



2022

**Environmental, Social, and
Governance Report**

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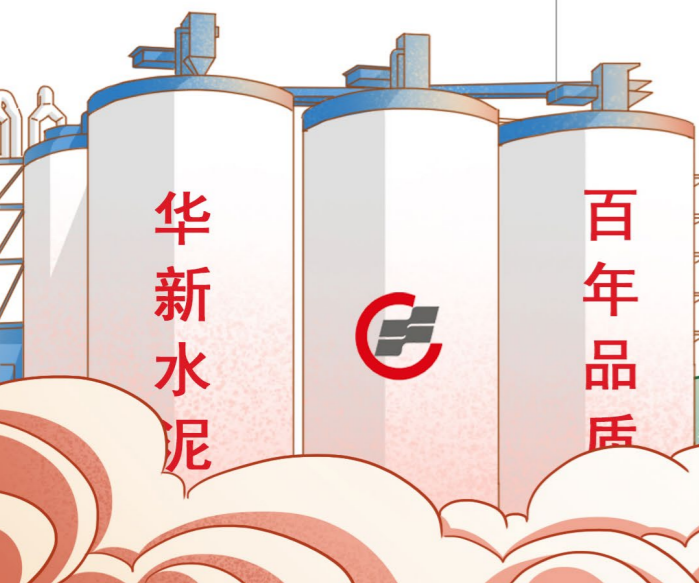
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About This Report

This report is a regular annual report issued by Huaxin Cement Co., Ltd. (hereinafter referred to as "Huaxin Cement", "the Company", or "we") since the first report - *Annual Social Responsibility Report 2008* published in May 2009. This report fully clarifies the Company's social responsibility concept and policies and its performance in Environment, Society, and Governance (hereinafter referred to as "ESG") in 2022.

Reference Standards

This report is prepared with reference to the *Environmental, Social and Governance Reporting Guide* in Appendix 27 to the *Main Board Listing Rules of The Stock Exchange of Hong Kong Limited*, the *United Nations 2030 Sustainable Development Goals (SDGs)*, and the *GRI Sustainability Reporting Standards (GRI Standards)* of the Global Sustainability Standards Board among other relevant reporting rules and standards. Unless otherwise specified, the currencies mentioned in this report are measured in RMB.

Time Range

The reporting time ranges from 1 January 2022 to 31 December 2022 (hereinafter referred to as the "reporting period"). However, it may extend slightly to the previous or subsequent year at some part of this report for the purpose of giving a clearer comparison or a more forward-looking statement.

Report Preparation Processes

The content of this report is structured according to a systematic pack of processes, including preparation kick-off meeting, ESG training, stakeholder interviews, report preparation, internal discussion and revision, report setting, approval by the management, and report release.

Data Sources and Boundaries

The financial data in this report is obtained from the official documents, reports, or relevant public information of the Company and its subsidiaries. The Company promises that this report does not contain any false record or misleading statement and the Company will be responsible for the authenticity, accuracy, and completeness of the content of this report.

Unless otherwise noted, this report covers Huaxin Cement Co., Ltd. and its subsidiaries.

Reliability Description

The Board of Directors and all directors of the Company confirm that the content of this report is free from any false record, misleading statement, or material omission.

Form and Period of the Report Release

This report is released annually and in electronic form. For an electronic version, please download it from the website of Huaxin Cement Co., Ltd. (<https://www.huaxincem.com>) or the website of The Stock Exchange of Hong Kong Limited (www.hkex.com.hk). This report is prepared in Chinese and English, and the Chinese version shall prevail if there is any inconsistency between the English and Chinese versions.

List of the ESG/CSR Reports over the years



Message by the Chairman



President of Huaxin Cement, Li Yeqing

Only by surmounting the greatest difficulties can we attain the most distant aspirations. In 2022, a year of paramount importance as it marks the commencement of China's "14th Five-Year Plan", the building materials industry faces formidable challenges. Under the impact of adverse factors such as declining demand, excess production capacity and high energy prices, the prosperity of China's building materials industry has declined rapidly. Facing the complex and daunting external situation, Huaxin Cement has remained brave, confident, and determined in pursuing sustainable development and found a new way to achieve it through continuous reform, learning, and innovation.

Huaxin Cement has remained committed to the development philosophy of "establishing green and low-carbon building materials throughout the entire life cycle" for years. We have set our strategic goal as becoming a pioneer in the low-carbon and sustainable development industry, with leading financial performance indicators. Four major development strategies have been promoted: Integrated Transformation, Overseas Expansion, New Building Materials Business Expansion, and Traditional Industry + Digital Innovation. Adhering to the three bottom lines of integrity, safety, and environmental protection, the company has strictly controlled risks in finance, product quality, and compliance. Huaxin Cement has adopted a tailored management strategy that responds to the needs of the times and the local environment, which has resulted in new achievements and breakthroughs in various aspects of our work. The company has also maintained the stability of overall development and demonstrated a strong sense of social responsibility, striving to be practitioners and contributors to high-quality development.

Be self-reliant based on technology and empowers the future through innovation. Taking innovation as an inexhaustible driving force for endogenous development, Huaxin Cement makes great efforts to promote the development strategy of "traditional industry + digital innovation", focusing on three closed loops - industrial intelligence, business intelligence, and management intelligence, with an aim to constantly promote the reform and breakthrough of manufacturing mode, operation mode, and decision-making mode and further promote the digital transformation and development of businesses. In 2022, Huaxin Cement continued to strengthen its scientific and technological innovation capability and made a number of achievements in major scientific and technological research projects, among which, several technological innovation achievements won important science and technology awards for building materials. It well demonstrates the company's commitment to technological progress in key areas, intelligent development, self-improvement based on science and technology, and empowering the future with innovation.

Keep in mind the mission of "Dual Carbon" mission and practice green development. Keeping in mind the corporate mission, Huaxin Cement implements the national "Dual Carbon" strategy with practical actions, promotes its green transformation through continuous innovation, and strives to achieve sustainable development of the company through a green transformation. The Company is playing an active role in green development and has become one of the first batches of enterprises in the industry to implement environment-friendly transformation and development. And it has realized low carbon, energy-saving, and consumption reduction in the whole life cycle of building materials through fuel substitution, green mines, intelligent industrial systems, cement-aggregate-wall material integration, cogeneration carbon

reduction pilots, etc. In 2022, guided by the new development concept featuring sustainability and high quality, Huaxin Cement successfully issued the first low-carbon transformation-linked corporate bond in the cement industry in China on the Shanghai Stock Exchange, aiming to continuously increase green investment through green finance and support the country in achieving steady and sustainable progress in carbon neutrality.

Upholds the principle of quality first and optimizes the industry ecosystem. Huaxin Cement regards quality as life, and its cement products have consistently ranked among the best in the national cement quality assessments. In 2022, Huaxin Cement maintained the high quality of products and services through lean management, system improvement, and model optimization. The company has established and continues to improve its sales service system to deliver high-quality products and services to customers. Meanwhile, Huaxin Cement values the importance of common development with the industry, so it is committed to integrating sustainable development into the operation of the industry chain, working with suppliers, partners, and industry partners in strengthening management and promoting the upgrading of the industrial ecosystem.

Truly care for employees and create a better society. Adhering to the people-centred principle, Huaxin Cement always takes the life safety and health of employees as the precondition of operation and is making continuous efforts to build a management system in which employees will grow and enjoy benefits while the Company develops and makes profits. In 2022, Huaxin Cement fulfilled its social responsibilities in various aspects by actively engaging in volunteer services such as rural revitalization, education assistance, disaster relief, and emergency rescue; it extended care for people to the community and society. Additionally, by deepening its involvement in the Belt and Road Initiative and upholding the spirit of the Silk Road, the Company is assisting several countries in Africa and Central Asia to carry out infrastructure construction, realizing strategic goals for economic and social development and building a community with a shared future for mankind.

A century of great achievements is only a prelude, and we must make unremitting efforts to forge ahead. In the new journey, Huaxin Cement will adhere to its original aspiration and continue to improve its operation so as to meet society's needs for construction and living materials and create diversified values for society, shareholders, and employees. Meanwhile, it will pursue green and low-carbon development in line with the call of the times, fulfil its responsibilities with courage, perseverance, and dedication, and keep creating new miracles.

01

About Huaxin Cement

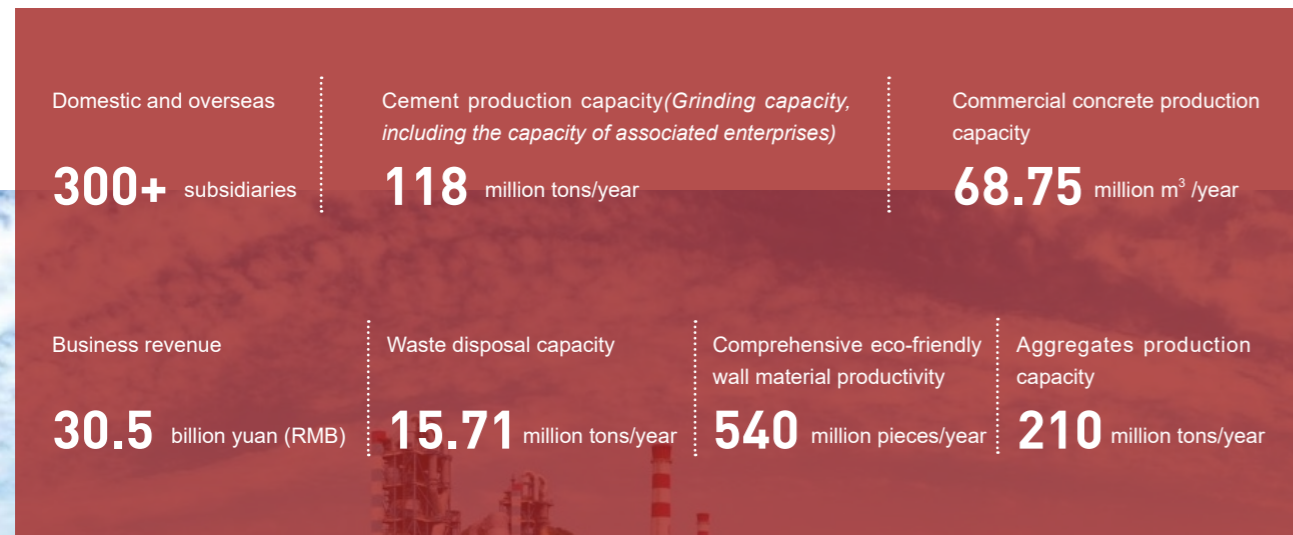
- Company Profile
- Corporate Business
- Honours and Awards



Company Profile

Founded in 1907, Huaxin Cement Co., Ltd. is known as the cradle of China's cement industry and has been a leading supplier of building materials in China for 116 years. In 1994, the company's A and B shares were listed on the Shanghai Stock Exchange. In 1999, it formed a strategic partnership with the Holcim Group. On 28 March 2022, Huaxin Cement successfully converted B shares into H shares and was officially listed on the Main Board of the Hong Kong Stock Exchange.

Since 2000, the Company's main economic indicators' compound annual growth rate (CAGR) has increased to 24%. Now the Company has developed from a local cement firm into a global building materials group that possesses more than 300 subsidiaries in 14 provinces and cities in China and nine overseas countries and pursues integrated development along the whole industry chain covering cement, concrete, aggregates, environmental protection, equipment manufacturing & engineering, and new building materials. It now ranks among the Top 500 Chinese Manufacturing Enterprises and the Fortune China 500 (with a return on net assets in 10th place). In addition, it has been selected into the "List of China's 500 Most Valuable Brands" for many years in a row, and its brand value has exceeded RMB 80 billion yuan.

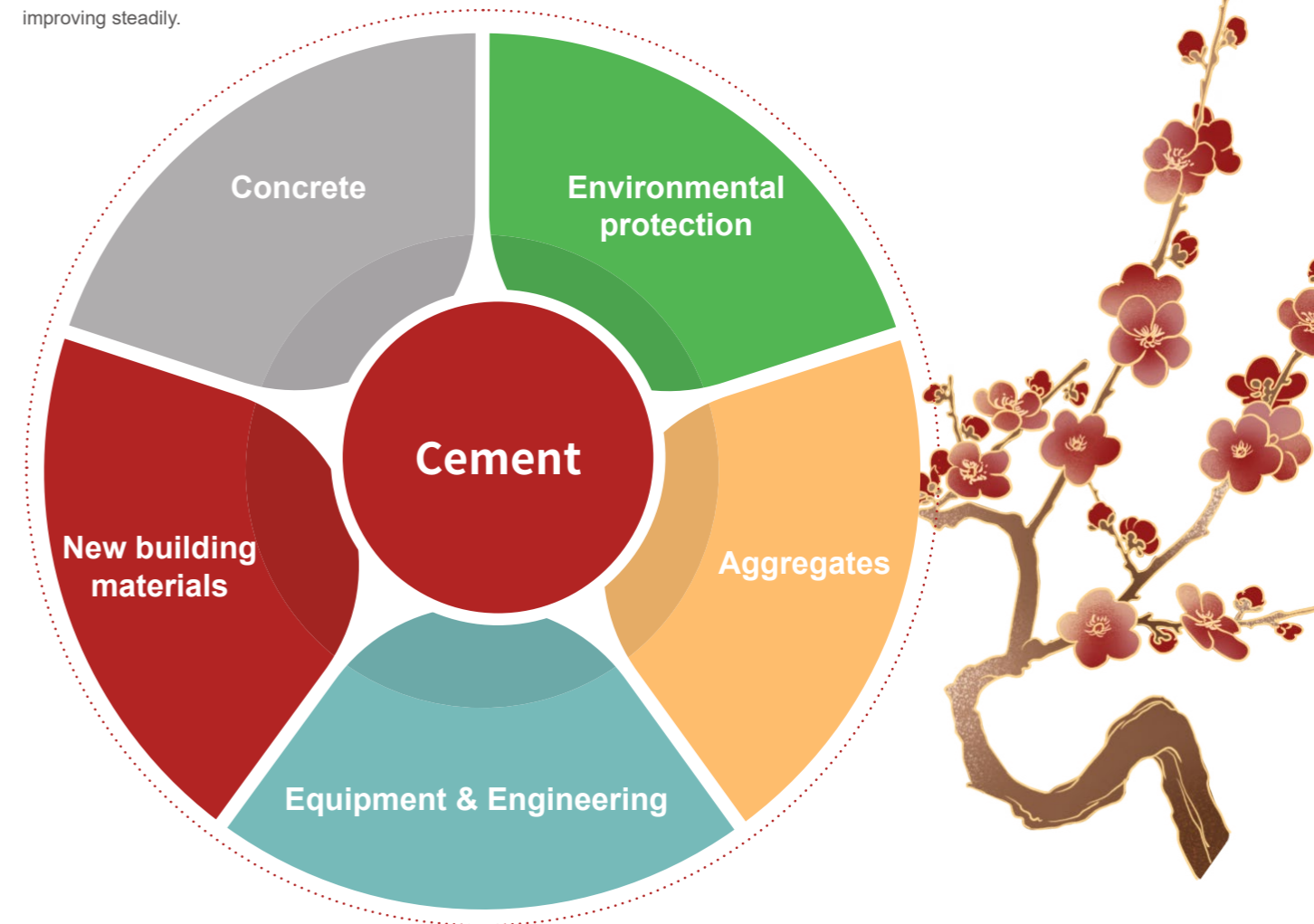


Corporate Business

During the initial period after the Company went public, it is a specialized company which engaged in cement manufacturing and sales, cement technical services, the research, manufacturing, installation, and maintenance of cement equipment, and cement import and export trading. In the past 20 years, as it has implemented a number of development strategies such as integrated development, environmental protection transformation, overseas development, and the expansion of new building materials business, the Company has expanded its businesses to include the production and sales of commercial concrete, aggregate, and cement-based new building materials, cement kiln collaborative disposal of wastes for environmental protection, domestic and international cement EPC contracting, the technology, equipment and engineering contracting for cement kiln collaborative disposal, and other related businesses. Over time, it has become a leading global building materials group in China that pursues integrated development along the whole industrial chain. In 2022, the revenue of the cement business accounted for 67.6%, dominating the Company's total business revenue, while the non-cement businesses have been improving steadily.

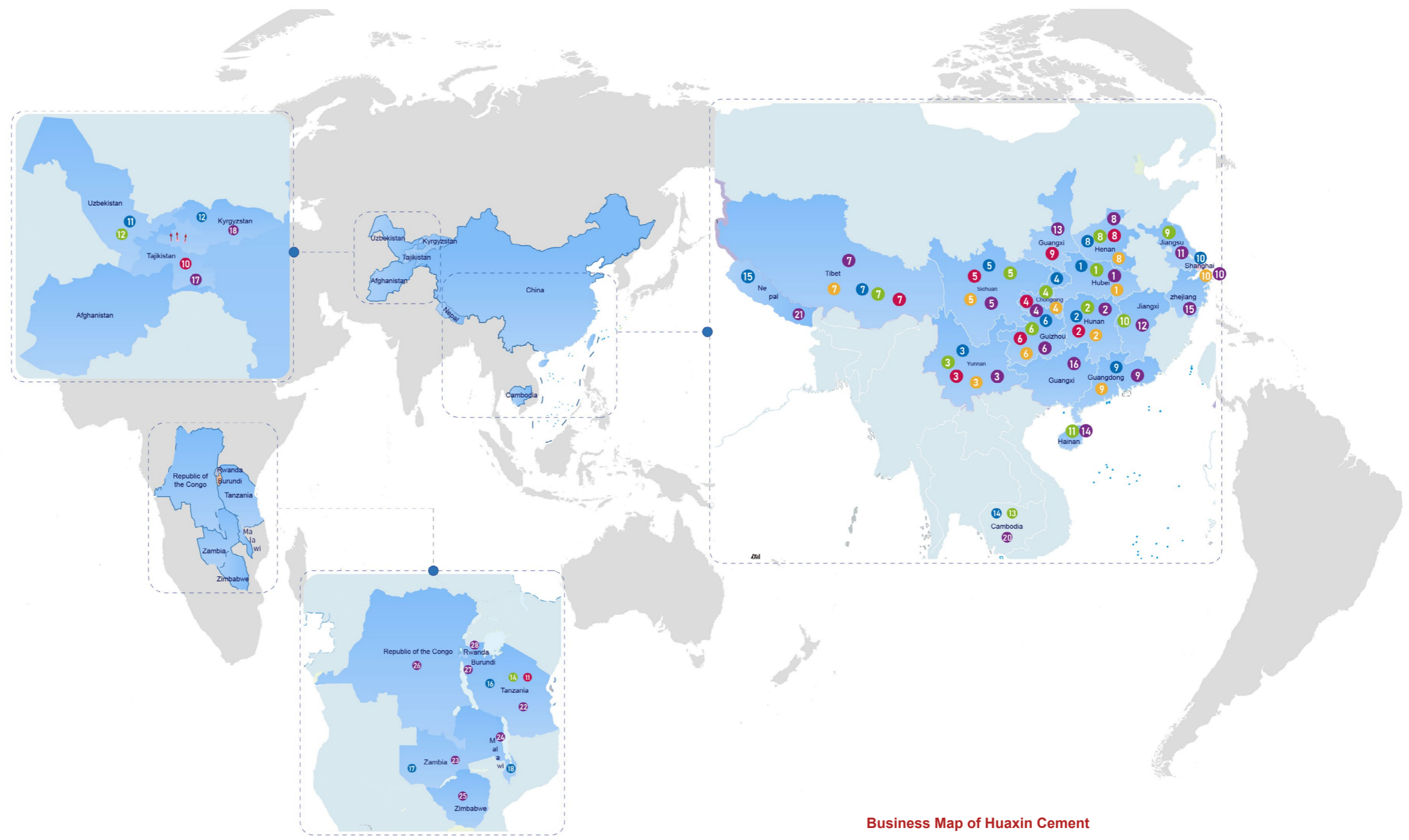
In 2022, the revenue of the cement business accounted for

67.6%



As of 31 December 2022, Huaxin Cement had more than 300 subsidiaries in 14 provinces and cities in China and eight countries overseas.

- Cement Production**
 - 1 Hubei, 2 Hunan, 3 Yunnan, 4 Chongqing, 5 Sichuan, 6 Guizhou, 7 Tibet, 8 Henan, 9 Guangdong, 10 Shanghai, 11 Tajikistan, 12 Kyrgyzstan, 13 Uzbekistan, 14 Cambodia, 15 Nepal, 16 Tanzania, 17 Zambia, 18 Malawi
- Commercial Concrete Production**
 - 1 Hubei, 2 Hunan, 3 Yunnan, 4 Chongqing, 5 Sichuan, 6 Guizhou, 7 Tibet, 8 Henan, 9 Jiangsu, 10 Jiangxi, 11 Hainan, 12 Tajikistan, 13 Cambodia, 14 Tanzania
- Aggregate Production**
 - 1 Hubei, 2 Hunan, 3 Yunnan, 4 Chongqing, 5 Sichuan, 6 Guizhou, 7 Tibet, 8 Henan, 9 Shaanxi, 10 Tajikistan, 11 Tanzania
- Environmentally Friendly Disposal**
 - 1 Hubei, 2 Hunan, 3 Yunnan, 4 Chongqing, 5 Sichuan, 6 Guizhou, 7 Tibet, 8 Henan, 9 Guangdong, 10 Shanghai
- Business Sales**
 - 1 Hubei, 2 Hunan, 3 Yunnan, 4 Chongqing, 5 Sichuan, 6 Guizhou, 7 Tibet, 8 Henan, 9 Guangdong, 10 Shanghai, 11 Jiangsu, 12 Jiangxi, 13 Shaanxi, 14 Hainan, 15 Zhejiang, 16 Guangxi, 17 Tajikistan, 18 Kyrgyzstan, 19 Uzbekistan, 20 Cambodia, 21 Nepal, 22 Tanzania, 23 Zambia, 24 Malawi, 25 Zimbabwe, 26 Congo, 27 Burundi, 28 Rwanda, 29 Afghanistan



Business Map of Huaxin Cement

Honours and Awards



Top 100 Chinese Enterprises Award



China's **500** Most Valuable Brands



Excellent Foreign Trade Enterprise in Hubei Province



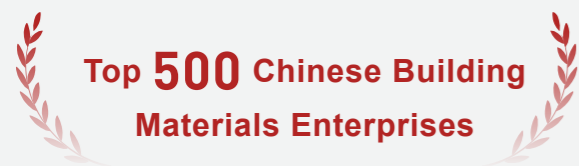
Top 500 Asian Brands



Fortune China **500**



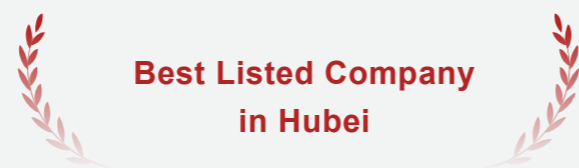
Huaxin Cement's project - Development and Application of Low-carbon & Reduced Nitrogen Ultra-large-scale Cement Production Technology and Equipment won the first prize of the Building Materials Science and Technology Award



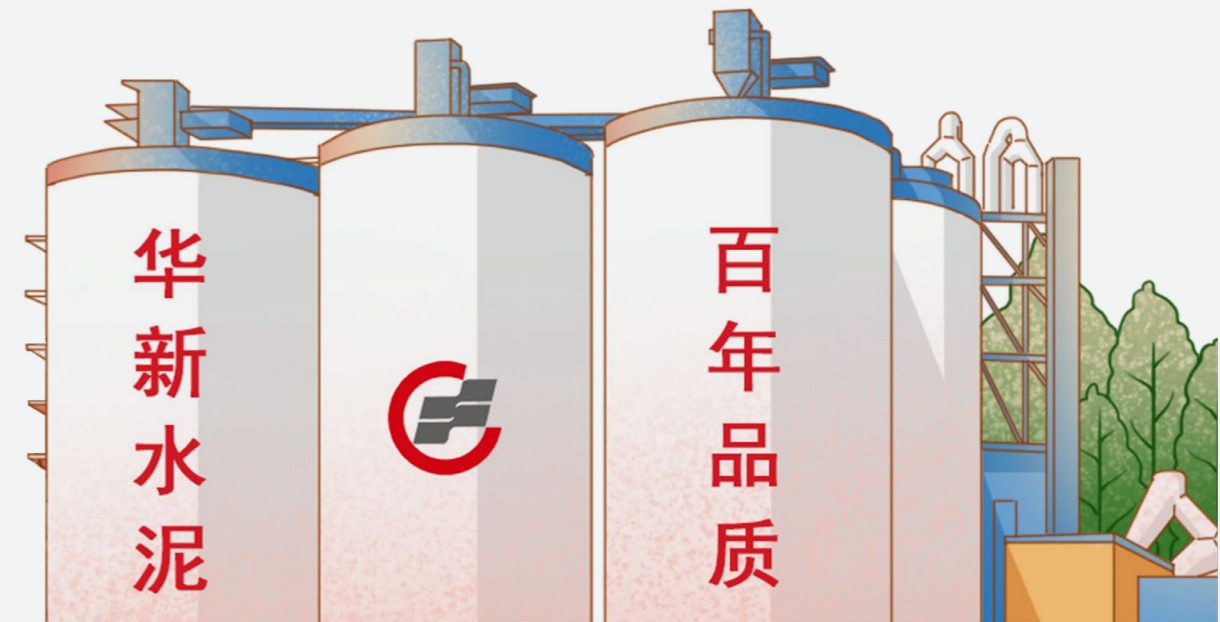
Top 500 Chinese Building Materials Enterprises



Top 500 Chinese Manufacturing Enterprises



Best Listed Company in Hubei



02

Prevent and Defuse Risks and Improve Corporate Governance

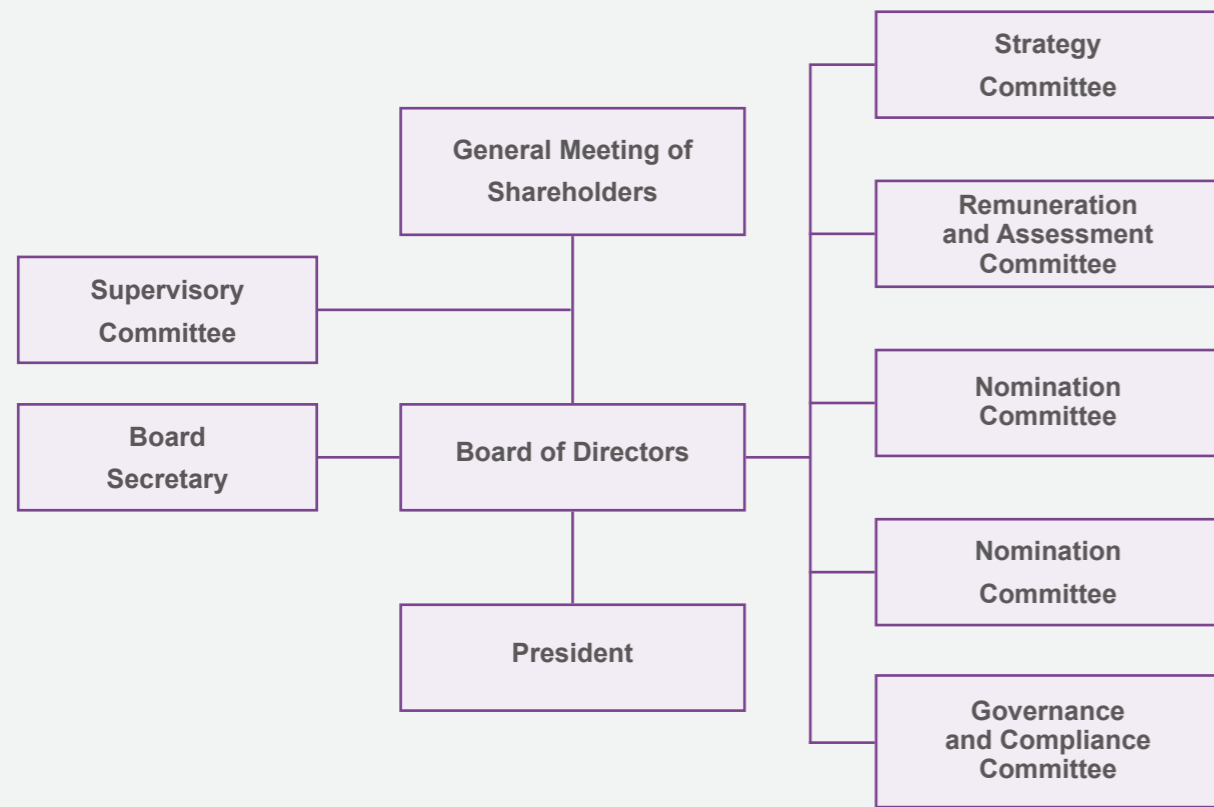
Strengthening corporate governance, improving compliance, and enhancing ESG management capability are the fundamental basis for achieving sustainable and high-quality development. Adhering to the path toward sustainable and healthy development of high quality and efficiency, Huaxin Cement works hard to build an institutional mechanism featuring compliance-based operation, integrity and efficient governance, and smooth operation by optimizing corporate governance, implementing comprehensive risk management system, abiding by business ethics, and further promoting ESG management. With the governance system and management method of a high standard, we strive to maintain the trustworthy century-old quality and set a good example of corporate sustainable development in China's cement industry.

- Corporate Governance
- Business Ethics
- Risk Management
- ESG Management



Corporate Governance

In strict accordance with the requirements of laws, regulations, and normative documents, such as the *Company Law of the People's Republic of China*, the *Securities Law of the People's Republic of China*, the *Governance Guidelines for Listed Companies*, the *Rules Governing the Listing of Stocks on the Shanghai Stock Exchange*, and the *Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited*, and through continuous improvement of its corporate governance structure, Huaxin Cement has formed a corporate management system that is scientific and standardized, efficient in operation, clear in boundary division, and effective in supervision and established a corporate governance structure that mainly consists of the shareholders' general meeting, the board of directors, the board of supervisors, and the senior management.



Corporate Governance Structure of Huaxin Cement

During the reporting period, the Board of Directors and the Board of Supervisors of the company consisted of 14 members, including three independent directors (12 men and two women), among which 12 hold Chinese nationality (including one from Hong Kong SAR and one from Macao SAR), one holds Singapore nationality and 1 holds French nationality (resigned on 9 December 2022). The Board of Directors consisted of five special committees, including the Audit Committee, the Nomination Committee, the Remuneration and Appraisal Committee, the Strategy Committee, and the Governance and Compliance Committee, and each committee performs its duties in accordance with the provisions of the articles of association and the rules of procedures of each committee. The "three boards" performed their respective duties to ensure that the decision-making procedures of major matters of the company are standardized and efficient.



Business Ethics

Huaxin Cement abides by business ethics, practices standardized operations with a high standard, strictly observes the requirements of relevant laws and regulations concerning anti-unfair competition, anti-monopoly, anti-bribery, extortion, fraud, and money laundering, and strives to create an integrity working atmosphere by continuously promoting systematic construction, optimizing multiple supervision and examination systems, and improving complaint and reporting mechanisms. There were no concluded legal cases regarding corrupt practices brought against the Company or its employees.

Work hard to build an integrity and honest government

Regarded the improvement of party conduct and integrity governance as an important political responsibility, Huaxin Cement has been making continuous efforts to carry out anti-corruption and integrity governance work in accordance with company systems, such as the *Work System for Discipline Inspection and Supervision and Complaint Reporting*, the *Self-discipline Rules for Related Party Transactions of Middle Management (and Above)*, the *Anti-bribery and Anti-corruption Regulations of Huaxin Cement Co., Ltd.*, the *Implementation Rules for Receiving and Sending Gifts, Entertainment, Donations, and Sponsorships of Huaxin Cement Co., Ltd.*, and the *Ten Prohibitions on Integrity Procurement of Huaxin Cement Co., Ltd.*, aiming to create a fair competition business environment.

As a part of efforts to promote the "Integrity and Honest Huaxin" campaign, we provided company-wide support for the signing of the Letter of Responsibility for Integrity and the Letter of Responsibility for Key Posts. During the reporting period, 2,739 senior officers, cadres, and the staff in key posts completed the signing and the integrity files for 746 middle-level (and above) Party and government cadres were established, which generally covered all key groups, created an integrity corporate culture and provided a strong guarantee for the Company to pursue high-quality development and become a world-class enterprise.

Signed **2,739** letters of responsibility for integrity building and professional responsibility for key positions

746 people in the integrity file

Defend the Red Line of Integrity

Huaxin Cement has been carrying out evaluation activities such as "integrity education month", "integrity lectures", and "integrity work evaluation" with an aim to raise the employees' awareness of integrity, bottom lines mindset and red line awareness. During the reporting period, the Discipline Inspection Commission of the company organized integrity training sessions on six topics, including integrity education, integrity culture building, and anti-corruption, etc., which were attended by 1,951 people, with an average of 87.8 hours of anti-corruption training for the board of directors and employees. The Discipline Inspection Committee of the Company prepared two sessions of the "Integrity Warning Line" lecture, issued three anti-corruption reminders, and organized two educational film watching, which were compulsory for all middle-level and above management, with a total of 14,000 participating.



Case: A special presentation on the construction of party integrity

In 2022, Li Yeqing, secretary of the Party Committee of the Company, actively performed the duties of the "first responsible person" and took the lead in giving 2 party lectures on the topic of integrity and 12 reminders of integrity. The Secretary of the Discipline Inspection Committee, Ming Jinhua, gave 5 party lessons on integrity and 26 reminders on integrity to all staff through on-site and video formats, respectively, targeting key employees such as young cadres and cadres to be promoted, as well as key links such as concrete, marketing and procurement.



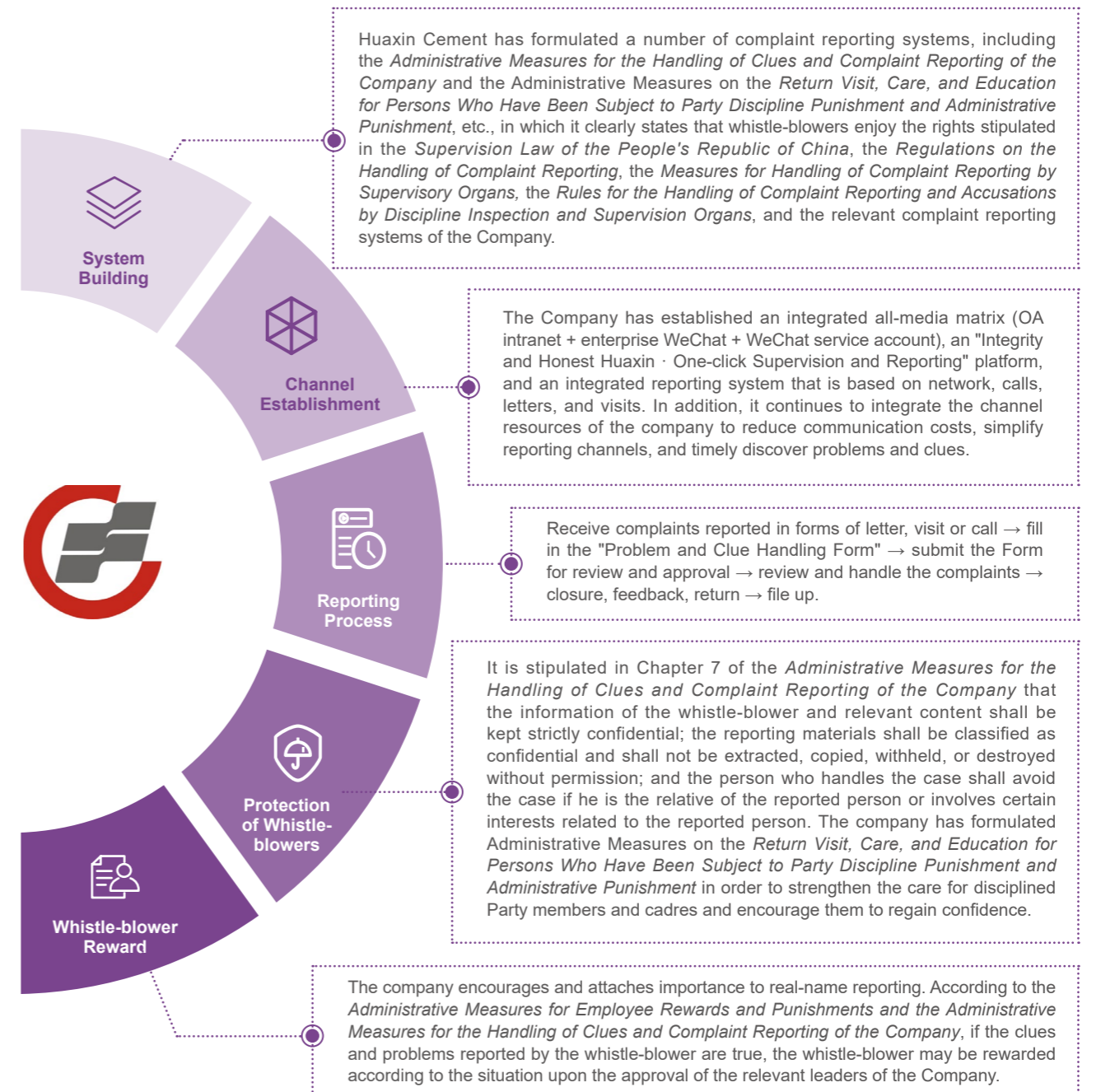
The Second Plenary Session of the Twelfth Discipline Inspection Committee of Huaxin Cement (Enlarged) and 2022 Annual Anti-Bribery and Anti-Corruption Seminar



Ming Jinhua, Deputy Secretary of the Party Committee, Secretary of the Discipline Inspection Committee and Chairman of the Trade Union, delivered a lecture on Party style and clean government construction

Make sure complaint reporting is well handled

In order to effectively implement the supervision mechanism, Huaxin Cement has established a variety of channels for handling complaint reporting and encourages employees to report any violations of disciplines and regulations by the company and its subordinate units by name. The company has revised the complaint reporting system, established diversified channels, simplified the reporting process, and set up rewards for whistle-blowers who have provided valuable information in a bid to strengthen and standardize the handling of complaint reporting and protect whistle-blowers and their legitimate rights and interests.



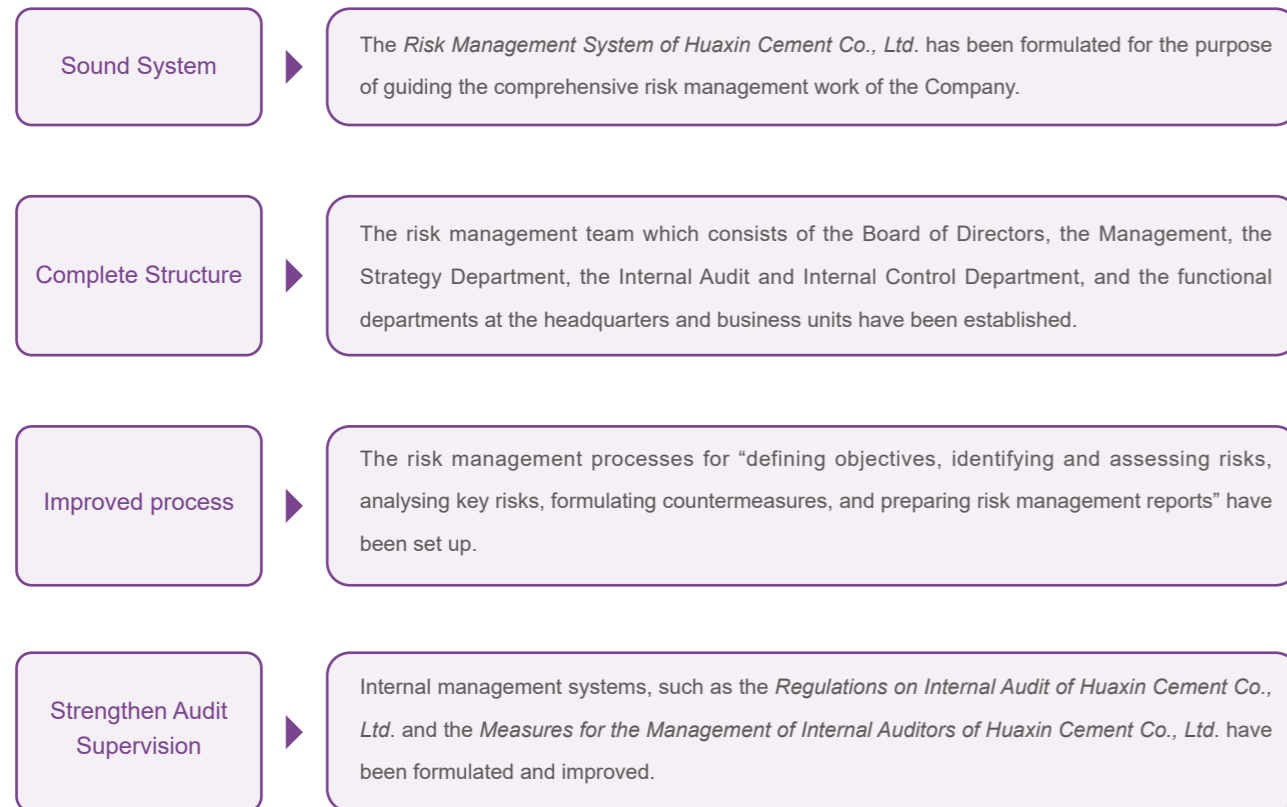
During the reporting period, with a focus on common problems, the Discipline Inspection Commission of the Company improved the measures for handling problems by addressing both the symptoms and root causes. It received and handled a total of 64 cases of clues and problems reported, with a handling completion rate of 73.4%. Meanwhile, it issued four disciplinary inspection and supervision recommendations, proposed 46 suggestions for discipline inspection, supervision, and management, and recovered 3.50 million yuan of direct economic losses.

Risk Management

Huaxin Cement has established a relatively comprehensive risk management structure, including basic systems and work processes. While focusing on the identification of major risks of the Company, the Company makes continuous efforts in strengthening compliance supervision, preventing and eliminating potential risks in production and operation, and comprehensively improving the company's risk management and prevention capabilities and its resilience. For the year ended 31 December 2022, Huaxin Cement had no material risk events.

Comprehensive risk control

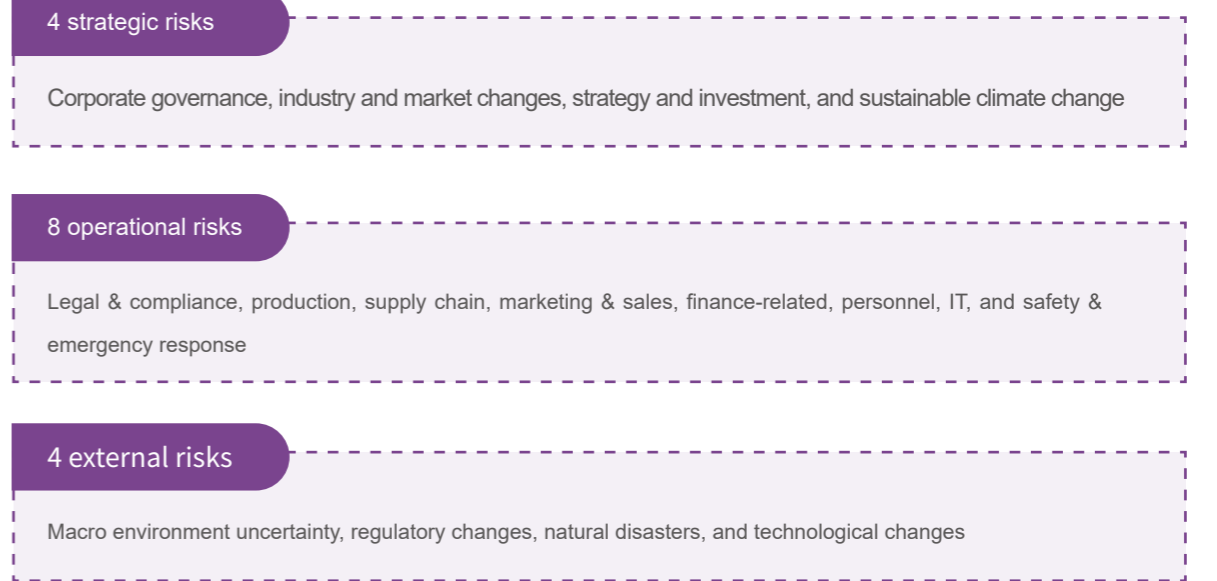
Huaxin Cement promotes risk management work from the aspects of system, structure, and process, and it strengthens the risk management of all departments, branches, and subsidiaries of the company through audit and supervision.



Huaxin Cement has been making continuous efforts to monitor and assess the effectiveness of key risk countermeasures through risk workshops in order to ensure the effectiveness of risk management, establish a standardized and effective risk control system, enhance the Company's management level and risk prevention abilities, and promote the sustainable development of the Company. Through regularly reviewing the Company's risk map and collecting new risk factors during risk workshops, Huaxin Cement updates the Company's risk database on a regular basis, summarizes the experience, and continuously makes improvements.

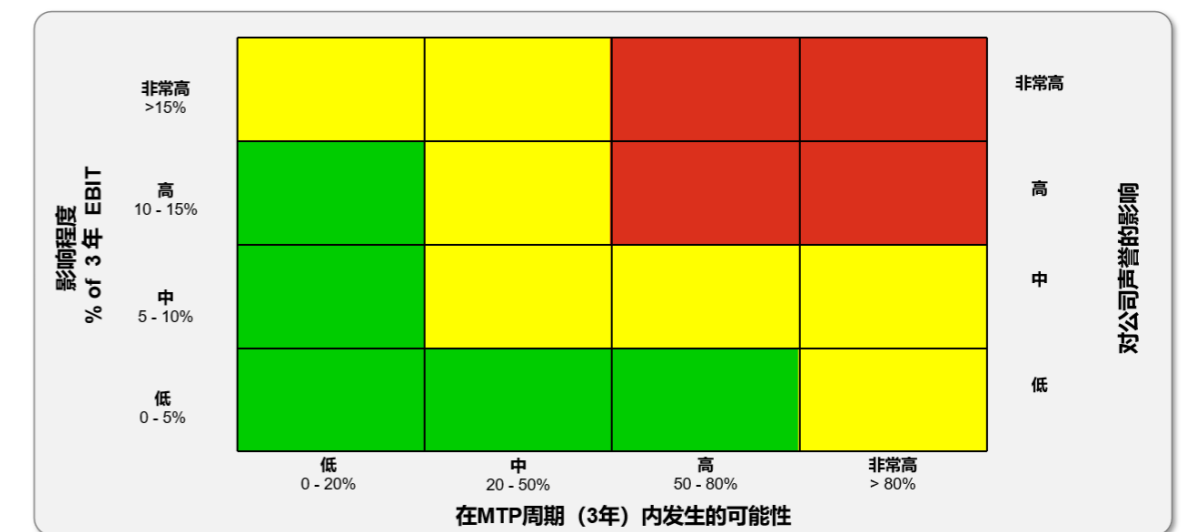
Huaxin Cement Risk Database

Huaxin Cement updates various risk factors in the Company's risk database on a rolling basis annually. The risks of the Company are categorized into strategic risks, operational risks, and external risks.



Huaxin Cement Risk Map

With reference to the risk database in the risk control scope, business experts brainstormed to discuss and determine the impact degree and risk possibility of various risks, and visually display the risk identification and assessment results through the risk map. Risks in the red zone in the risk map are defined as critical risks.



Strengthen internal control management

Huaxin Cement has formulated and perfected the *Internal Control System of Huaxin Cement Co., Ltd.* and actively carried out assessments on the implementation of the internal control system. Huaxin Cement has organized internal control training and internal control knowledge competitions among other activities to cultivate an internal control culture in which all employees participate. By strengthening its internal control, the Company aims to make the internal control management more systematic, legal, and standardized, and further promoting the realization of the company's business goals.

During the reporting period, Huaxin Cement carried out a total of 13 compliance training and 85 compliance officer pieces of training and completed the compliance inspection and assessment of ten subordinate units. We supervised the implementation of key internal control activities through the internal control management platform; we organized the headquarters and 193 subordinate units to complete their annual internal control self-assessment and supervised them to rectify defects.

In 2022, the implementation efficiency of Huaxin Cement's key control activities had risen steadily to 87%, and the Company's internal control audit report had been rated as up to standard and no comments reserved for 12 consecutive years. The sound internal control system and processes provided a solid guarantee for the Company to achieve strategic development goals and sustainable and steady development.

In 2022, the implementation efficiency of Huaxin Cement's key control activities had risen steadily to

87%

Received a standard unqualified internal control audit report for

12 consecutive years

Strengthen audit supervision

Huaxin Cement has clearly defined and standardized key elements of internal audit such as functions and personnel and has continued to improve the internal management system, with an aim to ensure effective implementation of the internal control activities and the independence, objectiveness, and timeliness of supervision over important economic activities of the Company. During the reporting period, we audited the efficiency in the implementation of key control activities in 26 subordinate units; we conducted 20 business process audits in high-risk key business areas such as procurement business, sales business, and logistics business; and we urged all responsible units to timely rectify the internal control defects discovered in audits.



Audit Communication Meeting of the Subordinate Units of Huaxin Cement

ESG Management

Adhering to the mission of "Clean our living environment and provide reliable building materials" and the vision of "A better world starts with us", Huaxin Cement regards sustainable development as a strong guarantee for the long-term stable development of the company. To achieve good sustainability performance, the Company has established and continued to improve the ESG management system by identifying issues concerned by stakeholders, carrying out material issue assessments, defining ESG management priorities, and establishing the ESG architecture.

ESG Management Structure

Huaxin Cement continues to improve the ESG governance system and functions. It has established an ESG responsibility management system headed by the Board of Directors and led by the public affairs department, and the ESG responsibility management system implemented by the relevant functional departments has set out defined duties and responsibilities of the company at the ESG level. This provides a powerful organizational guarantee for implementing ESG work and green, low-carbon and sustainable development strategies.



Identify and assess major ESG issues, and be responsible for the overall supervision, review, and decision-making of related matters, including the formulation of relevant strategies and guidelines, special review and reporting on ESG-related reports or ESG-related content in other reports, and the supervision and management of the implementation progress of the formulated ESG-related goals.

Responsible for the company's ESG management work, including the work division, target allocation, work deployment, etc. around the overall strategic policy; regularly report the progress of ESG management and related matters to the Board of Directors. The Company's public affairs department, as the organizing department, is responsible for coordinating ESG management work, including the preparation of annual ESG reports, the improvement of ESG indicator performance, data collection, dynamic tracking, and warning, and organizing training, publicity, and assessment.

All functional departments and subsidiaries of the Company are responsible for the implementation of various ESG work; regularly collect and report ESG performance indicators and excellent cases according to the requirements of the management; assist in the preparation of ESG annual reports and in organizing and implementing ESG-related activities.

The ESG Management Structure of Huaxin Cement

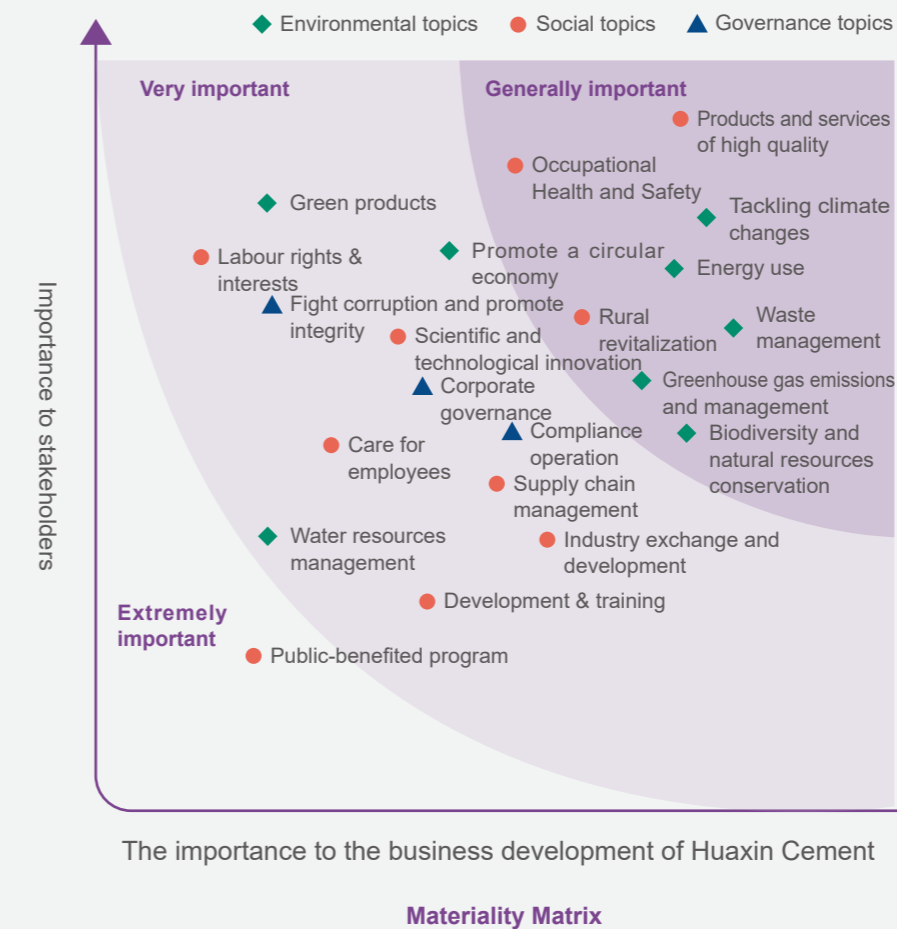
Stakeholder Engagement

Recognizing the importance of communication with stakeholders, Huaxin Cement has established an efficient stakeholder communication and feedback mechanism that enables it to collect opinions and suggestions of stakeholders, such as government and regulatory agencies, shareholders/investors, customers, employees, the public, partners, and other stakeholders through different channels, identify the feedback and expectations of stakeholders on the company, responds to the needs of all parties in a targeted manner, and comprehensively improves the performance of the ESG performance of the Company.



Materiality Analysis

In this year, we identified and evaluated Hua Xin Cement's ESG materiality issues, taking into account national macro policy directions, capital market concerns, sustainability reporting standards and benchmarking with peers, and identified 21 materiality issues, including 8 environmental issues, 10 social issues and 3 governance issues.



03

Development of Innovation Ability to Grow Together with Partners

Huaxin Cement Co., Ltd, in its century-old history of development, attaches great importance to innovation. As the pacesetter in the cement industry, Huaxin Cement follows the concept of "innovation driving development and leading industrial upgrading", and shares experiences and technologies with an open mind to promote technological progress and industrial upgrading of the sector.

- Innovation in Management Mechanism
- Quality Assurance
- Supply Chain Management



Innovation in Research and Development

In 2022, the Company continued to strengthen scientific and technological innovation and promoted independent research and development. With the continuous improvement in the innovation management mechanism and system, we pay attention to innovation incentives and R&D team building, with a focus on all-round technology solutions to carbon reduction, environment-friendly paths and applications of collaborative disposal of solid waste, research and development and production of new materials and high-end intelligent equipment, the building of independent innovation ecology and transformation and application of achievements to promote the technological innovation and development.

Innovation in Management Mechanism

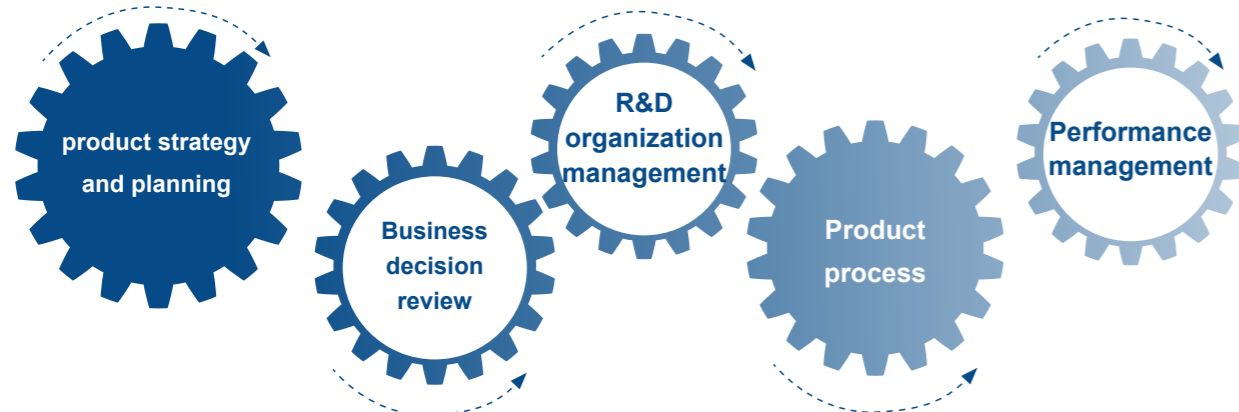
By formulating the *Interim Measures for the Management of R&D Projects* and the *Interim Measures for the Management of Scientific and Technological Development*, Huaxin Cement has established a comprehensive innovation management system to promote the practical implementation of innovative ideas at all levels of the company. Meanwhile, it has set up normative standards for research and development for projects, classified R&D projects by their sources and importance to define R&D expenses and formulate R&D procedures, and requirements for the implementation process, achievement management and patent management, so as to promote innovation through management.

Well-established R&D system

According to the overall requirements of improving work efficiency and rapid R&D, we have established a comprehensive R&D system with the Technical Centre & Technical Research Institute as the core, integrating cement business, new materials, engineering and equipment, environmental engineering, digital innovation and other departments and demonstration factories of R&D achievements application. In order to ensure the effective application of the Company's innovative technology, the Company has set up a technical committee and a management committee to be responsible for the decision-making review of the R&D system. With the system guarantee, Huaxin Cement has greatly promoted its innovation in the technical field, solidly supporting the sustainable development of the enterprise.

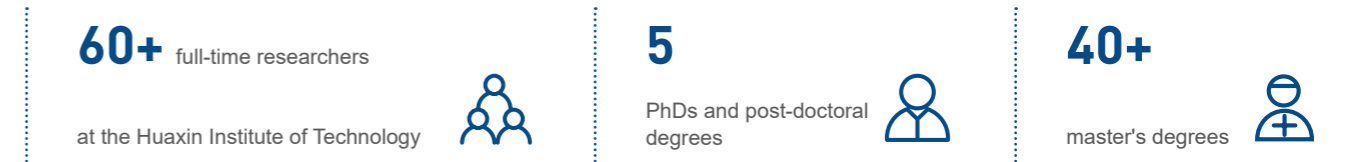
Optimized R&D Management Mechanism

We continue to optimize the R&D management mechanism to ensure that all kinds of R&D and quality improvements are carried out quickly and efficiently, so as to promote the accurate transmission of product R&D and quality improvement requirements and enable the results to be industrialized and applied as soon as possible. Task system and project responsibility system are adopted in each R&D project, with the R&D management mechanism covering product strategy and planning, business decision review, R&D organization management, product process and performance management.



Innovation in Incentives

Innovation is an inexhaustible motive force for Huaxin Cement's progress. We have established a high-quality cement R&D team to ensure that we have the innovative power for sustainable development. At present, there are more than 60 full-time researchers at the Huaxin Institute of Technology, including five PhDs and post-doctoral degrees, and more than 40 master's degrees. This dynamic, innovative, and highly qualified R&D team and technical service team are the guardians of the company's rapid development.



Strengthened Investment in Innovation

Laboratory is the engine of Huaxin Cement's continuous innovation. In terms of laboratory construction, the Technology Research Institute has continuously increased the investment in infrastructure and equipment in recent years, and made overall plans to build R&D laboratories and basic performance testing laboratories with reasonable layout, perfect functions and complete equipment, such as laboratories of cement development, UHPC, mortar, VAP, wall materials, cement modified materials, concrete admixtures, aggregates, geopolymers, composite materials and environmental testing, making them an industry benchmark with capabilities of basic research, technological innovation and efficient management.

Clarified Focus on Innovation

Aiming at the market demand for building materials research and development, especially the needs of low-carbon building materials, the Company has set up the Huaxin Low-carbon Sub-laboratory as the key laboratory and postdoctoral workstation with 12 R&D teams and testing laboratories, which is responsible for research and development, promotion and application of traditional cement, new materials, and new technologies, becoming the backbone of green building materials research and development in adapting to the carbon peaking and carbon neutrality transformation.

The Company has innovatively developed a series of products, such as ultra-high performance roof tiles, wallboard, and prefabricated components, grouting products, spraying anti-corrosion products, shaft reinforcement products, wear-resistant and anti-corrosion floors, tile glue, putty powder, permeable concrete, colored concrete, wear-resistant concrete and wet-mixed mortar, and realized the industrialization of scientific research results. Among them, self-developed cement-modified materials have been successfully applied to more than 50 branches and subsidiaries under Huaxin Cement, creating yields of hundreds of millions of yuan for the Company; UHPC and VAP series products have been successfully applied to Huaxin's new Headquarters, Huaxin Science Park, Huaxin Environment-Friendly Factory, and other projects. In 2022, in the list of the second batch of leading projects launched by China Building Materials Federation, Huaxin Cement actively unveiled the projects of zero fossil energy and zero primary resources for the "Six Zeroes" demonstration factories.

Huaxin Cement has actively unveiled two projects in the "Six Zeroes" demonstration plant in the areas of zero fossil energy and zero primary resources



High-performance New Materials

In 2022, through improvement and optimization, Huaxin Cement further enhanced its competitiveness of production materials and completed the development and application of Ultra-High-Performance Concrete (UHPC)¹ product including C180 grey UHPC, C100 white spraying UHPC, C130 low-cost coarse aggregate UHPC and wear-resistant daubing agent. Based on the project and R&D requirements, the optimization and improvement of low-cost grey and white UHPC, early-strength white UHPC and other materials were completed, and the key raw materials of UHPC were optimized and designed. The R&D projects of 100million-ton preparing hollow bricks and porous bricks from aggregate waste residue and improving the technological performance of aerated concrete were carried out; the research and development of low-carbon cement, the co-production and acid production project of cement clinker prepared by phosphogypsum decomposition and the expansion agent products suitable for Ductal products were carried out; the formulation, process, development, synthesis and optimization of general concrete admixture mother liquor have been completed. We analyzed the geopolymer mortar, early-strength, and fast hardening geopolymer and light geopolymer and composites of fly ash system in detail and started research and development on carbonized wall products, carbonized environment-friendly bricks and carbonized aerated concrete.



Intelligent Technology

On 18 January 2022, Hubei Science and Technology Department organized the 2022 Hubei Science and Technology Innovation Talents and Services Expert Demonstration Meeting in Wuhan through the form of "offline + online". The project scheme of "Research and Development and Application of Life Cycle Production and Operation System of Digital-based Green and Low-carbon Building Materials" made by Li Yeqing, President of Huaxin Cement, passed the evaluation successfully and was unanimously agreed by experts to establish the project as soon as possible.



Case: Huaxin Cement's project "Research and Development and Application of Life Cycle Production and Operation System of Digital-based Green and Low-carbon Building Materials" passed the provincial experts' evaluation

On 18 January 2022, the project scheme of "Research and Development and Application of Life Cycle Production and Operation System of Digital-based Green and Low-carbon Building Materials" made by Li Yeqing, President of Huaxin Cement, passed the evaluation successfully and was unanimously agreed by experts to establish the project as soon as possible.

The project is based on digital technologies such as the Internet of Things, big data, AI, and advanced process control. Through independently developing and applying key technologies of low-carbon building materials, and integrating with mining and intelligent digital systems, quality control and energy analysis, increase the substitution rate of non-petrochemical fuels in the cement production process, improve the intelligent level and efficiency of mine mining intelligence, and save energy and reduce consumption in the life cycle of low-carbon building materials.

In the argumentation, the expert group pointed out that this project of Huaxin Cement has accurate positioning, clear objectives, novel ideas, rich contents, feasible technical route, strong operability, meeting the needs of sustainable development of enterprises, with wide application and promotion and controllable risks. The project meets the major national demand, conforms to the digital and intelligent development direction of the manufacturing industry, focuses on the key technical breakthrough and transformation application of the synergy between digital and low-carbon production and operation of the cement building materials industry, and enhances the technical support capacity of carbon reduction and carbon neutrality. The project research is of great significance to promoting the transformation and upgrading of China's raw material industry, leading the high-quality low-carbon development of the building materials industry, and advancing carbon reduction of building materials products throughout their life cycle with digital technology.

¹ Ultra-High Performance Concrete, UHPC, also called ultra-high performance fibre reinforced concrete (UHPC) because chopped steel fibres or polymer fibers are usually mixed.

Improved Incentive Mechanism

Huaxin Cement has established innovative platforms such as the national recognized enterprise technology centre, Post-Doctoral Research Centre, Hubei Engineering Technology Research Centre, and Hubei Engineering Laboratory, and has successively achieved a number of major scientific and technological achievements.



Case: Huaxin Equipment Company and Chaokelong Company were recognized as National High-tech Enterprises

On 22 March 2022, Huaxin Cement (Huangshi) Equipment Manufacturing Company Limited and Huaxin Chaokelong New Building Materials Technology (Huangshi) Company Limited received the "High and New Technology Enterprise" certificate jointly issued by the Department of Science and Technology of Hubei Province, the Department of Finance of Hubei Province and the Taxation Bureau of the State Administration of Taxation of Hubei Province and were recognised as national high-tech enterprises. Ltd. received the certificate of "High and New Technology Enterprise" jointly issued by the Hubei Provincial Department of Science and Technology, Hubei Provincial Department of Finance and the Hubei Provincial Taxation Bureau.

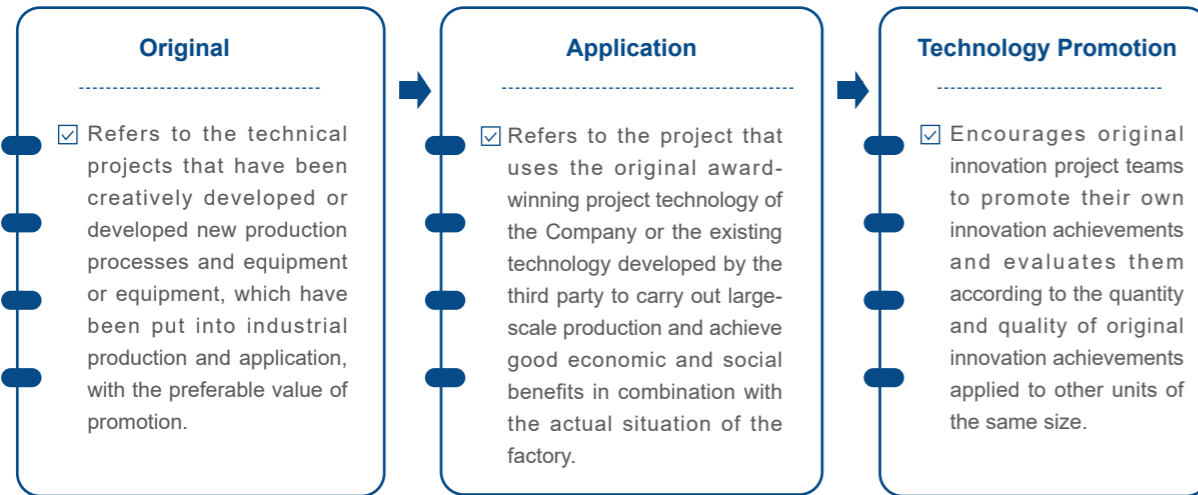
The national high-tech enterprise is jointly recognized by the Ministry of Science and Technology, the Ministry of Finance, and the State Administration of Taxation, it is one of the most authoritative honours for high-tech enterprises in China. It is one of the most authoritative honours for high-tech enterprises in China.



Huaxin Cement has formulated a perfect financial system for scientific research expenditure, encouraging and motivating the implementation of original, applied, and popularized innovation projects by means of well-graded, standardized and orderly technological innovation competitions.

Case: "Technological Innovation Competition" in Huaxin Cement

In 2022, to further stimulate employees' enthusiasm for technological innovation, give full play to their advantages in technological innovation, and continuously enhance the core competitiveness of enterprises, the Technology Centre continued to organize and carry out "Technological Innovation Competition" throughout the Company, covering three types: Original, Application and Technology Promotion.



In 2022, the project "Innovation and Application of Intelligent Key Technologies for Cement Low-carbon Manufacturing" led by Digital Innovation Centre won the first prize for the Original; the project "Integration of Energy Efficiency Improvement Technology for Kiln System" led by the cement technology department won the first prize of Application; and Huaxin Environmental Engineering-led project of "Process Research and Development of AF Bucket Lifting into Kiln" won the first prize of the Technology Promotion category.



The Company leaders Xu Gang and Wang Jiajun presented awards to the winners of technological innovation awards in 2022

Intellectual Property Protection

In 2022, Huaxin Cement continuously strengthened the construction of the intellectual property rights system, comprehensively enhanced the ability to creation, application, protection, and management of intellectual property rights, and stimulated the initiative and enthusiasm of employees in invention and creation. During the reporting period, the Company applied for 65 patents and was registered with 31 patents.

The Company applied for

65 patents



was registered with

31 patents



Institutional System Construction

Huaxin Cement has specially formulated the *Interim Measures for Patent Management* as a programmatic document for intellectual property protection, so as to effectively protect the Company's core competitiveness. The Company started the protection mechanism for the research of new products, new technologies and new processes in various business units, formulated detailed approval and filing procedures for the patent inventions, created high-quality R&D conditions within the company, and strengthened the management of property ownership. In terms of patent management, Huaxin Cement compiled and sorted out the technical documents related to patent applications according to the requirements of the *Patent Law of the People's Republic of China* and the *Detailed Rules for the Implementation of the Patent Law*, and coordinated the management and organization mechanism of the patent R&D process. With a strict internal system, the Company standardizes the cooperative development or commissioned research procedures with other units and individuals, clarifies the patent application right and the ownership of patent rights of R&D achievements, and formulates detailed technical process regulations.

Promotion of Technical Exchange

In 2022, more than 2,000 technical personnel from customers and factories were trained, and factory technicians and customers gained a deep understanding of the company's new technologies and products, which played a key role in the application of new technologies and the promotion of new products.

The Company pays attention to the construction of technical research institutes and personnel training, carries out partial renovation of laboratories, upgrades equipment and facilities, introduces high-end talents, continues to carry out professional skills training and skills contests, and actively launches the building of the "Hubei Youth Civilization Team".

2,000+ technical personnel

from customers and factories were trained



Case: Huaxin Cement won the National Building Materials Science and Technology Award with "Low Carbon Project"

On 17 November 2022, the National Building Materials Industry Carbon Peaking Promotion Conference, the 2022 National Building Materials Industry Conference, the National Building Materials Industry Science and Technology Innovation Conference and the Working Meeting of the Federation Expert Committee were held in Beijing. At the meeting, the project "Development and Application of Low-carbon and Nitrogen-reducing Ultra-large-scale Cement Production Technology and Equipment" with Huaxin Cement Co., Ltd. as the first completion unit and President Li Yeqing as the person in charge won the first prize of Building Materials Science and Technology Award. Aiming at the "Carbon Peaking and Carbon Neutrality" in the cement industry, this project has developed a new technology and equipment system for ultra-large-scale cement production with low carbon and nitrogen reduction and created a number of important technological innovations. The production line designed and built by the project with complete sets of technologies has realized the complete localization of the 10,000-ton equipment for the first time and developed the world's largest clinker cooler, a single cement combined grinding system and other main equipment, which is of great significance to promoting the technical progress and low-carbon and high-quality development of the cement industry. At the meeting, Huaxin's research and development and application demonstration project of comprehensive utilization of aggregate tailings to make wall materials, and the key technology and application project of zero-fossil energy consumption in cement clinker production was also selected as the second batch of major scientific and technological research projects in the national building materials industry.



Li Yeqing as the executive director of the Expert Committee of China Building Materials Federation made a work report at the meeting

Quality Assurance

In 2022, Huaxin Cement continued to place product quality as its top priority by strictly controlling the quality of raw materials, implementing product quality standards, strengthening production management, and establishing a comprehensive after-sales service system to ensure quality in all aspects.

Quality Management

Huaxin Cement strictly abides by the *Product Quality Law of the People's Republic of China* and establishes a standardized quality management system, including detailed rules for the implementation of quality management regulations, regulations on raw material compliance, market product sampling management system and quality accident management system, which runs through the whole process of raw material procurement, production, ex-factory products and after-sales service. In 2022, our products were widely used in many key projects at home and abroad, such as Yanji Yangtze River Bridge, Shuangliu Yangtze River Bridge, Yixing Railway, Shiwubei Expressway, Menglu Expressway, Baolu Expressway, Dayangyun Expressway, Sichuan-Tibet Railway and Tibet Dagu Hydropower Station, Grand Theatre in Dushanbe, the government building in Rafsan, Hista, the 1,500MW gas-fired power station project in Syr Darya, Uzbekistan, the Upper Stung Tatay Hydropower Station Project in Cambodia, the Lower Kafue Gorge Hydropower Station, and the No.1 and No.2 Hydropower Projects at Dugal Lee Lake.

Product Quality Management

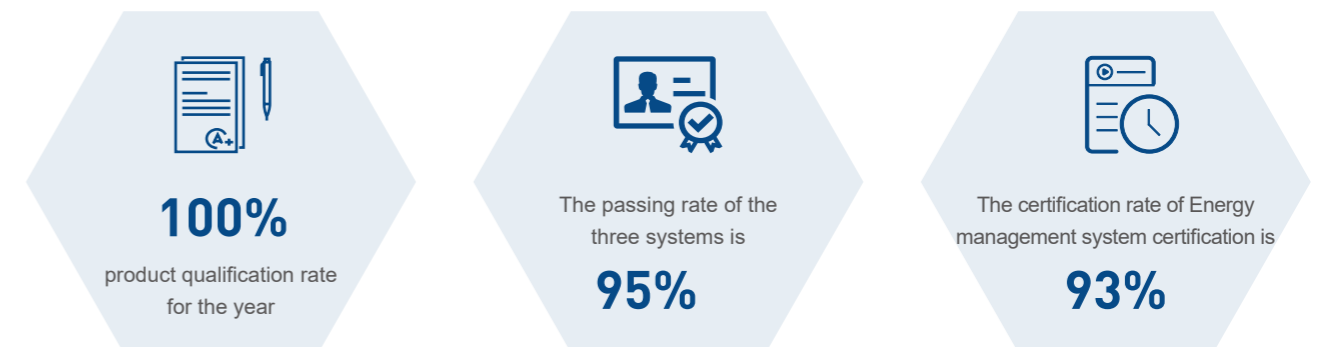
The Company takes product quality as its lifeline and produces high-quality qualified products in strict accordance with the laws, regulations and standards of the place of production, and found no major quality accidents in 2022. The domestic factories of Huaxin Cement strictly comply with the requirements of national standards (such as *General Portland Cement (GB175-2007)* and *Masonry Cement (GB/T3183-2017)*) and relevant laws and regulations, and the overseas factories with local laws and regulations and local national standards (such as GOST 31108—2020, BS EN197-1:2011, ASTM C150-2017, ASTM C595-2019, etc.) that through meticulous management, the quality department of the production base should implement 24-hour continuous quality achieved control over each production link from raw/fuel materials entering the factory to cement leaving the factory. In 2022, all the quality departments of our factories obtained the laboratory certificate, and all the products passed the certification of the national authority according to the requirements of product quality certification.

Quality Control Technology and Services

In terms of quality control technology and services, in 2022, the Company launched the Electronic Certificate to improve customer satisfaction. At the same time, it continued to vigorously promote the use of high-tech technologies such as the PGNA online analyser, online particle size analyser and automatic sampling equipment, moving the production quality control to the production line. Through independent research and development of an intelligent control system, a powerful information management system has been established to serve quality management: the completion of coal pre-mixing (fine management), 28-day strength prediction of ex-factory cement, automatic transmission of quality data, etc., is convenient for production and quality personnel to obtain quality information quickly and accurately, implement quality control management accurately, trace quality control information finely and improve product stability.

System Certification

Huaxin Cement's management philosophy of personnel safety, quality assurance, environmental protection and customer satisfaction was thoroughly implemented, with a 100% product qualification rate for the year. In 2022, a total of 73 subsidiaries obtained ISO 9001 quality management system certification; 68 subsidiaries obtained ISO14001 environment management system certification; 65 subsidiaries have obtained ISO 45001 Occupational Health and Safety Management certification; 41 subsidiaries are certified to ISO 50001 for energy management systems. The proportion of the cement business subsidiaries in operation that have obtained the three system certification of quality, environment and occupational health and safety is 95%. The percentage of its operating cement subsidiaries that have energy system certifications is 93%.



With the further advancement of the company's "integration" strategy, the number of enterprises in the fields of the commercial mix, new materials and environmental engineering obtaining relevant certifications has been increasing. Through the certification system, Huaxin Cement continues to carry out scientific monitoring and measurement, improve safety production, internal management, and risk control, and fulfil its vision of sustainable development through environmental protection, employee well-being and energy utilisation.

Case: Huaxin CHAOKELONG® UHPC series products appeared in the 2021-2022 China Concrete Exhibition

Huaxin CHAOKELONG New Building Materials Technology (Huangshi) Co., Ltd., a leading enterprise in the field of UHPC in China, brought its CHAOKELONG® UHPC series products to the 2021-2022 China Concrete Exhibition, showing four kinds of solutions, including tunnel and bridge engineering, explosion-proof and wear-resistant engineering, architectural decoration engineering and industrial anti-corrosion engineering. In addition to promotional videos, products in kind and on-site explanations, CHAOKELONG® gave a special lecture on the application of UHPC in industrial anticorrosion at the exhibition site at the invitation of the association and introduced it in detail from four aspects: application background, durability, industrial anticorrosion products and cases. The audience responded enthusiastically and actively and gained a deeper understanding of the application of CHAOKELONG® UHPC in the industrial anticorrosion field.



CHAOKELONG® was invited to give a keynote speech

Customer Service

Huaxin Cement adheres to the values of "Customer First" and the spirit of "honesty, dedication, truth-seeking and innovation", places customer experience at the core of enterprise development, and is committed to providing excellent quality products and services to fully protect customers' rights and interests. In the process of continuous pursuit of high-quality products, the service experience is continuously improved to meet the diversified needs of customers. In 2022, there were no recalls of the Company's products due to health and safety problems.

Upgraded Service Plan

In 2022, Huaxin Cement refined and upgraded its customer service plan on the basis of the original customer management system improved the customer management system from two aspects: customer types and business types, paying attention to details and feedback to maintain close communication with customers, and constantly optimizing products and services. At the same time, the Company invested manpower and material resources to strengthen the training of employees, dealers, and related parties. The head of the quality control department of the industrial park and the service manager visited the users regularly or irregularly to carry out technical exchanges and quality return visits, so as to serve the whole process before, during and after-sales.

Strengthened Data Privacy Protection

Huaxin Cement attaches great importance to the protection of customers' privacy and strictly complies with relevant laws and regulations to protect the security of customers' personal information. By strengthening the management of information technology, enhancing the construction of a network security system, and adopting measures such as control of account permissions and multiple identity authentication, risks such as information leakage and network attacks are avoided.

Response to Customer Demands

In terms of customer complaint handling, Huaxin Cement has established a comprehensive management system and process to respond to customer complaints within 24 hours, resolve customer pain points, provide practical and efficient solutions, protect customer rights and interests, improve the company's product quality and services, and increase customer satisfaction.



Symposium on return visit of China-Laos Railway Project

中国三峡建工白鹤滩工程建设部

感谢信

中国三峡建工(集团)有限公司:

新年好! 万象更新, 万象更新。值此2023年新春佳节来临之际, 白鹤滩工程建设部向华新水泥(昆明东川)有限公司各位领导、全体干部致以诚挚问候和良好祝愿! 对贵公司一年来给予白鹤滩工程建设部发展的关心支持, 特别是在物资供应方面给予的悉心指导和大力帮助表示衷心的感谢!

12月20日8时50分, 随着9号机组正式并网运行, 在建规模世界第一、装机规模全球第二的金沙江白鹤滩水电站16台百万千瓦机组全部投产发电, 这标志着我国在长江之上全面建成世界最大清洁能源走廊。电站首批机组在建党100周年前夕投产, 习近平总书记亲自致信祝贺, 是对全体建设者的最高褒奖和最大激励。白鹤滩工程建设部牢记嘱托, 在国家相关部委的关心指导下, 发扬精益求精、勇攀高峰、无私奉献的精神, 团结协作、攻坚克难, 安全准点实现全部机组投产发电的目标, 圆满完成党中央赋予的启动开发金沙江下游巨型梯级电站的历史使命, 全面

建成世界最大清洁能源走廊, 进一步奠定了“世界水电看中国”的全球引领地位, 将加快建设新型能源体系, 保障国家能源安全, 实现“双碳”目标提供有力支撑。

贵公司是白鹤滩水电站的物资供应商, 是白鹤滩水电站的参建单位之一, 自合同签订物资供应以来, 贵公司高度重视白鹤滩工程项目建设, 严格按照合同要求履行相关工作, 高标准、严要求, 精心组织、积极配合, 克服各种不利因素, 保质保量完成了物资生产与供应, 助力白鹤滩水电站高质量的完成工程建设。在此, 特向贵公司致以崇高的敬意和诚挚的感谢!

衷心祝愿华新水泥(昆明东川)有限公司各位领导、全体干部工作顺利、身体健康、阖家幸福、幸福安康!

中国三峡建工(集团)有限公司白鹤滩工程建设部
2023年 01月 20日

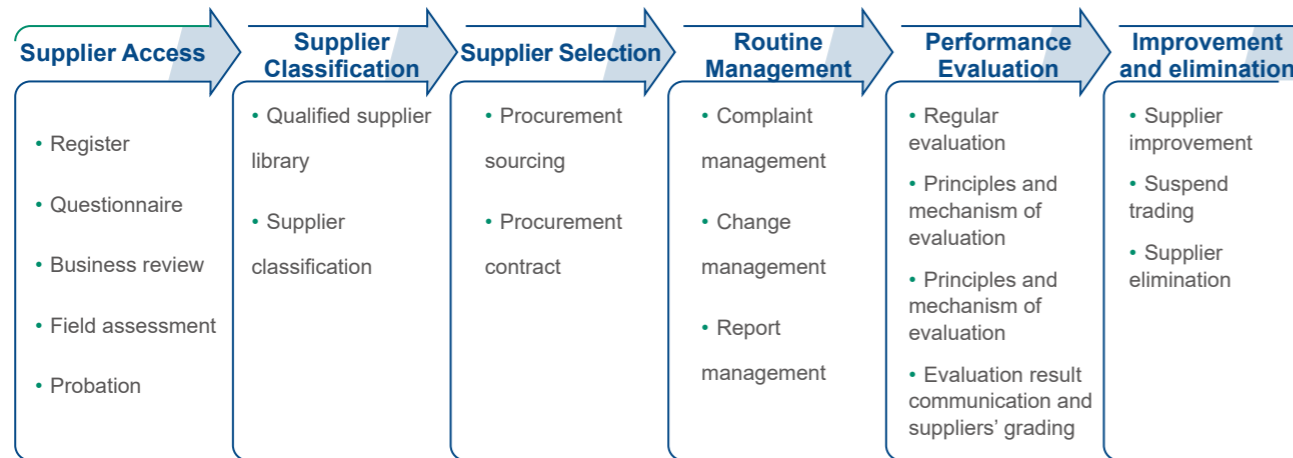
A letter of thanks from the Construction Department of Sanxia Construction Engineering Baihe Beach Project

Supply Chain Management

Huaxin Cement is committed to building an agile, efficient, and sustainable supply chain management system and logistics and transportation management system, promoting carbon reduction in the whole chain, and improving enterprise operations with the awareness of sustainable development.

Supplier Management

The Company has standardized supplier management by formulating and implementing the *Measures for Supplier Management*. The Company has established a scientific procurement cooperation system and has carried out diversified inspection, evaluation, and classification of suppliers at different levels, and supplier evaluation and tracking through regular communication meetings and quarterly performance statistics ranking.



During the reporting period, the Company had 4,313 suppliers, including 38 overseas suppliers, 843 suppliers with centralized procurement in Mainland China and 3,432 suppliers with non-centralized procurement.



Supplier Inspection

Huaxin Cement has established a stringent supplier inspection system, based on the principle of comprehensive, specific, and objective supplier management, to ensure the quality and safety of products from the source of procurement. The Company conducts statistical ranking in terms of safety, progress, quality, and amount of suppliers' service performance every quarter, and informs suppliers of major violation items and "blacklisted" treatment. In order to continuously optimize supplier management, the Company conducts on-site audits of suppliers for environmental or social problems three times a year. During the reporting period, the company conducted a total of 17,364 supplier audits in response to environmental or social issues.



Responsible Supply Chain Management System

Huaxin Cement actively practices the responsible supply chain management system to identify environmental and social risks and cooperates with suppliers to safeguard responsibility issues such as environmental protection, employees and safety, and compliance governance, so as to effectively promote the comprehensive and sustainable development of the supply chain with its own influence. For example, in the aspect of coal procurement, by giving priority to the choice of railway transportation mode to purchase coal, carbon emissions in the transportation of bulk raw materials can be reduced; In terms of raw material procurement, in response to the call of the state to promote the comprehensive utilization of phosphogypsum resources, the use of phosphogypsum is increased to reduce the environmental risk of solid waste phosphogypsum. Huaxin Cement's cumulative annual use of phosphogypsum accounts for 50% of gypsum use in 2022. In terms of AFR AFR(Alternative Fuels and Raw materials) procurement, we actively respond to the national requirements of "promoting the research and development of green and low-carbon technologies, building a green manufacturing and service system, and promoting energy conservation and carbon reduction in building materials and other industries", taking the lead in replacing the crude fuel with co-processing effect by using cement kilns, and further comprehensively carried out the source-seeking and disposal of AFR materials in 2022, seeking AFR suppliers from the source of the industrial chain, to effectively reduce carbon emissions and energy consumption and contribute to the realization of the carbon peaking and carbon neutrality goal. The responsible supply chain management system was monitored through regular review to ensure its effectiveness.

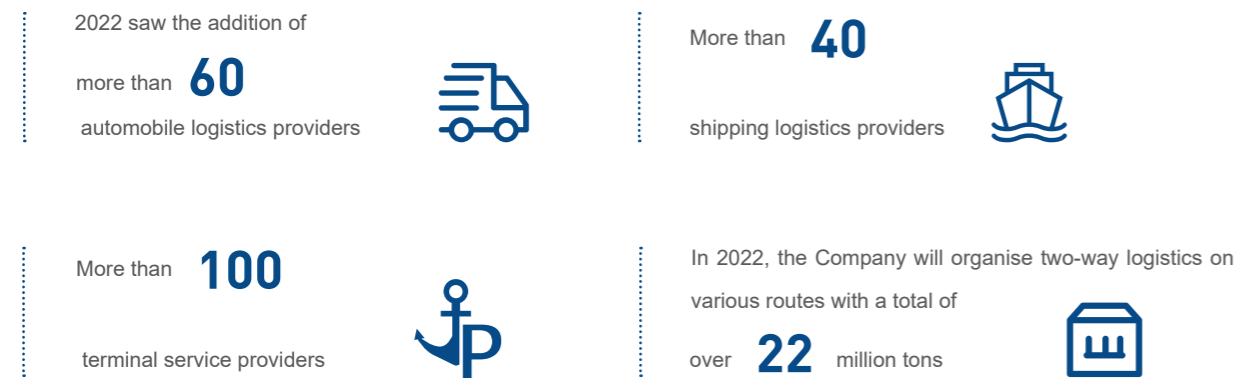


Supplier Training

In order to standardize supplier management and promote stability, safety and sustainability of the supply chain, Huaxin Cement delivered its supply chain governance requirements to suppliers through training sessions and committees. In 2022, Huaxin Cement Logistics Board held quarterly meetings of transporters to organize training on the system and online contracts and business switching and provide a platform to communicate with transporters on daily operational issues. At the same time, the Company has set up a "logistics supplier evaluation and assessment" committee for suppliers in the logistics sector to conduct an objective and comprehensive evaluation of suppliers' annual performance and announce the evaluation results to suppliers based on the principle of "fairness, justice and openness". The final score and ranking of logistics suppliers would be the main reference for Huaxin Cement to select the "Excellent Logistics Suppliers of the Year", and an important consideration for Huaxin Logistics Company to organize logistics bidding and bid evaluation in the future.

Logistics Management

In order to meet customers' needs in multiple directions, Huaxin Cement has actively built an autonomous, flexible, efficient and competitive supply chain logistics system. 2022 saw the addition of more than 60 automobile logistics providers, more than 40 shipping logistics providers and more than 100 terminal service providers, expanding the scope of logistics resources and optimising the structure of logistics providers. In order to further improve the utilisation rate of carriers, the Company will organise two-way logistics on various routes with a total of over 2.2 million tons in 2022, effectively reducing the empty return rate of carriers. On the basis of the previous logistics model, which was mainly based on automobile distribution, the Company will promote the "end-to-end" multimodal (ship-port-vehicle/ship) distribution model for aggregate shipping logistics in 2022, achieving a distribution volume of 10 million tons and providing high-quality logistics services to customers.



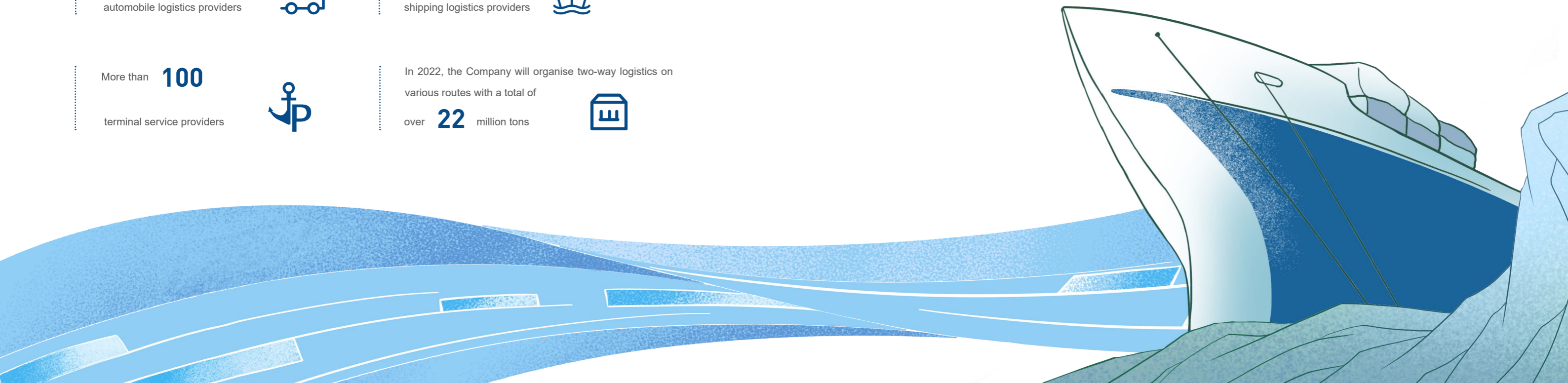
Digital Logistics

In 2022, the digitalization of the Company's logistics mainly focused on the improvement of the central axis of logistics and cost control, the unmanned logistics of the factory (improving the efficiency of automobile transportation), the construction of a new digital base in Xinyang (improving the efficiency of water transportation), and the construction of a logistics big data system, achieving visualized, traced and paperless contracts, greatly improving the signing efficiency by about 3,000 times; Through an unmanned, contactless and mobile application, the intermediate links of service and management in automobile transportation logistics were greatly simplified, improving efficiency and saving manpower by lifting loading and unloading efficiency by about 40%.



Exploration of Green Logistics Technology

Guided by the national energy strategy of "Carbon Peaking and Carbon Neutrality", the Company pays close attention to the application and development of new energy vehicles with different routes such as charging technology and power exchange technology in the cement industry. In 2022, multi-regional pilot projects of new energy vehicles were launched in different scenarios, and rich experience in the application of new energy vehicles was accumulated. In 2023, the low-carbon transformation of transportation equipment will be further promoted, and a large-scale green low-carbon transportation system will be accelerated.



04 Improvement of Quality and Reduction of Energy Consumption to Set Benchmark for Low-carbon Production

Huaxin Cement regards environmental protection as the lifeline of the enterprise's sustainable development and takes green and low carbon as its long-term development strategy. In recent years, the Company has comprehensively carried out carbon emission management, mine restoration, water resources management, waste management, packaging material recycling and other actions, making steady progress towards the promised goal of achieving net-zero emission by 2060. We are committed to contributing new strength to the sustainable development of the cement industry and strive to be the leader in the "Dual " development of the industry in China.

- Green Manufacturing
- Digital Construction
- Ecological Protection
- Climate Change Mitigation and Adaptation



Green Manufacturing

In the year of the 20th Party Congress and the first year of comprehensive promotion of green and low-carbon sustainable development in the building materials industry, Huaxin Cement insisted on the main course of low-carbon sustainable development and remained steadfast in its corporate mission of "Cleaning our living environment and providing reliable building materials", accelerating the pace of green transformation and striving to be the pioneer of green and low-carbon sustainable development in the industry.

Under the guidance of China's goal to achieve carbon peaking by 2030 and carbon neutrality by 2060, we strictly abide by the laws and regulations related to green manufacturing such as the *Environmental Protection Law of the People's Republic of China*, the *Law of the People's Republic of China on Promoting Clean Production*, the *Law of the People's Republic of China on Promotion of Sustainable Economy*, and the *Energy Conservation Law of the People's Republic of China*, and urges our subsidiaries to actively respond to national policies according to their respective characteristics and operating conditions and take various pollution reduction and carbon reduction measures: resolutely controlling clinker production capacity, and insisting on dual control of strength and total amount; continuing to increase the application of alternative fuels and realizing the transformation of energy consumption structure; keeping exploring low-carbon solutions with technological innovation; expanding the substitution of raw materials and continuously improving the utilization efficiency of solid waste; accelerating green manufacturing to build "Green Factories" and "Beautiful Factories".

Green
Factory

As of 31 December 2022, Huaxin Cement had 13 national and seven provincial green factories, and three cement varieties from two plants in Yangxin and Zhuzhou were awarded the first batch of green design products in the cement category at the national level, contributing to China's "Green Manufacturing Project".

13

National-level
Green Factories

7

Provincial-level
Green Factories

Beautiful
Factory

In 2022, Huaxin Cement carried out the on-site benchmarking evaluation for 20 units for the building of beautiful factories, "promoting reform through evaluation" and the overall upgrading of all units. In the on-site evaluation, 576 items were found to be improved, 485 of which have been completed, with a completion rate of 84%. During the reporting period, Huaxin Cement found 16 factories reaching the standard of "Beautiful Factory".

84%

Completion rate of

16

factories
reaching the standard
of a "Beautiful Factory"



Environmental Protection Management

Organizational System to Ensure the Responsibility Implementation

We strengthen environmental protection management in strict accordance with the *Environmental Protection Management Measures of Huaxin Cement Co., Ltd.* and the *Notice on Strengthening Environmental Protection Management of Integrated Industrial Parks*, striving to improve environmental performance. All units have set up environmental protection management committees, and full-time management organs and personnel for environmental protection, so as to establish environmental awareness and red-line awareness of all staff, ensure that responsibilities are put in place, and promote the Company's operation in compliance with environmental protection.

Institutional System to Strengthen Environmental Protection Compliance

The Company has formulated and strictly implemented a number of systematic and standardized environmental protection management systems, including the *Notice on Implementing Standardized Management of Hazardous Wastes* and the *Notice on Implementing the Monthly Report System of Environmental Protection*, and added the Notice on Implementing the Double Random Inspection System of Ecological Protection in 2022 to strengthen environmental protection compliance.

Environmental Audit to Improve Management Standards

The Company continues to carry out special internal environmental audits to locate problems in time, strengthen the improvement of factory environmental protection, and constantly improve the standards of environmental management. In 2022, Huaxin Cement carried out on-site environmental audits at 29 units and identified 949 environmental potential risks. We urged the factories to take forward the rectification of the environmental hazards and strengthened the monthly tracking system for rectification, and by the end of the year, a total of 793 rectifications were completed, representing a completion rate of 84%.

On-site environmental
audit on

29

units

Identified

949

environmental potential
risks

793

rectifications were
completed

Rectification's completion
rate of

84%

Emergency Plan to Avoid Risk of Environmental Incidents

In strict accordance with the requirements of the *Emergency Response Law of the People's Republic of China* and other laws and regulations, the Company and its subsidiaries have formulated plans for environmental emergencies and implemented drills to continuously improve the level of emergency handling and ensure the quick and prompt response to various environmental emergencies by relevant units. In 2022, the Company issued the *Notice on Implementing the "Double Random" Inspection System for Eco-environmental Protection* and carried out the "Double Random" inspection in high environmental risks areas such as factories, docks, and mines along rivers, so as to promote the early detection and control of potential environmental risks in units along rivers and normalized management and control of environmental risks.

During the reporting period, Huaxin Cement did **not** have any environmental emergencies.

Training to Publicize and Deepen Awareness of Green Development

To thoroughly implement the concept of environmental protection, low carbon and green sustainable development, continuously promote the improvement of the environmental performance of factories, and vigorously enhance employees' awareness of environmental protection and low carbon, Huaxin Cement launched the "Environmental Protection and Low Carbon Month" with the theme of "Building a Clean and Beautiful World Together" throughout the company, organizing diversified green and low carbon activities and training to empower a green and beautiful life with practical actions.

Case—All subsidiaries of Huaxin Cement actively responded to the call of "Environmental Protection and Low Carbon Month"

Taking Huaxin Cement (Lincang) Co., Ltd. as an example, during the low-carbon environmental protection month, it carried out diversified activities: using the video playback points in the factory to publicize low-carbon and environmental protection-related knowledge; organizing all staff to afforest the newly-built biomass fuel greenhouse area; carrying out training to publicize low-carbon environmental protection related knowledge; making publicity of environmental protection knowledge on campus; conducting emergency drills for chemical leakage; implementing mine reclamation with contractors; making the creative transformation of discarded goods; and holding activities such as fixed-point special rectification of leakage control to respond to the call of "Environmental Protection and Low Carbon Month" and strengthening the construction of beautiful factories.



Huaxin Cement (Lincang) Co., Ltd. launched diversified publicity activities in response to the call of Environmental Protection and Low-Carbon Month



Yangxin Plant organized the kick-off meeting for Environmental Protection and Low-Carbon Month



Enping Plant organized the kick-off meeting for Environmental Protection and Low-Carbon Month

Environmental Performance

Huaxin Cement strictly complies with the laws, regulations and standards of environmental protection and pollution prevention in the place where it operates, including but not limited to the *Law of the People's Republic of China on Prevention and Control of Atmospheric Pollution*, the *Law of the People's Republic of China on the Prevention and Control of Environmental Pollution Caused by Solid Wastes*, the *Law of the People's Republic of China on Prevention and Control of Water Pollution*, the *Law of the People's Republic of China on the Prevention and Control of Noise Pollution*, and the Emission standard of air pollutants for cement industry, etc. We encourage our subsidiaries and factories to apply environmentally friendly raw materials and cleaner production technologies, upgrade pollution control facilities, improve the efficiency of pollutant treatment and recovery, continuously reduce pollutant emissions, and strive to build environmentally friendly enterprises.

We strictly require all cement factories to 100% obtain pollution discharge permits. With equipment to continuously monitor pollutant discharge in real-time installed at the kiln head and kiln tail of the clinker production line, we achieved standard emission of main pollutants at all units. The Company strengthens the supervision of environmental monitoring data, formulating a monthly report template for environmental protection to collect, count and analyse pollutant emission data on a regular basis every month, and making early warnings for abnormal emission data. We urge all cement factories to implement 100% self-monitoring according to the requirements of the self-monitoring guidelines for the industry.

Huaxin Cement sets environmental management-related objectives every year, and the assessment results of environmental management objectives of responsible personnel are strictly linked with awards selection and performance assessment, and the responsibilities of relevant responsible persons are investigated according to the requirements of the *Administrative Measures for Disciplinary Actions against Employees in Violation of Discipline*.

100%



obtained pollution discharge permits

100%



self-monitoring



Air Pollutant Management

The main air pollutants emitted by Huaxin Cement in production include nitrogen oxides, sulfur dioxide, and organized and unorganized particulate matter. In 2022, the Company set the annual target of a 100% emission compliance rate for major pollutants (nitrogen oxides, sulfur dioxide, particulate matter, etc.). We continued to introduce advanced air pollutant emission reduction technologies and adopted a combination of source control, real-time monitoring, and terminal treatment to vigorously promote each subsidiary to reduce air pollutant emissions. In 2022, the main measures applied to reduce air pollutants include:

- With the ultra-low emission and precise denitrification transformation of **16** kiln lines, the emission of nitrogen oxides has been steadily reduced;
- With the wet desulfurization transformation of **2** kiln lines, the effective reduction of sulfur dioxide was realized;
- With the renovation of **13** electrostatic precipitators at the kiln head and the upgrading of **5** electrostatic precipitators at the kiln tail, the continuous and stable discharge of particulate matter throughout the year is realized.

Through several technical renovation projects of cement technology, the emissions of nitrogen oxides, sulfur dioxide and particulate matter are far below the national and local standards, and the emission reduction targets have been successfully achieved. Three factories at Yichang, Xiangyang and Yunxian received a total subsidy of 26.14 million yuan from the central government's funds for air pollution prevention and control, and four factories at Yichang, Xiangyang, Zigui and Daye were recognized as B-level enterprises in the performance classification of key industries in heavily polluted weather.

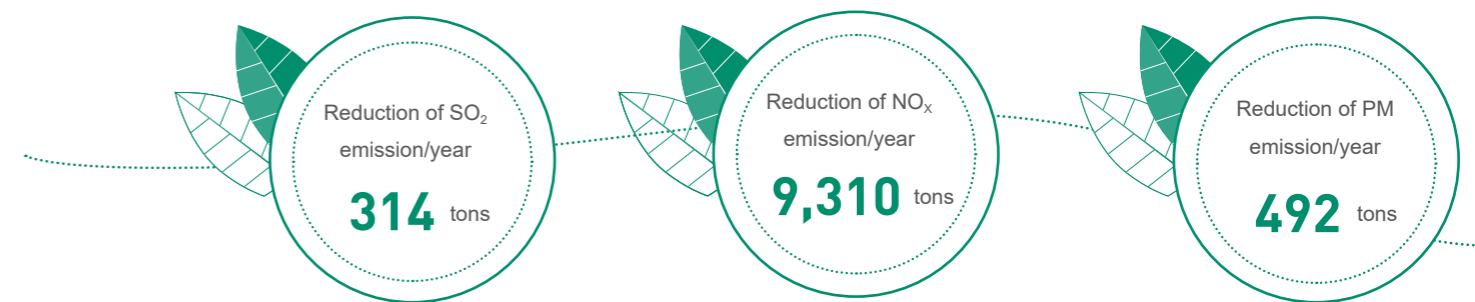
3 factories received a subsidy

A total subsidy of **26.14** million yuan

Data of air pollutant emission by Huaxin Cement

Metrics	2021	2022	Unit
Total SO ₂ emission	1,793.56	1,479.80	ton
Mean concentration of SO ₂ emission	14.65	13.89	mg/m ³
SO ₂ emission intensity per unit product of clinker	0.03	0.03	kg per ton clinker production
Reduction of SO ₂ emission/year	342.24	313.76	ton
Total NO _x emission	28,857.21	19,547.60	ton
Mean concentration of NO _x emission	222.47	199.49	mg/m ³
NO _x emission intensity per unit product of clinker	0.51	0.44	kg per ton clinker production
Reduction of NO _x emission/year	2,504	9,310	ton
Total particulate matter emission	1,520.81	1,028.89	ton
Average concentration of particulate matter emission	8.86	7.09	mg/m ³
Particulate emission intensity per unit product of clinker	0.03	0.02	kg per ton clinker production
Reduction of PM emission/year	360	492	ton

Data of air pollutant emission reduction by Huaxin Cement in 2022 (compared with the emission data in 2021)



The group standard T/CSES 83—2022 "Technical Guidelines on Air Pollution P Prevention and Control for Cement Industry" that the Company participated in the compilation has been implemented since January 4, 2023, providing technical guidance for the prevention and control of air pollutants in cement industry.

团体标准
T/CSES 83—2022
水泥工业大气污染防治技术导则
Technical guidelines on air pollution prevention and control for cement industry

Waste Management

Huaxin Cement and its subordinate enterprises strictly abide by the *Law of the People's Republic of China on the Prevention and Control of Environmental Pollution Caused by Solid Wastes* and other relevant laws and regulations and follow the principle of "classified collection, zoning/storage and safe disposal" to store or clear away industrial garbage and domestic garbage respectively. Hazardous wastes generated in the Company's production and operation, such as waste mineral oil, waste liquid from laboratories, empty paint barrels, empty oil barrels, etc., are all handled or recycled by qualified third parties.

Huaxin Cement attaches great importance to the reduction, recycling, and harmless disposal of solid waste, and comprehensively strengthens the standardized management of solid waste. Through systematic classification, collection, storage, and disposal, zero discharge of solid waste is realized in factories of Huaxin Cement factory, thus ensuring ecological security. In 2022, the general industrial solid waste² and the output of domestic garbage in Huaxin Cement are 240,896 tons, and the output of hazardous waste is 383.68 tons. It continues to maintain a 100% safe disposal rate of hazardous waste and 100% recycling of general industrial solid waste, and successfully completes the set target of solid waste disposal in 2022.

General industrial solid waste and the output of domestic garbage in Huaxin Cement

240,896 tons

Hazardous waste

383.68 tons

The hazardous waste safe disposal rate

100%

General Industrial Solid Waste Recycling Rate

100%

² It mainly refers to the waste residue generated in the concrete production process and the domestic garbage generated in the daily operation process, excluding the co-disposal amount of cement kiln.

Co-Disposal of Various Wastes and Utilization of Alternative Fuels in Cement Kilns

Huaxin Cement actively fulfills the responsibility of ecological and environmental protection, making full use of the cement kiln co-disposal technology to dispose of industrial solid waste, domestic garbage, civil sludge, river pollutants, etc., effectively transforming passive disposal into active utilization that promotes the synergy of pollution reduction and carbon reduction while protecting the clear water and blue sky, thus achieving a win-win for industrial development and urban governance.

In 2022, the Company's environmental business will have a total disposal capacity of 3.31 million tons, including 2.26 million tons of domestic waste and 507,800 tons of municipal sludge. The key technologies developed by the Company for the smart production of low carbon cement have reached international standards and have been applied in Huaxin Cement's Huangshi, Luxuan, Yangxin, Yichang and Wuxiang companies.

Total disposal volume of environmental business

3.31 million tons

Including

2.26 million tons

of domestic waste

507,800 tons

of municipal sludge

Case: Huaxin Cement Equipment Company focuses on research and development of alternative fuel preparation and kiln conveying equipment

In 2022, Huaxin Cement Equipment Company focused on the research and development of alternative fuel preparation system equipment for general industrial solid waste (leather, cloth, paper residue, old clothes, etc.). Alternative fuels that meet the kiln entry standards are prepared and continuously and stably transported into the kiln to maximize the calorific value of general industrial solid wastes, making industrial solid wastes as alternative fuels to save coal and reduce carbon emissions.

Case: Huaxin Cement was entrusted to dispose of medical waste in critical condition

The environmental protection project of Huaxin Tibet Company is the first project of cooperative disposal of domestic waste in cement kiln in Tibet. It was officially put into operation on May 7, 2022, which changed the history of local landfill and effectively solved the problem of terminal disposal of domestic waste in towns and agricultural and pastoral areas in Shannan City. Especially during the outbreak of COVID-19 in Tibet from August to October 2022, Huaxin Tibet and Huaxin Shigatse took the initiative to harmlessly dispose of more than 710 tons of epidemic medical wastes in Shannan City, Shigatse City and neighboring counties, and played the role of qualified cement kiln line as a reserve point for emergency disposal of medical wastes.



Huaxin Tibet and Huaxin Shigatse help medical waste disposal

Case: Technical Specification for Co-emergency Disposal of COVID-19 Medical Wastes by Cement Kiln drafted by Huaxin Cement was selected as the 2020 group standard application demonstration project of the Ministry of Industry and Information Technology

On 17 November 2022, the National Building Materials Industry Conference held in Beijing commended the newly drafted T/CBMF/Z 76—2020 "Technical Specification for Co-emergency Disposal of COVID-19 Medical Wastes by Cement Kilns" (Chinese and English versions) for being selected as the 2020 group standard application demonstration project of the Ministry of Industry and Information Technology. This standard specifies the terms and definitions, basic requirements, personnel protection and health requirements, operation requirements, emergency preparation and response, pollutant discharge control requirements and disposal operation records of COVID-19 medical waste in a coordinated emergency disposal by cement kilns. It provides a standard basis for the collaborative disposal of medical wastes in COVID-19 by cement kilns during the outbreak period, and has been well popularized and applied in many enterprises such as Wuhu Conch, Qianyang Haichuang, Zhuolu Jinyu, Beijing Jinyu, Huaxin Cement Cambodian Company.



Water Resource Management

The production and operation activities in Huaxin Cement are closely related to the use of water resources. Reasonable and effective management of the use of water resources can reduce the impact of its risks. We take water sources in strict accordance with the *Water Law of the People's Republic of China*, the *Regulations Governing the Licensing for Water Drawing and the Levying of Water Resource Fees*, and strengthen the management of water demand and water use process, so as to reduce water consumption.

Case: Huaxin Dongchuan Company won the title of "Water-saving Enterprise" of Kunming

On 10 October 2022, Dongchuan Company won the honorary title of "Water-saving Enterprise" of Kunming. In recent years, Dongchuan Company actively promotes green development, firmly sticks to the construction standards of water-saving enterprises, taking the law as the criterion, the system as the guarantee, the propaganda as the carrier and the technology as the support, guides enterprises to meet the standards, and carries out water-saving technological transformation to greatly improve the use efficiency of unconventional water sources and the optimal allocation and sustainable utilization of water resources.



Huaxin Dongchuang Company

Case: Huaxin Baoshan Company won the title of "Water-saving Enterprise" of Shidian County

On 10 October 2022, Huaxin Baoshan Company won the title of "Water-saving Enterprise" of Shidian County. Huaxin Baoshan Company has taken a number of measures for water resource protection, implemented a water pipe network reconstruction project, and used the effluent treated by water treatment facilities for greening, road cleaning, production water replenishment, vertical grinding and water spraying in the humidifying tower, which not only reduced water use in production and saved production costs, but also reduced the risk of sewage discharge, bringing obvious benefits.



Huaxin Baoshan Company

Water consumption data of Huaxin Cement

Metrics	2021	2022	Unit
Total water consumption	2,667.11	2,257.66	10,000 ton
Water consumption for clinker production	2,111.49	1,806.00	10,000 ton
Water consumption per unit for clinker production	0.355	0.351	ton/ton of clinker production

Wastewater Management

Huaxin Cement strictly abides by the Law of the People's Republic of China on Prevention and Control of Water Pollution, constantly investing resources to update and optimize wastewater treatment equipment and technology and strengthen wastewater reuse, water-saving, and emission reduction. In 2022, we carried out projects such as "Anti-scaling Design of Sewage Treatment Anaerobic System Pipeline and Study on Anti-scaling Activator" and "Study on Deep Denitrification of Landfill Leachate" to reduce the impact of wastewater discharge on the environment.

In addition, the Company has been committed to promoting and realizing the "near zero" discharge of wastewater along rivers. We take different reuse measures for different types of wastewater, which not only effectively reduces the consumption of natural water resources, but also reduces the external discharge of wastewater.

- With the rain and sewage diversion project, the sewage containing a small number of pollutants formed within 15 minutes after the initial rainfall is completely collected and treated before entering the reclaimed water reuse system in the factory area without being discharged;
- If the production wastewater is treated by a circulating water treatment system and cannot be directly recycled, it will be treated by physical and chemical methods such as oil separation, precipitation and flocculation for comprehensive utilization;
- Domestic sewage is treated by oil separation, filtration, biological contact oxidation, disinfection, etc., and used for plant greening, sprinkling on roads and yards to reduce dust, etc., and is not discharged to the outside;
- After the domestic sewage generated at the wharf is completely collected, it will be treated ashore for reuse.

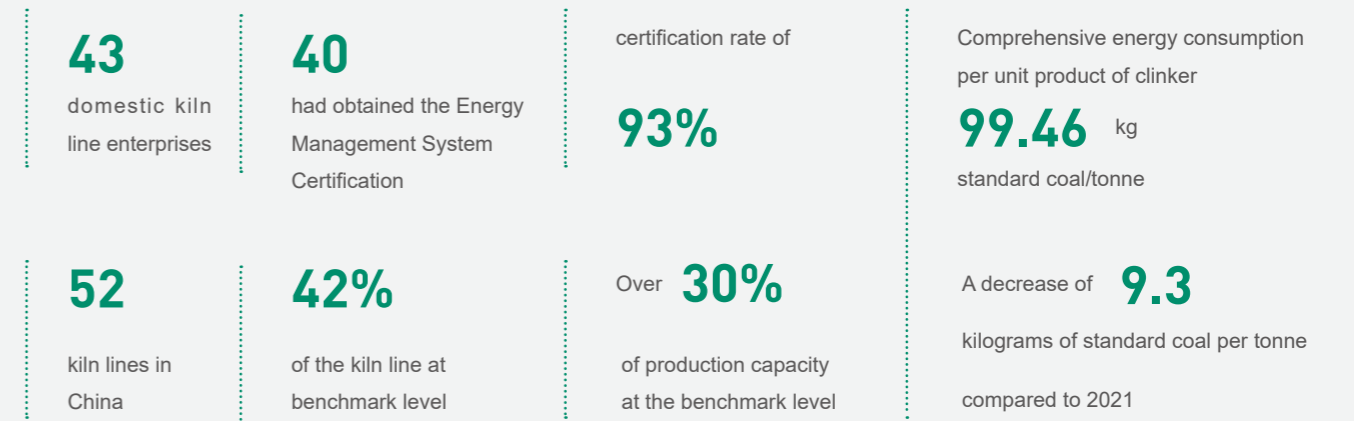
During the reporting period, Huaxin Cement and its subsidiaries treated sewage discharge in compliance, and the sewage recycling rate was **100%**.

Noise Management

The Company organically combines occupational health with environmental protection. In the design stage of the factory, the production equipment with low noise and vibration is selected, the main noise sources and noise types are analysed, and the measures of sound insulation, sound absorption and shock absorption are adopted to reduce the radiation of noise sources to the external environment, and the radiation of noise sources to the external environment, if any, is reduced by means of rational use of terrain and natural barriers.

Energy Efficiency Improvement

In compliance with the *Energy Conservation Law of the People's Republic of China*, Huaxin Cement has continuously optimised its energy management infrastructure, strived to reduce direct and indirect energy consumption, conserve energy resources and improve the overall efficiency of energy resources through fuel substitution, waste heat power generation, energy-saving technology and digital management, helping to upgrade the industry to a low-carbon and green level. Huaxin Cement has always adhered to the path of "low energy consumption, low emission, high technology and high efficiency", and has achieved remarkable results in energy saving and consumption reduction. By the end of 2022, 40 of Huaxin Cement's 43 domestic kiln line enterprises had obtained the Energy Management System Certification, with a certification rate of 93%, which is among the highest in the cement industry in China. The combined energy consumption per unit product of clinker at Huaxin Cement's domestic plants was 99.5 kilograms of standard coal per tonne, a decrease of 9.3 kilograms of standard coal per tonne compared to 2021. Of the 52 kiln lines in China, 42% of the kiln lines have reached the benchmark level³ of clinker combined energy consumption, achieving ahead of schedule the target of "by 2025, through the implementation of energy-saving and carbon-reduction actions, the proportion of production capacity in key cement industries reaching the benchmark level will exceed 30%" as stated in the "Opinions on Strict Energy Efficiency Constraints to Promote Energy Saving and Carbon Reduction in Key Areas" (Development and Reform Industry [2021] No. 1464) by the National Development and Reform Commission and other departments. The target is to "achieve a benchmark level of over 30% of production capacity in key cement industries by 2025 through the implementation of energy saving and carbon reduction actions".



Data of Energy Consumption by Huaxin Cement

Metrics	2021	2022	Unit
Comprehensive energy consumption	709.81	535.42	10,000 tce
Comprehensive energy consumption per unit clinker product	-	99.46	kgce/t of clinker

³ It is based on Pace-setting Level and Benchmark Level of Energy Efficiency in Key Areas of Energy-intensive Industries (2021 Edition) (NDRC Industry [2021] No.1609)]

Case: Huaxin Huangshi plant and Huaxin Yunxian plant ranked first and second in the Energy Efficiency "Leader" selection event

In the list of four energy efficiency "leaders" in the cement industry in 2022 published by the Ministry of Industry and Information Technology, Huaxin Huangshi Plant and Huaxin Yunxian Plant were shortlisted and led the top two. Among them, the comprehensive energy consumption per unit product of clinker in Huaxin Cement (Huangshi) Co., Ltd. was 86.76kgce/t, and that of clinker in Huaxin Jinlong Cement (Yunxian) Co., Ltd. was 89.10 kgce/t.

The comprehensive energy consumption per unit product of clinker in Huaxin Cement (Huangshi) Co., Ltd. was

86.76 kgce/t

The comprehensive energy consumption per unit product of clinker in Huaxin Jinlong Cement (Yunxian) Co., Ltd. was

89.10 kgce/t



Use of Packaging Materials

In response to the requirements of green packaging cycle in GB/T9774-2020 Cement Packaging Bags, Huaxin Cement strictly manages the classification, specifications, labeling, layout printing and bag-making materials of cement packaging bags. At the same time, Huaxin Cement vigorously promotes the application of bulk cement and canned cement, reducing the use of packaging materials, supporting the recycling of packaging materials, and achieving various benefits such as improving the social environment, eliminating safety risks and reducing the labour intensity of employees while reducing the consumption of cement packaging materials.

In October 2019, the mandatory elimination of simple cement packaging bags was made, and the heat-sealed packaging bag project laid out in Huaxin Cement in advance was favoured by peers as soon as it went on the market. In 2020, the commissioning ceremony of Huaxin Cement's annual production of 1 billion heat-sealed packaging bags was held in Huaxin Cement Science Park. In 2022, the fourth batch of imported equipment with an annual output of 1 billion heat-sealed packaging bags in Huaxin Cement was approved for tax-free confirmation, and the total amount of foreign exchange for use was USD 6.5 million. By the end of 2022, Huaxin Cement had imported the first batch of equipment with a foreign exchange of USD6.5 million, the second batch of USD1.71 million and the third batch of USD 1.86 million.

On 1 April 2022, the state officially implemented the new regulation of "changing from seam to paste" in the cement industry that the seam bottom bag is prohibited in cement packaging bags and the paste bottom bag is used instead. As a participant in the drafting of industry standards, Huaxin Cement began to produce paste-bottom bags in 2008 and promoted them in more than 280 branches and subsidiaries at home and abroad. After 14 years of efforts, it became a national industry standard.



Case: Huaxin Cement promoted a national standard with 14 years of efforts

Although the paste-bottom bag is small, the technical content is not low. In the automatic assembly line of the workshop of Huaxin Cement Packaging Branch, laminating, printing, extrusion moulding, mechanical arm packing, and bundling are automatically carried out, with unmanned intelligent forklift turning and shuttling, intelligently avoiding obstacles. The packaging company has a production line with an annual output of one billion cement packaging bags, equipped with world-class packaging bag production equipment and an intelligent logistics system, saving labour by more than 50% compared with traditional industries. The products can meet the requirements of cement filling and venting, and at the same time, they can be recycled 100%, which can minimize dust pollution and material leakage at the operation site of cement factories, playing an important role in improving the social environment, eliminating safety risks and reducing the labour intensity of employees. It is an important measure for the company to transform from a traditional enterprise to a technical enterprise.

The products with beautiful appearance and well-made technology, enjoy high-temperature resistance, moisture resistance, easy stacking and low ash infiltration. They are not only suitable for cement packaging, but also widely used for building materials such as lime and gypsum, and are suitable for the packaging of agricultural products such as fertilizers, grains and feeds, and chemical products such as resins and pigments.



Workshop of Huaxin Packaging Company

Data of packaging materials consumption by Huaxin Cement

Metric	2021	2022	Unit
Consumption of package materials	3.51	3.36	10,000 ton
The density of packaging materials consumption	1.50	1.50	kg/ton of sacked cement production

Digital Construction

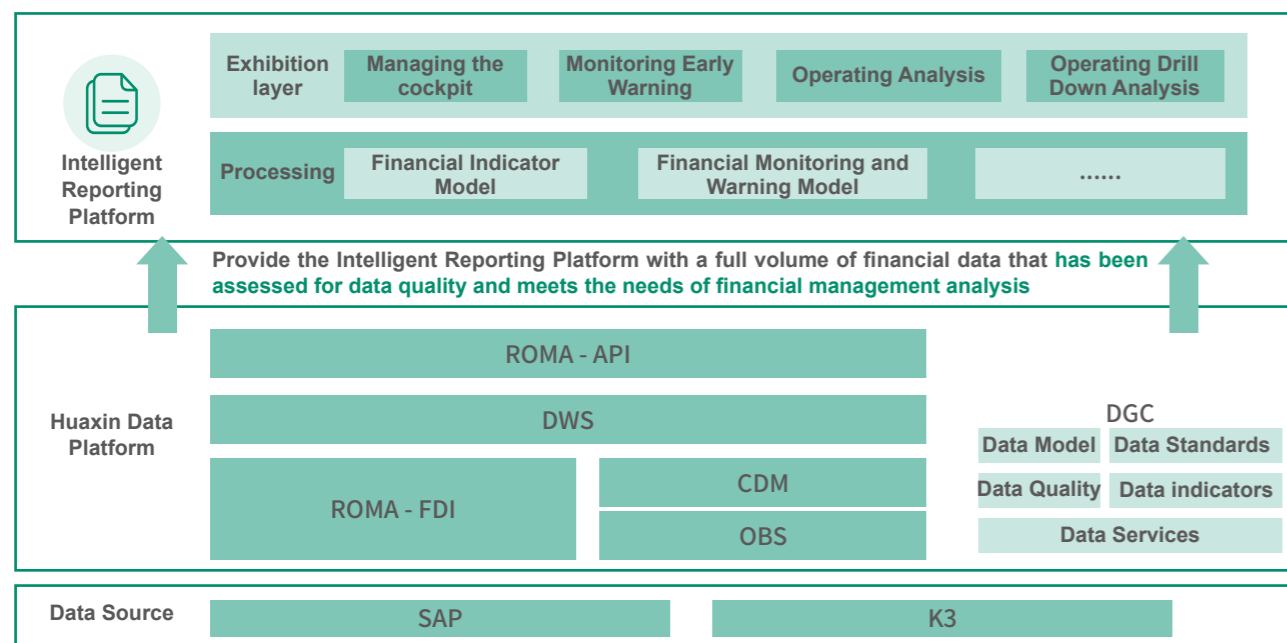
The fourth wave of the industrial revolution marked by informationization, digitalization and intelligence has set off around the world. Promoting the integration of informationization and industrialization in the cement industry is the main line and the only way to realize "Made in China 2025". Huaxin Cement, with its centennial development, keeps up with the tide of the times, bravely stands at the forefront to steadily promote digital transformation, and empowers the company to innovate and develop related businesses.

Through the digital innovation strategy, Huaxin Cement continues to promote the closed-loop development of industrial intelligence, business intelligence and management intelligence, and improve the digital ecology of the whole business. The Company focuses on supporting the integration strategy along the Yangtze River, building a new digital base in Xinyang, promoting the construction of 5G smart mines, smart docks, smart water transportation and other projects, gradually realizing unified dispatching of core resources and key business collaboration between factories, and improving the efficiency of operation and decision-making.

During the reporting period, Huaxin Cement implemented 356 digital projects, developed 18 independent systems and built 13 mega-digital projects, acquired 7 software copyrights and 3 utility model patents; and participated in the compilation of "Evaluation Requirements for Smart Factories in Cement Industry (T/CBMF 210-2022)" as the main compiling unit. In 2022, Huaxin Cement completed the implementation and operation of the HIAC system in six factories, and the overall operation rate reached 90%. It completed the transformation of 22 smart bridge cranes in 9 plants and intelligent inspection for real-time online monitoring and abnormal early warning of production equipment in 4 factories, and the promotion and operation of intelligent quality control in 3 factories, and realized the quality data-driven production control.

Business Intelligence Construction

Through the construction of a data centre and a Intelligent Reporting Platform, business data and financial data are connected, the whole chain of business processes and financial processes are connected, and the whole scene is online. We will continue to innovate the operation mode and promote the effective integration between business and finance by enhancing the unification and efficiency of business and financial management. Continuously play the role of digital control centre We will continue to play the role of the digital control centre, deeply integrate big data analysis and AI intelligent technology, and realise monitoring and early warning, command and dispatch, and decision support for key businesses through vertical integration and sharing of business data and multi-system data integration, The company will continue to play the role of a digital control centre, integrating big data analysis and AI intelligent technology.



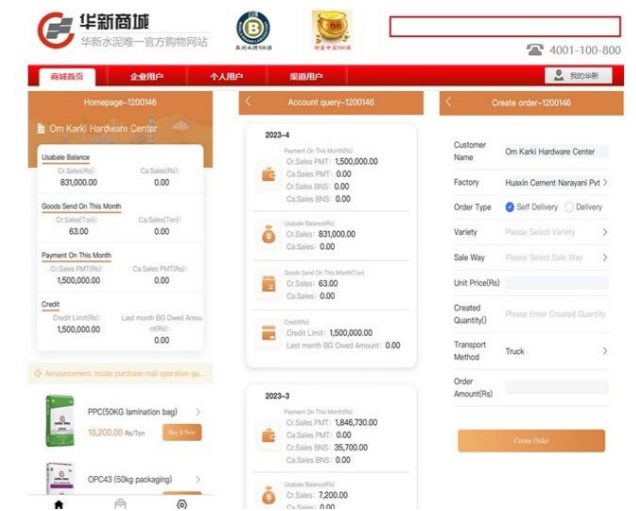
Huaxin Data Platform + Intelligent Reporting Management Platform Framework

Business Intelligence Building

Relying on its self-developed cloud application development platform and middleware platform, Huaxin Cement has developed a mobile intelligent collaborative office platform and smart marketing, smart procurement, smart logistics and business systems such as riverine integration, digital integration of commercial concrete and command and dispatch centre on the basis of integrating and optimizing the original systems. Based on the integration and optimization of the existing systems, Huaxin Cement has developed a mobile intelligent collaborative office platform and intelligent marketing, intelligent procurement, intelligent logistics, as well as business systems such as riverine integration, digital integration of commercial concrete and command and dispatch centre, to achieve intelligent business and management changes. The company has also developed a mobile intelligent collaborative office platform, intelligent marketing, intelligent procurement, intelligent logistics, as well as business systems such as riverine integration, commercial concrete digital integration and command and dispatch centre to achieve intelligent business and management changes. Using Kingdee Cloud Star Unified Architecture to extensively support the rapid global expansion of overseas businesses, realize data-driven overseas localization operations and innovation, and help Huaxin become a world-class multinational company. to become a world-class multinational company.

Overseas Internet + ERP

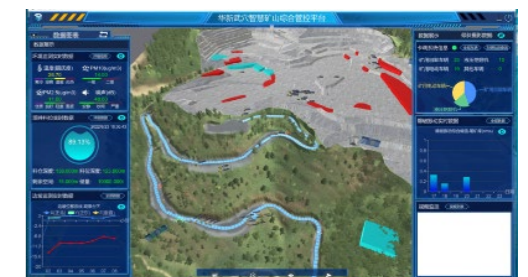
Based on an ERP system, applying the internet, cloud computing, big data and AI intelligent technology, and integrated e-commerce platform, to achieve sales, procurement, logistics, inventory and other businesses, providing a full range of The company provides a full range of e-commerce services. Users can access the ERP system via the Internet to manage enterprise resources and business processes. ERP system, manage enterprise resources and business processes, improve the system enables users to access the ERP system via the Internet, manage enterprise resources and business processes, improve production and operation management efficiency and reduce costs, and prevent business risks.



Huaxin Overseas Mall to go live at Narayani factory in Nepal in November 2022

Smart Mine Construction

Huaxin Cement has established an intelligent mine system with the Internet and the Internet of Things as the main carriers. through a mine data centre, a digital mining system platform, a three-dimensional mine The system is supported by a mine data centre, a digital mining system platform, a three-dimensional mine visualization and control platform, a production execution system platform, a 5G network communication system, a The system will be implemented through a mine data centre, a digital mining system platform, a three-dimensional mine visualisation and control platform, a production execution system platform, a 5G network communication system, a card transfer intelligent dispatching system, an unmanned driving system, an automated control system and a safety The system realises the visualisation of mine resources, rationalisation of mining plans, intelligent production scheduling and refinement of index control through a digital mine data centre, a 3D mine visualisation The system is designed to visualize mine resources, rationalize mining plans, rationalize production scheduling, refine index control, and integrate safety and environmental monitoring and surveillance. This will ensure safe, economic, efficient and low-carbon production for the mine.



Huaxin Cement Smart Mine Integrated Control Platform

Industrial Intelligent Construction

With the goal of "carbon reduction, low energy consumption and low cost" and with intelligent integration of "software and hardware + internet plus AI", Huaxin Cement has continuously improved the industrial intelligence level of factories and ensured the popularization and stable operation of the advanced intelligent control system for kiln and mill.

• Digitalized Carbon Reduction

In order to better manage and monitor carbon emissions, the Company has developed a digitalized carbon reduction platform to monitor the carbon emissions in the cement and aggregate production process in real-time. The system displays the data related to the factory production and carbon emissions in real-time from the indicators of cement production, energy consumption, power consumption, aggregate factory production power consumption, RDF consumption, bituminous coal consumption and so on in the form of dynamic charts. Through these data indicators, we can know the factory production and carbon emissions in real time more quickly and accurately.



华新水泥自研数字化减碳平台于2022年11月份在武穴上线试运行

The self-developed industrial intelligent system can reduce electricity consumption by approximately 0.51 to 2.93 kWh/t of clinker and coal consumption by approximately 1.23 to 4.343 kgce/t of clinker, reducing carbon dioxide emissions by 78,000 tons per year and generating economic benefits of RMB 5,481,100 yuan per year for the Company.

• Intelligent Quality Inspection

The unmanned crane system was invented to accurately match raw materials with different qualities according to the quality control requirements of cement clinker production, replacing the traditional pre-homogenization yard;

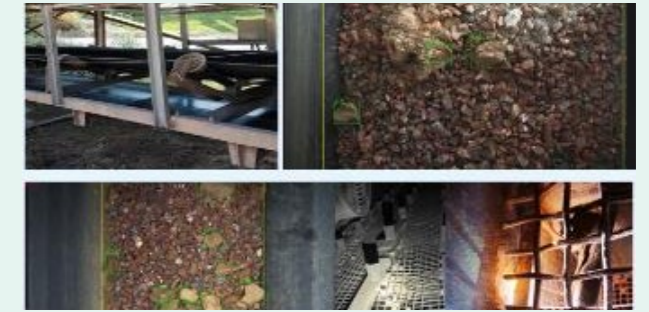
Development of an intelligent online quality control system, production quality prediction model can automatically collect quality data of the whole production process, drive the production process with quality data, and significantly reduce the quality fluctuation of cement production;

Development of intelligent advanced control systems for cement and innovation in unmanned automatic closed-loop control technology for cement production can maintain stable quality under planned output, feed alternative fuels to the maximum extent, and significantly reduce production energy consumption and carbon emissions.



Huaxin's advanced intelligent control system

Self-developed intelligent detection system for ultra-particle size, which uses a high-speed camera to collect the image information of aggregate, and AI technology to analyse and process the image, can give early warning to the aggregate particle size exceeding the specified value and push it to the relevant personnel in the factory for timely checking the screen breakage to avoid the economic loss caused by the unqualified aggregate entering the finished product warehouse. The accuracy of the system reaches **99%**, and a single factory can avoid the loss of **2** million yuan caused by quality and equipment problem.



Self-developed ultra-particle size intelligent detection system of Huaxin Cement

• AI-based Security Monitory System

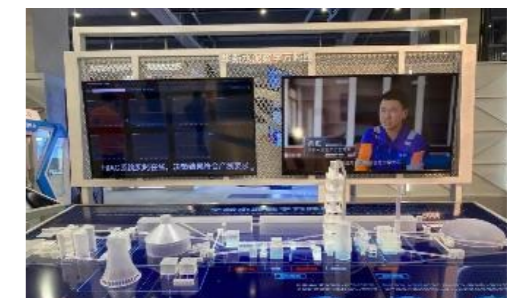
The monitoring area is monitored for 7x24 hours with cameras deployed on the production site. The system realizes the capture and early warning of violations such as safety helmet wearing, area invasion, safety belt anchorage, high-temperature heat insulation clothes wearing, life jackets wearing, vehicle invasion and fireworks identification. The number of effective early warnings reached **1,013**. With the promotion and operation of the project, the safety awareness of the factory has been improved, and effective safety monitoring and early warning have been gradually reduced. From the data of the Yangxin factory, where the system has been implemented for one year, the number of early warnings of safety incidents has decreased by **60%**, and no major safety accidents have occurred in 2022.



AI-based security monitoring system of Huaxin Cement

Case: Joining hands with Ali Cloud, Huaxin Cement developed and deployed HIAC to realize the digital 10,000-ton line

Based on AICS, Alibaba Cloud's industrial intelligent control optimization platform, Huaxin Cement built a set of intelligent advanced control system HIAC for low-carbon cement manufacturing, which successfully realized the stable control of working conditions during large-scale environmental protection collaborative disposal, the "automatic driving" of the production line, reduced the frequency and risk of manual participation, and further improved the coal substitution rate and quality stability. Huaxin Cement 10,000-ton production line, as the world's largest production line for environmental protection co-disposal, based on HIAC optimization algorithm, achieved the coal replacement rate of calciner exceeding 80%, the comprehensive energy consumption per clinker product reduced by more than 4%, the quality stability of cement clinker improved by 8%, and the carbon reduction of more than 60,000 tons throughout the year.



Huaxin Cement digitalized 10,000-ton line appeared at Apsara Conference

Achievements in Digital Development of Huaxin Cement



- The project "Innovation and Application of Intelligent Key Technologies for Low-carbon Cement Manufacturing" was recognized as "internationally leading"
- The Company was successfully selected as a "digital pilot" enterprise in the pilot demonstration of the integration of new-generation information technology and manufacturing industry in 2022 by the Ministry of Industry and Information Technology
- The whole process of intelligent manufacturing of cement was selected as the "2022 Intelligent Manufacturing Demonstration Factory" by the Ministry of Industry and Information Technology
- It won the "Industrial APP Award for Special Achievement Transformation in Digital Energy Saving and Environmental Protection" in National Industrial APP and Information Consumption Competition
- "Huaxin Intelligent Manufacturing Control System for Green Building Materials" was selected as one of the top ten excellent application cases of artificial intelligence technology in Hubei Province in 2022
- Huaxin Cement Intelligent Factory Project was selected as a typical case of digital transformation of intelligent manufacturing in the building materials industry

Ecological Protection

Huaxin Cement attaches great importance to ecological protection, keeping the concepts of "treatment first, development later" and "ecology first, green development" to promote resource exploitation and environmental treatment as a whole, making every effort to promote soil restoration and mine ecological restoration, so as to ensure ecological security, and achieve the organic unity of economic, social and ecological benefits.

Disposal of Pollutants

Huaxin Cement, with the advanced, efficient and experienced cement kiln collaborative disposal technology, helps to deal with pollutants, eliminate environmental risks, and contribute to building a beautiful China and a harmonious home.



Case: Helping to treat "toxic soil" at Wuhan dye plant to protect people's health

The Wuhan Dyestuff Factory project site is proposed to be built as the City Pulmonary Hospital, which is a conversion of industrial land to medical and health land. The main pollutants on the site are heavy metals, volatile organic compounds and semi-volatile organic compounds, and the land area is 162,000 square metres. In order to ensure the safety of the site, and in accordance with the relevant national policies and regulations, the project must pass the expert review of the restoration effect assessment. In order to ensure the safety of the site, according to the relevant national policies and regulations, the construction of the city's pulmonary hospital can only commence after the project has passed the expert review of the restoration effect assessment. In order to ensure the safety of the site, according to the national policy and regulations, the construction of the city's pulmonary hospital could only be carried out after the project had passed the expert evaluation of the remediation effect. The site was removed from the risk control list in March 2022 and was put into normal use. The site was removed from the risk control list and put into normal use in March 2022.

Case: Huaxin Cement Kiln co-disposal set a record for the shortest time to move out of the risk control list in Hubei Province

Huaxin Cement undertook the task of treating 15,284 tons of contaminated soil on the south side of Nanniwan Avenue in the former North Factory of Wuhan Shuangqiang Chemical Co., Ltd., and it took two months from receiving and disposing to removing it from the list, which set a record in Hubei Province to move out of the risk control list, contributing its own strength to the urban development of Wuhan.

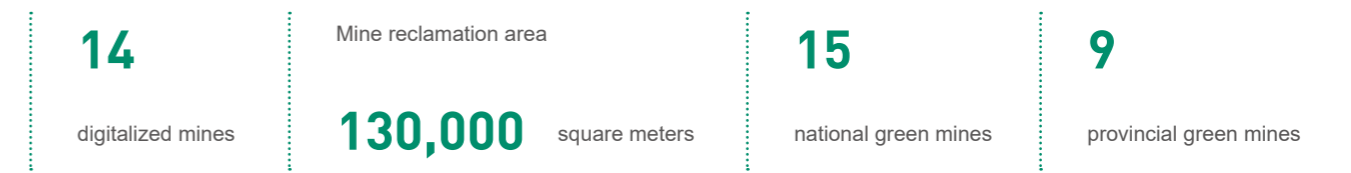


Restoration of the plot on the south side of Nanniwan Avenue

Mine Restoration

Huaxin Cement, insisting on running mines according to law and creating green mines, adopts digital technology to create "smart mines" to maximize the utility of limited mine resources. The Company's digital mine production scheduling management information system can fully grasp the reserves and quality distribution of mining areas. We also actively re-dressed the mine with green clothes by planting trees and grass and reappeared the beautiful scenery of the picturesque landscape.

During the reporting period, Huaxin Cement obtained 6 new mineral rights, with an additional resource of 3.25 billion tons; build 4 new digitalized mines, making a total of 14 digitalized mines; the mine reclamation area was 130,000 square meters; the Company now maintains 15 national green mines and 9 provincial green mines.




Climate Change Mitigation and Adaptation




Accelerating carbon control and emission reduction in the cement industry is very important for China to achieve "Carbon Neutrality". As a responsible cement enterprise with a century of development history, Huaxin Cement attaches great importance to the national commitment of "Carbon Peaking and Carbon Neutrality", actively responds to climate change, and shoulders the heavy responsibility of leading the decarbonization transformation of the Chinese cement industry. We pay close attention to the policies related to carbon emissions of the country and the building materials industry and continue to carry out carbon inventory and carbon reduction practices in the whole industry chain for many years.

Climate Change Risks and Opportunities

Huaxin Cement faces up to climate-related risks, strengthens comprehensive risk management, and steadily promotes the development and transformation of low-carbon economy. It has initially followed the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD), and initially identified the risks and opportunities brought by climate change to enterprises from three aspects: entity risks, transition risks and market opportunities, so as to guide the development of climate response actions. Looking forward to the future, we will continue to strengthen the management ability of climate risks and opportunities, and constantly improve our climate resilience and adaptability.

In 2022, the Company briefly updated the identified climate change risks and opportunities, and the updated climate change risk results are as follows:

Type of climate risks	Description of climate risks	Countermeasures
 Acute/chronic physical risk	Climate change will bring extreme natural disasters such as floods and hurricanes with high intensity and high frequency, and extreme climate such as drought and rainy weather, which will have an impact on the production, transportation and sales of the cement industry:	<ul style="list-style-type: none"> The Company provides each customer with the instruction manual of concrete, and actively communicates the construction plan with customers in advance in summer, winter, extreme weather such as rain, snow and high temperature, making technical disclosure and issuing contact letters to reduce the possibility of products being affected by extreme weather. In view of extreme weather, the factory timely adjusts the concrete mix ratio and production technology to meet the needs of the construction site. The Company continues to expand its integrated business, realizing the integration of the whole industrial chain to reduce the impact of climate change from upstream and downstream. It strengthens the design of the mine and its power supply network, so that it can withstand the low-temperature disaster weather conditions such as persistent freezing and snowstorm.
	<ul style="list-style-type: none"> The collection and transportation of cement raw materials will be affected by extreme weather, which will increase the corresponding operating costs. Downstream building construction operations are easily suspended due to extreme weather (such as rainstorm and blizzard). Extreme weather will cause potential safety hazards in outdoor operations (such as site safety, employee health and safety, etc.). The limited operation of assets during extreme low temperature causes income loss. 	

气候风险类型	气候风险描述	应对举措
 Transition risks of policy and legal	With the proposal of the national "dual carbon" commitment and the deepening of the work to deal with climate change, the cement industry will face more changes in policies and strict regulations:	<ul style="list-style-type: none"> The Company actively pays attention to the latest changes in national environmental protection laws and regulations, industry policies and so on, and takes timely countermeasures. The Company analyzed the carbon market, collected and studied the carbon quota accounting methods and carbon trading rules of the State, provinces and municipalities directly under the Central Government, and the offset mechanism of Chinese Certified Emission Reduction (CCER) in China, analyzed and predicted the price fluctuation of the carbon market, and formulated unified carbon trading strategy suggestions to support the decision-making of the Committee. The Company issued the White Paper on Low-carbon Development of Huaxin Cement Co., Ltd., which defined the carbon reduction target and formulated a detailed carbon reduction path.
 Transition risks of technological	By referring to the implemented and foreseeable carbon reduction technologies of well-known cement enterprises at home and abroad, there are still many challenges for the cement industry to achieve the goal of carbon neutrality by 2060:	<ul style="list-style-type: none"> The Company sorted out the technical ways of emission reduction and determined the emission potential of each carbon emission node, including the whole process from mining, raw materials entering the factory, clinker production, waste disposal, cement preparation to cogeneration. The Company plans to gradually explore the emission reduction potential of intelligent industrial systems, new energy development and utilization and CCUS carbon capture technology.
 市场及声誉转型风险	The cement industry belongs to one of the high energy consumption industries in China, which means its greenhouse gas emissions are not low. Today, climate change and low-carbon transformation are getting more and more attention. The attributes of the cement industry will form a negative impression on stakeholders, which will bring market and reputation challenges to enterprises:	<ul style="list-style-type: none"> The Company has increased the research and development and mass production of new low-carbon and environment-friendly building materials, including CHAOKELONG ultra-high performance concrete, environment-friendly baking-free bricks, low-calcium carbon-fixing cement concrete and so on.

Carbon Emission Management

Our Goals of and Progress in Emission Reduction

• Carbon Emission Reduction

Goal 1: By 2030, the carbon dioxide emissions of the Company's unit operating income will be reduced by more than 70% compared with 2005.

Progress: In 2022, the CO2 emission per unit of operating income of domestic business was 13.96 tons/10,000 yuan. (Base year is 29.2 tons/10,000 yuan)

 **13.96** tons/10,000 yuan

70%

Goal 2: By 2030, the intensity of direct emission of carbon dioxide per ton of cement (scope 1) will be reduced to 475 kg.

Progress: In 2022, the intensity of direct emission of carbon dioxide per ton of cement in China (scope 1) is 608 kg. (Base year data 652 kg)

 **608** kg

475 kg

Goal 3: By 2030, the direct emission intensity of carbon dioxide per cubic meter of concrete (scope 1) will be reduced to 124 kg.

Progress: In 2022, the direct carbon dioxide emission intensity (scope 1) of the Company's domestic unit cubic concrete is 156 kg (base year data is 196 kg).

 **156** kg

124 kg

• Alternative Fuel Energy

Goal 4: By 2030, alternative fuel energy will account for more than 25% of primary energy consumption.

Progress: In 2022, the proportion of alternative fuel energy in primary energy consumption in domestic kiln lines has reached 15.9%.

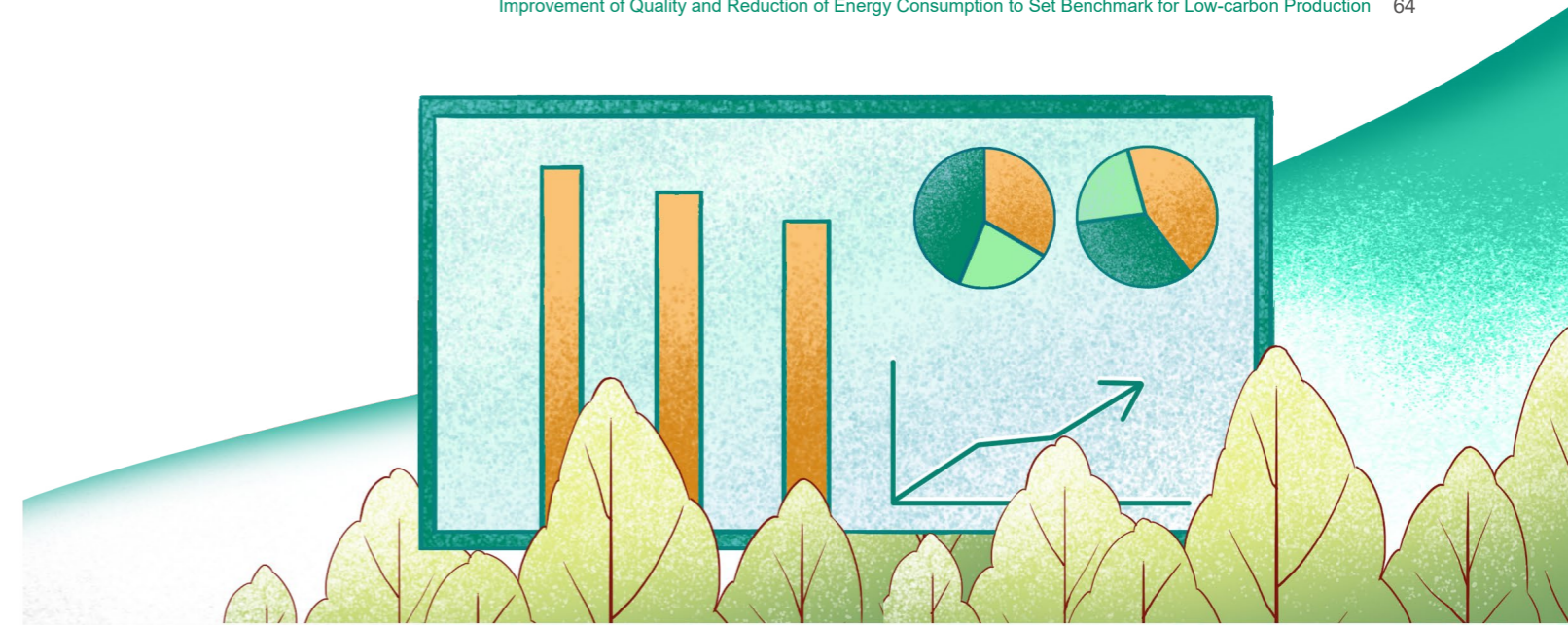
 **15.9%**

25%

Goal 5: It is planned to invest 10.5 billion yuan between 2020 and 2030 for technology research and development to reduce carbon emissions and the transformation and upgrading of production systems.

Progress: Domestic factories have steadily implemented the transformation project of alternative fuels for kilns, and some factories have implemented the energy efficiency improvement project of changing preheater from Class V to Class VI.

 **10.5** billion yuan



Greenhouse Gas Verification

The production process of clinker and cement is the main source of greenhouse gas emissions in Huaxin Cement. We follow the *Implementation Plan of Carbon Peaking for Building Materials Industry*, *Technical Guide for Carbon Emission Reduction in Cement Industry*, *Energy Consumption Limit of Cement Unit Product (GB 16780)* and *(GB/ T 32151.8-2015) Greenhouse Gas Emission Accounting and Reporting Requirements (Part 8: Cement Production)*, *Guidelines for Greenhouse Gas Emission Accounting and Reporting of Cement Production Enterprises in China (for Trial Implementation)*, *Proposal for Promoting Carbon Peaking and Carbon Neutrality in Building Materials Industry*, *United Nations Technical Roadmap for Low-carbon Transformation of Cement Industry*, *Pacesetting and Benchmarking Level of Energy Efficiency in Key Areas of High Energy Consumption Industries (2021 Edition)* to promote the greenhouse gas verification.

In order to improve the overall quality of the Company's carbon emission data, Huaxin Cement formulated the carbon emission data quality control procedures, issued the *Notice on Strengthening the Quality Management of Carbon Emission Data*, strengthened the factory data acquisition mechanism, the submission and approval process, and the statistics and accounting of monthly data, thus laying a data foundation for carbon emission budget. The Company adheres to the "auditing instead of training", cultivates the concept of low-carbon development, and regularly carries out special audits of carbon emissions every year. In 2022, based on the current situation of carbon emission management of various factories and combined with the annual work plan of the departments, the Company has completed the special audit of carbon emission of 24 kiln line factories. In the same period, in the performance year of 2021, a total of 20 cement factories in Hubei, Chongqing and Guangdong achieved 100% compliance on schedule.

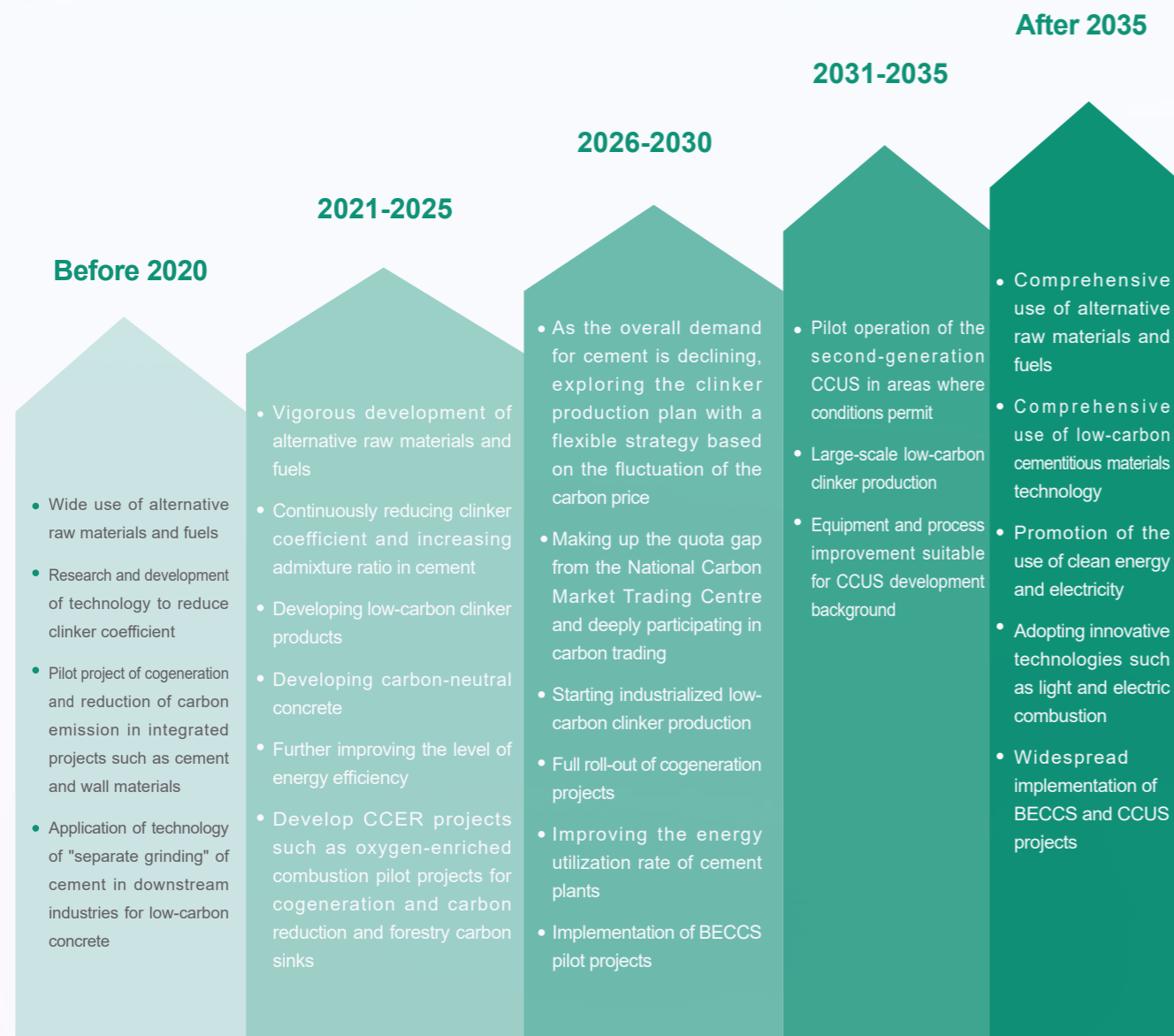
Greenhouse gas emission data of Huaxin Cement in 2022

Metrics	2021	2022	Unit
Total Scope 1 and Scope 2 greenhouse gas emissions (clinker process)	49,165,506.19	35,980,587.04	Ton carbon dioxide equivalent
Greenhouse gas emission reduction/year	1,066,029.24	11,915,181.23	Ton carbon dioxide equivalent
Greenhouse gas emissions per unit product of clinker (clinker process)	0.85	0.82	Ton carbon dioxide equivalent/ton clinker production

Greenhouse Gas Emission Reduction Action

Huaxin Cement is deeply aware that realizing the low-carbon circular development of cement industry is not only the requirement of the times, but also the most urgent task at present. In 2021, we have formulated the Company's carbon emission reduction roadmap, leading the green upgrade of the industry.

Roadmap of Huaxin Cement Carbon Emission Reduction



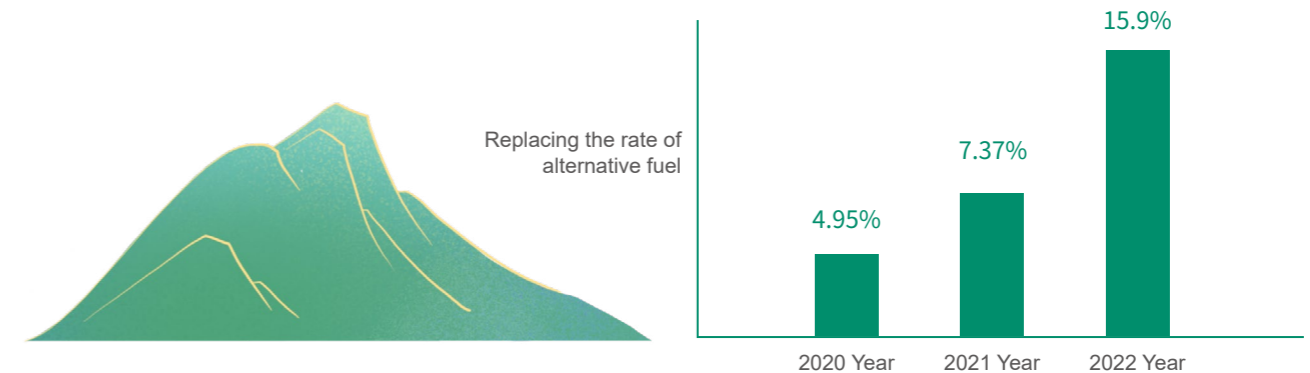
In 2022, following the Company's carbon emission reduction route, we made steady progress towards the established carbon reduction goals through various actions such as intelligent management, raw material substitution, fuel substitution, CCUS, leading industry standards, and employee publicity and training, and made continuous progress in greenhouse gas emission reduction.

Alternative Fuels

o Huaxin Cement, as a leading enterprise in the cement industry, put waste pre-treatment combustible, biomass fuel and industrial solid waste into production practice as alternative fuels in cement kilns, and used a total of 3.87 million tons of various alternative fuels throughout the year, greatly reducing energy consumption and carbon emissions. In 2022, the Company launched the project "Key Technology and Application of Zero Fossil Energy Consumption in Cement Clinker Production". By developing a complete set of equipment technology prepared by various heterogeneous alternative fuels, alternative fuels were used to completely replace fossil energy for cement clinker production, achieving the goal of zero fossil energy consumption in the pilot projects.

In 2022, the heat replacement rate of domestic factories in Huaxin Cement reached 15.9%, much higher than the industry average level (1.5%) disclosed in Accelerating Deep Decarbonization in Industry: The Road to Carbon Neutrality in Chinese Cement Industry by China Cement Association.

Alternative fuel rate for domestic clinker production in recent three years



o In March 2022, with the support and guidance of the Ministry of Industry and Information Technology, the China Enterprise Confederation (CEC) launched the "2022 Excellent Practice Cases of Corporate Green and Low Carbon Development" collection campaign. The "Huaxin Cement's Case of Energy Saving and Carbon Reduction by Using Household Waste Pretreatment of Combustible Materials and Other Alternative Fuels" was selected as an "Excellent Practice Case" among more than 400 applications.

**中国企业联合会
中国企业家协会**

关于入选“2022 企业绿色低碳发展优秀实践案例”
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● Raw Material Substitution

The Company has experimented with tailings instead of iron raw materials. At present, experiments have been carried out in Lijiang and Wuxue factories, investigating the tailings resources around, focusing on the contents of calcium oxide and ferric oxide, and optimizing the ingredients to ensure the quality of clinker, optimize the raw material cost and reduce the carbon footprint of clinker products.

● Reduction of Clinker Coefficient

o Baoshan Plant successfully reduced the clinker coefficient by 5% in M32.5 and P.C42.5 grade products by using silica fume resources, which not only met the product quality requirements, but also reduced the carbon emission in cement products.

● Development of Low-carbon Clinker Products

o In 2022, the Company launched the "Study on Preparation, Properties and Application of Low-carbon Cement" project, which revealed the stable preparation technology of low-carbon cement clinker by exploring the sintering kinetics of low-carbon cement clinker, formed a low-carbon cement clinker system with high carbonization performance, and finally formed the research and development and application of low-carbon cement series products.

o In 2022, Huangshi, Honghe and Dazhi factories obtained low-carbon product certification. Up to now, a total of 15 factories have obtained relevant certification.

● Lead Industry Low Carbon Standards

o At the end of 2021, the Ministry of Industry and Information Technology issued the Project Plan for the Preparation and Revision of Special Industry Standards for Carbon Peaking and Carbon Neutrality in 2021, including the preparation and revision of 28 building materials industry standards. The Company directly participated in the formulation of six standards, among which it took the lead in formulating three industry standards, namely, *Technical Specification for the Preparation of Pre-treated Combustibles from Domestic Waste for Cement Kilns*, *Technical Specification for Co-disposal of Domestic Waste Pretreatment Combustible for Cement Kiln*, and *Alternative Fuel Project for Cement Clinker Production Based on Project Technical Specification for Decarbonization Assessment*, which played a leading role in promoting carbon neutrality in peak carbon dioxide emissions.

● Capacity Building of Carbon Asset Management

o The Company held training on environmental protection management and carbon asset management from 19 to 23 September 2022. All subordinate units of the Company implemented carbon emission management-related training according to the annual training objectives and training requirements set by HR Department, focusing on the core contents related to the accuracy and effectiveness of carbon emission data such as basic data statistics and quality control procedures, and constantly consolidating the "software" foundation of carbon management in the factory.



Company 2022 Environmental and Carbon Asset Management Training

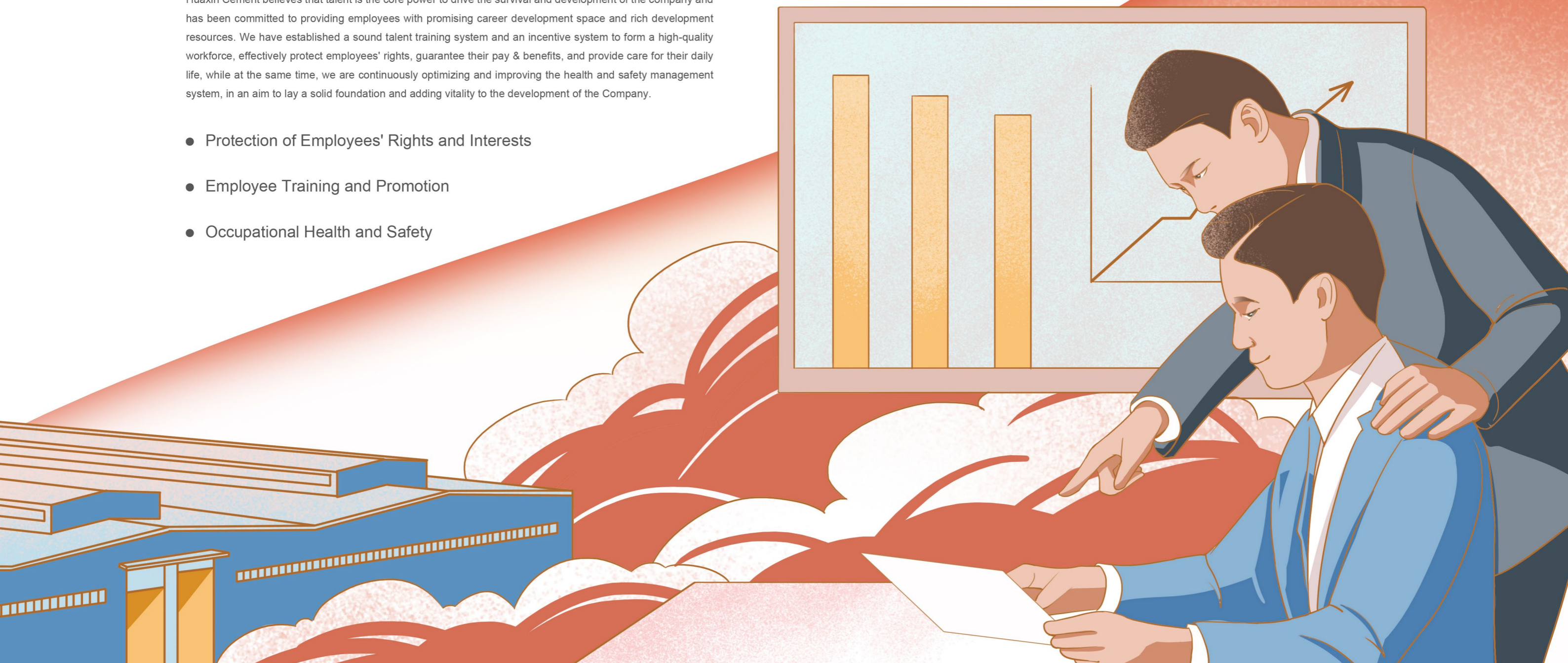
On 10 May 2022, Huaxin Cement (Huangshi) Co., Ltd. successfully applied for a preferential loan of RMB 40 million for carbon emission reduction, and the first carbon emission reduction loan in the domestic cement industry was officially implemented. This is the epitome of Huaxin Cement actively using the national carbon emission reduction support tool policy to reduce financing costs and promote its green development. At present, many branches and subsidiaries of Huaxin Cement are actively applying for preferential loans for carbon emission reduction according to their own green development.

05

Deepen Institutional Reform and Ensure Talent Development

Huaxin Cement believes that talent is the core power to drive the survival and development of the company and has been committed to providing employees with promising career development space and rich development resources. We have established a sound talent training system and an incentive system to form a high-quality workforce, effectively protect employees' rights, guarantee their pay & benefits, and provide care for their daily life, while at the same time, we are continuously optimizing and improving the health and safety management system, in an aim to lay a solid foundation and adding vitality to the development of the Company.

- Protection of Employees' Rights and Interests
- Employee Training and Promotion
- Occupational Health and Safety



Protection of Employees' Rights and Interests

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Compliance Employment

Huaxin Cement strictly abides by relevant laws and regulations regarding employment, such as the *Labour Law of the People's Republic of China*, the *Labour Contract Law of the People's Republic of China*, the *Provisions on the Prohibition of Child Labour*, etc., and it has formulated a full pack of internal rules and regulations, such as the *Measures for the Administration of Employee Labour Contracts*, and the *Measures for the Administration of Employees Dispatched Overseas*, etc., to ensure the transparency, uniformity, and fairness of recruitment, dismissal, and dispatch processes.

Promote equal employment

Adhering to the principle of fair competition and open employment, the Company is committed to creating a diverse and inclusive environment, where the recruitment and employment of employees and the pay & benefits and career development, etc. for them are not affected by ethnicity, gender, age, nationality, religious belief, and marital status, etc. of employees; where it resolutely prohibits all forms of harassment, child labour, and forced labour; and where it takes into account the gender ratio and values the importance of equality.

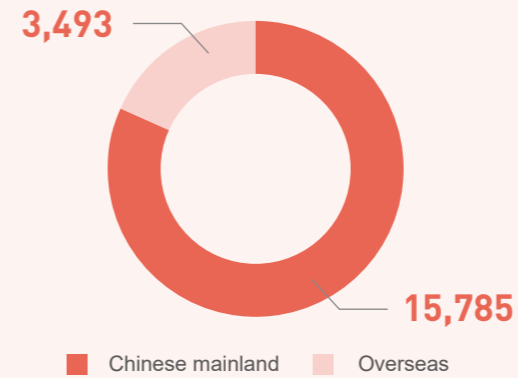
Innovative and diversified recruitment

By making good use of OA, e-HR, talent recruitment platform, WeChat public account and other platform tools, in combination with shooting employer brand promotion videos, recruitment through live streaming, and releasing recruitment tweets of top 40 universities in China among other measures, the company has established a diversified recruitment channel system and an efficient talent link model by transforming the traditional recruitment and brand publicity means, which well reflects the company's employee value concept of "Huaxin cultivates you and relies on you for building the future".

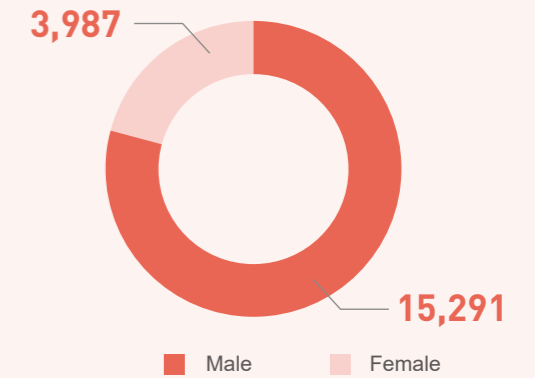
As of the end of 2022, Huaxin Cement had a total of 19,278 employees, with a labour contract signing rate of 100% and an employee turnover rate of 5.3%; and the overall workforce was stable.



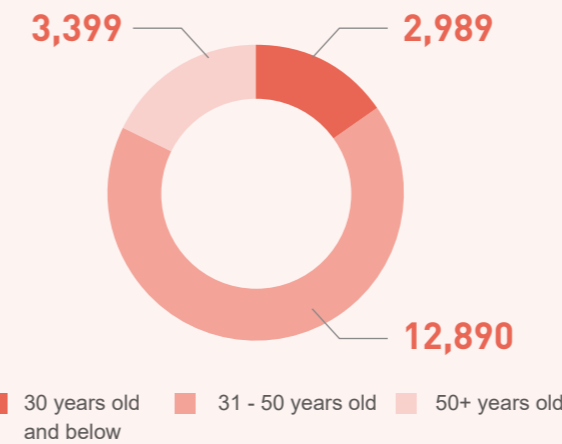
Number of employees (by region)



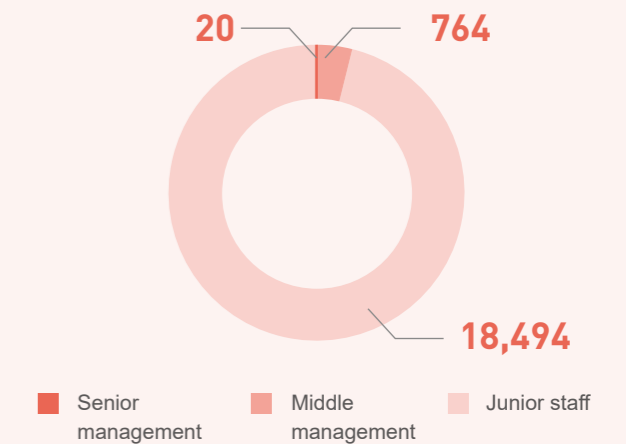
Number of employees by gender



Number of employees (by age)

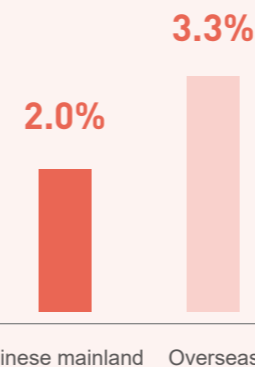


Number of employees (by rank)



Employee turnover rate

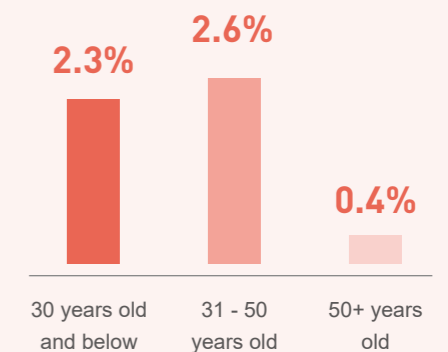
Employee turnover rate (by region)



Employee turnover rate (by gender)



Employee turnover rate (by gender)



Remuneration Package

In order to attract, motivate, and retain talents and promote the people-centred concept, Huaxin Cement, taking into account market competitiveness and internal fairness, provides employees with comprehensive and competitive remuneration packages for employees and has formulated and has improved a number of internal rules and regulations, such as the *Employee Salary Management Measures*, the *Employee Benefits Management Measures*, and the *Employee Leave Management Regulations*, meanwhile, it also fully respects the valuable contribution of employees and takes measures to motivate employees' enthusiasm and sense of belonging.

In addition to statutory holiday leave and the five insurances and one housing fund, the company also provides employees with supplementary endowment insurance, supplementary medical insurance, and additional allowances. In 2022, the company revised the Regulations on the *Administration of Supplementary Medical Insurance for Employees* to include the critical illness insurance items for employees, adjusted the reimbursement method for employees' annual physical examination, and optimized the reimbursement process of supplementary medical insurance, as a part of means to protect employees' health at multiple levels.

Employee Remuneration System

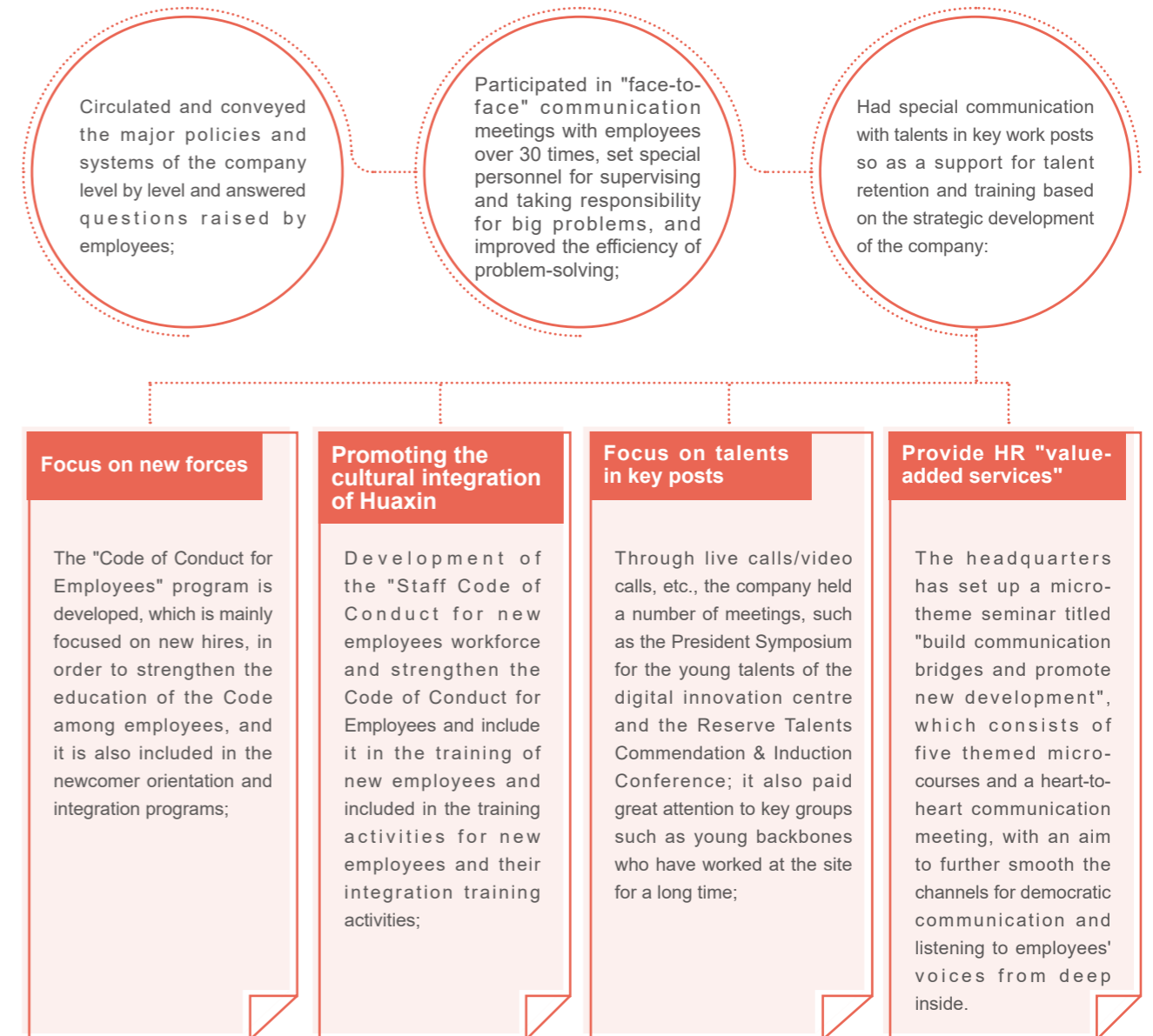


Communication and Care

Huaxin Cement pays attention to the needs of all employees both in work and living. It provides a two-way communication channel for employees to address their needs both mentally and psychologically and help them strike a balance between work and living. In addition, it adopts multiple means of protection and care to continuously enhance employees' sense of identity, satisfaction, and happiness.

Listen to the voices of employees

The company has been working to communicate with employees in a more democratic manner and listen to the voices of employees from deep inside. On the other hand, it encourages employees to participate in the management improvement of the company and effectively helps employees solve the problems they face in everyday life, with an aim to build a harmonious and orderly working environment. In 2022, the human resources department organized a number of employee communication activities, which mainly covered the following three aspects.



Case: Suggestion Collection Activities themed "take up responsibility, overcome difficulties, and promote development"

The Labour Union of the Company organized and carried out the suggestion collection activity themed "take up responsibility, overcome difficulties, and promote development", with an aim to mobilize the cadres and employees of the Labour Union to offer suggestions, and in the end, 581 reasonable suggestions in lean production, innovation and transformation, technology research and development, safety assurance, skill improvement, salary and welfare, etc., were collected, which greatly helps to promote the steady production and operation of the Company.

Care and love

Huaxin Cement cares for the physical and mental health of employees and wants to help them strike a balance between work and life. The Company organizes diversified human-oriented activities, such as assistance to employees in difficulties, visits and greetings, sports, and cultural and recreational activities, to provide grassroots workers with the help and care that they need most, motivate the uplifting spirit and team spirit of employees, and continuously improves the cohesion and solidarity of the Company.

o Help those in needs

The Company has been carrying out the assistance campaign titled "two holidays", which has helped a total of 505 employees in need with the assistance fund of more than 540,000 yuan. The labour union has been providing regular assistance to employees whose life is extremely difficult and has helped 18 employees at the expense of 157,000 yuan.



The Labour Union Visited the Employees in Need and the Employee Representatives in Difficulty in the Eastern Region

o Visit condolences

The Company allocated a special fund of more than 500,000 yuan to visit and greet employees who remain working on the frontlines during the Spring Festival, those who stick to their work posts during summer days, and those with children who have got good grades in the college entrance examination, in order to let them feel the care and love of the Company.



The Labour Union Greeted the Employees in Difficulty of Daye Company



The Labor Union Greeted Workers on the Frontlines

o Care for female employees

The Company revised the Regulations on the Health Management of Female Employees of the Company, organized gynecologic examination examinations for female employees, set up the Fund for Woman Care, and tried its best to provide woman-oriented care and psychological counselling for female employees.

The Fund for Woman Care is an important measure taken by the Female Employee Committee of the Labour Union to safeguard the vital interests of female employees and improve their medical insurance for them. Since the operation of the Fund, it has played a positive role in alleviating the economic burden caused by major diseases on female employees of the company. In 2022, the Fund raised a total of 59,940 yuan, among which 21,000 yuan was spent on helping nine female employees.

o Employee rest and recuperation

At present, the company has two rest and recuperation centres in Zhuhai and Kunming. The Zhuhai Rest and Recuperation Centre started construction in 2013 and was put into use in 2014, with a total of 24 beds and a reception capacity of 40 people per time. The Kunming Rest and Recuperation Centre started construction in 2017 and was put into use in 2018, with a total of 22 beds and a maximum reception capacity of 34 people per time.

In 2022, with the safety and health of employees being protected according to the requirements of epidemic prevention and control policies, the Company organized 159 employees in seven batches to participate in rest and recuperation activities, through which the physical and mental pressure of employees was greatly released.



Employee Recuperation Activities

o Recreation and entertainment

A series of cultural activities were carried out, such as "celebrate the Women's Day (on March 8)" and "send you a little red flower", to publicize and commend model female employees and display their demeanour. The networking activities for young staff were carried out to help youth to solve the problem of dating and marriage. Fitness dance titled "2022 Move Up and Cheer for New Power" and work-break exercises were broadcast online, receiving 78,000 views in total.

78,000

cumulative total online views



The Fitness Dance Competition Titled "2022 Move Up and Cheer for New Power" Held in the Eastern Region

Employee Training and Promotion

Huaxin Cement always regards talents as its greatest wealth and the driving force for development. While satisfying employees' expectations for career development and personal value enhancement, the Company makes great efforts to promote talent development and reserve through increasing employee growth opportunities, setting up career development channels, and improving support and incentive mechanisms.

Talent team Building

Huaxin Cement has been continuously improving the dynamic management mechanism of talents, strengthening the construction of talent teams, tapping the potential of talents in a rational manner, and enhancing the core competitiveness and sustainability of the Company.

o Identify core talents and lay the foundation for the development

The Company holds core talent seminars and instructs the business operation units (such as industrial park/base and business division) to identify and sort personnel, so as to establish a core talent pool and follow their promotion, salary adjustment, career development, and other aspects.

o Talent review and talent quality improvement

Talent review and succession planning were conducted around 103 key posts, with a focus on new business development and engineer levels; diagnosis of job matching was conducted; talent echelons were established.

103

key posts



- Identified the number of key posts and vacancies as required by the doubling plan; analysed the performance potential of staff in key posts; analysed the distribution of core talents and promote talent retention.

- Built an integrated development talent pool; followed the talent reserve for key posts succession and structural vacancies; and promoted talent development.

o Promote talent reserve and improve team structure

- Carried out the one-on-one touring program and post-rotation training; completed the 360-degree assessment and professional knowledge assessment of reserve talents; carried out one-on-one interviews and annual surveys; selected outstanding students and tutors;

Carried out the training of reserve talents by levels for core posts at industrial parks/bases, with a focus on excellent engineers in factories, to cultivate a group of potential backbone personnel for industrial parks/bases.

Talent training and Development

Huaxin Cement attaches great importance to the training and development of employees and has built a multi-level training system that enables employees to improve constantly. It has established and has been improving a number of internal regulations and rules, such as the *Training Management System of the Company*, the *Internal Trainer Management Regulations of the Company*, and the *Management Measures for the Orientation and Transfer Training for Employees* based on the current talent status of the company, in order to steadily carry out talent training, ensure the quality and effect of training programs, realize the coordinated development of staff at different levels, and promote the improvement of the overall quality of talents.

In 2022, the Company carried out diversified and differentiated training programs for employees at different levels working at different posts, such as the Newcomer Orientation Training for new hires, the Huaxin Star Training for new employees who have worked for the Company no more than three years, and the department-level and post-level training for transferred employees. At the same time, by making good use of internal and external resources, the Company has built and has been improving a rich and diversified training mechanism covering internal trainer management, personal teaching, tutoring program, offline expert courses, etc., aiming to continuously optimize talent teams.

o Management Training

The Company continued to carry out customized management training programs that are customized based on the actual businesses of the Company. The executive officers and senior functional directors of the Company served as internal company-level trainers of the customized management programs, including the training programs for Mini-MBA, intermediate management, and newly promoted managers and basic management training programs, which have greatly improved the leading capacity of management staff at all levels, involving a total of 1,396 person/times. In addition, the Company also organized and carried out online management courses (14,610 person/times) and online English training (193 person/times).



President Li Yeqing gave a Lecture at the Mini-MBA (IV) Strategic Management Program

o Technical Training

The Company continued to carry out key post certification training programs, preventive maintenance courses (PMC), quality management courses (QMC), mine engineer courses (QEC), project process engineers (PPE) training, and other training programs; it continued to carry out the training programs for mechanical engineers working with kiln system and grinding system and the training programs for engineers of electrical, automation, and vibration analysis; it organized and held mechanical equipment risk seminars, electrical automation equipment reliability seminars, and cement process training seminars; it continued to carry out the "production to maintenance" training programs, the primary/intermediate/senior maintenance worker training programs, and the special training programs for workers engaged in lubrication, coupling centreline alignment, and low-voltage inverters, etc., all in an aim to enhance the theoretical knowledge level and practical operation skills of the company's own maintenance personnel and meet the requirements of production and operation. At the same time, the company organized CIP experts to participate in industry technical exchanges focusing on carbon neutrality, carbon peaking, environmental protection, and energy saving, etc. so as to get to know the latest trends in the industry, communicate with authoritative experts, improve the professional level of technical staff, and provide support for Huaxin's technological innovation and continuous improvement. By the end of the year, the training hours reached 2,533-course hours and 2,554 person times were trained.



Vice President Yang Hongbing Spoke at the Cement Process Training Seminar

Training hours reached

2,533

course hours

2,554

person times

were trained

o Procurement Training

Based on the authoritative procurement competency model concept of the industry and the actual procurement business of the Company, the Company designed the procurement personnel competency model, determined the job duties and responsibilities, professional knowledge, skills, and qualities of procurement personnel at all levels, and formulated the corresponding training programs for 2022-2024; it carried out the "literacy elimination" training on system operation and completed system operation training at all levels of procurement in four months, through which the procurement personnel got an average score of more than 80 points and their capability to operate the procurement system was enhanced greatly; it organized the "consulting" procurement training, carried out compliance training at plants based on the cases in the past two years, in an aim to help plants improve compliance awareness; and it organized procurement training for newcomers, which covered procurement category knowledge, procurement management system, cement/aggregate/concrete process knowledge, and conducted post-training tracking. In 2022, with the focus of procurement training put on "basic knowledge and weak links", a total of 26 company-level offline training and more than 40 "consultant" pieces of training were organized, with more than 1,000 staff participating in the pieces of training.



Practical Training Camp for Procurement Management

o Marketing Training

The Company organized 12 training sessions on the Huaxin Integrated Concrete Research and Model Promotion, the Huaxin Concrete Commissioned Processing Business, and the Huaxin Integrated Model Introduction, including on-site concentrated training and one-on-one on-site/online training, which involved 300 trainees in total. At the same time, in order to improve the Company's e-commerce platform, the company organized 12 training sessions on Huaxin Mall upgrading, competitive product management, Neocrm system, and new material business, through all Huaxin Malls of Huaxin Group were upgraded and switched online. In order to help improve the aggregate marketing performance as fast as could, the marketing department, together with the departments of human resources, logistics, aggregates, and wall materials and the technology research institutes, systematically carried out knowledge popularization on aggregate and concrete businesses for aggregate marketing personnel, which played a positive role in promoting the development of aggregate marketing business. A total of more than 60 online and offline pieces of training were carried out throughout the year, and more than 1,000 staff participated in the pieces of training.

o Financial Training

The Company continued to carry out the "Financial Empowerment + Training" program, which included the "Financial Knowledge Learning Month" activity, the "Financial Business Training Camp Phase II" and the "Visit to Model Enterprise". In order to promote the integration of business and finance, the "Financial Knowledge Learning Month" activity was organized in six sessions in form of online finance courses and prize quizzes, during which 5,180 employees attended the online courses (including 2,753 non-finance personnel) and 4,030 employees participated in examinations (including 1,651 non-finance personnel). The "Financial Business Training Camp Phase II" is a systematic talent training program that integrates online and offline courses and includes both theoretical and practical training, aiming to cultivate a group of financial backbones and reserve talents. The middle-level financial management staff were organized to visit Alibaba's benchmarking smart financial enterprise with an aim to broaden the view of the trainees and promote the formation of the company's core financial competitiveness by drawing on advanced enterprise management experience.

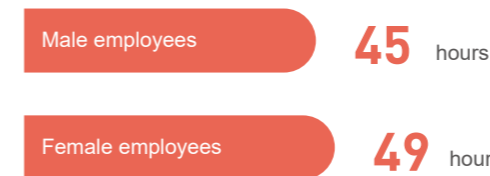


Financial and Business Training Camps

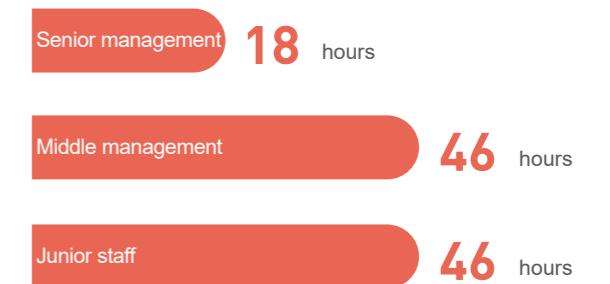
By the end of 2022, 100% of the employees of Huaxin Cement had received training, with an average training hour of 46 hours.



Average training hours of employees (by gender)



Average training hours of employees (by rank)



Talent Promotion Incentives

Adhering to the principle of "fairness, justice, and openness", Huaxin Cement provides a broad space for the career development of employees. It has established and has been improving the talent promotion incentive mechanism that enables aspiring and capable employees to display talents and grow and pursue career development in diversified ways so that the employees will in turn contribute to the development of the Company.

Smooth promotion channels

The Company continued to improve the post system and reviewed and partially updated the post maps; it formulated and issued the Administrative Measures for the Selection and Appointment of Management Staff and strengthened the review and assessment for cadre promotion; meanwhile, it provided clear promotion channels for professionals, technicians, and production staff as a means to mobilize the initiative and enthusiasm of all employees.

Employee Promotion Mechanism

Regular promotions	includes the rank promotion of management posts and technical and professional posts. The company not only encourages employees to act as the head of management posts to assume more and bigger management responsibilities but also encourages them to continuously improve their professional skills and become technical and business experts.
Exceptional promotion	promote, in accordance with the relevant promotion and approval procedures, employees who have made outstanding contributions to performance, who are brave to meet challenges and undertake challenging tasks, and who have been long-time working in difficult places for, will be promoted in accordance with the company's promotion and approval process.
Honorary promotion	employees who have worked in their current posts for more than five years and are about to retire in less than five years and who at the same time have worked diligently and made outstanding performance contributions.

Increase incentives

In order to strengthen talent retention and improve employee performance, the company has formulated and implemented a pack of incentive mechanisms, such as the *Management Measures for Core Employee Stock Ownership Plan (2020-2022)* and the *Equity Incentive Implementation Measures (2020-2022)*, defined the specific assessment schemes, and promoted the understanding of incentives by all employees and signed the share ownership agreement with those covered by incentives. For employees with outstanding performance, salary adjustment was offered based on communication and follow-up visits to ensure that they know the result of salary adjustment and that the incentives are effective enough to stimulate their enthusiasm for creating wealth and dedicating themselves to work.

Case: "Top 10 Talents" labour competition

In 2022, in the face of the macro environment and the extremely difficult situation of industry development, the labour union carried out a number of labour competition activities themed "Top 10 Talents", aiming to lead all employees to work hard and make innovation around the strategic adjustment of the company. The grassroots units optimized the labour competition schemes based on the summary, refining, and sharing of the excellent work experience and methods of employees, which brought out many positive effects from the labour competition activities. The labour union has increased the publicity of model workers and the top 10 talents and released 30 promotional videos in total to guide employees to work hard in the new era. Meanwhile, the Company organized all units to actively recommend and nominate advanced workers. As a result, nine employees won the national, provincial, and municipal "May Day Labour Medal" and the provincial honour of "Industrial Craftsman"; and the teams from 5 units won multiple honours such as "Worker Pioneer" and "Advanced Labour Union" of the provincial, municipal, and district levels.

With the aim to improve mechanisms, strengthen pilots, and increase publicity, the labour union tried to combine the "Top Ten Talents" competition with the results of the "Ask More" knowledge-sharing program, which resulted in the further expansion and improvement of the knowledge sharing and communication channels and the increasing of actual effect. With the strong support of all units of the company, the "Ask More" knowledge-sharing platform shared a total of 303 achievements throughout the year. Through sharing knowledge and experience, many practical problems that occurred in production were solved, which made positive contributions to energy saving, consumption reduction, cost reduction, and income increase.

Released **30**

promotional videos

Knowledge-sharing platform shared a total of

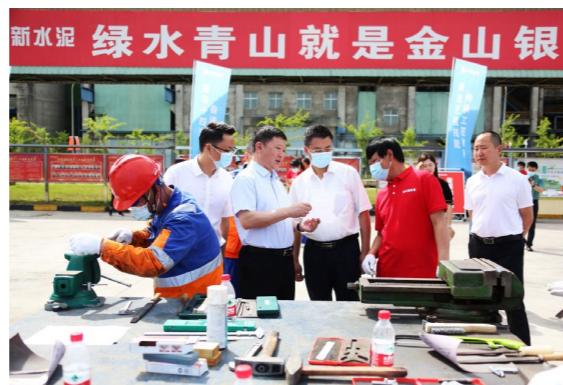
303 achievements



President Li Yeqing Presented Awards to Model Workers in 2022



Huaxin Sangtian Industrial Park Launched the Fifth Post Skills Competition



A Visit to the Practical Operation Contest

Occupational Health and Safety

Huaxin Cement continued to optimize the occupational health and safety management system by comprehensively promoting the implementation of safety responsibility regulations, adhering to zero tolerance for potential safety hazards, strengthening occupational disease prevention and control, raising the awareness of health and safety of all employees, and comprehensively improving the health and safety management of the Company.

Health and Safety Management

Huaxin Cement is committed to providing a safe and healthy working environment for employees by strictly complying with relevant laws and regulations, such as the *Work Safety Law of the People's Republic of China* and the *Law of the People's Republic of China on the Prevention and Control of Occupational Diseases*, formulating and improving internal rules and regulations, such as the *Regulations on the Management of Employee Health*, the *Regulations on the Management of Occupational Diseases and Occupational Injuries for Employees*, and the *Regulations on the Health Management of Female Employees*, and further clarifying the occupational health management work, in an aim to effectively protect the health rights and interests of all employees.

Improve the management system

The company has established the Occupational Health and Safety Management Committee as the highest management body, with the company's senior management serving as the committee member and the Occupational Health and Safety Management Office working under it; the Committee holds a safety meeting on a quarterly basis. The company requires that the signing rate of the "Letter of Responsibility for Production Safety" must be 100% and that the headquarters, regions/divisions and plants must be set with respective occupational health and safety departments with full-time staff. These departments shall implement respective health and safety management work according to the requirements of the headquarters/regions and the actual production and site conditions.



The Signing of the "Letter of Responsibility for Production Safety (2023)" at the Packaging Company



Xiong Guangwei, Safety Director of the Company, attended the final meeting of the Tibetan Company 2022 Health and Safety Audit

Set the management goals

The company sets the occupational health and safety goals of each year based on the actual condition of the company, which are distributed to regional and grassroots employees after being approved by the senior management. The goals are subject to the real-time management in the form of monthly headquarters report and on-site plant monitoring. The health and safety problems discovered are discussed at the monthly senior management meeting, the quarterly office meeting, and the one-on-one communication meetings between regions/divisions/functions and the company president. At the end of the year, all employees will be subject to the health and safety performance assessment based on the completion of goals, and the assessment results will be linked to performance.

Hidden hazards identification

Hidden hazards are identified and reported through the OA safety management system. Every employee from senior management to junior employees are assigned with reporting tasks and provided with the right to access the OA system for reporting. In 2022, a total of 88,996 safety hazards were identified and rectified and 44,400 risk events were reported.

Case: Rectification campaigns for working at height and energy isolation

In 2022, the company carried out two special rectification campaigns regarding working at height and energy isolation safety management, which consisted of three stages, namely the mobilization and deployment stage, the self-inspection, self-improvement, and centralized rectification stage, and the acceptance assessment stage. Propaganda and training sessions were carried out company-wide by setting up banners and slogans and other means to make sure employees well understand the requirements for working at height, such as "five prohibitions" and "fifteen prevention points", and for energy isolation, such as the "five prohibitions and five musts". In the first half of the year, the rectification campaign for working at height was completed, with a total of 14,107 person/times receiving safety training sessions and 2,472 hidden hazards being eliminated, 9,691 times on-site inspections being conducted, and after in-depth rectification and implementation by all units. As a result, 120 units passed the acceptance assessment, the on-site safety management was further improved, and the accident rate associated with working at height (TIFR) decreased by 78% year-on-year.

The rectification campaign for energy isolation commenced in October and 129 units successively organized and held kick-off meetings. In the end, they completed 23,450 safety training sessions on energy isolation, randomly inspected 3,378 energy isolation operations, and formulated 1,502 corrective measures, of which 913 items were implemented at the end of the year. The campaign will continue in the first half of 2023 till the assessment results are regarded as acceptable.



Subsidiaries organise the launch of special rectification activities for work at height

Promote audit rectification

During the reporting period, the Company organized and completed 30 plant health and safety audits in five business sectors, including cement, aggregate, environmental protection, new materials, and concrete, and 28 audit return visits. Through the audits, 1,981 safety management problems were discovered for which appropriate ratification suggestions were given. Ten plants had completed the 2022 audit rectification action plan and others are still working on it. The audit-based rectification approach is an effective means to promote problem-solving in a scientific manner and further leads to a large reduction of safety risks in the production process.

1,981

safety management problems

10 plant

had completed the rectification action plan

Occupational Disease Prevention and Control

Huaxin Cement is deeply aware of the hazards of occupational diseases (e.g., pneumoconiosis and occupational noise deaf) caused by noise and dust and has been working hard to replace, eliminate, and control the hazards. In 2022, the Company completed a total of 108 on-site improvement items involving dust (48%), noise (16%), and ergonomics (28%), etc.; it identified a new hazard factor known as carbon black that causes occupational diseases and prepared and released management documents regarding the hazard; and it organized 167 occupational health management personnel and plant management staff to participate online and offline training.

At the plants, work posts were equipped with protective equipment of different types and with different filtration effects according to the occupational hazard types of the work posts. For instance, P100 filter cotton and half mask were provided for employees disposing of carbon black; N95 semi-mask and filter were provided for employees working in the packing area; 3M6006 comprehensive anti-virus filter box were provided for employees handling RDF; noise-cancelling earplugs were provided for employees working in high-noise areas; disposable surgical masks were provided for all employees; and earbud distributors were set in high-noise areas like coal mills for employees to get earplugs conveniently in case they have lost or forgotten to wear earplugs. As a means to ensure the protective effect of PPE, 1,953 employees were organized to attend 1-on-1 earbud fit testing and training and 1,536 employees to attend respirator fit testing, in an aim to make sure employees are more aware of noise and respiratory hazards and more willing to use protective equipment.

In addition, the company arranged annual occupational health examinations for employees exposed to hazards. As of December 31, 2022, a total of 7,568 internal employees and 1,985 employees on the long-term contract had accepted the occupational health examinations and the occupational health files for those exposed to hazards had been established.

During the reporting period, the company completed a total of 19 occupational health and industrial hygiene training of 5,485 hours accumulatively, covering 2,349 person/times. The content of training included management documents, hazardous factors of occupational diseases, prevention of chronic diseases such as "three-hypers" (hypertension, hyperlipemia, and hyperglycemia), medical emergency care (e.g. cardiopulmonary resuscitation), and the use of automated external defibrillators.



Yard Spray System



Automatic Bag Loading System



Small Mill Noise Control



P100 Dustproof Respirator



Dustproof and Poison-proof Respirator



N95 Dustproof Respirator

Safety Culture Establishment

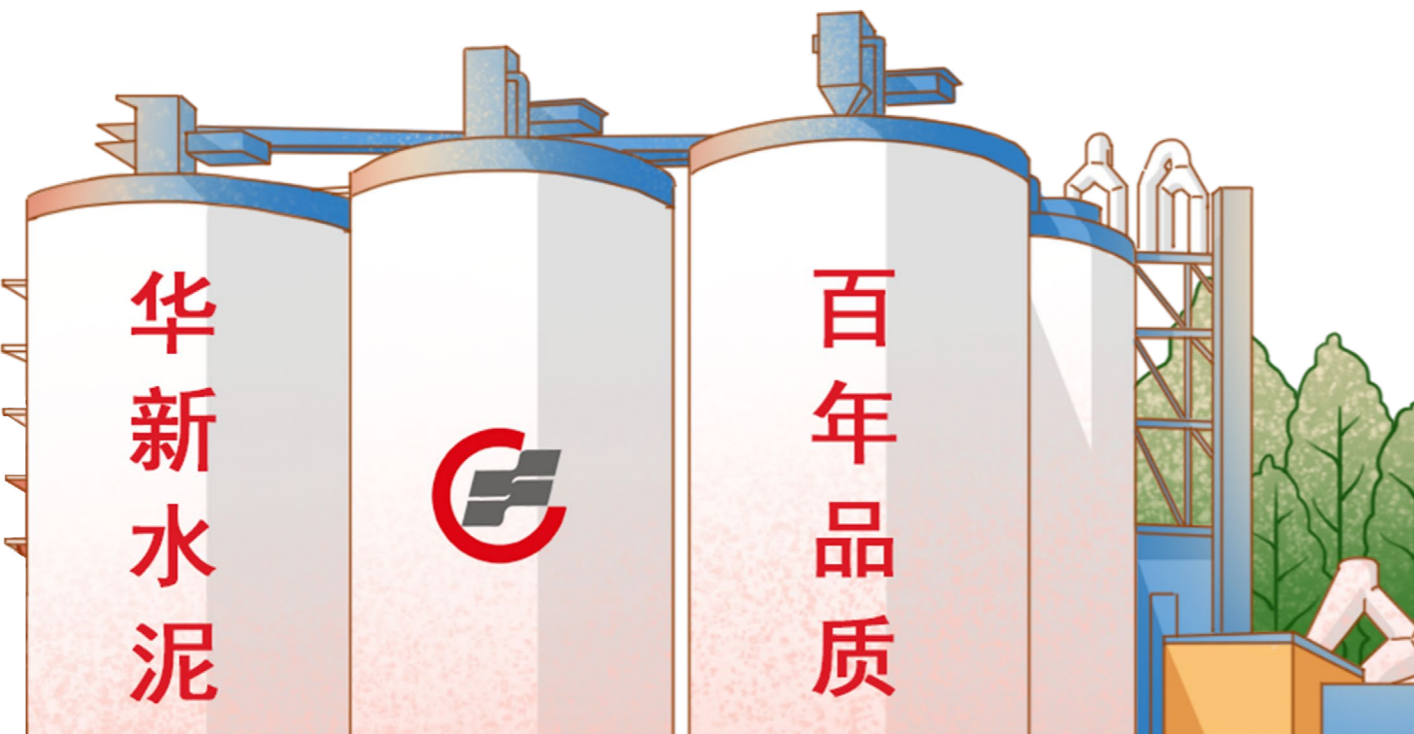
Huaxin Cement regards safety culture as an important means to increase employees' awareness of health and safety and has been making continuous efforts to establish and improve the health and safety education and training system. Meanwhile, it also carries out safety culture activities of various forms and health and safety training to enhance employees' skills and quality for production safety. In 2022, employees received a total of 1,144,443 hours of occupational health and safety training and the plan completion rate was 198.92%.

To enhance the safety ability of department heads and the vice managers of plants, the Company organized training programs, including on-site safety training courses and the three-month "one-on-one" instruction, targeted at 20 department heads and 20 vice managers in various regions/divisions/plants. This laid down a solid foundation for enhancing their safety management level and ability and provided strong talent support for the health and safety development of the company in a sustainable way.

Employees received a total of **1,144,443** hours of occupational health and safety training

The plan completion rate was **198.92%**

	Work-related deaths	Work-related fatal accident rate
2020	1	0.006%
2021	0	0%
2022	0	0%



Case: On-site expert TtT training for health and safety

In 2022, the Company organized and implemented the "on-site expert TtT training for health and safety" with regard to dual prevention mechanism establishment, emergency response, and crisis response, etc.; and it provided four TtT training sessions for regions and divisions, covering all safety supervisors, administrative vice presidents, and safety management staff (325 person/times in total), with 2,032 training hours in total, which has greatly improved the professional quality and management ability of safety production management personnel at all levels of the Company.



Lu Bin, Director of Safety Training, Gave a Lecture at the TtT Training Course

4 times of

TtT training



325 person/times

in total



Total

2,032 hours



Case: Safety Month activities

In 2022, the Company thoroughly implemented the principle of "reinforce work safety under the guidance of the leadership of the Communist Party of China", gave full play to the leading role of Party building, and actively carried out the "Work Safety Month" activity themed "abide by the Work Safety Law of the People's Republic of China and fulfil the responsibility for work safety as the first person-in-charge". Taking this as an opportunity, the Company also carried out the Knowledge Competition on the New Work Safety Law, which involved more than 4,000 person/times for online study and test, and the Short Video Competition themed "Party building promotes work safety and work together for development", which received a total of 45 short videos, of which 25 were released on the Innovation & Sharing platform.

During the period, the "Work Safety Month" activity was widely publicized through various channels, such as the WeChat group of Party building, the middle and senior management WeChat group, the labour union's Innovation & Sharing platform, the OA management system, the executive meeting, the WeChat public account - Huaxin Zhiguang, the email of the health and safety system, the relevant meetings and WeChat groups of various units, and excellent works were displayed and evaluated based on votes. Two comprehensive publicity and display videos were released both online and offline for voting. With these efforts, a good "safety culture" atmosphere was formed in the company, well displaying the positive spirit of all employees in performing health and safety responsibilities and social responsibilities.

4,000+

person/times



45

short videos in competition



The Innovation & Sharing platform has selected

25 priority releases

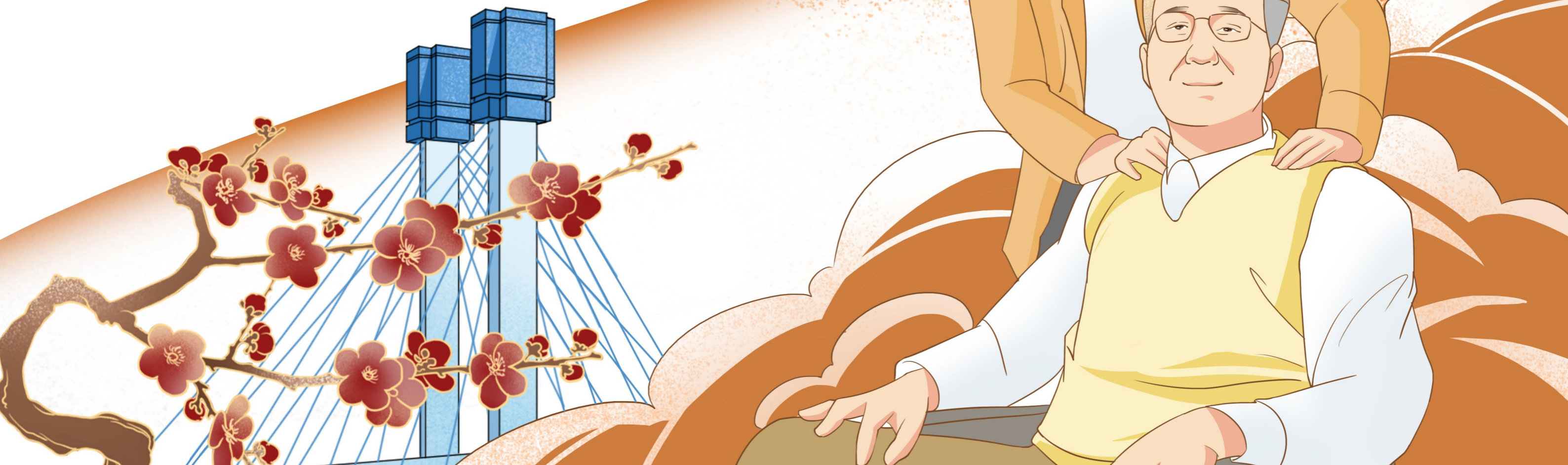


06

Fulfil Corporate Social Responsibility through Joint Efforts of All

Huaxin Cement always remembers to give back to society while making profits. In response to the call for common prosperity of the country, we actively take up our social responsibilities by participating in public-benefited undertakings while promoting employment and driving local economic development. In 2022, Huaxin Cement continued to perform its social responsibilities with regard to the Belt and Road Initiative, rural revitalization, public welfare and charity, etc., aiming to promote the healthy and sustainable development of both the economy and society.

- Drive Local Development
- Participation in Public-benefited Activities



Drive Local Development

The Belt and Road Initiative

In recent years, Huaxin Cement has vigorously implemented the "going global" strategy and achieved fruitful results. Up to now, we have ten cement plants operating or under construction overseas and a number of affiliated plants in the upstream and downstream industrial chain. Each overseas plant has achieved profitability in the year it was put into operation and achieved sustainable development.

Case: Deputy Prime Minister of the Republic of Tajikistan, Usmonali Yunusariyevich Usmonov (Centre), Listened to Report on the Project

On April 7, 2022, Deputy Prime Minister of the Republic of Tajikistan, Usmonali Yunusariyevich Usmonov, and his entourage went to Huaxin Gayol New Building Materials Co., Ltd. for a project investigation. Invested by Huaxin Yawan Cement Co., Ltd., the project is Huaxin's first market-oriented project integrating aggregate and commercial concrete, which is an important move to promote overseas integrated development. The project provides Tajikistan with aggregates and commercial concrete of high quality to promote the economic development of Tajikistan.



Rural revitalization

In 2022, in line with the united deployment of local governments and the actual conditions of rural areas, the Company took multiple measures to further consolidate and expand the achievements of poverty alleviation and facilitate rural revitalization, including rural construction, the improvement of people's living environment in rural areas, and rural governance, etc.

Case: Huaxin Yichang Company promotes rural revitalization

In order to support Yidu's goal of entering the top 50 cities with a civilized model and promote rural revitalization, on June 24th, 2022, Huaxin Yichang Company held a "Cement Donation Ceremony for Rural Revitalization" and donated 2,000 tons of cement to Yidu City. Since its establishment in Yidu 20 years ago, Huaxin Yichang Company has donated cement to Yidu City for 18 consecutive years, starting from 2004, with a total of 35,000 tons worth 14 million RMB.



Poverty alleviation and agricultural assistance

In 2022, Huaxin Cement actively organized employees to go to the farmlands to carry out poverty alleviation and agricultural assistance activities, promoting the consumption and circulation of agricultural products, and actively supporting the country's victory in the battle against poverty with practical actions.

Case: Huaxin Enshi Volunteers Solve Problems for Local Villagers

On May 10, 2022, a group of employees from Huaxin Enshi Company visited a financially struggling villager's home in Gaoqiaoba Village during their lunch break. They helped to cultivate the vegetable field and planted about 300 corn seedlings.



Case: Huaxin Zigui Company Bought Farmers' Alpine Vegetables as an Aid to Farmers

On August 1, 2022, a group of employees from Huaxin Zigui Company came to Wenjiayan Village, Guojiaba Town to help a local farmer pick vegetables, and they bought over 500 kg of the vegetables, which alleviated the elder farmer's pressure from the unsold vegetables.



Love for Education

Young people are the future of the country and the nation. While working for the development of the company, Huaxin people have been paying attention to the growth of poor students by providing Love for Education for them.

Case: Huaxin Dongchuan won the "Caring for Students" award

On the afternoon of September 7, 2022, the Organization Department of the Dongchuan District Party Committee and the Dongchuan District Committee of the Communist Youth League held the "Young Goose Escort, Nurture Hope" Education Aid Grant Distribution Ceremony, and Huaxin Dongchuan Company was awarded the "2022 Education Aid Model Entity" in Kunming Dongchuan District. Adhering to its original intention of "build for the people, benefit the people, work together for harmony, and contribute to poverty alleviation", Huaxin Dongchuan Company has been working hard to fulfil its social responsibilities by donating to education, giving back to the society, and caring for those in needs.



Case: The donation by the 100-million-ton Mechanical Sand Project as an education aid at Huaxin Huangshi Industrial Park

On August 23, 2022, at the Huaxin Huangshi Industrial Park, the 100-million-ton Mechanical Sand Project participated in the "Welcome the 20th National Congress with Education Aid" activity held by the People's Government of Fuchi Town, Yangxin County, where it donated 1 million yuan to the "Yangxin Charity Fuchi Education Fund", as a part of efforts to fulfil Huaxin's social responsibilities.



Participation in Public-benefited Activities

Huaxin Cement continues to participate in social and public-benefited undertakings, give back to communities by assisting community construction, perform its social responsibilities as a century-old enterprise, gather strength, care for the people, and fit in local communities in a harmonious way.

Volunteer activities

In 2022, a total of 14,329 employees participated in 1,945 volunteer activities totalling 79,575 hours, an average of 6.03 hours per person. A total of RMB 24,607,769 yuan (including organizational and individual donations, etc.) was spent on various volunteer activities. Huaxin Cement, relying on its advantages, volunteered to support infrastructure construction by donating cement and providing funds. It also carried out other volunteer activities, such as education donations, visiting people in need, social assistance, and fighting the epidemic, with an aim to contribute to common prosperity and rural revitalization.

Case: Huaxin Shigatse Company Organized Voluntary Tree-planting Activity

In respond to the call of the Jiding Town Government, Huaxin Shigatse Company went to the 10,000-mu forest farm in Quga Village, Jiding Town on March 25, 2022, where the volunteers planted more than 600 saplings.



Case: Huaxin Jizzak Company Visited Poor Families During Ramadan

On April 13, 2022, Huaxin Jizzakh Company, together with the Jizzakh Association for the Disabled, organized volunteers to provide financial assistance to 12 needy families in the villages around the plant and in Jizzakh city, distributing 50 kg of flour and 5 litres of cooking oil to each family, as a part of the company's efforts to care for the people in needs.



Case: Huaxin Dingxiao Company Brought Love to Kids in a Community on Children's Day on June 1

As Children's Day was approaching, volunteers from Huaxin Dingxiao Company went to Yachue Love Kindergarten in Hexin Community on May 27, 2022, to express love to kids by giving them gifts such as school bags, stationery boxes, and watercolour pens. It not only lets kids know that they are cared for and loved but also promoted a harmonious relationship between the company and the community.



Case: Employees of Huaxin Chenzhou Company Actively Volunteered to Donate Blood

In order to advocate the spirit of volunteering for unpaid blood donation, Huaxin Chenzhou Company and Chenzhou Central Blood Station jointly organized a voluntary blood donation activity on the afternoon of April 26, 2022, during which 12 employees successfully donated a total of 4,800 millilitres of blood.



Statement of the Board of Directors

The Company attaches great importance to environmental, social, and governance work and has been working hard to perform its corporate social responsibility. It is committed to creating a century-old manufacturing brand in modern China, leading green and low-carbon development of China's cement industry in the new era, and finally realizing the green, low-carbon, and high-quality development of the company.

Regulation of ESG matters

With sustainable development being integrated into the development strategy of the Company, the Company attempts to establish and apply a scientific and specialized sustainable development management system and a clear and transparent ESG governance structure. We have established an ESG governance structure directly led by the Board of Directors that oversees ESG issues in an all-around way and undertake corresponding responsibilities in sustainable development strategic planning, risk management, policy formulation, and target progress review.

ESG management policy and strategy

With the ESG management strategy being integrated into its business system, the Company works hard to contribute to China's "carbon peaking and carbon neutrality" goals and is determined to pursue innovation-driven green development, hoping to play a leading role in promoting energy conservation and emission reduction in the cement industry. Based on the external socio & economic macro environment and the company's development strategy, the ESG management team of the Company dynamically assesses the importance of ESG issues, discusses and identifies the risks and opportunities of the company's environmental, social, and corporate governance, and takes the management and improvement of key issues as the annual strategic work of sustainable development.

Review of ESG goals

We ensure the effectiveness of ESG management by regularly reporting to the Board of Directors and the senior management on the objectives, plans, implementation and of ESG risk management. The Board of Directors reviews the overall ESG work, reviews the progress of ESG goals, and assesses the effectiveness of the ESG risk management system on a yearly basis. This year, the Board of Directors reviewed the Company's sustainable development plan and listened to the report on the Company's key ESG work of the year.

ESG report review and approval

This report has fully disclosed the management and progress of the above-mentioned work conducted by Huaxin Cement and was deliberated and approved by the Board of Directors of the Company in March 2023.

Appendix

Appendix I: Key Performance Sheet

Metrics	2022	Unit
Operating revenue	30.47	billion
Total profits	3.99	billion
Total assets	64.24	billion
Total investment in environmental protection and technological transformation	706	million
Total investment in energy conservation and emission reduction	347	million
Cement production capacity	118	million tons
Aggregate production capacity	210	million tons
Concrete production capacity	68.75	million cubic meters
Environment		
Total SO ₂ emissions	1,479.80	tons
Average concentration of SO ₂ emissions	13.89	mg/m ³
SO ₂ emission intensity per unit of clinker product	0.03	kg/t clinker production
SO ₂ emission reduction/year	313.76	tons
Total NO _x emissions	19,547.60	tons
NO _x mean emission concentration	199.49	mg/m ³
NO _x emission intensity per unit of clinker product	0.44	kg/t clinker production
NO _x emission reduction/year	9,310	tons
Total particulate matter emissions	1,028.89	tons
Average concentration of particulate matter emissions	7.09	mg/m ³
Emission intensity per unit of clinker product	0.02	kg/t clinker production
Particulate matter emission reduction/year	492	tons
Total Scope 1 & Scope 2 GHG Emissions (clinker process)	35,980,587.04	tons of CO ₂ equivalent
Greenhouse gas emission reduction/year	11,915,181.23	tons of CO ₂ equivalent
Clinker fuel substitution rate	15.90	%
Greenhouse gas emissions per unit of clinker product (clinker process)	0.82	Tons of CO ₂ equivalent / tons of clinker production
CO ₂ emissions per unit of business revenue	11.81	tons / 10,000 yuan

Metrics	2022	Unit
Comprehensive energy consumption per unit of clinker product (clinker process)	102.40	kg standard coal/ton clinker production
Total amount of hazardous wastes	383.68	tons
The amount of hazardous wastes generated per unit of business revenue	1.26	tons/100 million yuan
Total amount of non-hazardous wastes	240,896	tons
The amount of non-hazardous wastes generated per unit of business revenue	790.60	tons/100 million
Disposal ratio of self-produced solid wastes	100	%
Total coordinated disposal amount of cement kiln	3.31	million tons
Coordinated disposal amount of urban and rural household wastes	2.26	million tons
Coordinated disposal amount of municipal sludge	507,800	tons
Coordinated disposal of hazardous industrial wastes	96,600	tons
Comprehensive energy consumption	5.35	million tons / standard coal
Total water consumption	22.58	million tons
Water consumption for clinker production	18.06	million tons
Water consumption per unit of clinker product	0.35	tons / clinker production
Packaging material consumption	33,600	tons
Consumption density of packaging materials	1.50	kg/t bagged cement production
Mine ecological restoration area	130,000	m ²
Society		
Total number of employees	19,278	persons
Total number of male employees - Chinese mainland	12,250	persons
Total number of female employees - Chinese mainland	3,535	persons
Total number of senior management staff	20	persons
Total number of middle management staff	764	persons
Total number of regular employees	18,494	persons
Total number of employees in Chinese mainland	15,785	persons
Total number of overseas employees	3,493	persons
Employee turnover rate	5.30	%
Male employee turnover rate	4.40	%
Female employee turnover rate	0.90	%

Metrics	2022	Unit
Chinese mainland employee turnover rate	2	%
Overseas employee turnover rate	3.30	%
Turnover rate of employees under the age of 30	2.30	%
Turnover rate of employees between 31 and 50 years old	2.60	%
Turnover rate of employees over 50 years old	0.40	%
Number of employees who died in work	0	person
Percentage of employees who died in work	0	%
Percentage of male employees trained	100	%
Percentage of female employees trained	100	%
Percentage of senior management trained	100	%
Proportion of middle management training	100	%
Percentage of junior staff trained	100	%
Average hours of training for male employees	45	hour
Average hours of training for female employees	49	hour
Average hours of training for senior management	18	hour
Average hours of training for middle management	46	hour
Average hours of training for junior staff	46	hour
Number of suppliers in Chinese mainland	4,275	
Number of overseas suppliers	38	
Number of complaints concerning products and services	52	
Number of corruption-related litigation cases	0	
Number of participants in anti-corruption training	1,951	persons
Average hours of anti-corruption training	87.80	hours
Number of volunteer activity participation	14,329	person/times
Total time of volunteer activities	79,575	hours
Total investment in public welfare programs	24.61	Million yuan

附录二：联交所 ESG 指标索引

Main categories	Description	Chapter
"Comply or Explain" clause		
A. Environment		
Level A1: Emissions		
General disclosure	With regard to waste gas and greenhouse gas emissions, discharge into water and land, generation of hazardous and non-hazardous waste, etc.: (a) policy; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer.	4.1 Green Manufacturing
Key performance indicator A1.1	The types of emissions and respective emissions data.	4.1 Green Manufacturing
Key performance indicator A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	4.1 Green Manufacturing
Key performance indicator A1.3	Total hazardous waste produced (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	4.1 Green Manufacturing
Key performance indicator A1.4	Total non-hazardous waste produced (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	4.1 Green Manufacturing
Key performance indicator A1.5	Description of emissions target(s) set and steps taken to achieve them.	4.1 Green Manufacturing
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.	4.1 Green Manufacturing
Level A2: Use of Resources		
General disclosure	Policies on the efficient use of resources, including energy, water, and other raw materials.	4.1 Green Manufacturing
Key performance indicator A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	4.1 Green Manufacturing
Key performance indicator A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	4.1 Green Manufacturing
Key performance indicator A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	4.1 Green Manufacturing
Key performance indicator A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	4.1 Green Manufacturing
Key performance indicator A2.5	Total packaging material used for finished products (in tons) and, if applicable, with reference to per unit produced.	4.1 Green Manufacturing
Level A3: The Environment and Natural Resources		
General disclosure	Policies on minimising the issuer's significant impacts on the environment and natural resources.	4.3 Ecological restoration
Key performance indicator A3.1	Description of the significant impacts of activities on the environment and natural resources and actions taken to manage them.	4.3 Ecological restoration
Level A4: Climate Change		
General disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	4.4 Mitigation of and Adaptation to Climate Changes
Key performance indicator A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	4.4 Mitigation of and Adaptation to Climate Changes

Main categories	Description	Chapter
B. Social		
Level B1: Employment		
General disclosure	Relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare. working hours, holidays: (a) policy; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer.	5.1 Protection of Employees' Rights and Interests
Key performance indicator B1.1	Total workforce by gender, employment type (for example, full- or part time), age group and geographical region.	5.1 Protection of Employees' Rights and Interests
Key performance indicator B1.2	Employee turnover rate by gender, age group, and geographical region.	5.1 Protection of Employees' Rights and Interests
Level B2: Health and Safety		
General disclosure	Relating to providing a safe working environment and protecting employees from occupational hazards: (a) policy; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer.	5.3 Occupational 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.	5.3 Occupational Health and Safety
Key performance indicator B2.2	Lost days due to work injury.	5.3 Occupational Health and Safety
Key performance indicator B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	5.3 Occupational Health and Safety
Level B3: Development and training		
General disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	5.2 Employee Training and Promotion
Key performance indicator B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	5.2 Employee Training and Promotion
Key performance indicator B3.2	The average training hours completed per employee by gender and employee category.	5.2 Employee Training and Promotion
Level B4: Labor code		
General disclosure	Relating to the prevention of child or forced labor: (a) policy; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer.	5.1 Protection of Employees' Rights and Interests
Key performance indicator B4.1	Description of measures to review employment practices to avoid child and forced labour.	5.1 Protection of Employees' Rights and Interests
Key performance indicator B4.2	Description of steps taken to eliminate such practices when discovered.	5.1 Protection of Employees' Rights and Interests
Level B5: Supply Chain Management		
General disclosure	Policies on managing environmental and social risks of the supply chain.	3.3 Supply Chain Management
Key performance indicator B5.1	Number of suppliers by geographical region.	3.3 Supply Chain Management
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.	3.3 Supply Chain Management

Main categories	Description	Chapter
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.	3.3 Supply Chain Management
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.	3.3 Supply Chain Management
Level B6: Product Responsibility		
General disclosure	Relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress: (a) policy; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer.	3.2 Quality Assurance
Key performance indicator B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	3.2 Quality Assurance
Key performance indicator B6.2	Number of products and service related complaints received and how they are dealt with.	3.2 Quality Assurance
Key performance indicator B6.3	Description of practices relating to observing and protecting intellectual property rights.	3.1 R&D Innovation
Key performance indicator B6.4	Description of quality assurance process and recall procedures.	3.2 Quality Assurance
Key performance indicator B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	3.2 Quality Assurance
Level B7: Anti-corruption		
General disclosure	Relating to bribery, extortion, fraud and money laundering: (a) policy; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer.	2.3 Business Ethics
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.	2.3 Business Ethics
Key performance indicator B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	2.3 Business Ethics
Key performance indicator B7.3	Description of anti-corruption training provided to directors and staff.	2.3 Business Ethics
Level B8: Community investment		
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.	5.4 Promote Local Development 5.5 Participation in Public-benefited Programs
Key performance indicator B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	5.4 Promote Local Development 5.5 Participation in Public-benefited Programs
Key performance indicator B8.2	Resources contributed (e.g. money or time) to the focus area.	5.4 Promote Local Development 5.5 Participation in Public-benefited Programs

Appendix III: Feedback Form for Readers' Opinions

Dear readers,

Thank you very much for reading the Environment, Society, and Governance (ESG) Report & Social Responsibility Report (2022) of Huaxin Cement Co., Ltd. We earnestly look forward to your comments and suggestions on the Report and our work. You can send the completed questionnaire back to us by mail or email after scanning. Your valuable opinions are greatly appreciated.

Address: Huaxin Building, No.426, Gaoxin Avenue, Donghu Hi-tech Development Zone, Wuhan City, Hubei Province

Email: liziwei@huaxincem.com

Optional question (please tick the corresponding place)

1.What's your relation with Huaxin Cement?

- Shareholder
 Investor
 Employee
 Supplier
 Customer
 Government
 Community
 Academic Institution
 Non-profit Organization
 Other (please specify) _____

2.Is all the information you are concerned about reflected in the Report?

- Yes No

3.Your comprehensive evaluation of the ESG Report of Huaxin Cement in 2022:

Readability (it is readable and understandable, with beautiful and attractive design and layout, and it is easy to find the required information)

- 3 (pretty good) 2 (just so-so) 1 (very bad)

Credibility (information in this Report is true and credible)

- 3 (pretty good) 2 (just so-so) 1 (very bad)

Information integrity (it gives consideration to both positive and negative information and meets your information needs)

- 3 (pretty good) 2 (just so-so) 1 (very bad)

4.Can you easily locate the information you are concerned about in the Report?

- Yes Average No

5.Besides what has been disclosed in the Report, what information do you want to read?

Company:Huaxin Cement Co., Ltd.

Address: Huaxin Building, No.426, Gaoxin Avenue, Donghu Hi-tech Development Zone, Wuhan City, Hubei Province

Contact: 4001-100-800