R&D personnel must pass the patent training given by the patent engineer

Apply for international patent

International patent applications are submitted through the Patent Cooperation Treaty (PCT), and the overseas patent layout covers countries and regions such as Australia and South Africa



# Information Security and **Privacy Protection**

Information security and privacy protection are important responsibilities and obligations of enterprises, and important means for enterprises to protect the rights and interests of customers and employees. Sany International strictly abides by laws and regulations such as the Law of the People's Republic of China on the Protection of Consumer Rights and Interests, as well as the Personal Data (Privacy) Ordinance and the Consumer Council Ordinance of the Hong Kong Special Administrative Region, to comprehensively protect the rights and privacy of customers. We keep all customer information strictly confidential, and unauthorized persons cannot obtain any information.

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Sany International has established an information security management system consisting of the Information Security Management Department, Process and Structure Management Department, Platform Management Department, Process Informatization Department, and IT Operation and Maintenance Department. In addition, by classifying information assets and assessing risks, we have established a perfect information security management system. The system consists of several sets of subdivided management systems, including the Sany International Industrial Control Information Security Management System, the Sany International Third-Party Personnel Information Security Management Regulations, the Sany Group Employee Information Security Management System and the Sany Group R&D Information Security Management System. At the same time, we continue to provide confidentiality training for employees, requiring all employees to take information security training and examinations to ensure that the responsibility of keeping business secrets is implemented by all relevant staff. If documents are found to be leaked or information security incidents occur, the Group will notify the relevant personnel and punish them accordingly. If any illegal acts are involved, we will investigate their legal responsibilities. During the Reporting Period, we did not have any information security or privacy leakage incidents.

# Red Line of Information Security Behaviors

We define the "Ten Prohibitions" red line behaviors affecting information security to deal with and mitigate the hidden dangers and risks of information security, including: without approval, it is strictly forbidden to transfer the confidential information of the Company to the outside of the Group in any form through USB copy, email, and WeChat; it is strictly forbidden to use confidential information such as internal documents, drawings, processes, marketing and financial reports for personal business activities; and it is strictly forbidden to lend or share other people's domain accounts and information system accounts. Violations of the red line of information security will be punished with reference to the Accountability Management System.

# Information Security Training for Employees

The Company carries out information security training for employees, covering multiple course modules of password security, email security, terminal security, data security, and smartphone security. Besides, we have put forward suggestions for the safe use or protection against potential information security issues to improve employees' information security awareness in multiple dimensions and standardize the employees' information security behaviors.

In 2023, Sany Heavy Equipment made great efforts to raise staff's information security awareness. Through a series of information security training and testing activities, our information security has been effectively strengthened. We conducted phishing tests from time to time. By simulating real phishing attacks, we trained employees to identify and prevent potential security risks, and effectively improved the overall information security protection capability. We organized 3 company-level information security training sessions and 2 group-level security training sessions to instruct employees on how to identify cybersecurity threats and protect company data from being compromised. In addition, we also arranged 2 information security awareness exams to assess and enhance employees' understanding and application of information security knowledge.



company-level information security



group-level security training sessions





03

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# Green R&D

R&D innovative ability is always the first driving force for the development of Sany International. The Group regards technological innovation as the foundation for corporate development, and sticks to the orientation of "Actively Creating Clean Technology Products and Solutions" in research and development. We constantly apply clean technology and integrate the concepts of intelligent, electrified and clean products throughout the whole industry chain, striving to build the Company into a future leader in the smart clean technology industry.



Increase in cleantech R&D investment

15%

We aim to increase our cleantech R&D investment by 15% in 2025 compared to 2023.



# Development Strategy of Electrification

Sany International firmly promotes the research and development strategy of electrification and continuously increases investment in scientific and technological research and development and technological innovation. Relying on advanced research and development platforms such as symbolic test benches and the intelligent product design platform, we have made numerous technological breakthroughs in the direction of intelligence, cleanness and unmanned operation. Also, a number of electrical products such as the wide-body electric loader, intelligent roadheader, electric reach stacker, electric empty container handler and electric truck have been launched.

# Case: The 12-tonne Pure Electric Heavy Forklift SCP120E Rolls off the Assembly Line

In 2023, we rolled out the 12-tonne pure electric forklift truck SCP120E in Sany's Zhuhai Industrial Park. Integrated with Sany's next-generation control system, the newly designed high-position panoramic cab enables response within 350ms. This pure electric heavy forklift was developed with full consideration of both energy consumption control and multi-type cargo operation scenarios, which allow operations under complex conditions. The consumption reduction technologies adopted include:

- 600V high-voltage lithium-ion battery system, which can help reduce heat losses by 3%
- Integrated thermal management system, which can help save energy consumption by 3%
- Motor direct-drive technology, which can help save energy consumption by 5%
- Energy recovery technology, which can help save energy consumption by 5%

At present, Sany's electric heavy forklifts have covered 10T, 12T, 16T and 25T truck cranes.



# Intelligent Development Strategy

Based on the characteristics of their respective businesses, each business department within the Group continues to offer customers innovative, automated and intelligent solutions that require less manpower. This is conducive to consolidating and enhancing product competitiveness while improving the quality and efficiency of the service.

### Sany Heavy Equipment

Sany Heavy Equipment attaches great importance to the intelligent construction and intelligent excavation production of coal mines. With a focus on R&D of key technologies such as intelligent systems and equipment, Sany Heavy Equipment continues to promote the product competition of intelligent roadheaders, aiming to provide continuous motivation for the intelligent construction of mines.

# Case: Technological Innovations Enable Sany Heavy Equipment to Provide Solutions to Intelligent Mines

Mines are the most suitable scenario for commercializing automatic driving technologies. With the guidance of relevant policies and the successful application of technologies such as unmanned driving and 5G+ industrial Internet in mines, the intelligent and green transformation of mines has entered into a rapid growth period.

Sany Heavy Equipment has designed a unique intelligent mines system based on the "cloud, edge and end" architecture of the industrial Internet. Through deep integration with modern open-pit mining technologies, the system has built a mines oriented integrated platform featuring in comprehensive sensing, real-time interconnection, data fusion, intelligent decision-making, safety and efficiency. The construction of intelligent mines will help to solve traditional pain points and difficulties in the mining operation process, such as the safety red line, severe environment, employment discontinuity, urgent cost reduction and complex management.

In addition, the Company has created a complete series of intelligent mines products matrix and solutions by relying on the intelligent manufacturing capabilities of its global lighthouse factories, setting standards for the industry. The Company's comprehensive solutions to intelligent mines have been implemented in coal mines, metal mines, sandstone and aggregate mines and water conservancy projects. A total of more than 100 unmanned mining trucks have been deployed with a cumulative mileage of over 2 million kilometers and a transported earthwork volume of over 10 million cubic meters.



In the future, the Company will work with partners to research in autonomous driving scheduling platform, remote driving platform, EHS solutions in the mining area, remote control products, etc. to form differentiated ecological advantages. The efforts mentioned above aim to facilitate intelligent, unmanned and digital transformations of the mining industry. In doing so, the Company also actively responds to the national strategic planning on "digitalization" and "carbon peaking and carbon neutrality" in order to provide strong support for the high-quality development of the national energy industry and the construction of the digital economy.

### **Sany Marine**

Sany Marine is devoted to building world-class green and intelligent ports. We conduct independent development of core key technologies for smart ports and focus on launching multiple new energy and new intelligent products such as electric reach stackers, unmanned pure electric tractors and automated container transport vehicles. With the continuous growth in R&D investment and talent scale, Sany Marine has successfully shifted its businesses from intelligence solutions to single machine to complete sets of intelligence solutions. In addition, Sany Marine has also formed a batch of typical cases to facilitate the green and intelligent development of port logistics.

## The "Four Firsts" of Sany Marine in Realizing Intelligent Ports



Case: Intelligent Pure Electric Dispatching System to Help Ports Realize Green and Intelligent Development

In 2018, Sany Marine started to manufacture pure electric port tractors based on working conditions at ports. By now, its products have been widely used at major ports along the coast and Yangtze River basin. With bulk orders from overseas mainstream port operators such as Hutchison, Maersk and DP, Sany Marine has been maintaining a leading market share. However, with the acceleration of green port construction around the world, there is more and more electric equipment in the port area. Subsequently, problems such as difficulties in charging scheduling, long queue time and fast rise of electricity fees are becoming increasingly prominent. To solve these problems, Sany Marine has independently developed an intelligent charging scheduling system. Through the Internet of Things technology, the system can closely connect charging

piles, electric vehicles and drivers. The system is capable of scanning the remaining battery capacities of vehicles and ranking them in order from the lowest to the highest. Simultaneously, the system is also scanning available charging piles to better match vehicles that require charging. When there are available charging piles, the system will lock them and prompt low-battery vehicles and their drivers to get to the matched charging piles within 20 minutes. In addition, the system can give match recommendations according to the remaining battery capacities or enable either the port mode or the peak-valley electricity price for charging at drivers' discretion. In this way, charging management can be realized in an orderly, flexible and economical way.





Sany Robotics Technology Co., Ltd. (hereinafter referred to as "Sany Robotics") is committed to becoming a vanguard of exploring digital and intelligent development. Sany Robotics has the capabilities in the production and development of hardware products such as AGVs, electric forklifts and stereoscopic warehouses. Besides, Sany Robotics also has rich experience in intelligent warehousing and logistics solutions, intelligent factory and production line planning. On this basis, Sany Robotics is empowering more and more customers in the transformation and upgrading of intelligent manufacturing.

# Case: Sany Smart AGVs to Facilitate Digital Transformation in Industrial Manufacturing

digital transformation.

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Sany smart AGVs have adopted advanced information technologies such as flexible navigation, 3D situation awareness and high-precision terminal positioning. These technologies enable AGVs to autonomously plan optimal paths in complex and changing environments to avoid obstacles and achieve efficient and safe transportation. On the one hand, this can further help customers reduce warehousing and logistics costs, improve production efficiency and quality, and reduce human resources and safety risks. This can also realize intelligent, electric and unmanned warehousing and logistics, further accelerating industrial manufacturing and digital transformation. Relying on the full-coverage production lines from 1 to 20 tonnages, multiagent dispatching platforms with independent intellectual property rights and full-process end-to-end one-stop solutions, the AGV business of the Company has helped more than 30 large factories across the country take a solid step in intelligent manufacturing and





# © Clean Development Strategy

"Adhering to Clean Development" and "Expediting the Application of Green Technology" is one of the Group's five core sustainable development strategies. The Group promotes the production and construction with sustainable development policies, so as to produce green, energy saving and efficient products for the industry.

# Case: Hybrid Energy-saving Mine Trucks to Facilitate Cleanness in Mining Operation

In June 2023, Sany's SET240S hybrid energy-saving electric wheel mining trucks were officially put into use for acceptance at Sany Heavy Equipment's Shenyang Industrial Park. The SET240S electric wheel mining truck, which is a three-engine hybrid off-highway mining dump truck initiated in the industry, can meet the needs of various working conditions in open-pit mines. By using the hybrid technology and working condition identification technology, the truck has achieved optimal curve control over engines. With the total power exceeding that of mining dump trucks of the same tonnage in the market by 12% and the comprehensive transportation capacity increasing by more than 10%, the truck can save energy by over 15% and lower maintenance costs by over 50%.









# Intelligent Operation

# Intelligent Production

Sany International deeply implements the digitalization strategy and explores the deep integration of digitalized technology into industrial areas. The Company makes use of big data, industrial internet and robot technologies to promote the automation of production and realize the intelligence of the manufacturing process, striving to create a "Lighthouse Factory" representing the highest level of intelligent manufacturing and digitalization.

# Case: Sany International's Xi'an "Lighthouse Factory" Commenced Operation

On March 30, 2023, Sany International's Xi'an "Lighthouse Factory" completed the manufacture of its first piece of equipment on the production line. The factory, which is about 600 meters long and 20 meters high, has a construction area of 267,000 square meters. The factory has intelligent production lines such as the storage center, blanking center, machine processing center and assembly center. These intelligent production lines have extensively used technologies like visual recognition, automatic grasp, multi-machine collaboration and intelligent process databases. The project, which is mainly engaged in manufacturing mining wide-body loaders and hydraulic supports. At present, it has realized the annual production of 0.7 million sets of hydraulic brackets and 3,300 wide-body dump trucks, with an annual output value of more than 6 billion yuan. The project has been recognized as a national industrial internet demonstration factory and a key project in Shaanxi Province. Therefore, this project will be of great significance in enhancing China's production capacity of wide-body dump trucks and the development of the mining industry.





# Intelligent Parks

Sany International upholds the construction concept of "digitalization and intelligence", and regards "Safety, Experience, Efficiency" as the construction goal. To create the efficient "production + life collaborative intelligent park" featuring production energy conservation, consumption reduction and intelligent and efficient service, the Company applies a 5G network, Internet of Things, artificial intelligence and other information technology methods in combination with high-grade, precision and advanced technologies such as intelligent equipment, buildings and traffic.

## **Intelligent Office**



 With 2.5D visualization of working station resources in the park, employees can make reservations in various ways according to their demands, which greatly improves the utilization rate of resources in the office area.



• The online service platforms of Sany+ and Feishu are adopted to realize the automatic dispatch of orders and closed-loop management for office demands such as maintenance applications.



• The intelligent energy-saving monitoring system for water consumption in the park is adopted to monitor the water use in time, to collect, summarize and analyze the operational data, comprehensively promoting the utilization efficiency of water resources.



• A new intelligent office map is launched to monitor the usage rate of employees' workstations so as to optimize the working area in real time and reduce energy waste.

## Intelligent Dormitory



 The dormitory is equipped with electronic door locks and smart water and electricity meters, which can automatically analyze abnormal data and facilitate timely rectification to reduce energy consumption.



• An electronic contract is signed for dormitory check-in, and the check-in ishandled online in the whole process to improve the check-in experience.

About the

Sany International attaches great importance to the safety and reliability of products, and regards product quality control as an important basis for its sustainable development. The Group strictly complies with the laws and regulations related to product liability in the places of operation and implements the quality standards of the places of operation and the industry. In addition, the Group constantly optimizes and improves the internal Quality Management Policy to ensure that product quality meets the established requirements. Sany Heavy Equipment and Sany Marine, subsidiaries of the Group, both have passed professional audit and certification, with product and equipment design and manufacture meeting the requirements of ISO 9001:2015 quality management system standard.

# Product Quality Improvement Program

The Group has established corresponding measurement standards and goals for product qualification rate, failure rate and other quality data, and continuously follows up on the specific work progress and completion of the quality improvement plan, and makes effective summaries and optimized adjustments. Strictly following the inspection plan of each product category, we conduct quality inspections over the whole process from incoming materials to leaving the factory and maintain relevant records.

# Case: Quality Improvement Campaign of Sany Heavy Equipment

In 2023, Sany Heavy Equipment launched the Quality Improvement Campaign. The company collected customer complaints and suggestions through surveys, interviews, benchmarking analysis, etc. A total of 125 heavy equipment and 80 A+ plans were formulated to improve product reliability and performance. In addition, talents are encouraged to make contributions under the open competition mechanism. Improvement measures were developed based on project management methods to fully verify the durability-related data. These measures solved long-existing quality problems including oil leakage in cutting reducers of roadheaders, cracking of pick boxes, water ingress in traction motors of coal mining machines, sprockets of drag conveyors, and cracking of middle cylinders of hydraulic support columns. In 2023, the after-sales initial failure rate recorded a 31% year-on-year decline to 1.06%, the warranty failure rate was 1.45%, down by 30% year on year, and after-sales quality loss for a single unit decreased by 38% over the last year to RMB 137.

After-sales initial failure rate

31% year-on-year

decline

1.06% 1.459

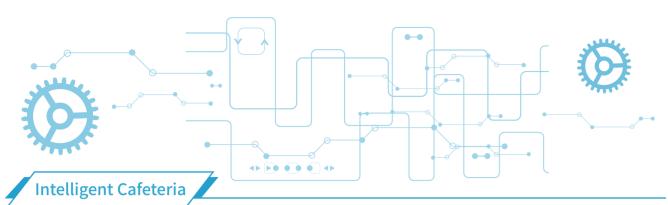
30% year-on-year decline

Warranty failure rate

After-sales quality loss for a single unit decreased to RMB 137 with a year-on-year decline of

137

38% year-on-year decline





The whitelist management is carried out for suppliers. The suppliers are required to upload
qualifications and health certificates. Meanwhile, the food retention samples and pesticide residue
testing are monitored and managed online.



• The system of personnel management is used to synchronize employee dining data to achieve barrier-free dining across parks.



• The OA online approval process is established to have a real-time push of visitor dining consumption records to improve dining service quality for customers.

## **Intelligent Passage**



• In accordance with the "Red, Yellow and Green Zones and Strategies", the park management regulations such as the Security and Passage Strategy Manual and the Camera Location Map have been formulated.



• The self-service visitor system is adopted to simplify the visitor reservation and verification process and greatly reduce visitor passage time.



• The employee information is identified intelligently and employee access right management is optimized to achieve barrier-free access across parks.



• The automated and intelligent patrol and near field communication (NFC) technology is provided for clocking in to guarantee the smooth proceeding of security work.



# Supplier Quality Management

To ensure the quality of suppliers' products, the Group has set up internal regulations such as the Incoming Material Control Policy, the Parts and Components Access (Approval) Procedure, the Technical Transformation Project Management Policy, the Sporadic Equipment Declaration and Procurement Management Policy, the Equipment Installation and Acceptance Management Policy. Following internal management regulations, the Group strictly implements the supplier access mechanism, and properly arranges procurement in strict compliance with quality standards. To better manage suppliers, Sany Heavy Equipment classified 471 suppliers into four levels by improvement ability and product quality performance. Different management approaches are adopted for different levels of suppliers to make better use of limited human resources. Meanwhile, strict measures are taken on low-level suppliers to quickly improve product quality.

#### Case: Quality Cloud System of Sany Heavy Equipment

In 2023, Sany Heavy Equipment developed the Quality Cloud System. The system enables online self-inspection and special inspection by monitoring the whole process, including supplier parts production, incoming materials, self-manufacture, assembly and commissioning, shipment and pre-acceptance. Designed with the function of issuing early warnings for unqualified indicators found in re-inspection, the system is used to strictly control non-conforming products to maintain product quality.

# Product Production Quality Management

Sany International has set up standardized systems, and the Management Policy for Non-conforming Products has been formulated. Relying on comprehensive quality management and preventive control measures, as well as a quality inspection system centered on automation technology and an error-proofing system, non-conforming products are prevented from flowing into the next process.

Focusing on the inspection benchmark, the Group has clarified the key steps to be controlled in the production process and revised documents such as the Regulations on the Atlas of Errors in the Production Process. Through publicity, the Group ensures that all employees, from persons in charge of production to inspectors, are familiar with the quality control points in the production process, and that the product quality is fully compliant.

# Product After-Sales Management

Upholding the principle of customer first, being open and transparent, the Group regularly collects product quality suggestions from customers, and regularly arranges on-site supervisors to follow up quality management. Strictly abiding by internal regulations such as the Product Recall Management Policy, the Group conducts timely investigations on defective products, gives feedback on product defects and makes rectifications accordingly, and formulates preventive measures to minimize the dangers and hidden dangers caused to customers by defective products.

During the Reporting Period, the Group did not experience any incident of product recalls due to product quality issues, and the percentage of total products sold or shipped subject to recalls for safety and quality reasons was zero.

# Quality Publicity and Training

The Group carries out Quality Month activities, and conducts publicity and training in the forms of daily newspapers, monthly reports and on-site centralized inspections. Each department within the Group conducts various quality-related special training sessions, including quality awareness, product failures and countermeasures, and inspection skills. In 2023, quality-related training covered a total of 76,300 participants.

#### Case: Sany Oil's Quality Publicity and Training

In 2023, Sany Oil conducted 53 training sessions on its core quality process systems to ensure that employees follow the requirements of the Company's quality management system and correctly implement these processes. We conduct monthly "Quality Star" and "Team Quality Blacklist and Redlist" trainings to raise employees enthusiasm and initiative to improve product quality. Furthermore, to comprehensively enhance the quality control capabilities of Sany Oil, we also carried out 17 specialized training sessions on the four key areas of quality improvement, including early quality, supplier quality, process quality and quality troubleshooting. These efforts ensured comprehensive quality control throughout the entire process.



# **Customer Services**

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Adhering to the business philosophy of "All for the Customer, All from Innovation" and centering on the provision of best solutions from the perspective of customers, pursuing the goal of prompt response to customer demands by capitalizing on smart services, and following the service philosophy of digitalized, networked and intelligent smart ecological cloud services, the Group is committed to continually optimizing the quality of services, and ensure that the rights and interests of customers are fully protected in strict compliance with such laws and regulations as the Law of the People's Republic of China on the Protection of Consumer Rights and Interests.



# Quality of Customer Services

The Group provides a full range of integrated services and constantly improves the after-sales mechanism. In 2023, the Company set up green channels for shutdown faults, and stipulated the number of days for dealing with domestic shutdown faults and international shutdown faults to further optimize the service quality.

**All-round Customer Services of Sany International** 

#### Coal Machine Lecture Hall



We build an online communication platform for learning and training, which can realize online learning, live teaching, online examination and message interaction, etc.;

# ટ્ટીડિ

#### Remote Service

We realize remote service visualisation, real-time sharing of fault scene vision between back-end experts and front-line service personnel, and support service engineers in need to solve tricky faults efficiently and quickly;

#### Smart Call Center



We remotely guide customers to handle faults online through tools such as the Customer Cloud or virtual phone, and realize smart voice browsing, visualized IVR and real-time online three-way calling or video communication between customers, customer service personnel and engineers;

#### Accessories Mall

Relying on Sany Customer Cloud Platform, we have established an online accessories mall where customers can place orders online to purchase accessories;

#### Logistics Visualization



We realize online queries of the whole process of spare parts delivery, and visualize the logistics status.

About the

Environmental Protection

Through "Sany Customer Cloud Platform", the Group has established a response mechanism that seamlessly connects the upstream and downstream of the industry, including equipment agents, users, repairers and operators, which can provide "one-click quick call" service and automatically match with service engineers, so as to provide customers and partners with performance management solutions covering the whole life cycle of the equipment.

#### Case: Global Value Service Tour by Sany Heavy Equipment

Global Value Service Tour by Sany Heavy Equipment in 2023 was launched on May 18, lasting a total of 146 days, with a total service mileage of 241,000 kilometers, and a total of 831 customers visited with a customer satisfaction rate of 100%.

During the Global Service Tour, the Company completed inspections on 5,522 sets of equipment, achieving a task completion rate of 109.4%, and 100% of the equipment underwent health inspection with the output of corresponding report. The Company strictly conducted the "Four Ones" standard procedures, inspecting 47 key components of each piece of equipment to eliminate potential faults, ensuring the safety of the customers' production. The Company conducted 157 training sessions for 4,011 customers, comprehensively improving their skills. The Company collected 177 customer issues and suggestions, with a 100% review and response rate. The Company held 2 customer feedback sessions, engaging 21 enterprise leaders from 19 customer companies all over the country to discuss the strengths and weaknesses of our products and refine our quality service. The Company also conducted 3 sessions of Gold Operator training and signed "Mining and Enterprise Joint Training" agreements with 11 units. A total of 113 individuals were trained and certified, providing the industry with professional talent.



Customer satisfaction

A task completion

109.4%







Figure: Global Services by Sany Heavy Equipment

## © Customer Satisfaction

To improve product quality and competitive advantages, the Group has established a regular customer satisfaction survey mechanism and formulated the Guidance File on the Follow-up Work of Customer Satisfaction Survey. In 2023, the Group conducted customer satisfaction surveys through online surveys, telephone follow-up and on-site research. In 2023, our customer satisfaction reached 94.8 points, representing a year-on-year increase of 2.3 points.

In 2023, our customer satisfaction achieved a year-on-year increase 7 3 points

Achieve handling rate

To improve the efficiency of complaint handling and resolution, and enhance customer satisfaction, the Group has established the Customer Complaint Handling Process. All of the customer feedback and complaints will be responded to in accordance with the process standards of the guiding document. For all customer complaints, the Group will reply and reach a consensus with customers within two hours upon the receipt of information, and achieve a 100% handling rate. During the Report Period, the Group has received a total of 9 complaints about product quality.

#### Case: Thank-you Letters from Overseas Customers of Sany Heavy Equipment

On December 12, 2023, a thank-you letter from Eritrea-Sichuan Mining Construction Corp. Ltd. reached the on-site service team of Sany Heavy Equipment, expressing praise and gratitude to the team members for their dedication, hard work, and proactive spirit.







Figure: Thank-you Letters from Overseas Customers

# Responsible Marketing

The Group firmly advocates responsible marketing, has formulated and updated the Administrative Measures for Fair Marketing Competition, requiring all business units, branches and agents to sign a letter of commitment, and conduct training and publicity at least once a year and self-inspection at least once every six months, and promise not to exaggerate facts or discredit competitors when promoting products, strictly abide by the bottom line of industry competition, and prohibit unfair competition. For the personnel and units who violate the regulations, the Group imposes administrative penalties such as economic punishment, demotion, suspension or even dismissal. In case of constituting a crime, the violators shall be handed over to the judiciary authority for handling. In addition, to ensure that the product information provided to customers is accurate, all advertising copies and related data must be jointly reviewed by the Company's legal counsel and the research institute before being released.



04

Employees'
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About the

Digital and Intelligent

# Talents Introduction and Retention

Employees are the most valuable asset of Sany International. We actively improve our employment system, and create a diverse, free, healthy and safe working environment for employees to establish a close relationship with mutual trust and support. We are committed to cultivating a first-rate talent team and achieving the corporate culture of "Creating First-rate Talents".

# © Compliant Employment

We support international human rights conventions such as the Universal Declaration of Human Rights. We comply with the relevant laws and regulations such as the Labor Law of the People's Republic of China and the Labor Contract Law of the People's Republic of China. We have formulated internal management policies such as the Recruitment Management System, the Recruitment Channel Optimization Management Measures and the Process and Management System for Jointly Running a School, to standardize the corporate recruitment process and employment standards and improve the quality of recruitment.

At the same time, the Group also abides by the legal regulations of the Provisions on the Prohibition of Using Child Labor, prohibiting any employment of minors as laborers. According to the actual employment, we adjust the employment policy in time to prohibit the phenomenon of forced labor.

To continuously expand and optimize our talent team, we attract talents through channels such as internal competition, social recruitment and campus recruitment. We also strengthen cooperation with many excellent colleges and universities, and focus on exploring technical talents in the fields of Internet and technology, so as to use emerging technologies such as software and data to drive the Company's intelligence development. At the end of the period, the Group employed a total of 11,159 people, with an overall employee turnover rate of 23.89%.

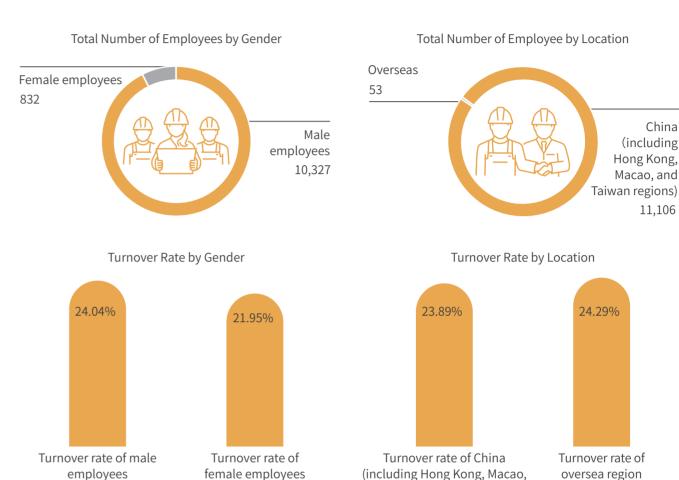
In 2023, Sany Heavy Equipment conducted in-depth cooperation with 10 universities on talent cultivation, including signing the Letter of Intent on Cooperation of University-enterprise Practice Bases with Dalian University of Foreign Languages. The Company had also launched an orientation training program with Hunan Sany Polytechnic College, and signed a Tripartite Agreement on Internship. By now, more than 30 talents have been nurtured and also provided with professional training to grow as a service engineer through the program. In addition, to attract more excellent talents, the Company participated in 7 career guidance courses in universities and carried out 6 enterprise visiting activities. In 2023, the Company held a total of 65 talent recruitment fairs in universities, effectively attracting a large number of potential talents and injecting new vitality into the Company's sustainable development.



The Company held a total

talent recruitment fairs in universities.

#### Key Performance: Total Employment and Employee Turnover Rate in 2023



# Equity and Inclusiveness

Sany International strictly abides by laws and regulations, follows the principle of anti-discrimination, and fully respects and accommodates job seekers of different cultures, races, genders, nationalities and ages. We firmly oppose any form of employment discrimination to ensure that every employee can develop and grow in a fair and equitable environment. In addition, we have transparent policies on human resource management to ensure that employees are treated equally and fairly in terms of employment, promotion, compensation, welfare and training.

and Taiwan regions)



# © Compensation and Welfare

Employee welfare and incentive mechanisms are crucial to improving the satisfaction and loyalty of employees. Therefore, the Company has formulated internal welfare policies such as the Management System for Staff Incentives and Integrity, the Management Measures for Staff Incentive Scheme, the Paid Annual Leave Management Process, the Employee Welfare Management Regulations and the Reward and Punishment Management Process, forming a comprehensive rights protection system. Meanwhile, we provide employees with a diversified performance-based remuneration system that includes equity incentives to increase their income levels. We also share the Company's development results with employees, to enhance employees' work enthusiasm, their sense of work achievement, and their confidence in the future development of the Company. During the Report Period, the Company completed the unlocking of three tranches of restricted stock for 2020, 2021 and 2022 as well as the options granted in 2021.

## **Welfare System**

#### Basic welfare



• Legal holidays are given according to national regulations, such as marriage leave, bereavement leave, maternity leave, paternity leave, breastfeeding leave and work-related injury leave;



• Employees in Chinese Mainland: Five insurances and the housing fund are paid according to law;



• Employees in Hong Kong SAR: Medical insurance and year-end bonus are provided;



• Special groups(foreign experts, personnel on business trips abroad): The corresponding insurance is covered.

# Equity incentive



• We have adopted an employee stock ownership plan and offered equity incentives to qualified employees. In 2023, a total of 1,760 employees were granted restricted stock incentives, totaling 24.275 million shares.

## Performance bonus



• We have established a multi-performance system such as year-end performance bonus, profitsharing plan and extraordinary target rewards. We provide reasonable performance components for R&D, sales, senior management, and front-line employees and issue performance rewards according to employees' contributions.

## Welfare for all employees



 Birthday welfare, housing welfare, heatstroke prevention and cooling welfare, catering welfare, clothing welfare, holiday welfare, transportation welfare, employee event welfare and schooling welfare for employees' children.

#### Other welfare



• Social insurance, commercial insurance, occupational health examination.

## Employee activi



• Employee birthday parties, family open days, employee baking activities, badminton games, basketball games, cooking competitions, food festivals, fishing competitions and other rich activities for employees.

#### Case: Employee Care Activities at Sany Heavy Equipment

Sany Heavy Equipment upholds the concept of humanistic care. In 2023, the Company took measures to subsidize and care for needy employees, ensuring that these employees can maintain a normal standard of living. In addition, Sany Heavy Equipment attaches great importance to the eye health of employees. Especially, Sany Heavy Equipment invited an expert panel from Shenyang He Eye Specialist Hospital to provide employees with free eye examinations in order to prevent and treat possible eye diseases. In summer, Sany Heavy Equipment actively took heatstroke prevention and cooling measures, and provided workshop workers with cooling food such as salt soda water and ice cream to guarantee favorable working conditions and work safety for these workers.







Figure: Sany Heavy Equipment Employee Care Activities

# 2023 Environmental, Social and Governance Report

In December 2023, Sany Marine organized the second "Welcome Cup" sports event facing all employees. A total of 638 employees participated in the event, which included activities such as tug-of-war, basketball competitions, and a 5km lake mini-marathon. The event not only enriched employees' leisure time but also enhanced team cohesion and unity.







Figure: The Second "Welcome Cup" Sports Event Facing All Employees

# Democratic Management

Sany International respects employees' rights of free association and collective bargaining agreements, and fully supports and encourages employees to exercise these rights to drive the harmonious and stable development of the Company. To successfully achieve this goal, we have established a corporate labor union as an effective bridge for communication among employees and between employees and the Company. In addition to representing employees in enterprise decision-making and protecting their legal rights and interests, the labor union also carries out various activities to enhance employees' cohesion and sense of belonging. Through this platform, employees can freely express their opinions and suggestions and participate in enterprise management and decision-making, ensuring that their voices are fully heard and respected. Meanwhile, the Company can understand the needs and expectations of employees through the labor union, continuously improve management methods, and enhance employee welfare and working environment, thus increasing employee satisfaction and loyalty.



# Career Development

Adhering to the concept of "Build A First-class Enterprise, Foster First-class Talents, Make First-class Contribution", Sany International provides employees with a comprehensive training system ranging from new hires induction to professional skills improvement. This enables employees to tap their unlimited potential, continuously realize their selfvalue, and grow together with the Company.

# Training Course System

The Group has formulated internal management policies such as the Training Management Process and the Training Management System, established an online learning platform "Sany Online College" for all employees, and built a training course system covering R&D, business, quality, career development, and leadership improvement, providing opportunities for employees to realize their self-value.

#### **Training System of Sany International**



- Professional knowledge and skills
- Patent knowledge and risk management
- Data analysis model
- Standardized management



- Supplier management
- Procurement budget planning
- Customer communication Operation safety training and service
- · Marketing knowledge training



- Quality control tools
- Quality management system and research



- Human resources management
- Leadership training

## **New Employee Training**

In accordance with the internal management measures such as the Entry Training Management Process, the Entry Training Management Measures and the Credit System Training Management System, we require new employees to complete comprehensive induction training during the probationary period. In-service employees must complete learning courses with certain credits every year.

# **Vocational Skill Training**

ANY 2023 Environmental, Social and Governance Report

We provide continuing education and vocational qualification recognition support programs for all employees. This aims to encourage employees to further improve their academic qualifications and vocational skills and achieve personal growth. To meet the career development needs of front-line technicians, we have specially designed elementary, intermediate, and advanced promotion training courses and carried out a series of skill development programs. Additionally, we organized relevant welders to obtain international welder certificates and organize technicians for external study and training to obtain relevant certificates upon passing the examinations.

#### Case: Special Training on Electric Products Service of Sany Marine

In August 2023, 20 domestic and international experienced service engineers gathered in Zhuhai to participate in special training on service skills improvement for electric products. Through theoretical training, on-site practices, and training provided by manufacturers, the service engineers were able to learn about product characteristics, overcome the challenges of "three electric" systems, and solve the service pain points. Beyond that, they acquired knowledge of high-frequency fault points in components, enhanced their ability to handle after-sales emergency repairs, and mastered the repair service skills for "three electric" systems. This training has helped us cultivate well-rounded service professionals for electrical products in the port machinery industry, which is conducive to improving the quality of customer service.







Figure: Special Training on Electric Products Service of Sany Marine

# Talents Promotion Development

To realize a fair and just promotion, we have formulated complete performance evaluation criteria and an incentive and restraint mechanism for senior management. The Company's recruitment of senior management is open and transparent, complying with the provisions of relevant laws and regulations. For all regular employees, we have formulated a complete performance management system. We have also carried out hierarchical reporting and performance assessments to ensure that each employee's efforts are recognized.

#### **Promotion Paths**

The Group has designed the promotion paths according to the different characteristics of the two types of positions, namely operation management personnel and professional R&D technicians. The operation management promotion path is from specialists to managers to senior managers, while the promotion path for R&D technicians is reflected in internal titles from junior to intermediate to senior.



#### **Selection Mechanism**









The Company has established a series of customized talent training and selection programs such as "Potential Talent", "Elite Training Camp", "Eyas Program" and "Reserve Echelon Cadre". This aims to help employees achieve rapid growth, thereby creating a diverse and high-quality talent team. Among the programs, the "Eyas Program" is targeted at young trainees competing for internal jobs, which is the most effective way to realize promotion from the middle and grass-roots staff to the management of the Company. Young employees intending to be promoted through this program can first sign up for the Company's "Eyas Program" training courses for full-time study. A new round of interviews will be conducted after the candidates are selected based on the training scores and other factors. Once the candidate is selected, he/she will be directly appointed to the corresponding leadership position or will be promoted by one level from the entitlement of their original positions. Through selecting young and promising management talents, new vitality is injected into the development of Sany International, and the mutual development of employees and the Company is achieved.

#### Case: Sany Oil's Leadership Training Program

In 2023, the Company selected 32 high-potential employees for a four-month "Strategic Reserve Team" training program on the theme of "Excellence in Leadership". This program covered various business sectors, including training on general leadership and situational leadership. It comprised 28 online courses, centralized offline knowledge training, and a three-day leadership training camp. Our objective was to cultivate well-rounded talents with "innovation", "leadership", the "Three Modernizations" vision, and "integrated business capabilities" and to establish different competency frameworks for different roles within the Company. After the program ended, 7 employees were promoted to mid-level management.





# Health and Safety

Sany International adheres to the occupational health and safety management policy of "Total Involvement, Prevention First, Safety and Health, Law-abiding and Continuous Improvement". We have established and optimized the corporate occupational health and safety management system in accordance with the requirements of laws and regulations such as the Law of the People's Republic of China on the Prevention and Control of Occupational Diseases. As such, we hope to provide a healthy and safe working environment for employees.

# Management System Construction

The Group has established the Occupational Health, Safety and Environment (HSE) Management Department to assess and analyze the work risks of different positions, actively avoiding and decreasing the health and safety risks of the working environment. In addition, each subsidiary has set up corresponding Safety, Environmental Protection and Occupational Health Management Committee (Safety Committee) with the general manager of each subsidiary as the director. The Safety Committee strengthens safety and health awareness in the daily production and office work and is committed to promoting the occupational health protection of the Company's employees, jointly creating a safe, healthy and harmonious working environment. To strengthen and implement work safety management, we have linked the work safety performance to the performance of various levels of management, including senior management such as the general managers of subsidiaries. In addition, some directors' performance is also linked to the work safety performance.

By the end of the Reporting Period, 100% of the Group's premises that were accepted and under stable operation for over a year have passed ISO 45001 Occupational Health and Safety Management System certification. We also carry out annual external audits to maintain a continuous focus on occupational health and safety in our production operations.

100% of the Group's premises that were accepted and under stable operation for over a year have passed ISO 45001 certification.

# Management by Objectives

Sany International abides by the current national work safety laws and regulations and relevant guidelines, actively strengthens the management of production and safety and health-related objectives, and implements safety management responsibilities in specific production links. The daily work of the HSE Department of each subsidiary is led by the general manager of the subsidiary, who reports directly to the Board of Directors. We include each HSE management system objective in the annual personal performance objectives of the relevant functional personnel to ensure that the Group achieves the HSE management system goals in the whole process.

To achieve the work safety goals, each subsidiary is responsible for formulating the annual HSE target and management program. The relevant departments of the Group communicate with each subsidiary's HSE Department to conduct regular internal inspections to rectify the Group's omissions in HSE.

Additionally, we also highly value the health and safety management of the supply chains. With the vision of achieving "zero casualties", we have formulated a series of health and safety management goals covering the contractors, including the goals in employees' safety, fire safety, labor protection equipment, special operations, special equipment and other dimensions. In 2023, all of our subsidiaries realized their annual safety and health goals. Both the lost time injury frequency rate and total recordable injury frequency rate were 3.43. We will continue to oversee the health and safety management of the Company and contractors based on the annual goals, and further improve the Group's performance in this regard.



		San	y Heavy Equipmer			Sany Oil			Sany Marine			Sany Silicon Energy	
	Management index	Goals in 2023	Performance against goals in 2023	Goals in 2024	Goals in 2023	Performance against goals in 2023	Goals in 2024	Goals in 2023	Performance against goals in 2023	Goals in 2024	Goals in 2023	Performance against goals in 2023	Goals ir 2024
Employees' health	Fatal accident rate	0	0	0	0	0	0	0	0	0	0	0	0
and safety	Thousand-person serious injury rate	0	0	0	0	0	0	0	0	0	0	0	0
	Thousand-person injury rate	3‰	Achieved	2‰	≤ 3‰	2.17‰	≤ 3‰	≤ 3‰	1.9‰	≤ 3‰	≤ 3‰	0.546‰	≤ 2‰
	Occupational disease rate	0	0	0	0	0	0	0	0	0	0	0	0
	Explosion accident, major fire	0	0	0	0	0	0	0	0	0	0	0	0
Fire safety	Large fire (RMB 10,000 ≤ Loss ≤ RMB 100,000)	0	0	0	0	0	0	0	0	0	0	0	0
	Ordinary fire (Loss ≤ RMB 10,000)	3	Achieved	2	0	0	0	0	0	0	0	0	0
Labor protection appliance	The wearing rate and correct use rate of labor protection appliance for employees working on site	98%	98%	98%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Special operations	Rate of certificated special operators	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Special equipment	Effective use and scheduled verification rate	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Occupational health and safety training	The proportion of employees receiving safety training	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
						100%		SANY			SWL745T	A BANY SECULO	

About this Report

Digital and Intelligent



# Contractor Safety Management

Sany International imposes the same work safety management requirements on contractor employees. Additionally, we have formulated a series of safety management policies covering employees and contractors to address safety risks of various positions, and regularly assessed and systematically managed the safety and health performance of all operations in the Group. We have formulated the Supplier Safety Management System, requiring contractors to sign the Safety and Environmental Protection Agreement. We require suppliers to abide by the work safety rules and regulations formulated by the Company, and determine the person in charge of work safety at the operation site. Serious incidents shall be reported to the Commerce Department in time for further supplier qualification evaluation.

# Safety Risks Management

The HSE Management Department regularly organizes each subsidiary's Business Department, Safety Management Department and Lean Quality Head Office to participate in research and discussion according to the Hazardous Sources Identification and Risks Assessment Control Procedure. The department also selects the risk assessment method for operating conditions (score evaluation method), job hazard analysis method (JHA) and safety checklist method (SCL) as required. Focusing on the safety hazards in various production links and areas such as loading, welding, hoisting, painting, assembling, shipping and transshipment, the department sets targeted management goals and adopts specific management measures to ensure a safe and reliable working environment. In addition, we have established a comprehensive process for reporting, investigating, handling, and rectifying safety accidents. Detailed investigations and analyses are conducted for safety incidents, and targeted preventive measures are developed to avoid similar accidents from occurring.

# © Creating a Safety Culture

Workplace safety is crucial for the development of the Company. Sany International attaches great importance to employees' safety education and training to create a corporate culture of safe production. We provide new employees, on-the-job employees and contractors' employees with necessary safety knowledge training. All trainees are required to complete the relevant courses and pass related examinations before they can start relevant work, so that the product safety risks can be avoided to the greatest extent.

For new employees, we require them to complete special safety training for no less than 24 hours, including process safety operation training, safety training provided by the Quality Assurance Department, and safety publicity and implementation activities at the morning meeting of the team. For on-the-job employees, we have established special training plans according to job positions to provide at least one special safety training for each position every year. For contractors employees, we have formulated a systematic 5S and safety training system for the main person in charge of engineering construction and construction personnel, so that they can fully understand the safety management requirements of the Group.

In addition, each business department and factory area of the Company has developed emergency drill plans and regularly organizes work safety and fire emergency drills. This aims to enhance emergency response capabilities and handling proficiency.

Case: Sany Heavy Equipment Held the "Work Safety Month" Ever

In September 2023, Sany Heavy Equipment conducted a "Work Safety Month" event with the theme of "Strengthen Red-Line Consciousness of Life First". The aim of the event was to alert employees to learn from past incidents and comprehensively implement work safety responsibilities at all levels. During the event, we organized a safety knowledge exam with the participation of over 2,000 employees, all of whom passed. This exam significantly enhanced their theoretical understanding of safety knowledge. Furthermore, we engaged safety experts to provide work safety education and training for the heads at all levels, aiming to improve safety management. In addition, various departments actively carried out hazard identification and management activities. For instance, the HSE Department and directors of each work center conducted daily inspections of factory plants, and analyzed and rectified the identified issues, which effectively prevented the occurrence of safety incidents.

Safety knowledge exam with the participation of over

2,000

employees, all of whom passed.



# Prevention of Occupational Disease Risks

The Group strictly abides by national and local laws and regulations such as the Law of the People's Republic of China on the Prevention and Control of Occupational Diseases, and has formulated internal policies such as the Occupational Health Management System, the Occupational Disease Hazard Prevention Management System and the Occupational Health Monitoring and Archives Management System. In addition, we issue allowances to qualified employees in special job positions, establish occupational health files for employees, and maintain regular occupational health monitoring for employees. We also conduct regular occupational health inspections, provide employees with personal protective equipment conforming to the safety and sanitation standards, and adjust the job positions where appropriate to satisfy the reasonable occupational safety requirements of employees. According to the provisions of the Technical Specifications for Occupational Health Monitoring, employees are provided with occupational health checkups covering pre-employment to pre-resignation. To prevent and minimize the probability of occupational diseases and ensure a healthy and safe working environment, we also adopt multiple measures, such as posting warnings and publicity signs and providing psychological counseling services.

Through systematic exploration of the occupational disease prevention and control system, we have formulated an annual plan for all employees' safety and occupational health, including a monthly implementation plan. We also regularly conduct environment tests on the Group and each subsidiary's production workplace, and have generated and disclosed the Detection Report of Occupational Disease Hazard Factors at the Workplace. In the report, the job position settings, as well as the monitoring and management of exposure to occupational disease hazard factors are described in detail, to ensure that employees are fully aware of the dangerous factors in the working environment and pay attention to the active prevention of such factors.

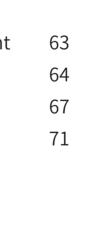


05

# **Environmental Protection**

Environmental Management Pollution Control Resources Conservation

Climate Change





# **Environmental Management**

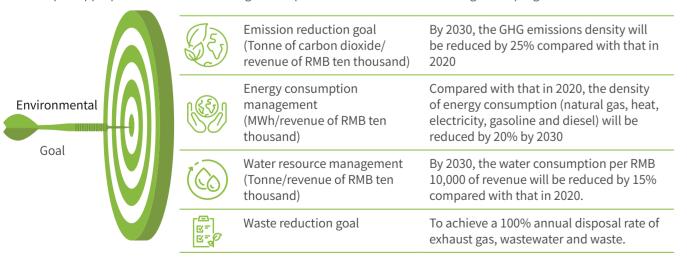
Sany International strictly complies with applicable environmental management regulations and laws such as the Environmental Protection Law of the People's Republic of China and the Law of the PRC on Promoting Clean Production that govern the Company's production and operations. Centered on key areas such as pollution control, resource conservation, and climate change response, we have established an environmental management system that is aligned with the requirements of the ISO 14001 System, in order to mitigate the environmental impact of our production and business activities from the source. In 2023, we continued to advance the certification of the ISO 14001 System and expand its coverage. 100% of the Group's premises that were accepted and under stable operation for over a year have obtained ISO 14001 Environmental Management System certification.

Each business department of the Company has established an HSE (Health, Safety, and Environment) Management Committee (reporting to the general manager of each business department and chairman), set up dedicated environmental management organizations, and appointed environmental specialists at each production base to coordinate and handle environmental management in a unified manner. Specific personnel have been designated to take the lead and be responsible for managing water, air, solid waste, and noise-related matters.

During the Reporting Period, the Company conducted environmental risk assessments for its major workplaces and engaged third-party institutions to conduct external environmental audits for some of the key workplaces. Also, by the end of the Reporting Period, no violations of environmental protection occurred at the Company.

# © Environmental Goals and Progress

Additionally, based on the results of our regular environmental impact assessments and risk assessments, we have developed appropriate environmental targets and plans and carried out monitoring of the progress.





Sany International strictly abides by the Environmental Protection Law of the People's Republic of China, the Atmospheric Pollution Prevention and Control Law of the People's Republic of China, the Water Pollution Prevention and Control Law of the People's Republic of China, and the Law of the People's Republic of China on Prevention and Control of Environment Pollution Caused by Solid Waste. We have established internal systems such as the Pollution Prevention and Control Punishment, the Hazardous Wastes Management Procedure, the Exhaust Gas and Wastewater Management Manual, the Environmental Risks Prevention and Management Policy and the Environmental Emergency Plan.

To reduce the negative environmental impact of our production processes, we have set various pollutant emission management targets, such as the emission of exhaust gas in the factory area, the environmental emission compliance rate of industrial wastewater, the rate of well-run environmental protection equipment, and the classified recovery and disposal rate of solid waste within the Company's production and operation business scope, helping us to gradually realize the reduction of waste emission. Furthermore, we pay close attention to the operation of environmental protection facilities by using the electricity monitoring system of environmental protection equipment, ensure that environmental protection treatment facilities operate synchronously with the main production facilities, and regularly replace auxiliary materials such as activated carbon, filter cotton and filter elements to improve the operation efficiency of environmental protection facilities.

## Exhaust Gas

To effectively reduce the financial losses and risks caused by exhaust gas emissions, we monitor, treat and control the exhaust gas produced in different production processes based on the provisions of the Exhaust Gas and Wastewater Management Manual. We also collect information including composition, emissions, emission temperature and location of emission outlets to identify and adopt various exhaust gas treatment processes such as physical, chemical and biological methods. We actively improve the production process, optimize the exhaust gas emission link, and transform or remove harmful substances in the exhaust gas to ensure that it meets the emission standards of relevant national and local laws and regulations.

#### Case: "Small Port Machinery Automatic Sorting Line Construction" of Sany Marine

In November 2023, Sany Marine built an unmanned unloading and molding production line, adopting an automated approach including intelligent conveying of steel plates, automatic laser cutting, automatic pallet conveying line, automatic coding, robotic small parts sorting, and large parts automatic sorting. This not only increased production capacity, but also helped reduce exhaust gas emissions. By replacing the high-exhaust plasma cutting machines with lower-exhaust laser cutting, the exhaust gas emission rate was reduced by 50%. By changing from open-air dust emissions to centralized collection and discharge, the exhaust gas collection has increased by 20%.

The exhaust gas emission rate was reduced by 500/0

The exhaust gas emission rate was improved by 200/0

 $\epsilon_{00}$ 

#### Key performance: Exhaust gas emission in 2023

Exhaust gas emission	Unit	2023
Particulate matter	kg	1,841.43
Particulate matter emission density	kg/revenue of RMB ten thousand	0.0009
VOCs	kg	22,887.96
VOCs emission density	kg/revenue of RMB ten thousand	0.0113

# Wastewater Management

Sany International treats its production and domestic wastewater properly. Production wastewater includes painting wastewater, wastewater containing emulsion, vehicle cleaning wastewater in the painting workshop and used vehicle cleaning wastewater. It can be discharged to the wastewater treatment station in the plant area for further treatment by waste emulsion and painting wastewater treatment equipment after reaching the internal discharge standard. When the treatment effect meets the Integrated Wastewater Discharge Standard (GB 8978-1996) and the provincial and municipal wastewater discharge standards, it will be transported to the municipal wastewater treatment station through the urban sewage pipeline system. The domestic wastewater, including wastewater from administrative offices, staff dormitories and staff canteens, will be discharged to the municipal sewage treatment station through the municipal drainage system.

To achieve higher wastewater conversion efficiency, we have continued to carry out substantial renovation of the sewage treatment station to improve the overall sewage treatment capacity and treatment efficiency, and regularly replaced the activated carbon, filter cotton, filter element and other spare parts in daily operation to ensure that the daily water can be continuously and timely filtered and treated, thus improving the operating efficiency of environmental protection facilities.

## Waste

In strict compliance with the laws and regulations such as the Environmental Protection Law of the People's Republic of China and the Law of the People's Republic 100% of China on Prevention and Control of Environment Pollution Caused by Solid Waste, Sany International has formulated internal regulations such as the Hazardous Waste Management Procedure, the Hazardous Chemicals Management System, the and disposed of. Hazardous Waste Pollution Prevention Responsibility Information Disclosure System, the Hazardous Waste Pollution Prevention Responsibility System and the Hazardous Waste Responsibility System in accordance with the requirements of Standardized Management Index System of Hazardous Waste to clarify procedures and measures to prevent hazardous waste pollution and continuously implement waste emissions reduction targets. In 2023, 100% of solid waste was recycled and disposed of.

of solid waste was recycled



#### **General Solid Wastes**

The general solid wastes of the Group include domestic solid wastes and industrial solid wastes. Among them, domestic solid wastes are collected and treated by the health department; Industrial solid wastes, such as left-overs and scrap metal, are sorted and recycled by full-time personnel, and then sold to professional recycling companies for recycling.

#### **Hazardous Solid Wastes**

Through the detailed Responsibility Policy for Prevention and Control of Environmental Pollution by Hazardous Wastes, the Group has defined the specific responsibilities of each operation and production participant, from the general manager, HSE manager, workshop director, HSE specialist, hazardous waste warehouse manager to workers, and formed a mutually restrictive and collaborative responsibility system for environmental prevention and control, to effectively control the environmental pollution risks brought by hazardous solid wastes to the Company. We ensure the standardized management of the Company's hazardous waste from all aspects including generation, collection, storage, transportation, utilization, and disposal, strictly control hazardous solid waste, and require that hazardous solid wastes such as waste oil and waste residues must be placed in a special warehouse with warning signs, declared and registered, and managed uniformly to ensure that hazardous waste is treated harmlessly.

#### Key performance: Waste in 2023

Index	Unit	2023	2022
	Hazardous wastes		
Waste paint bucket	Tonne	223.36	145.91
Paint slag	Tonne	418.26	190.80
Waste mineral oil	Tonne	125.03	46.64
Total amount of hazardous waste	Tonne	766.65	383.35
Hazardous waste density	Tonne/revenue of RMB ten thousand	0.0004	0.0002
	Non-hazardous wastes		
Iron and steel waste	Tonne	37,303.07	46,614.73
Domestic waste	Tonne	1,472.31	1,688.05
Other industrial waste	Tonne	1,764.59	275.02
Total amount of non- hazardous waste	Tonne	40,539.97	48,757.80
Non-hazardous waste density	Tonne/revenue of RMB ten thousand	0.020	0.027

Note: The addition of Sany Silicon Energy, Sany Oil and Xi'an Industrial Park of Sany Intelligent Equipment Limited (hereinafter referred to as Sany Intelligent Equipment) to the 2023 dataset compared to 2022 has resulted in a significant increase in the amount of hazardous waste and has had an impact on intensity.



# **Resources Conservation**

Sany International has always upheld the principle of "conservation first", and firmly places resource conservation as the top priority. We comply with relevant national regulations, formulate and improve internal energy and resource conservation systems, and strengthen energy-saving, water-saving, and material-saving efforts through digital management to monitor resource usage.

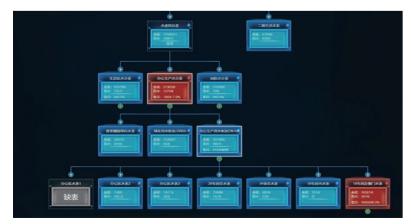
# © Energy

Sany International strictly complies with the Energy Conservation Law of the People's Republic of China and other relevant laws and regulations and has established a standardized energy management system and tracks the Group's energy consumption through the digital energy management platform. We advocate energy conservation, implement various energy management measures and will continue to improve energy efficiency and reduce energy consumption in the long term.

## Digital Energy Management: Multiple Measures to Improve Quality and Efficiency

Sany International has many product categories and complex production processes, involving electricity, oil, gas and other energy sources, making energy management a complex task. We carry out a comprehensive energy identification of existing products and production processes in order to reduce the waste of resources during production operations and improve the efficiency of energy and resource utilization.

In order to better standardize energy use and management, we are adopting 5G and industrial Internet technologies, and applying the energy management platform to effectively connect the manufacturing equipment and digital instruments in the plant for real-time data collection and monitoring, enabling intelligent monitoring and management of water, electricity, oil and gas in the plant. At the same time, we visualize the energy consumption through the digital display of the energy topology diagram, and make analysis and suggestions based on the data results, so as to maximize the online rate and utilization rate of production equipment.



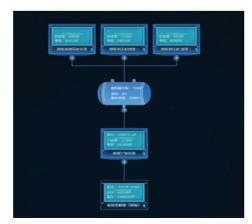
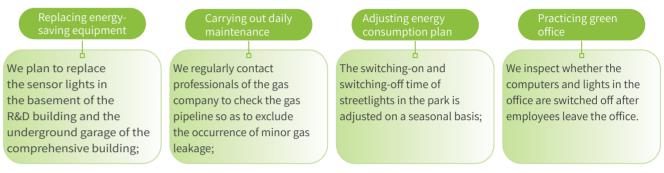


Figure: Intelligent Energy-saving Monitoring System for Water/Oil Use in the Park

## Carry Out Energy Conservation Actions and Advocate Green Office

By implementing the Energy Consumption Management System for Non-production Areas, we have always advocated the green concept in production, operation and daily office work, and achieved remarkable results in energy conservation and consumption reduction. The Group primarily adopts the following measures:



#### Key performance: Energy consumption in 2023

Index	Unit	2023	2022
mucx		2023	2022
	Direct energy consumption		
Natural gas	Cubic meter	3,518,284.17	2,778,716.50
Natural gas use density	CBM/revenue of RMB ten thousand	1.74	1.79
Gasoline	Liter	65,153.86	16,896.60
Gasoline use density	Liter/revenue of RMB ten thousand	0.032	0.011
Diesel	Liter	2,163,727.97	1,139,535.02
Diesel use density	Liter/revenue of RMB ten thousand	1.07	0.73
Total direct energy consumption	MWh	64,333.96	41,724.09
Direct energy consumption intensity	MWh/revenue of RMB ten thousand	0.032	0.027
	Indirect energy consumption		
Purchased electric power	kWh	136,384,493.00	84,054,983.78
Use density of electric power	kWh/revenue of RMB ten thousand	67.26	54.10
Purchased heat supply	GJ	33,265.00	33,202.00
Purchased heat use density	GJ/revenue of RMB ten thousand	0.016	0.020
Total indirect energy consumption	MWh	9,376,670.66	9,306,840.14
Indirect energy consumption intensity	MWh/revenue of RMB ten thousand	4.62	5.99
	Total energy consumption		
Total energy consumption	MWh	9,441,004.62	9,348,564.22
Energy consumption intensity	MWh/revenue of RMB ten thousand	4.66	6.02

Note: As the statistical scope of the data in 2023 was increased by the addition of Sany Silicon Energy, Sany Oil and Xi'an Industrial Park of Sany Intelligent Equipment compared with that in 2022, superimposed on the impact of the significant increase in the production and shipment volume of Sany Marine, a significant increase in the consumption of each type of energy, which also brought had a certain impact on the intensity.



#### Water Resources

Sany International strictly abides by the requirements of the Water Pollution Prevention and Control Law of the People's Republic of China, the Regulation on Urban Drainage and Sewage Treatment, and other relevant laws and regulations, and has formulated and implemented internal policies such as the Water Conservation Management Policy and the Energy Conservation Management Policy for Water Pumps to maximize the efficiency of water resources utilization. We have set a target to reduce the water consumption per RMB 10,000 of operating revenue by 15% by 2030 compared with that in 2019. By regularly carrying out water-saving promotional events, we enhance employees' water-saving awareness, thus gradually achieving our water-saving goals. The Company draws water from municipal water supplies, and so far, no risk of shortage in access to available water resources has been identified. The Group has carried out the following water-saving measures:

Digital transformation of water resources management:

We have installed rating meters on energy-saving faucets to implement real-time uploading of data, monitor leakage and reduce the waste of water resources;

Rainwater collection and recycling:

Rainwater collection systems are installed at each plant area, and the collected rainwater is used as water for landscape irrigation in the park;

Promotion of water conservation:

The water conservation reminders are posted at conspicuous places, and the phenomenon of water waste is checked in various areas from time to time every week.

#### Key performance: Water consumption in 2023

Index	Unit	2023	2022
Total water consumption	Tonne	1,245,640.97	566,529.00
Water use density	Tonne/revenue of RMB ten thousand	0.61	0.36

Note: Due to the addition of Sany Silicon Energy, Sany Oil and Xi'an Industrial Park of Sany Intelligent Equipment to the 2023 dataset compared to 2022, there is a significant increase in water consumption and some impact on density.

# Raw Materials and Packaging Materials

To standardize the use of raw materials and improve the utilization rate of raw materials, Sany International has formulated management policies such as the Loading Center Program Design and Remaining Materials Management System with reference to standards at all levels, so as to optimize the management of raw materials and implement the responsibility for raw materials management to relevant personnel.

The Group is committed to reducing the application of product packaging and auxiliary materials. Based on quality guarantee, we continue the practice of using wooden boxes as packaging for raw materials and parts and components to minimize wood wastage.

#### Key performance: Consumption of raw materials and packaging materials in 2023

Index	Unit	2023	2022
Steel consumption	Tonne	261,688.68	237,758.99
Steel consumption density	Tonne/revenue of RMB ten thousand	0.13	0.15
Paper consumption	Tonne	35.60	34.26
Paper consumption density	Kilogram/revenue of RMB ten thousand	0.0176	0.0221
Packaging wood consumption	Tonne	7,499.53	1,158.59
Packaging wood consumption density	Kilogram/revenue of RMB ten thousand	3.70	0.75

Note: The addition of Sany Silicon Energy, Sany Oil and Xi'an Industrial Park of Sany Intelligent Equipment to the statistical scope of the data in 2023 as compared to 2022 has resulted in a significant increase in the consumption of raw materials and packaging materials and has had an impact on strength. In addition, the significant increase in production and shipment of Sany Marine is responsible for the noticeable increase in the amount of packaging wood consumption and the consumption density.







# **Climate Change**

# Greenhouse Gas Management

Greenhouse gases continue to cause climate change, which is becoming a major issue for global sustainable development. The Company continues to strengthen carbon emission management and actively implements our corporate responsibility to reduce GHG emissions and sets reasonable emission reduction targets, with a plan to reduce GHG emissions by 25% per RMB 10,000 of operating revenue by 2030 compared with that in 2020. By promoting measures such as energy conservation and consumption reduction, oil-to-electricity conversion, and production process optimization in various parks to maximize the control and reduce the intensity of greenhouse gas emissions.

emissions by 25%
per RMB 10,000 of
operating revenue by
2030 compared with that
in 2020.

With a plan to reduce GHG

In addition, the Company has expanded the scope of the GHG inventory and is conducting an inventory of key emission categories in Scope 3. By doing so, the Company can further consolidate the database of carbon emissions and provide strong support for the Company's in-depth low-carbon transformation in the future.



Index	Unit	2023	2022
Scope 1 greenhouse gas emissions	Tonne of carbon dioxide equivalent	17,921.27	8,353.65
Scope 2 greenhouse gas emissions (Market-based)	Tonne of carbon dioxide equivalent	77,558.77	51,588.78
Scope 1 and 2 (Market-based) greenhouse gas emissions	Tonne of carbon dioxide equivalent	95,480.04	59,942.42
Greenhouse gas emission intensity	Tonne of carbon dioxide equivalent/revenue of RMB ten thousand	0.0471	0.0386

Note: The addition of Sany Silicon Energy, Sany Oil and Xi'an Industrial Park of Sany Intelligent Equipment to the 2023 GHG inventory compared to 2022 and our reference to The Greenhouse Gas Protocol Corporate Accounting and Reporting Standard for all sources resulted in a significant increase in GHG emissions and impacted the GHG emissions intensity.

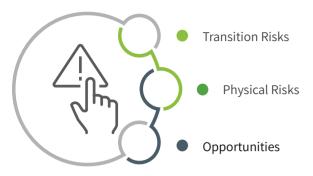
## Climate Risks

Due to climate change, extreme weather events such as extreme temperatures, heavy rainfall, floods, fires and strong winds are increasing, which will have an impact on the Company's short-, medium- and long-term development. At the same time, changes in demand and operations of downstream customers and the stability of production in the upstream supply chain will also be affected. Therefore, the Company recognizes that climate change is a long-term and unavoidable risk. Hence, while expanding our business, we actively address related risks of climate change, and regularly assess and identify climate change risks and opportunities across the value chain of the supply chain.

We have formulated and implemented long-term carbon emission reduction goals based on the national action line of "Carbon Peaking in 2030 and Carbon Neutrality in 2060" so as to improve the energy efficiency of daily operations. We encourage employees, suppliers and customers to cooperate in emission reduction activities, actively develop clean technology products and solutions, establish contingency plans based on local risks of climate change and extreme weather events and include them in the consideration for selection of new operating locations.

During the Report Period, in accordance with the recommendations of the Task Force on Climate-Related Financial Disclosure (TCFD), the Company positively identified physical risks, transition risks and their opportunities, and make targeted responses by conducting sectoral seminars, peer benchmarking and other initiatives. Furthermore, we gradually incorporate the foreseeable future risks of climate change and extreme weather events into the Board of Directors' consideration of the business continuity plan, and monitor and review the impact of climate change on business operations.





#### **Category: Technology**

The electrification transformation of products, or technological innovation in low-carbon energy sources such as hydrogen energy



#### **Description of Specific Risk**

Low-carbon demand and technological innovation will drive the Company to look for brand new or alternative technological solutions and processes. This will result in R&D and related costs for the Company, as well as the risk of not being able to keep up with the technological changes.

#### Solution

We have been laying out our electrification strategy for many years, achieving full coverage of electric product types such as the electric mining truck, wide-body electric loader, electric reach stacker, electric empty container handler, electric forklift truck, electric truck and electric material handler. In order to ensure the leadership in the era of electrification, on the one hand, we deepen the supply chain construction and consolidate the supply chain of electrification products; on the other hand, we increase the proportion of electrification R&D personnel, set up excellent electrification R&D teams as well as introduce industry leaders.

#### **Category: Market**



Differences in Customers acceptance of low-carbon solutions and changes in climate change-related policies pose risks to the Company's supply chain, production and operations.

#### Solution

Against the backdrop of an accelerating global energy transition, there is uncertainty about fossil fuel demand in the future. While consolidating our position as a leader in coal and oil equipment, we are actively utilizing our diversified business advantages to bring huge market potential and growth space in the process of building intelligent mines, ports and factories. In addition, we are responding to the global energy transition by laying out new energy industries such as photovoltaic, lithium-ion and hydrogen.

#### **Physical Risks**

#### **Category: Acute Physical Risks**

Increased severity of extreme weather events such as storms and floods

#### **Description of Specific Risk**

The increased frequency and severity of various natural disasters (floods, storms, heat waves, etc.) may result in damage to the Company's assets, posing risks to the Company's operations and management.

#### Solution

We formulate contingency plans for severe weather, strengthen daily maintenance and management of facilities and equipment, and take relevant risks into account when selecting new operating locations in the future.

#### Opportunities

#### Category: Energy

Increase the proportion of clean energy used in production and operations

#### **Description of Specific Opportunity**

Developing and applying clean energy solutions may bring the Company a competitive advantage.

#### Solution

SANY Silicon Energy, one of the Group's major subsidiaries, has successfully penetrated the entire photovoltaic industry chain. It can provide strong support for the Group's rapid deployment and increase the proportion of renewable energy in the future.

#### Opportunities

#### **Category: Products and Services**

Provide the market with products and solutions that contribute to energy saving and emission reduction

#### **Description of Specific Opportunity**

With the growing market demand for sustainable products, offering products and services with low emissions will help the Company create new business opportunities.

#### **Solution**

With the deepening of the Company's clean, intelligent and electrified strategies, all business departments of the Group have launched a batch of electric and hybrid products with international competitiveness, such as hybrid energy-saving electric wheel mine trucks, pure electric forklift trucks, electric trucks and so on. These are effective in helping customers reduce fossil fuel consumption. In addition, with the widespread application and acceptance of the Company's electrified and intelligent products, we have also launched a series of intelligent services such as the intelligent charging scheduling system, intelligent warehousing, and intelligent mines through independent R&D. These provide customers with comprehensive solutions from software to hardware for improving efficiency and quality of production operations.



# **Empowering Society**

Sustainable Supply Chain Industrial Win-Win Contribution to Society





# Sustainable Supply Chain

The Group strictly abides by the Company Law of the People's Republic of China, the E-Commerce Law of the People's Republic of China and other relevant laws and regulations and has formulated internal management policies such as the Sany International Supplier Management Policy, the Sany International Supplier Alliance Management Policy and the Customer Designated Development List. Meanwhile, we continuously perfect the supplier management system to standardize supplier management and boost value chain partners to put into practice sustainable development.

# Supply Chain Management System



The GSP system built by Sany International, known as the "Global Supplier Portal", is the only window for all suppliers to connect with Sany. The platform is fully functional and easy to use, with interface functions covering all stages of the supplier's full lifecycle, including supplier information, approval of various processes, monthly evaluation of supplier performance, etc.



The Group has a complete set of supplier management system with detailed process documentation from supplier registration, review, introduction, audit, certification to elimination. In 2023, we revised 12 rules in the Supplier Management Policy to further standardize our supplier management activities.

## **Supplier Access**

The Company has included environmental management and social responsibility performance in the supplier access process, including environmental requirements such as ISO 14001 environmental system certification and local environmental assessment registration; and has set up a social responsibility and environmental friendliness section to assess human resource development planning and energy conservation and emission reduction.

## **Classification Management**

In the process of supplier screening, audit and management, the Group classifies and manages suppliers according to their qualifications and delivery ability, taking into account factors such as its business plans, strategic objectives and past cooperation with suppliers. In addition, the Group also sufficiently considers environmental, social and governance factors and has stipulated different standards and restrictions for different categories of suppliers.

#### **Performance Assessment**

In the process of supplier performance management, the Group continues to follow up on the supplier's performance process, promptly tracks and handles the supplier's performance problems, strictly implements the supplier assessment standards, and implements reward and punishment measures. The Group collects suppliers'quality, delivery, cost reduction and other indicators on a monthly basis to evaluate their performance. The evaluation results are divided into four grades: A, B, C and D, among which, the D-grade suppliers will be blacklisted if they breach the contract seriously. We have conducted performance grading assessments for all 4,488 suppliers in 2023.

#### Key performance: Number of suppliers by region for Sany International in 2023

Region	Unit	2023
South China	units	287
East China	units	1,819
North China	units	425
Central China	units	1,189
Northeast China	units	440
Southwest China	units	116
Northwest China	units	182
Hong Kong, Macao, Taiwan and overseas regions	units	30



# Supplier Responsibility Advocacy

2023 Environmental, Social

Sany International actively cooperates with suppliers to create a fair and transparent business environment. The Company has formulated rules and regulations such as Requirements for Integrity of Suppliers and resolutely resisted any form of bribery and corruption to ensure that all business dealings are conducted in accordance with the highest ethical and legal standards.

#### Anti-Corruption in the Supply Chain

The Group requires all partners, including suppliers, to sign the Statement of Integrity when cooperating with the Group, and input it into the GSP system. Integrity clauses are also listed in the framework of contract agreements, continuously promoting the integrity of suppliers in fulfilling their responsibilities.

In 2023, the Group hosted 4 integrity conferences for all staff.

In terms of anti-corruption training for the supply chain, the Group persistently arranges regular annual integrity training for all procurement staff. In 2023, the Group hosted four integrity conferences for all staff and conducted on-site assessments of suppliers, requiring them to read out integrity requirements and sign on the spot.



## **Supplier Communication and Training**

Sany International places emphasis on communication and exchange with cooperative suppliers. Through the establishment of a supplier assistance mechanism and conducting supplier training, the Group strives to make common progress with suppliers and reach a long-term strategic alliance.

In 2023, the Group's business departments respectively held a supplier conference to award outstanding suppliers, which effectively enhanced their confidence, and reinforced their support for Sany's business and understanding of the Group's supply chain policies.

#### Case: First Supplier Conference of Sany Silicon Energy

On December 15, 2023, Sany Silicon Energy Business Department held the First Supplier Conference, inviting more than 60 suppliers from the whole photovoltaic industry chain, including equipment, silicon materials, and bulk materials. At this meeting, the business procurement work in 2023 as well as the business planning and supplier requirements in 2024 were discussed.



# **□** Industrial Win-Win

Sany International actively engages in industry and university-enterprise cooperation to promote technology R&D innovation, continuously enhances an investment in scientific research and development and technological innovation, and makes a number of technological breakthroughs in the direction of intelligence, cleanliness and efficiency by relying on advanced R&D platforms such as symbolic test benches and intelligent product design platforms.

In 2023, Sany Heavy Equipment cooperated with numerous universities to research and develop key technologies and made substantial progress.

We jointly worked with Huazhong University of Science and Technology, Chongqing University and Beijing Institute of Technology on the national project "Reverse Logistics and Inter-organizational Information Integration Service Platform for Decommissioned Electromechanical Products". We have achieved breakthroughs in key technologies such as efficient traceability of spare parts' life cycle information based on Internet of Things technology, multi-level recycling inspection and recyclability assessment, and inter-organizational information integration and synergy. We have constructed a multi-level recycling system based on the Internet+ for product collection, quality assessment, reverse logistics, remanufacturing, and reuse. Then we have developed 5 sets of intelligent and flexible integrated inspection equipment, and formed 2 sets of Inter-organizational Reverse Logistics Information Integration Service Platform with the synergistic cooperation of suppliers, logistics providers, and service providers, which have been demonstrated and applied. Additionally, we have established a reverse logistics system that covers more than 500 cities across the country.

Reverse logistics system that covers more than

500 cities across the country.



#### Case: University-enterprise Cooperation of Sany Silicon Energy

Sany Silicon Energy and the Australian National University (ANU) collaborated for 6 months on the "Solar Cell Performance Analysis" project. Through testing and simulation, the main causes of the efficiency loss for TOPCon cell were determined, which improved the stability of the Company's solar cell products. Besides, the Company also carried out in-depth technical cooperation with well-known universities such as Shanghai Jiao Tong University and Guangdong University of Technology to develop a new generation of heterojunction batteries, reduce the cost of heterojunction batteries in pursuit of breaking through the bottleneck of mass production of heterojunction batteries.

Key performance: R&D innovation key performance in 2023

Index	Unit	2023年
Number of new patent applications	Case	794



# **Contribution to Society**

Sany International always pays attention to social development and fulfills corporate social responsibility with actions. While realizing our own development, we uphold the spirit of "Constantly Striving to Become Stronger and Serving the Country Through Industry" and the sentiment of patriotism, adhere to the principle of scientific public welfare, participate in community construction, devote ourselves to public welfare undertakings, so as to contribute to promoting the harmonious coexistence between enterprises and communities.

### © Educational Donation

In July 2023, Sany Energy Equipment Co., Ltd. (hereinafter referred to as "Sany Energy") signed a scholarship donation agreement with China University of Petroleum Foundation and donated RMB 500,000 to China University of Petroleum (Beijing). The donation will be used for the distribution of "Sany Energy" scholarships and support for students' academic competitions, which can help cultivate talent and realize win-win cooperation.

In order to promote the development of education in Jinwan District, Zhuhai City, Sany Marine Heavy Industry joined an initiative issued by the Jinwan District Party Committee and the district government and responded to the call for enterprises above the size of the district to donate RMB 30,000 yuan to the Jinwan District Education Charity Development Association.



Figure: Donation Ceremony of Sany Energy and China University of Petroleum Foundation

# © Contributing to Rural Revitalization

Sany Heavy Equipment organized a book donation activity and collected 254 books, covering kindergarten, primary school, secondary school, etc. All the donated books have been sent to rural primary schools to convey the power of progress to rural children, enrich the horizons of children in poor mountainous areas, and let them see a bigger world.

# Caring for the Community

Sany Heavy Equipment organized 18 volunteers to visit Shaling Nursing Home in Panjin City. We donated materials of 6,000 RMB and cleaned the public area to carry forward Chinese traditional virtues of respecting, loving, and helping the elderly with practical actions.







#### **ESG Key Performance Table**

Key Performance Indicators	Unit	Data in 2023
A: Environment		
A1: Emissions		
A1.1 Types of Emissions and Respective Emissions Data		
NOx emissions	kg	157,035.09
SOX emissions	kg	10,403.47
Particulate matter emissions	kg	1,841.43
VOCs emissions	kg	22,887.96
Industrial effluent	Tonne	147,668.85
A1.2 Direct and Energy Indirect Greenhouse Gas Emissions and	d Density	
Direct greenhouse gas emissions (scope 1)	Tonne of carbon dioxide equivalent	17,921.27
Indirect greenhouse gas emissions (scope 2-Market-based)	Tonne of carbon dioxide equivalent	77,558.77
Scope 1 and 2 (Market-based) greenhouse gas emissions	Tonne of carbon dioxide equivalent	95,480.04
Greenhouse gas emission density	Tonne of carbon dioxide equivalent/revenue of RMB ten thousand	0.0471
A1.3 Total Hazardous Wastes Produced and Density		
Waste paint bucket	Tonne	223.36
Paint slag	Tonne	418.26
Waste mineral oil	Tonne	125.03
Total amount of hazardous waste discharged	Tonne	766.65
Hazardous waste discharge density	Tonne/revenue of RMB ten thousand	0.0004
A1.4 Total Non-hazardous Wastes Produced and Density		
Iron and steel waste	Tonne	37,303.07

Key Performance Indicators	Unit	Data in 2023
Other industrial waste	Tonne	1,764.59
Domestic waste	Tonne	1,472.31
Total amount of non-hazardous wastes discharged	Tonne	40,539.97
Non-hazardous waste discharge density	Tonne/revenue of RMB ten thousand	0.020
A1.6 Amount of Waste Recycled		
Amount of waste paper recycled	kg	1,997.55
Amount of waste wood recycled	Tonne	3,170.83
A2: Resources Utilization		
A2.1 Direct and/or Indirect Energy Consumption by Type in	Total and Density	
Natural gas	CBM	3,518,284.17
Gasoline	Liter	65,153.86
Diesel	Liter	2,163,727.97
Purchased electricity	KWh	136,385,493.00
Photovoltaic power use	KWh	3,818,746.00
Purchased heat supply	GJ	33,265.00
Natural gas use density	CBM/revenue of RMB ten thousand	1.74
Gasoline use density	Liter/revenue of RMB ten thousand	0.032
Diesel use density	Liter/revenue of RMB ten thousand	1.07
Use density of purchased electricity	KWh/revenue of RMB ten thousand	67.26
Purchased heat use density	GJ/revenue of RMB ten thousand	0.016



Key Performance Indicators	Unit	Data in 2023
A2.2 Total Water Consumption and Density (e.g. per unit o	f production volume, per facility)	
Water consumption in administrative office	Tonne	361,395.00
Water consumption in production and operation	Tonne	804,167.97
Circulating water use	Tonne	80,078.00
Total water consumption	Tonne	1,245,640.97
Total water consumption density	Tonne/revenue of RMB ten thousand	0.61
A2.5 Total Packaging Material Used for Finished Products ( Produced	(in Tonnes) and, if Applicable, with Refere	ence to per Unit
Packaging wood	Tonne	7,499.53
Packaging wood use density	kg/revenue of RMB ten thousand	3.70
Steel consumption	Tonne	261,688.68
Steel consumption density	kg/revenue of RMB ten thousand	0.13
Paper consumption	Tonne	35.60
Paper consumption density	kg/revenue of RMB ten thousand	0.0176
B: Social		
B1: Employment		
B1.1 Total Number of Employees by Gender, Employment	Type, Age Group and Geographical Region	on
Total number of employees	Person	11,159
Number of employees by gender		
Male	Person	10,327
Female	Person	832
Number of employees by employment type		
Marketing service	Person	1,646
R&D technology	Person	2,495
Operating management	Person	764
Manufacturing type	Person	6,241
Other types	Person	13
Number of employees by age group		

Key Performance Indicators		Unit		Data in 2023
Employees aged 30 and below		Person		4,361
Employees aged 31-40		Person		5,316
Employees aged 41-50		Person		1,293
Employees aged 51 or above		Person		189
Number of employees by geographical regi	ion			
China(including Hong Kong, Macao, Taiwar	1)	Person		11,106
Overseas regions		Person		53
B1.2 Employee Turnover by Gender, Age Gr	oup and Geographica	l Region		
Total employee turnover		Percentage		23.89
Employee turnover by gender				
Male		Percentage		24.04
Female		Percentage		21.95
Employee turnover by age group				
Turnover for employees aged 30 and below	I	Percentage		25.44
Turnover for employees aged 31-40		Percentage		23.65
Turnover for employees aged 41-50		Percentage		19.99
Turnover for employees aged 51 or above		Percentage		19.23
Employee turnover by geographical regions	S			
China(including Hong Kong, Macao, Taiwar	٦)	Percentage		23.89
Overseas regions		Percentage		24.29
Key Performance Indicators	Unit	2023	2022	2021
B2: Health and Safety				
B2.1 Number and Rate of Work-related Fata	alities Occurred in Eac	h of the Past Three Year	´S	
Work-related deaths	Person	0	0	0
Percentage of work-related deaths	Percentage	0.00	0.00	0.00
Key Performance Indicators		Unit		Data in 2023
B2.2 Working Days Lost Due to Work-related	d Injury			
Total number of days lost due to work-relat	ted injury	Day		11,089



Key Performance Indicators	Unit	Data in 2023
B3: Development and Training		
B3.1 Percentage of Trained Employees by Gender and Employee C	Category	
Percentage of trained employees by gender		
Male	Percentage	90.8
Female	Percentage	9.2
Percentage of trained employees by employee category		
Trained employees from marketing service	Percentage	39.0
Trained employees from R&D technology	Percentage	43.5
Trained employees from operating management	Percentage	4.7
Trained employees from manufacturing type	Percentage	12.7
Trained employees from other types	Percentage	0.1
B3.2 Average Training Hours per Employee by Gender and Employ	vee Category	
Average training hours per employee	Hour	62.57
Average training hours per employee by gender		
Male	Hour	62.17
Female	Hour	67.56
Average training hours per employee by employee category		
Total average training hours per employee from marketing service	Hour	147.70
Total average training hours per employee from R&D technology	Hour	116.68
Total average training hours per employee from operating management	Hour	91.84
Total average training hours per employee from manufacturing type	Hour	14.66
Total average training hours per employee from other types	Hour	178.29
B5: Supply Chain Management		
B5.1 Number of Suppliers by Geographical Region		
Total number of suppliers	Number	4,488

Key Performance Indicators	Unit	Data in 2023
Geographical distribution of suppliers		
South China	Number	287
East China	Number	1,819
North China	Number	425
Central China	Number	1,189
Northeast China	Number	440
Southwest China	Number	116
Northwest China	Number	182
Hong Kong, Macao, Taiwan and overseas regions	Number	30
B6: Product Responsibility		
B6.1 Percentage of Total Products Sold or Shipped Subject to Recalls fo	r Safety and Health Reason	S
Percentage of total products sold or shipped subject to recalls for safety and health reasons	Percentage	0
B6.2 Number of Products and Services Related Complaints Received		
Product quality complaints	Time	9
Marketing service complaints	Time	13
B7: Anti-corruption		
B7.1 Number of Concluded Legal Cases Regarding Corrupt Practices Bro During the Reporting Period	ought Against the Issuer or	Its Employees
Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the Reporting Period	Case	0
B7.3 Description of Anti-corruption Training Provided to Directors and S	Staff	
Number of participants in anti-corruption training for management and directors	Person	13
Percentage of employees participating in anti-corruption training	Percentage	100
Percentage of directors participating in anti-corruption training	Percentage	100
Community		
B8: Community Investment		
B8.2 Resources Contributed to the Focus Area		
Community investment	RMB ten thousand	62



#### Content Index of HKEx's ESG Reporting Guide

Main Scopes, Levels and Key Performance Indicators	Statement	Sections				
Main scope A - Environ	Main scope A - Environment					
Aspect A1: Emissions						
	Information on:					
	(a) the policies; and					
	(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	Environmental Protection-				
General disclosure	Note: Air emissions include NOX, SOX, and other pollutants regulated under national laws and regulations.	Pollution Control				
	Greenhouse gases include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride.					
	Hazardous wastes are those defined by national regulations.					
Key performance indicator A1.1	The types of emissions and respective emissions data.	Environmental Protection- Pollution Control				
Key performance indicator A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Environmental Protection- Climate Change				
Key performance indicator A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Environmental Protection- Pollution Control				
Key performance indicator A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Environmental Protection- Pollution Control				
Key performance indicator A1.5	Description of emissions target(s) set and steps taken to achieve them.	Environmental Protection- Environmental Management				
Key performance indicator A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	Environmental Protection- Pollution Control				

Statement	Sections
rces	
Policies on the efficient use of resources, including energy, water and other raw materials.	Environmental Protection- Resources Conservation
Note: Resources may be used in production, in storage, transportation, in buildings, electronic equipment, etc.	
Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	Environmental Protection- Resources Conservation
Water consumption in total and intensity (e.g. per unit of production volume, per facility).	Environmental Protection- Resources Conservation
Description of energy use efficiency target(s) set and steps taken to achieve them.	Environmental Protection- Resources Conservation
Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	Environmental Protection- Resources Conservation
Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	Environmental Protection- Resources Conservation
nment and Natural Resources	
Policies on minimizing the issuer's significant impacts on the environment and natural resources.	Environmental Protection- Resources Conservation
Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Environmental Protection- Resources Conservation
ange	
Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	Environmental Protection- Climate Change
Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	Environmental Protection- Climate Change
	Policies on the efficient use of resources, including energy, water and other raw materials.  Note: Resources may be used in production, in storage, transportation, in buildings, electronic equipment, etc.  Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).  Water consumption in total and intensity (e.g. per unit of production volume, per facility).  Description of energy use efficiency target(s) set and steps taken to achieve them.  Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.  Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.  nment and Natural Resources  Policies on minimizing the issuer's significant impacts on the environment and natural resources.  Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.  lange  Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer, and



Main Scopes, Levels and Key Performance Indicators	Statement	Sections
Main scope B - Socia	l	
Employment and Lab	or Practices	
Aspect B1: Employme	ent	
	Information on: (a) the policies; and	
General disclosure	(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination and other benefits and welfare.	Employees' Rights and Interests- Talents Introduction and Retention
Key performance indicator B1.1	Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region.	Employees' Rights and Interests- Talents Introduction and Retention
Key performance indicator B1.2	Employee turnover rate by gender, age group and geographical region.	Employees <sup>'</sup> Rights and Interests- Talents Introduction and Retention
Aspect B2: Health and S	afety	
	Information on:	
General disclosure	<ul><li>(a) the policies; and</li><li>(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.</li></ul>	Employees' Rights and Interests- Health and Safety
Key performance indicator B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	ESG Key Performance Table
Key performance indicator B2.2	Lost days due to work injury.	ESG Key Performance Table
Key performance indicator B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	Employees' Rights and Interests- Health and Safety
Aspect B3: Developmen	t and Training	
General disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.  Note: Training refers to vocational training. It may include internal and external courses paid by the employer.	Employees' Rights and Interests- Career Development

Main Scopes, Levels and Key Performance Indicators	Statement	Sections
Key performance indicator B3.1	The percentage of employee trained by gender and employee category (e.g. senior management, middle management).	ESG Key Performance Table
Key performance indicator B3.2	The average training hours completed per employee by gender and employee category.	ESG Key Performance Table
Aspect B4: Labor Standa	ards	
	Information on:	
	(a) the policies; and	Employees' Rights
General disclosure	(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labor.	and Interests- Talents Introduction and Retention
Key performance indicator B4.1	Description of measures to review employment practices to avoid child and forced labor.	Employees' Rights and Interests- Talents Introduction and Retention
Key performance indicator B4.2	Description of steps taken to eliminate such practices when discovered.	Employees' Rights and Interests- Talents Introduction and Retention
Operating Practices		
Aspect B5: Supply Chair	n Management	
General disclosure	Policies on managing environmental and social risks of the supply chain.	Empowering Society- Sustainable Supply Chain
Key performance indicator B5.1	Number of suppliers by geographical region.	Empowering Society- Sustainable Supply Chain
Key performance indicator B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	Empowering Society- Sustainable Supply Chain
Key performance indicator B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	Empowering Society- Sustainable Supply Chain
Key performance indicator B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	Empowering Society- Sustainable Supply Chain

Main Scopes, Levels and Key Performance Indicators	Statement	Sections
Aspect B6: Product Resp	ponsibility	
General disclosure	Information on:	Digital and Intelligent
	(a) the policies; and	Innovation- Quality Control
	(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labeling and privacy matters relating to products and services provided and methods of redress.	
Key performance indicator B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Digital and Intelligent Innovation- Quality Control
Key performance indicator B6.2	Number of products and service related complaints received and how they are dealt with.	Digital and Intelligent Innovation- Customer Services
Key performance indicator B6.3	Description of practices relating to observing and protecting intellectual property rights.	Governance and Compliance- Protection of Intellectual Property Rights
Key performance indicator B6.4	Description of quality assurance process and product recall procedures.	Digital and Intelligent Innovation- Quality Control
Key performance indicator B6.5	Description of consumer data protection and privacy policies and how they are implemented and monitored.	Governance and Compliance- Information Security and Privacy Protection
Aspect B7: Anti-corrupti	on	
General disclosure	Information on:	Governance and
	(a) the policies; and	Compliance- Business Ethics Management
	(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	
Key performance indicator B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	Governance and Compliance- Business Ethics Management
Key performance indicator B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	Governance and Compliance- Business Ethics Management
Key performance indicator B7.3	Description of anti-corruption training provided to directors and staff.	Governance and Compliance- Business Ethics Management

Main Scopes, Levels and Key Performance Indicators	Statement	Sections
Community		
Aspect B8: Community I	nvestment	
General disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	Empowering Society- Contribution to Society
Key performance indicator B8.1	Focus areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport)	Empowering Society- Contribution to Society
Key performance indicator B8.2	Resources contributed (e.g. money or time) to the focus area.	Empowering Society- Contribution to Society



Company: Sany Heavy Equipment International Holdings Company Limited

Address: No. 25, No. 16 Street, Kaifa Road, Economic and Technological

Development Zone, Shenyang City, Liaoning Province

Tel: 4008-808-318 fax: 4008-803-318 E-mail: 110000