BAOSTEEL

Sustainability Report 2021

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BAOSHAN IRON & STEEL CO., LTD.

BAOSTEEL

2021 Sustainability Report

BAOSHAN IRON & STEEL CO., LTD.

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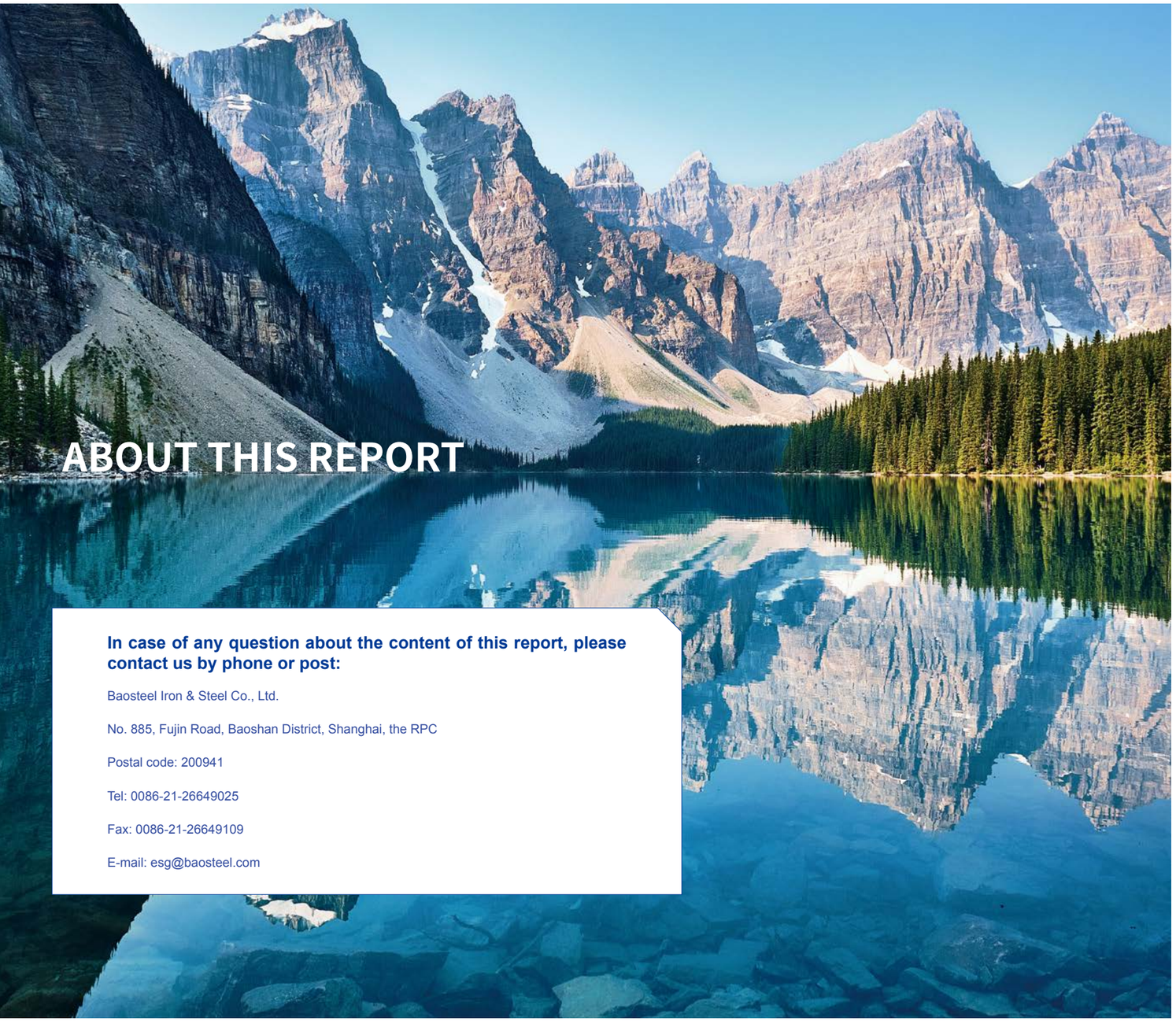

ABOUT THIS REPORT

In case of any question about the content of this report, please contact us by phone or post:

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Reporting Scope

Unless otherwise specified, this Report mainly describes the economic, environmental and social management and achievements of Baoshan Iron & Steel Co.,Ltd.(referred to as “Baosteel”, “the Company”, “We”) and the production units (including the Company Headquarters Base, Tube, Pipe & Bar Business Unit, Wuhan Iron & Steel Co., Ltd., Baosteel Zhanjiang Iron & Steel Co., Ltd., Shanghai Meishan Iron & Steel Co., Ltd., and Baosteel Huangshi Coating & Galvanizing Co., Ltd.) and the organizations, including Shanghai Baosteel International Economic & Trading Co., Ltd, and Shanghai Baosight Software Co., Ltd. Unless otherwise specified, RMB is adopted as the monetary unit throughout this Report.

*Note: 1) "China Baowu", "The Group" and "Baowu Group" are all abbreviations of "China Baowu Steel Group Corporation Limited."

Report Scope

The Report covers the period from 1 January 2021 to 31 December 2021 (the “Reporting Period”). Part of the content traces back to previous years or covers the first and second quarters of 2022.

Report Preparation Standard

This Report is compiled mainly based on Global Reporting Initiative (GRI) Sustainability Reporting Guidelines and Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR4.0).The Report is also compiled by making reference to the following documents including Issuance of Guidelines of Shanghai Stock Exchange on Environmental Information Disclosure of Listed Companies, the United Nations Sustainable Development Goals (SDGs), Morgan Stanley Capital International’s Environmental, Social and Governance (ESG) rating (i.e. MSCI ESG rating) and Dow Jones sustainability Indexes (DJSI).

Data Source and Reliability Statement

The information and data in the Report are obtained from official documents and statistical data within the company, and have been reviewed and approved by the internal supervision system. The company guarantees that this report is free from any false records and misleading statements, and hereby undertake liabilities for the truthfulness, accuracy and completeness of the information contained in this report.

Report Preparation Procedure

This report has been compiled through a task force, data collection, stakeholder interviews, stakeholder questionnaire surveys, framework determination, report writing, report design and departmental and management review.

Recognition and Approval

This report was approved by the Board of Directors on April 28, 2022 after approval by the management.

Message from Top Management

Chairman of the board

General Manager

History is written by the ones who persevere through adversity. Despite the complex macro environment and the rapidly changing industry landscape in 2021, Baosteel duly followed the important guidance from General Secretary Xi Jinping's speech during his visit to China Baowu. We embrace new development concepts and contribute to building a new landscape. With continuous improvement, Baosteel strives to stay ahead of the competitive industry. We endeavor to evolve and innovate with clear vision, thereby maintaining our championship in the domestic market as well as our leading position in the global iron and steel industry. This demonstrated Baosteel's strong commitment to building world-class Chinese corporates to help strengthen the country. Over the years, Baosteel has a vision on the industry landscape, while driving environmental, social and governance (hereinafter referred to as "ESG") initiatives in a serious, pragmatic manner. All these contributed to achieving our sustainability goals.

Baosteel rolls out practical initiatives on green development to build a world-class corporate. Baosteel has enhanced energy conservation and emission reduction performance. We implement the supply-side structural reform of the iron and steel industry, and contribute to the transformation, advancement and high-quality development of the iron and steel industry in China. To achieve carbon neutrality goals, we promote innovation-driven, technology-led, green and smart manufacturing to support the industry in a comprehensive manner.

Optimizing corporate governance to boost business vitality

Baosteel established the Strategy, Risk and ESG Committee to lead and manage the Company's ESG initiatives, and conduct relevant research, analysis and risk assessment. The committee is responsible for setting up sustainable development systems, strategies and goals. The Company continues to enhance the management level of business ethics, integrity, risk control and information security. While we pursue business innovation, we also take into account our social responsibility and the harmonious development with the society.

Smart manufacturing, excellent service and continuous expansion

Baosteel accelerates digital transformation on technology and management levels to achieve the planned goals of smart manufacturing. We built the cross-industry integrated ecosystem with efficient synergy, established digital research and development (R&D) platforms, and promoted the application of big data, simulation technology and artificial intelligence (AI) in product R&D. We successfully created an interconnected digital ecosystem, where data collection, data access, system development and functionality are shared, achieving efficient process quality management. With a customer-centric approach, Baosteel's pace in R&D and application of new products, technologies and manufacturing processes has increased. Industry solution centers for construction, transportation, bridge, marine engineering, energy and other fields have been built. The Company and users steer the establishment of a smart supply chain forward, while embracing digital collaboration at production line level. Many products are already equipped with world-leading user technology and product solution capabilities.

Leading the world's green, low-carbon iron and steel business

Baosteel promotes green development while creating synergy on pollution and carbon emission reduction. We take the lead on the green, low-carbon development of the iron and steel industry. We commit to achieve peak carbon by 2023, and strive to become carbon neutral by 2050. The Company continues to promote green manufacturing and production, boosting the development of green, low-carbon, innovative metallurgic projects while carrying out R&D of forward-looking and ground-breaking steel technologies. We also explore and master the core technologies of green and low-carbon metallurgy to pioneer steel technology for the future. With reference to material full life cycle and based on resource consumption and carbon emissions evaluation, the Company conducts life cycle assessment (LCA) to carry out green design of iron and steel products, improve product performance, and realize green use of product.

Green is the foundation of Baosteel's high-quality development. Our people work closely together to put low-carbon into practice and lead the "new fashion" of green production. In 2021, 100% of Baosteel's key pollution sources met emission standards, and the emissions of sulfur dioxide and nitrogen oxides reached the best historical level. Baoshan and Dongshan bases achieved 100% solid waste disposal at factories, while the Yangtze River protection project is progressing smoothly. The landscape of Baoshan Base was upgraded and transformed to create "Baosteel Garden" for Flower Expo, while Meishan Base successfully established a national 3A-level tourist attraction.

Cultivating talent and growing with employees

Baosteel develops for the good of our employees. We rely on employees to develop the Company, and also share achievements and grow with them. In 2021, we completed the appointment of the first group of China Baowu engineering scientists, and carried out a new round of centralized evaluation and appointment of chief executives and technical experts. Baosteel continues to optimize the "inclusive + precise" employee caring system. We have also built a cross-regional, full-coverage, 7/24 service platform, and continue to upgrade our employee benefits. We drive continuous innovation of work positions, such as establishing innovation teams, studios and base building. Focusing on practical projects and sending warmth to those in need, we build a harmonious employment relationship and motivate our staff to achieve more.

Strengthening synergy and building a high-quality iron and steel ecosystem

As a leader in the iron and steel industry, by strengthening the cooperation between upstream and downstream partners, we work together to build a high-quality steel ecosystem. We scaled up on ESG issues in supplier entry and assessment to fully evaluate their sustainability performance. Through methods such as green, sunshine and smart procurement, we grant green products and green manufacturing products priority, and establish a "low-carbon first" guideline to continuously build a green supply chain.

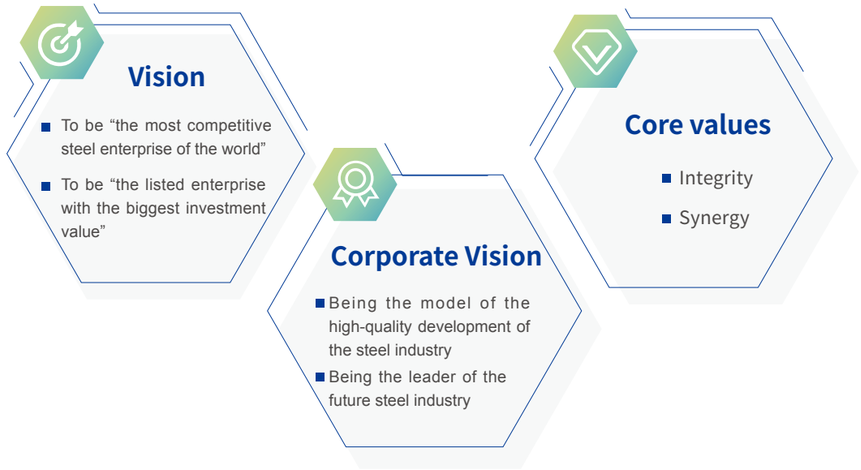
Alleviating poverty and building a better community

Alongside the company's business success, Baosteel contributes to building a better community and actively participates in public welfare. We actively participated in various charity activities, and have completed a series of poverty alleviation, education initiatives and infrastructure projects in underprivileged areas while supporting the development of different local small- and medium-sized enterprises, aiming to fulfill our social responsibilities.

"Lead a low-carbon life and build a green future" – Baosteel is committed to becoming a new landscape for the development of green steel. Led by the Dual Carbon Goals with low-carbon development as our core, we are dedicated to defining a new global standard as a green, low-carbon iron and steel company. In recent years, we have accelerated the pace of "three governances and four modernizations". The "appearance", "temperament" and "quality" of green development have undergone brand new changes. We are committed to building a better China with pragmatic initiatives.

About Us

Baosteel upholds and implements China Baowu's vision of "To be the most competitive steel enterprise of the world and to be the listed enterprise with the biggest investment value ", the mission of " Being the model of the high-quality development of the steel industry " and the core values of "Integrity and Synergy". We are committed to the development of boutique products, green transformation and smart upgrades. To this end, we carry out in-depth exploration on the mutual relationship between steel companies and modern cities, actively sharing the fruitful results of corporate development with employees, customers, investors and the public.



Company Profile

Company Overview

Baosteel is the world's leading modern steel conglomerate and the core corporate of the Fortune Global 500 Baowu Group. Baowu Group, was ranked 72nd in the World Top 500 in 2021, up 39 places from the previous year and continuing to be the leading global steel company. The steel manufacturing industry is our main business. We are committed to creating maximum value for society, providing value-added products and services to our shareholders and customers, upholding our core values of integrity, achieving synergistic development with relevant stakeholders and jointly promoting social progress. Also, we are engaged in the processing and distribution, chemical industry, information technology, finance and e-commerce related to the main steel business. The company is one of the steel companies with the most complete carbon steel varieties in the world, and has major manufacturing bases, such as Shanghai Baoshan (Baoshan Base), Wuhan Qingshan (Qingshan Base), Zhanjiang Dongshan (Dongshan Base), and Nanjing Meishan (Meishan Base).

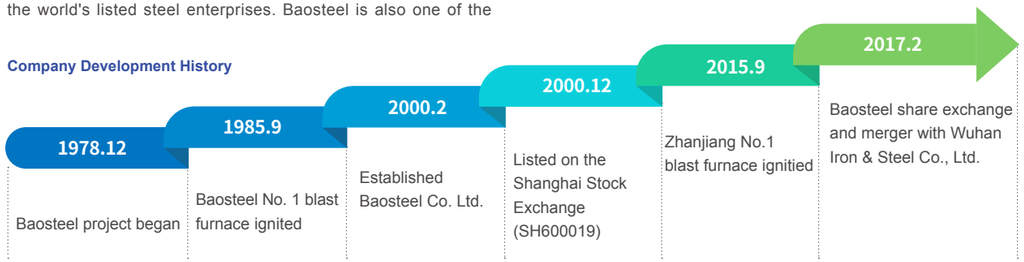
Baosteel sticks to the development road of “innovation, coordination, green, openness and inclusiveness”, and possesses the world-renowned brands and the world first class manufacturing and service capability. The company not only aims to be a leader in steel technology, establishing itself as an industry leader in steel technology and enhancing the value contribution of technological innovation, but also actively promotes the greening of the value chain and acts as an environmentally friendly best practitioner. The company attaches great emphasis to cultivating its innovation capacity, actively develops and deploys advanced technologies of manufacturing, energy-conservation and environmental protection, and has established the marketing, processing and service network with nationwide coverage and worldwide involvement. Its independently developed high-end products, such as the new generation high strength automotive steel, grain-oriented electrical steel, high grade steel for household appliances, steel for energy and marine engineering, steel for bridges, hot-rolled heavy rail and etc, all reached the world's advanced level.

Baosteel takes the lead in the steel technology industry and drives the green industry chain to build an urban steel mill for a better life. We explore in depth the way of symbiosis between steel enterprises and modern cities, actively share the fruitful results gained from corporate development with employees, users, investors and the public. We raise our employees' awareness of environmental protection and ecological harmony, promote environmentally friendly behaviour in all aspects of their work, life and social engagement to become a model of a company where employees and the company develop together. In the future, we are committed to serving and strengthen our country through our development.

Company Development

Baosteel, previously Shanghai Baoshan Iron and Steel Plant, was established in 2000 by Baowu Group and listed on the Shanghai Stock Exchange (stock code: 600019) in December of the same year. After completing the merger of WISCO in February 2017, Baosteel has major manufacturing bases such as Baoshan base, Qingshan base, Dongshan base and Meishan base, and ranks second in crude steel production, first in automotive plate production and first in production of oriented electrical steel among the world's listed steel enterprises. Baosteel is also one of the world's most complete steel enterprises in terms of carbon steel varieties. After more than 20 years, we have a strong foundation of strength and rich capital accumulation. Therefore, we are committed to our mission of "being a model of high-quality development in the steel industry and a leader in the future of steel", and we are bold enough to be the first, strive for the best. We are changing and innovating through self-reflection to catch up with our strongest competitors, and strive to achieve the leap from follower to leader.

Company Development History



Strategic Development

During the 14th Five-Year Plan period, Baosteel insisted on high-quality development, implementing a model with five major capabilities, i.e. continuously improving the connotation of the "1+5" strategy: deepening innovation - Multi-Manufacturing Base Management Model, and continuously building five major capabilities: product management, leading technology, green and low-carbon, smart manufacturing and efficiency improvement. We are committed to the implementation of the "scale + quality" strategy, to be a model of high-quality development in the steel industry, and to be a leader in the future of steel.

Tax

Baosteel follows the principle of paying taxes in accordance with the law and actively establishes and improves the company's tax management system to avoid tax risks. In terms of organisational structure, the company has set up a tax expense management department, which is dedicated to the corporate tax management of the company, and at the same time provides tax guidance and consultation to business divisions and subsidiaries; in terms of system construction, we have established tax management systems and standards based on the general rules of tax management, divided by tax types, and supplemented with tax declaration, invoice management, non-trade remittance and other tax process systems to ensure that the company's In terms of decision-making support, we provide effective support and tax planning solutions for the company's decision-making by intervening in advance in major business activities such as mergers and acquisitions, overseas business expansion. At the same time, the company follows the principle of reasonable tax saving, complies with tax policy guidance, promotes the development of state-encouraged business, fully enjoys tax benefits and enhances the value of the company.

Case **A member of the Shanghai International Taxation Research Institute**

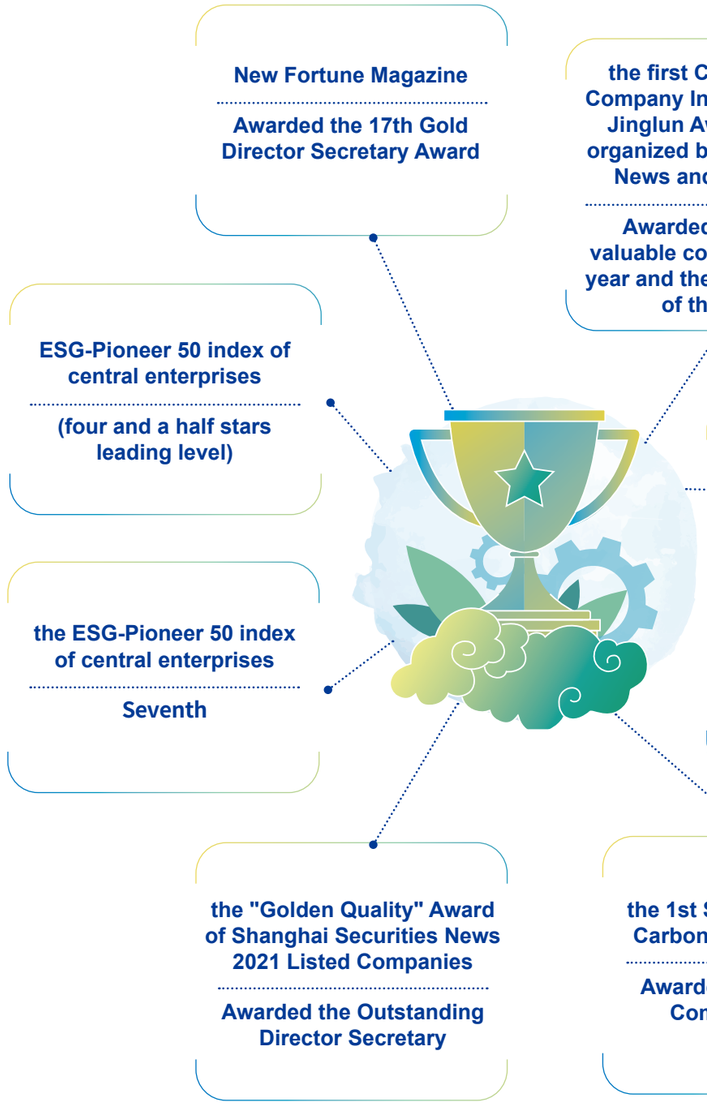
Baosteel, as a member of the Shanghai International Taxation Research Institute, actively participates in various academic exchange activities organized by the Society and conducts applied research and discussion on hot and difficult taxation issues extended from work practices, such as tax treatment of carbon emission allowance trading, taxation risks of overseas investment and environmental protection tax collection practices.

Tax risk identification and management

Baosteel manages the company's risks through an internal tax risk management system, developing strategies to avoid or mitigate risks while also developing corresponding balancing solutions to maximise the benefits when accepting risks.

Awards and Honors

We are committed to providing quality products and services to our customers and creating maximum value for our shareholders and society. We continue our smart manufacturing and accelerate the pace of green and low-carbon construction. During the reporting period, through continuous efforts, Baosteel's corporate governance and investor relations work won recognition from all sectors of society.



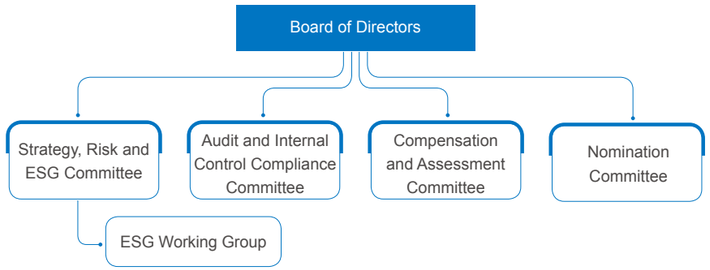
01 Corporate Governance

- ESG Management
- Business Ethics
- Building Integrity
- Risk Management
- Information Security
- Investor Relations

Baosteel continues its core values of "integrity and synergy" and continues to pursue technological leadership and smart manufacturing in an orderly manner. We have a well-established corporate governance structure, strictly comply with relevant laws and regulations and listing regulations, and continue to deepen corporate governance by strengthening the involvement of the Board of Directors in sustainable development efforts to ensure the healthy development of the company. We treat our investors, shareholders, customers and suppliers and other groups with integrity to achieve co-development with our stakeholders.

ESG Management

Baosteel has established the Strategy, Risk and ESG Committee, the Audit and Internal Control Compliance Committee, the Compensation and Assessment Committee and the Nomination Committee, which are responsible for corporate governance-related operations. The Strategy, Risk and ESG Committee is responsible for conducting research, analysis and risk assessment on the company's sustainable development and ESG-related matters, and proposing systems, strategies and targets for sustainable development. The Board of Directors, as the highest body for the management and public disclosure of ESG matters, monitors and reviews the progress of the company's ESG-related risks and objectives on an annual basis. The Company has also established an ESG working group, which is responsible for managing ESG-related risks and issues in its daily operations. For more detailed terms of reference, please refer to the "Announcement of Baosteel Corporation on the Proposed Proposal on ESG Governance Structure" (published on 27 April 2021, announcement number: 2021-040).

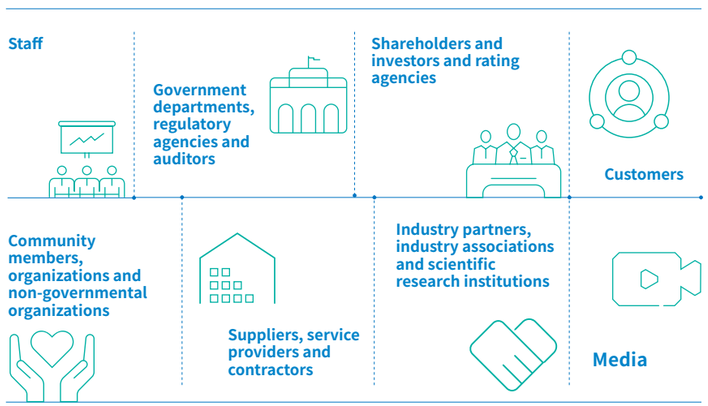


Governance Structure

By establishing and improving its governance structure, Baosteel has integrated ESG management into the company's daily governance and business philosophy. ESG-related performance indicators are also linked to the performance and remuneration of the management team, and rewards and penalties are adopted based on the results of the annual ESG assessment.

Stakeholder Communication

Baosteel has established a constant communication mechanism with its stakeholders, communicates with them on a regular basis, comprehensively collects their demands and suggestions, and incorporates their concerns into the company's strategic decisions. The Company identified the following eight groups of key stakeholders:

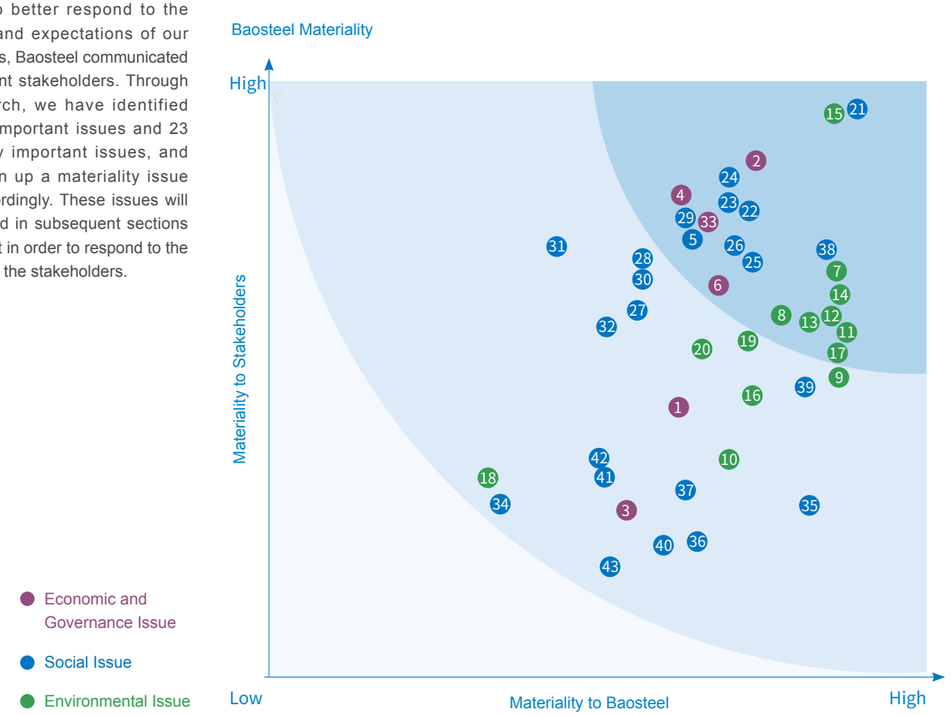


The main issues concerned by various stakeholders and the communication channels of the Company are as follows:

Stakeholders	Main concern issues		Communication channels
Staff	Employee rights and benefits Promotion and development Talent training and retention	Diversity and equality Occupational health and safetyt Employee communication	Employee activities Internal publications (newspapers, magazines) Employee performance appraisal Multimedia (public and other social platforms)
Government departments, regulatory agencies and auditors	Environmental Management System Energy efficiency New energy use Water use efficiency Air Pollution Waste water disposal	Waste management Greenhouse gases emission Biodiversity Scrap recycling Environmental technology research and development Carbon reduction and carbon neutralit	Site investigation Meeting
Shareholders, investors and rating agencies	Economic performance and financial performance Corporate Governance ESG management system establishment	Risk and crisis management Business ethics Climate change risks and opportunities	General meeting of shareholders Investor Meeting Performance conference Press Release/Announcement Site investigation
Customers	Product quality and safety Customer service Intellectual Property Protection Technology and innovation	Responsible marketing Privacy and information security Green product research and development Green factory	Customer satisfaction survey Customer line Official media platform Customer Conference
Community members, organizations and non-governmental organizations	Community participation and integration Charity Fighting COVID-19		Press Release/Announcement Public welfare undertakings
Suppliers, service providers and contractors	Supplier approval and evaluation Supply chain cooperation Supply chain ethics and compliance management	Supply Chain ESG Management Conflict minerals	Supplier qualification review Supplier Exchange Conference
Industry partners, industry associations and scientific research institutions	Win-win industry development Smart manufacturing		Industry Association Exhibition
Media	Information disclosure		Media Press Conference Press Release/Announcement Official media platform

ESG Materiality Issues

In order to better respond to the demands and expectations of our stakeholders, Baosteel communicated with different stakeholders. Through our research, we have identified 20 highly important issues and 23 moderately important issues, and have drawn up a materiality issue matrix accordingly. These issues will be disclosed in subsequent sections of the report in order to respond to the demands of the stakeholders.



Highly Material Issues

Area	Serial Number	Topics
Economics and Governance	2	Corporate Governance
	4	Risk and crisis management
	5	Business ethics
	6	Information disclosure
Environment	7	Environmental management system
	8	Energy efficiency
	11	Air Pollution
	12	Waste water disposal
	13	Waste management
	14	Greenhouse gases emission
	15	Carbon reduction and carbon neutrality
	17	Green factory
Society	21	Product quality and safety
	22	customer service
	23	Intellectual property protection
	24	Technology and innovation
	25	Smart manufacturing
	26	Green product development
	29	Win-win industry development
	38	Diversity and equality

Medium Material Issues

Area	Serial Number	Topics
Economics and Governance	1	Economic and financial performance
	3	ESG management system establishment
Environment	9	New energy use
	10	Water use efficiency
	16	Climate change risks and opportunities
	18	Biodiversity
	19	Scrap recycling
	20	Environmental technology research and development
Society	27	Responsible marketing
	28	Privacy and information security
	30	Supplier approval and evaluation
	31	Supply chain cooperation
	32	Supply chain ethics and compliance management
	33	Supply chain ESG Management
	34	Conflict minerals
	35	Employee rights and benefits
	36	Promotion and development
	37	Talent training and retention
	39	Occupational health and safety
	40	Employee communication
	41	Community participation and integration
	42	Charity work
	43	Fight COVID-19

Business Ethics

Abiding by business ethics, Baosteel has issued the "Baosteel Code of Conduct". As a leading enterprise and listed company in China's steel industry, we pledge to conduct business with a rigorous attitude and a high sense of social responsibility, setting a code of conduct to safeguard the legitimate rights and interests of users, suppliers, employees, the public and other stakeholders. This code of conduct summarizes the main principles and requirements applicable to Baosteel's behavior, and provides constraints and guidelines for the Company's internal and external interactions. Baosteel also pays attention to whether its partners abide by or have the same code of conduct or compliance, and takes this as one of the important factors when selecting business partners.

The Company regularly conducts business ethics training for all employees through online training platform every year, and the training coverage rate reaches

100%

Building Integrity

Baosteel attaches great importance to integrity. We have zero tolerance towards corruption, fraud and other non-compliant behaviors. We have further strengthened the Company's party integrity building and anti-corruption work responsibility system. We have revised a number of institutional documents by exploring the integration of audit, disciplinary inspection, and other supervisory forces. The newly revised documents clarify the duties, practice and methods of leaders at all levels to build clean governance, which is key to the Company's comprehensive anti-corruption campaign. The company's Discipline Supervision Department, in conjunction with functional departments, reviews, follows up on, controls and tracks the projects reported by various units. To this end, we have established a special supervision and inspection working group to regularly track the process and provide timely guidance to ensure the effective implementation of projects and further improve the system.

Anti-corruption and anti-fraud reporting channels

The Company provides reporting channels. Reporting telephone number: (021) 26648888-1-4;

operation time is between 8:30 and 17:00 on working days.

Reporting email: jubao@baosteel.com.

Mail address: No. 885 Fujin Road, Baoshan District, Shanghai Room 1103, Command Center (zip code 201999).

Focusing on key areas and links, Baosteel actively carries out training and education for relevant personnel, and strengthens integrity education for functional personnel and management. The company's Discipline Supervision Department conducts a comprehensive analysis of issues every quarter. We made use of the platform for regular discipline inspection work to report a total of 11 typical cases during the reporting period. Also, the scope of education and the audience were expanded, and 10 typical cases were compiled and distributed. SMS reminders of integrity, thrift and frugality were sent to 1,384 managers at level C and above. We promoted 2,400 sessions of warning education at all levels of party organization. During the reporting period, the Company carried out various integrity training sessions on anti-corruption and anti-bribery related regulations, analysis of typical disciplinary cases, introduction of company discipline inspection and supervision, and internal reporting methods, achieving 100% training coverage for employees. During the reporting period, the Company had a total of 24 reported incidents arising from the whistle-blowing procedure, among which no recognized corruption cases occurred.

Case **Baosteel carried out a number of integrity training activities**

To create a good working atmosphere of integrity, the Company's discipline inspection and supervision department along with the Youth League Committee launched the Company's integrity culture month education activity. We collected 130 integrity videos, calligraphy and painting works, and compiled the "Integrity Blooming Journal", "Inspection Work Instruction Manual", "Problem Clue Verification Practice Work Manual" and other learning and training materials to build a culture of integrity. The Discipline Supervision Department of the company has specially compiled the "Integrity Risk Prevention and Control Training Materials" to provide special training for units with complex operations, many sensitive positions, and difficult risk prevention and control. In response to the results of integrity risk identification and assessment, it is required to compile the "Integrity Risk Prevention and Control Manual". The company's Discipline Supervision Department has compiled concise, comprehensible learning materials to improve the results of integrity risk identification. All our leaders pledge to work with integrity, and nearly 200 leaders have received relevant training. In 2021, the theoretical study center group of the party committee organized 4 group integrity trainings.

Integrity and Anti-corruption Seminar

Integrity Blooming Journal

Integrity Risk Prevention and Control Manual

Audit and Discipline Inspection

The internal audit coverage rate is

100%

Baosteel adheres to "Control risk and promote duty performance in a strong work style". In accordance with the "Baosteel Internal Supervision Work Consultation System" and through exploration, we integrated auditing, discipline inspection, and other supervision forces. We regularly conduct internal audits on the entire company. Among the 77 projects reported by all units, we have reviewed 7 key promotion projects, 10 key management and control projects, and 21 key tracking projects. The Disciplinary Inspection and Supervision Department of the Company established a special supervision and inspection working group, and worked with functional departments to implement 7 key promotion projects, and compiled a special supervision report for the Company's leaders. For 10 key control projects and 21 key tracking projects, the Company regularly tracks the process and the results of discipline inspection. In addition, in accordance with the requirements of RBA (Responsible Business Alliance), we carried out special recognized audits on social responsibility, safety, environmental protection, labor, anti-corruption and other aspects of Baosteel. The internal audit coverage rate is 100%.

Risk Management

Baosteel takes its social responsibilities and obligations seriously in the process of operations and development. We establish and improve the monitoring and reporting mechanism for major risks in terms of safe production, product quality, environmental protection, resource conservation, occupational health, and protection of employees' rights and interests, while strengthening the awareness of social responsibility. The Company has formulated the "Key Risk Management Measures" and regularly conducts company risk assessments. In addition, we have incorporated ESG risks such as climate change, environmental compliance, labor management and other issues into the existing risk management and control system to strengthen the management of our ESG risks.

Strategy, Risk and ESG Committee

- Review the management strategies and risk response plans formed by the promotion of key risk projects in the business areas under its jurisdiction;
- Develope management strategies and risk response plans;

Operations Improvement Department

- Issue the annual plan for company-level key risk projects reviewed and approved by the Board of Directors;
- Responsible for promoting and tracking the work of key risk projects carried out by each project unit;
- Coordinate key risk project training and case education;
- Organize company-level key risk projects to carry out business guidance on risk management strategies and response plans;
- Organize and evaluate management strategies and risk response plans for company-level key risk projects; urge the establishment of a rapid response mechanism to major business emergencies;
- Prepare Baosteel's key risk disclosure report and track risk monitoring information.

Responsible Project Unit

- Responsible for planning and compiling project implementation plans; setting up project teams;
- Plan project training needs, carry out case education, establish project promotion and evaluation mechanisms, and organize and promote implementation;
- Establish and improve management strategies and risk response plans for key risks.

Auxiliary Project Unit

- Cooperate with the main responsible unit of key risk projects to set up a project team and carry out project promotion;
- Assist in establishing and improving risk management strategies and response plans.

Others

- Human Resources Department is responsible for the organization and implementation of risk-related training;
- Audit Department is responsible for auditing the system design of risk management and control and the implementation of key risks;
- The Discipline Supervision Department conducts pre-, inter- and post-event supervision in accordance with business authorization regulations, and promotes personnel in relevant positions to perform their duties according to regulations.

Risk Management Structure

According to the key risks identified from the Company's risk assessment, Baosteel has established the key risk promotion mechanism. According to the business fields involved in the risks, it has established key risk project work teams, identified the main responsible units for risks, established project teams, formulated project implementation plans, and set up meetings, evaluation and other related promotion mechanisms.

Project Promotion

- The project is a unit, and a cross-departmental project team is formed according to the business areas involved in the key risks
- Research and establish risk management strategies and risk response plans

Daily Advancement

- Organize and evaluate risk management strategies and plans for key risk projects according to the maturity of key risk projects
- Carry out risk assessment and analysis on the operations of relevant businesses, and form risk monitoring reports to provide decision-making basis for decision-making

Risk management mechanism

To strengthen the Company's risk management and control, Baosteel has established a comprehensive risk management system to realize the online full-process operations of the Company-level risk management business and improve the efficiency of risk business management. Through the pilot, the Company established a risk situation analysis model to assist the Company in identifying risks and making business decisions. Baosteel has carried out the simultaneous construction of risk management business shared services and risk management data models, formed a rapid coverage structure that supports multi-base risk management business, and built an intelligent risk management information system with Baosteel's characteristics.

Information Security

Baosteel established the "Corporate Network and Information Security Leading Group and Establishment of the Company's Network and Information Security Work Responsibility Mechanism". It clarified the composition and main responsibilities of our network and information security leading group, the composition and main duties of the network and information security leading group and office personnel, and work requirements of each unit, department, and subsidiary. The Company attaches great importance to information and privacy protection, and has established a professional authorization management system for the Company's network security, host security and data security. Information security is the basic guarantee for realizing the sustainable development of companies. We have formulated and promulgated six related system documents including "Information System and Network Security Management Standards", "Information System Asset Identification, Risk Evaluation and Control Management Measures", and "Information System Asset Classification and Classification and Risk Evaluation Calculation Standards" to fully guarantee the information security in the development process during digitalization of the Company.

Information security protection measures	
Organizational personnel management	• Establish an information system and network security management organization and security incident response process to ensure that information security incidents can be assessed and reported in a timely manner; • Carry out information security education, fully enhance employees' awareness of information protection, and establish a reward and punishment mechanism for employees in information security activities.
Information asset management	• Establish an encrypted cloud disk and monitor it through data leakage prevention software; • According to the sensitivity and importance of information system assets, classify them, conduct periodic risk assessment, and take corresponding management measures.
Communication and Operations Management	• Ensure communication security through access control technology, encryption technology, network management technology, security equipment, security protocols, etc.; • The activities of administrators and maintenance operators of information systems and network systems shall be recorded in logs, and security analysis and assessment shall be carried out on a regular basis; • Establish information security incident response mechanisms, procedures and corresponding liaison systems, so that information security incidents can be assessed and reported in a timely manner.
Development and maintenance management	• Before developing a new system, security requirements should be identified and appropriate controls should be incorporated into the design; • When system functions are added or changed, the security functions must be fully tested to ensure compliance with design requirements

To ensure safe operations of the network information platform, the Company mainly adopts the following measures to regularly test the platform system:

- Baosteel deployed network attack and defense drills, established Baosteel sub-headquarters. Each subsidiary established a research and judgment team and an emergency response team.

Preparation Stage 1
Formulate the list of "tasks in the preparation stage of Baosteel's offensive and defensive drills"

Actual Exercise 2
Judgment and order communication

Problem Rectification 3
Form a list of hidden dangers of network security problems

Case **Baosteel established a command system for cyber attack and defense drills**

We formulated a list of “tasks in the preparation stage of Baosteel's offensive and defensive drills”. We accelerated the deployment of the construction of network security situational awareness systems by clearing assets, strengthening access control, eliminating hidden dangers of network security, and reinforce host security. According to the monitoring findings of the actual combat exercise and the hidden dangers of network security reported by the Group, a list was formed and rectification as implemented. We received 40 processing instructions issued by the Group, and 100% of them was completed. Baosteel researched and issued 105 processing instructions, completed 93 rectifications, and the remaining 12 were in the state of IP network ban. Dongshan Base monitored 126 rectifications of weak password and all have been rectified, and a total of 94 suspected terminals contained virus have been processed. Other subsidiaries have carried out this in an orderly manner as required.

received 40 processing instructions issued by the Group, and

100%

of them was completed

- We established a network security monthly report system, fully evaluated the Company's network security status, assessed key data, such as office network online terminals, non-compliance numbers, traffic exceeding the standard data. We reported monthly industrial control network security inspection results, guide all departments to rectify, and timely published important information in network security management, network security management cases, network security knowledge, and network security training information.

- We promoted the network security situational awareness platform to fully cover the information backbone network, enable the installation and debugging of network traffic probes, regularly track Internet egress traffic, and realize timely detection and processing of network security threats.

During the reporting period, the Company's information security training achieved 100% coverage of all employees. The training content included main tasks of the Company's information security management, employee information security compliance requirements, and internal reporting methods.

During the reporting period, the Company's information security training coverage rate of employees achieved

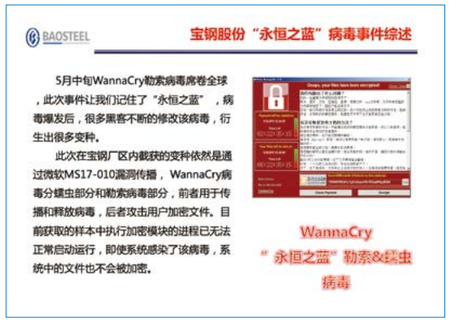
100%

Case **Network Information Security Training**

From 21 to 22 October 2021, the Company carried out a two-day off-the-job training. The training covers basic concepts of network security, as well as the analysis of the current situation of network security and the analysis of the development trend of network security. It interprets domestic network security laws and regulations, introduces the SDWAN networking scheme of Baowu Group, and further analyzes the discovery and handling process of Baosteel's network security incidents, laying a solid theoretical foundation for the establishment of the Group's network security emergency mechanism and system.

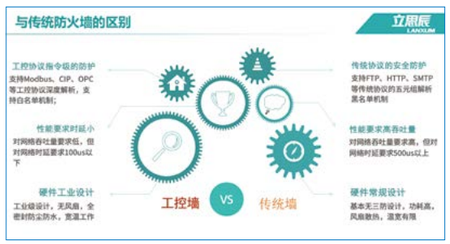
From 28 to 29 October 2021, we carried out a two-day off-the-job training. The training covered vulnerability analysis of industrial control systems and the study of security protection technology. The security protection framework, industry solutions and typical cases of industrial control systems were shared. The security concepts of the on-site industrial control security managers were updated.

From 16 to 17 December 2021, we organized a two-day off-the-job training. The training covered industrial control network security situation, domestic industrial control security laws and regulations, control security protection scenarios in the steel industry, and industrial control network security defense system.



Information network safety training

Information network safety training



Industrial information control system network safety training

Industrial information control system network safety training

During the reporting period, the Company established a management structure with reference to the ISO 27001 information security management system. The Shanghai Information Security Evaluation and Certification Center conducted an evaluation of Baosteel's manufacturing management system (level 3 security) and portal website (level 2 security). Both systems passed with high scores.

During the reporting period, the Company did not have any information security leakage incidents; no customer privacy leakage incidents occurred.

Investor Relations

The Company is committed to deepening investors' understanding and recognition of the Company through effective communication channels and adequate information disclosure. During the reporting period, we continued to promote investor communication activities with the help of new media, the Internet, telephone and other communication tools, achieving timely, fair and efficient information transmission and exchange with the capital market.

Investor Communication Activities	Frequency	Remarks
Performance Release	7 times	• 2 on-site + video bilingual live performance conferences (annual report, quarterly report, mid-term report) • 3 Online performance briefings (annual report, first quarterly report, interim report, third quarterly report) • Investor Reception Day for 2 times
Investment Banking Strategy Conference	59 sessions	• Participated in 31 strategy meetings of overseas investment banks such as Morgan Stanley and Citi • Participated in 28 strategic meetings of domestic securities companies such as CITIC and Guotai Junan
Conference Call	41 times	• Held a price policy interpretation communication conference in May • In November, the third-quarter results interpretation conference call was held
Receive Investor Visits	18 batches/77 people	
Roadshow Communication	36 times	• 20 video roadshows for international investors after regular reports • 16 road shows for domestic investors
Responding to Investor Questions	280 questions	• Replied to 280 online questions from investors on SSE E Interactive and Panorama Investor Relations Platform • (including 250 from SSE e-interaction and 30 from Panorama Investor Relations Platform)
Investor Relations Questionnaire	127 sets	• Collected the opinions of capital market practitioners on the steel industry, Baosteel's capital market performance and investor relations services in 2021, and received 127 valid feedbacks
External Communication	1 time	• China Association of Listed Companies "Experience Exchange Meeting of Listed Companies' 2020 Annual Report Performance Briefing" in September

02 Leading Manufacturing

- Quality First
- Green R&D
- Quality Service

Baosteel adheres to the vision of "being the most competitive steel enterprise of the world". We innovate and deepen the Multi-Manufacturing Base Management Model, and continue to build five major pillars, namely product management, technology leadership, green and low carbon, intelligent manufacturing, and efficiency improvement. We aim to demonstrate quality development and become a high-ranking leader in the steel industry.

Quality First

Quality Concept

Excellence comes from refined management and the pursuit of high quality. Baogu Co., Ltd. adheres to strategic goals based on the needs of users. We continuously improve and pursue excellence. Each production base has fully passed ISO 9001 quality management system certification and IATF 16949 automotive industry quality management system certification. We have established a complete internal quality management system, including raw material procurement, product manufacturing, product testing and other links. Baosteel satisfies the needs of users, aiming at the overall optimization of the whole production process, and realizes cross-process quality consistent management technology of the whole process quality control.

During the reporting period, all factories of Baosteel have earned external system certification of quality management.

System Category	System Name
Quality Management System	ISO 9001
	IATF 16949[1]

Protective Measures

R&D Driven

Baosteel adheres to the technological innovation model of "high-quality products + service", aiming at the cutting-edge technologies of the industry and forming a technological leading edge. Baosteel drives change and actively implements the strategic goal of technology leadership, accelerates the R&D and application of low-carbon metallurgical technology, while deploying forward-looking and ground-breaking technological innovation projects.

Baosteel has established a digital management process and mechanism for demand identification, further promoted the concept of "Early Involvement of Suppliers" (EVI), achieved the pre-position of user demand identification, and accelerated the application of new products, technologies and processes. The EVI concept supports Baosteel to provide users with "customized" solutions, and continuously develop products in the direction of high strength, light weight, high corrosion resistance and greenness. We continue to promote the EVI project, covering 8 major industries: automobile, home appliances and electronics, power transmission and distribution, metal packaging and containers, engineering/machinery and construction, energy transportation, building envelope industry, and motor industry.

Raw Materials Guarantee

Baosteel steadily and continuously purchases high-quality raw materials to continuously supply high-quality products. The Company adheres to the principles of openness, fairness and transparency, and actively promotes supply chain management. We have a complete supplier entry, evaluation and assessment system, creating a multi-base unified quality management. Baosteel continues to strengthen the procurement management of raw and auxiliary materials, promotes quality early warning, multi-base sharing of information, real-time tracking and supervision, and improves the quality of raw and auxiliary materials through an effective management system.

[1] All factories that supply automotive sheets have passed IATF 16949.

Industry Quality Benchmarking

Baosteel focuses on variety expansion and quality improvement to become a model of high-quality development of the steel industry and a leader of future steel companies. We continuously promote product standardization and certification. A total of 13 national standards under our auspices of or with our contribution in drafting have been officially released. Among which, 4 standards were drafted under the auspices of Baosteel, which stipulates important technical indicators and testing methods of products, and promotes technological progress and development of the industry. Baosteel has formulated a total of 66 internal technical quality management documents to control all aspects of production and manufacturing. We pay close attention to tracking key production indicators, and conduct regular maintenance on key production equipment and facilities to ensure excellent production conditions and minimize defective products. Baosteel is guided by market demand, adheres to the two-wheel drive of "capacity + scale", transforms and innovates, and becomes a demonstration leader in the industry.

By adapting to changes, planning and moving actively, we accurately grasp market opportunities, respond swiftly to the market and constantly solve problems. We also enhance development pace, and strengthen development advantages. The third-party product certification was carried out in an orderly manner in combination with new needs of domestic and foreign markets, changes in market access regulations and standard updates of certified products. We obtained full series of ship plate certifications of Russian Maritime Register of Shipping , obtained 5 certification of crack arrest and non-crack arrest steel for extra-thick plates, obtained the certification of composite plates for icebreakers. R3S mooring chain steel certification, American Petroleum Institute API-5B (thread gauge) certification, India BIS electroplating tin products and other new certification projects were also obtained.

According to the requirements of IATF16949 and other standards, Baosteel has established a steel product safety management system, standardized the design and manufacturing process, and reduced the risk of products violating laws and regulations and causing personal injury. From the collection of laws and regulations and user requirements, the identification of product development characteristics, the management of raw and auxiliary material suppliers, the control of the product realization process, and the final product inspection, product safety is fully managed to ensure that products will not cause any harm to customers. We actively followed up on the changes in domestic and foreign regulations and the development of users' green needs, as well as organized various certification assessments for various products. We also followed up on the EU REACH directive in a timely manner, organized internal assessments, and updated and released the REACH compliance statement of Baosteel products. Third-party testing of products is carried out every year, and a total of 138 testing reports are published. Tin-plated chrome products have passed the FSSC 22000 food safety system certification.

66

Internal technical quality management documents

138

Third-party testing reports published

Efficient process quality management

Baosteel adheres to the quality policy of "user-oriented, innovation-driven, high-quality manufacturing, and continuous improvement". We have implemented consistent management, and enhanced the Company's multi-base management model. Different departments work together to control the process end-to-end to create a high-standard, high-tech and high-quality business image of "Made by Baosteel". Baosteel builds an efficient management system and promotes system construction with process management as the core. During the reporting period, a total of 11 professional management documents on production logistics and technical quality were revised; the related business and management processes of multi-base management were clearly refined; the multi-base collaboration was strengthened; and the multi-base manufacturing capacity was continuously improved.

Case **Baosteel built the world's first intelligent blast furnace operations platform**

Baosteel has made a major breakthrough in the application of big data, leaping from steel manufacturing to steel intelligent manufacturing. During the reporting period, the Company built and put into use the world's first intelligent blast furnace operations platform. The platform brings together L2, L3, and L4 systems of ironmaking processes at four bases, integrating the Internet, big data, process technical rules, and model libraries. "Cross-space" is the real-time aggregation of blast furnace big data from all bases; "cross-human-machine interface" is indexed diagnosis and intelligent control. They combine functions such as advance warning, hierarchical push, real-time benchmarking, self-learning and closed-loop control. The smart blast furnace operations platform will drive big data into productive forces, empowering Baosteel management and technological innovation and transformation, as well as realizing standardized, systematic and automated quality management.

Baosteel continues to strengthen the identification and prevention of potential quality risks. We constantly improve the quality management system documents of each product line and production line. Baosteel has established an advanced internal quality audit system, relying on the international product quality system certification to improve its internal quality management system. During the reporting period, the Company planned and implemented system audits in 11 fields, covering all management processes and responsible departments; 60 process audits, covering our main production lines, focusing on key and unstable quality processes; 54 product audits, randomly checked the appearance, size, performance, packaging, logo and inspection documents of the product; 20 special quality system audits to promote product quality improvement.

Baosteel has steadily improved its quality under the condition that its output is up to standard. Comparing to 2020, the occurrence rate of scrap reduction decreased by 4.2%, while the slab qualification rate and the slab effective resource utilization rate increased by 0.7%. The full-process yield of ultra-high-strength steel and GA outer plate increased by 11.3%. There were 89 key and difficult problems, the cumulative progress rate was 95.6%, and the quality dispute cases dropped by 40%.

the cumulative progress rate was

95.6%

Hazardous Substance Control

One of the key aspects of ensuring product safety is limiting hazardous substances in materials. Baosteel has established a joint assessment team for hazardous substances to participate in the assessment of the entire product life cycle (purchasing, design, manufacturing and testing). The Company continues to implement QC 080000, establishing a hazardous substance management system and passing the BSI system certification. In the meantime, we organized third-party testing of iron and steel products in the four major bases and published third-party testing reports. The Company's hot-rolled, pickled, cold-rolled, hot-dip galvanized, electro-galvanized, hot-dip galvanized, electroplated tin, coated iron, home appliance color coating, electrical steel products and other carbon steel sheet products comply with the EU RoHS directive, China Electrical Appliances Administrative Measures for the Restriction of the Use of Hazardous Substances in Electronic Products (China RoHS), Chinese National Standard GB/T 30512 2014 Requirements for Prohibited Substances in Automobiles, Substances Prohibited or Restricted by the U.S. Toxic Substances Control Act (TSCA) (Article 6), Japanese Chemical Substances Review regulatory requirements such as restraint laws. Baosteel's color-coated sheet for construction has achieved "chromium-free" in the whole process from steel substrate, coating to pretreatment, primer and topcoat.

Quality Culture

The quality culture construction of Baosteel is gradually formed along with the development of the Company's construction and production. We attach great importance to employee capacity, cultivating common values, and building a culture of excellence for all employees. During the reporting period, Baosteel has provided training about 780,000 person-times.

We carried out more than ten quality management trainings for professional and technical personnel, with a total of 244 people trained. For PFMEA, APQP and other quality management tools, we organized more than 120 technical personnel training and training in various manufacturing units. GJB 9001C:2017/ QC 080000/ FSSC 22000 and other professional quality standard and internal auditor qualification were organized. There were 124 people enrolling in the training.

To further improve the skills of operators, through carrying out maintenance engineer qualification certification training and assessment, we helped 236 people obtain the professional qualification of maintenance engineers; the passing rate was about 30%. We continued to implement the "Gemini" project for cross-base rotation exercise, and selected 670 young managerial professionals and key technical personnel to exchange and learn from each other in Process Department.

To focus on the development of the Company's smart manufacturing, we explored the formation of a digital talent training system for process manufacturing, and formed a set of digital talent training materials with Baosteel's independent intellectual property rights. More than 100 digital engineers were trained. According to the "Double Carbon" work arrangement throughout the year, 9 special trainings, including "Carbon Management Concentrated Training" and "Challenges and Opportunities Faced by the Steel Industry in the Situation of Carbon Reaching Peak and Carbon Neutrality", were held, and about 2,700 people participated, effectively helping the Company to implement carbon peak action and carbon management work smoothly.

Baosteel has provided training about

780,000person-times

Case **Baosteel "TOP10 Training"**

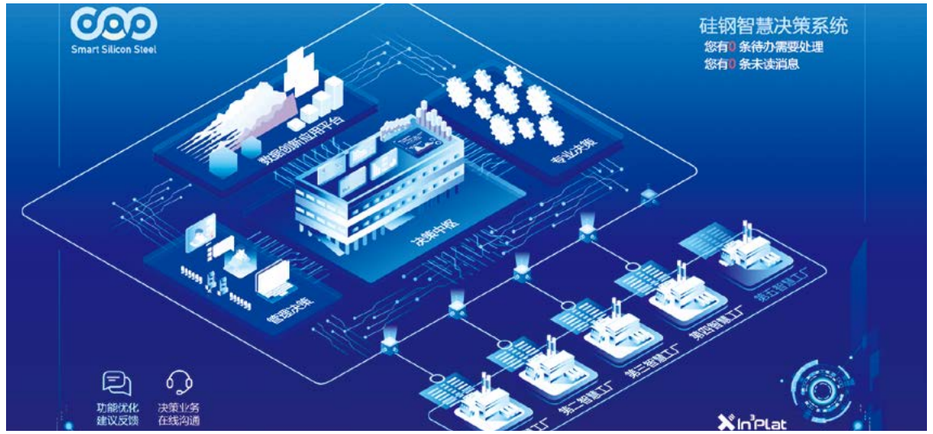
"TOP10 Training" is a series of thematic training activities planned and carried out for the chief engineer, lead engineer and technical backup of Baosteel's technical fields and production units, taking the 10 most representative product quality issues and production technical problems as the starting point, giving full play to the overall advantages of the company's knowledge resources. Through training and discussion, we found the causes of and solutions to problems. We made use of synergy to actively promote the elimination of technical islands, improve the ability of technical personnel to solve practical problems, and continuously improve our production site management.

Digitalized Management and Control

Baosteel takes digital and intelligent transformation as the starting point and practice Smart Manufacturing 2.0. We continue to promote the pilot exploration and digital transformation of new intelligent manufacturing technologies and build a smart manufacturing system, integrating smart equipment, factories, management and control. The Company has established a "cross-industry", "cross-base" and "cross-space" quality management system, aiming to improve quality constantly and continuously improve user satisfaction with close contact to the site. The Company integrates resources, realizing the process of quality management system, systematization of information, and control of process management, as well as the sharing and use of information throughout the whole process.

Case "Future Steel Mill" Improves Quality and Efficiency

Baosteel Silicon Steel Division has built an efficient and intelligent decision-making central system, realizing a high degree of intelligent integration of process production, sales and R&D. Relying on the decision-making system, the Silicon Steel Division has built a network-based emerging management model of "1 decision-making center + N smart factories". Technicians monitor more than 20 key production indicators in the on-site control room of the production line, and there are more than 40 sets of intelligent robots on site to complete production operations. To date, this smart factory has achieved an annual output of 100,000 tons of high-end silicon steel, and eliminated digital barriers to R&D, manufacturing, logistics, and marketing across the board.



Baosteel actively promotes the implementation of the industrial brain strategy, constantly overcomes technical difficulties and builds an industrial brain. We rely on the big data platform, practice AI application scenarios, continue to increase the ecology of data value mining and data analysis applications, realizing the full-cycle digital coverage of R&D, procurement, production and marketing.

R&D

Digitalized material R&D

- Taking the digitalization of Process-Structure-Property (PSP) as the main line of technology development, and based on data construction and data interconnection, it will enhance the soft power of new product R&D and provide impetus for Baosteel to lead the R&D technology innovation.

Procurement

Continue to promote “smart procurement”

- Fully promote the procurement digital management platform, realize "one-click contract generation, one-order procurement execution, one set of data throughout the whole process of quality and one-click business settlement", improve the digital management and control of resources in the whole process of multi-base procurement, and create a full ecological early warning of raw material procurement system.

Production

Continue to build smart production lines, and fully upgrade "smart manufacturing"

- The prototype of "Smart Brain" has been fully completed, realizing automatic division of labor among bases and automatic scheduling of cold rolling processes; exploring the whole-process quality management characterized by "prediction", "prediction" and "prejudgment" to achieve unified release standards, Unified design specifications.
- The intelligent production line of the hot rolling plant in Baoshan Base has been fully put into operation, and the "1+N" fully automated production line characterized by integrated automation, intensification and digitalization. Only one centralized control center was set up in the production line to replace the original seven operation stations, and the labor efficiency was increased by 47%.

Marketing

Digital marketing

- The digital platform empowers Baosteel's digital marketing, and creates a multi-dimensional product data file that integrates product manufacturing, data flow in all links of the supply chain, and user order/use information. The digital marketing platform is guided by user needs, expands service scenarios, empowers two-way data, and improves product quality and production stability.

"Intelligent" Baosteel builds a new benchmark for the comprehensive digital transformation of the iron and steel industry in all aspects. Intelligent equipment, unmanned operations, automated production lines, testing and unmanned warehouses were implemented to achieve ultra-high labor efficiency. Baosteel has about 800 sets of industrial robots. During the reporting period, 64 sets were added in line, reaching 197 sets per 10,000 people, maintaining a leading level in the steel industry.

Baosteel has about

800 sets of industrial robots

Case Automated steelmaking built a new model for the industry

During the reporting period, Baosteel’s Baoshan Base successively completed hot metal pretreatment 6#KR (hot metal pretreatment), 3#LF (ladle treatment furnace), TPC (mixed iron car), 7#, 8#EAF (electric arc furnace) five system integrations of temperature measurement, carbon determination, oxygen determination, sampling and capping operations system, soft and hard plus development and offline function assessment. They had been launched for function assessment as well as trial production demonstration application. Among which, the 6#KR temperature measurement and sampling robot for the TPC capping of the mixed-rail car and the molten iron pretreatment is the first set of applications in the industry. In addition, Baosteel's independent R&D of steel coil printing, labeling, handling and other operating robots is accelerating the multi-base transplantation and promotion.

Green R&D

"Practicing green and low-carbon, leading the future of steel" is the core driving force of Baosteel's sustainable development. Baosteel actively implements the technology leadership strategy, aiming at "stuck neck" key core technologies. We accelerate the R&D and application of low-carbon metallurgical technology, and developing the Innovative, forward-looking, and breakthrough technology projects. Furthermore, the Company actively implements the green and low-carbon development strategy to build a global scrap-free steel plant. We fully promote the action of meeting the process energy consumption standard, deploy a zero-carbon steel demonstration line, fully implement the carbon reduction action plan, and lead the green and low-carbon transformation of the steel industry.

During the reporting period, Baosteel's R&D investment rate was 3.16%, the sales rate of new products was 14.05%, and the proportion of unique new trial products was 32.11%; the number of patent applications was 1,292, of which the proportion of invention patents was 96.05%. The direct additional benefit of scientific research was RMB 2.817 billion. In the critical core technology research, breakthroughs have been made in SA387 steel plate for the national major scientific and technological project Xiapu fast reactor, new heat-resistant notch oriented silicon steel, hydrogen-rich carbon cycle blast furnace, etc. In addition, Baosteel selected a total of 80 projects at the 25th National Invention Exhibition, including 18 gold awards, 24 silver awards, and 22 bronze awards, achieving excellent results with an award rate of 80%. The number of gold awards and the winning rate is the highest level in history.

R&D Management

The construction of the scientific research project management platform of Baosteel takes "data + service" as the core, integrates the dual-middle platform structure around "business + data". We achieve hierarchical management of business, realize digital empowerment of a new technology management system (BeS system), and connect Technology R&D upstream and downstream businesses. Coordinated with external R&D forces, we create an efficient R&D ecosystem service that integrates industry and finance and support the Company's management requirements for unified R&D and multi-base operations, and continuously improve the full-process dynamic monitoring and data penetration of related businesses in the technology innovation management system. We strive to stay transparent with our operations, and centralize management and control. The BeS system helps Baosteel realize the whole life cycle management of scientific research projects, the full upgrading of scientific research management, intellectual property management, promotion and transplantation management and on-site improvement activities, while driving the Company's innovative atmosphere.

R&D Management
- R&D Project Management
- R&D External Collaboration Management
- R&D Zero Solid Management
- Project Finance Management
- New Product Management
- Government Project Management

Intellectual Property Management
- Technical Knowledge Management
- Patent Management
- Achievement Management
- Software Copyright
- Trademark Management
- Standard Management

Promotion and Transfer Management
- Technical promotion
- Technical trade
- Technical procurement
- Technical integrated project management

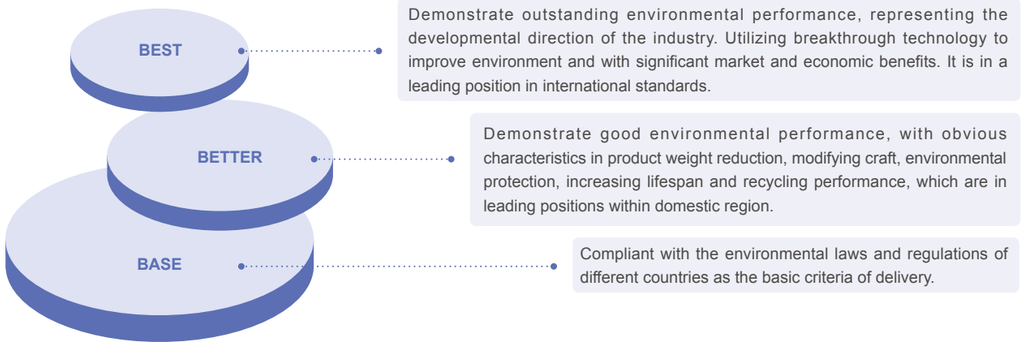
On-site Improvement Activity
- TRationalized suggestion management
- Self-management
- Six Sigma Management

Case **Baosteel Technology Management System**

The reconstruction of the Company's technology management system was officially launched. The business streamlining of 33 application service scenarios and 525 data sheets for technology and intellectual property was completed. A total of 7 business intermediary platforms, such as the technology project service center, were formed; and 8 systems with data center as core, such as new product value analysis models, were also formed. With these, we met the requirements of business hierarchical management, data intelligent application, and multi-base operations management, and realizes the process management and resource management of R&D projects.

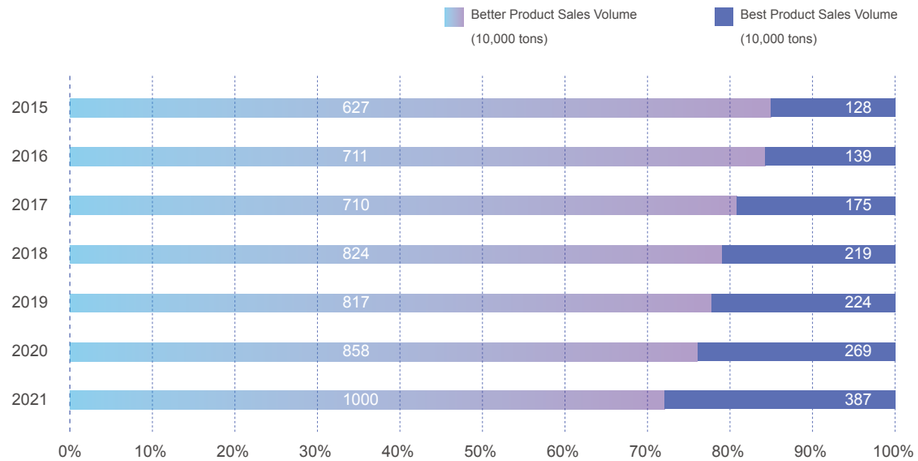
Green Products

Baosteel is committed to the planning goal of "building an upgraded green factory with high-quality steel manufacturing as the core, and building a model urban steel factory based on urban ecological harmony". We take the new energy industry as a breakthrough to create a green industrial era. Baosteel has clearly defined green products in the "Detailed Rules for the Definition and Classification of Green Products of Carbon Steel Sheets". The environmental performance index (BEPI index) is used to evaluate the environmental performance of steel products, and green products are divided into three grades: BASE, BETTER and BEST.



Steel is the core raw material of manufacturing products. Baosteel has scaled up its R&D efforts, and successfully developed green products suitable for the automobile industry, power transmission and distribution industry, home appliance and electronics industry, metal packaging and container industry, energy and transportation industry, engineering and machinery industry, and in the building envelope industry and shipping industries, leading the global low-carbon process in an all-round manner. In recent years, Baosteel's green products continue to increase day by day, reflecting "green is the foundation of Baosteel's high-quality development".

Better and Best Green Products Sales Volume



Baosteel adheres to the concept of green development in product R&D design, actively explores low-carbon solutions, leading the industry. Baosteel has cooperated with the upstream and downstream industry chains of automobiles to create a model of lightweight carbon reduction projects and help the entire industry chain to achieve carbon neutrality as soon as possible.

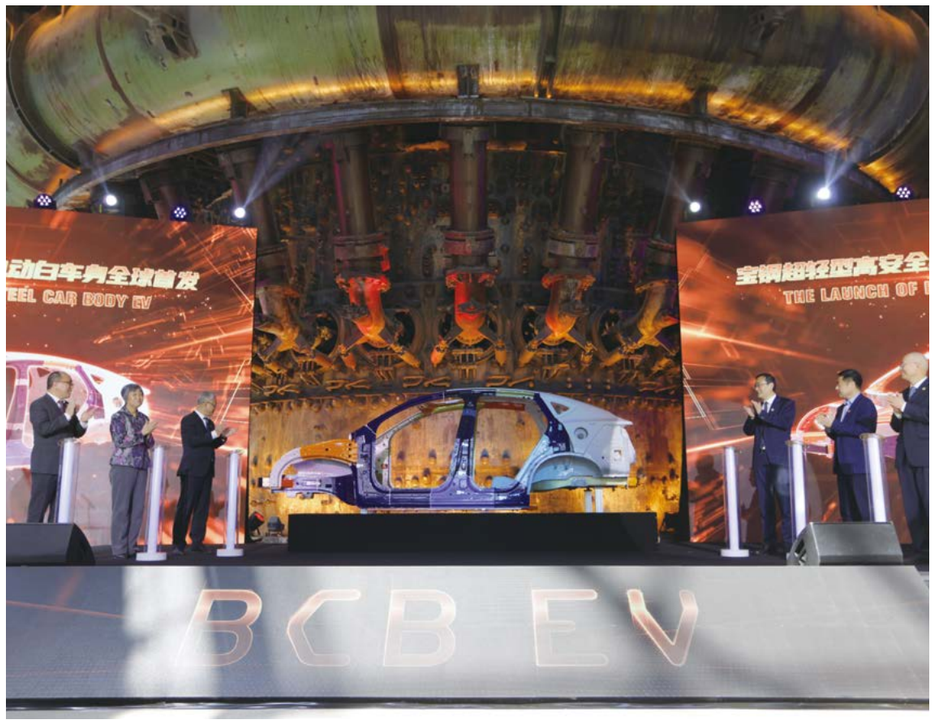
Case **Baosteel special vehicle overall solution**

At the 17th China Special Purpose Vehicle Exhibition, Baosteel proposed the overall solution for Baosteel's special purpose vehicles, and introduced many new lightweight materials. Baosteel's overall solution for special vehicles combines the characteristics of industry product diversification and individualization, and uses advanced materials, processes and structures in a targeted manner to launch "green and low-carbon" overall solutions, such as warehouse grid trucks, mixer trucks, and dump trucks to help industrial upgrading. We injected new ideas into the transformation of special vehicles from high-speed growth to high-quality development. Taking a certain model as an example, using Baosteel's special vehicle lightweight overall solution, the key structural parts (girder, cold-formed parts, bottom plate) can be reduced by 26%. We expect to reduce carbon dioxide emission by 65 tons / car for 400,000 kilometers in 2 years.

As the world's largest automotive sheet supplier and adhering to the user-oriented concept, we are committed to building Baosteel's automotive sheet into the TOP1 brand of global automotive sheet, and consolidating Baosteel's position as the leader in the overall solution of automotive sheet for new energy vehicles.

Case **" Baosteel Car Body Electric Vehicle"**

Baosteel has developed an ultra-light pure electric high-safety body-in-white "BCB EV", blending innovative design, leading materials, advanced technology and excellent performance of safety, light weight and comfort to demonstrate Baosteel's key solutions for global electric vehicles program.

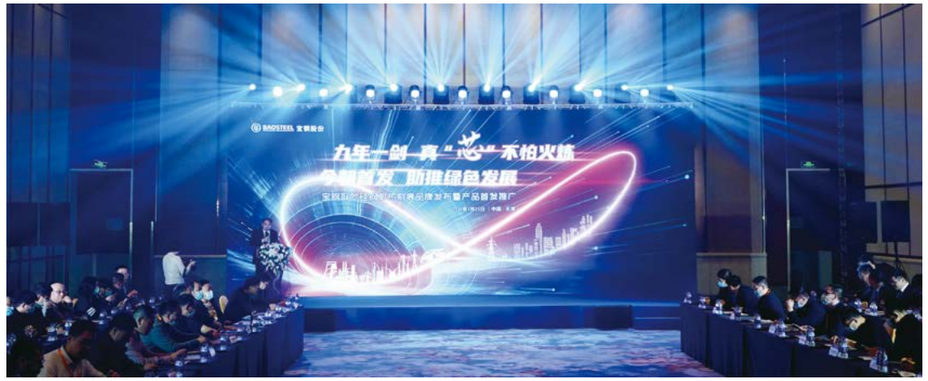


Weathering products: Weathering products are often used in containers, railway carriages, municipal construction and other fields. In developing high weather resistance products, Baosteel is committed to improving the strength of steel while ensuring the same weather resistance level, further realizing energy saving and emission reduction.

Case

High quality, heat-resistant "core"

On March 25th, 2021, Baosteel grain-oriented silicon steel brand release and product launch ceremony was held. Heat-resistant notch-oriented silicon steel is an ideal material for new-type wound-iron core energy-saving transformers. The successful industrialization of Baosteel has formed the intergenerational advantage of China's heat-resistant scoring products. High-grade grain-oriented silicon steel is one of Baosteel's core strategic green products, and is widely used in the manufacturing of various types of transformers. Using Baosteel's high-grade grain-oriented silicon steel to manufacture high-efficiency transformers can greatly reduce power transmission and distribution network loss. Baosteel's new heat-resistant notch products manufacture new-level energy-efficient transformers to replace China's current distribution network, which can save 87 billion Kwh of electricity every year, equivalent to reducing carbon dioxide emissions by 86.7 million tons.

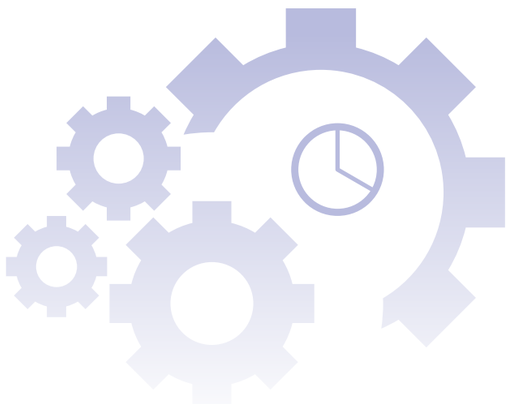


Baosteel is actively transforming from a traditional steel supplier to a material supplier under the change of new energy. It has established 7 material solution centers which focused on more than 20 fields, dedicated to the R&D of high-strength and lightweight products, boosting downstream user's product lifespan to be improved and materials to be reduced. We carry out green manufacturing and realize supply chain value sharing.

Product life cycle assessment

Life cycle assessment (LCA) is a "cradle to grave" environmental management and analysis method and tool. It is the main method for international recognition of green and low-carbon products, and has gradually become one of the conditions for judging market access. After nearly 20 years of development, Baosteel has gradually developed from the establishment of a green evaluation methodology and standard system based on the whole life cycle, the development of evaluation and application models, to dozens of industrial applications in the entire upstream and downstream industry chains, and to the level of product ecological design. A complete set of application systems has been developed to provide systematic methods and demonstrations for the green development of the steel industry.

In recent years, to help realize the vision and goal of “becoming a global leader in the steel industry”, Baosteel has actively participated in relevant work of the World Iron and Steel Association, as well as various conferences and activities organized by the association. We used the exchange platform created by the association to strengthen its relationship and communication with international counterparts. We also actively participated in project research and achievement sharing in various professional fields of the association and learnt international advanced concepts in the fields of smart manufacturing, low-carbon and sustainable development. Global wisdom and international expert capabilities were used to solve problems that plague the development of corporates themselves.



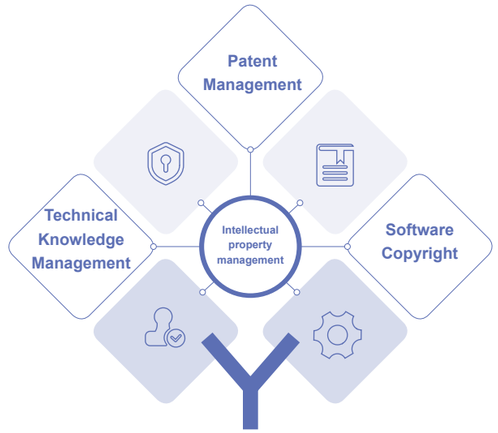
Case

Dr. Liu Yinghao of Baosteel elected as the new chairman of LCA Expert Committee

World Steel Association is one of the largest and most active industry associations in the world. Its members are located in major steel producing countries across the world, covering steel production enterprises, national and regional steel industry associations and steel research institutions. Its member crude steel production accounts for 85% of global crude steel production. The World Steel Association LCA Expert Committee was established in the early 1990s. It is composed of LCA experts from major steel companies around the world. It is responsible for leading global steel companies to use the LCA method to study the environmental sustainability of steel products, and to measure the impact of product life cycles on society and the economy, as well as to maintain the competitiveness of steel. Dr. Liu Yinghao is the head of the LCA team of Baosteel. He has joined the LCA Expert Committee of the World Steel Association since 2004. In November 2021, Dr. Liu was elected as the chairman of the new LCA Expert Committee. This is the first time that a Chinese "Iron Man" has been elected as the chairman of the new LCA Expert Committee of the World Steel Association.

Intellectual Property

The intellectual property management system of Baosteel is composed of modules including patents, technical secrets and software copyrights. All declarations, evaluations, and audits are carried out online. It has achieved full coverage of all manufacturing units in Baosteel, and has played an important role in improving the efficiency of R&D management, standardizing R&D process management, accumulating scientific and technological innovation knowledge, and enhancing the atmosphere of scientific and technological innovation. During the reporting period, the Company carried out a series of partial optimization and improvement work for each module of the system reconstruction work according to the needs, added the trademark management module, and continued to improve the intellectual property management system.



Intellectual property management

Baosteel plans and implements intellectual property-themed activities and a series of trainings to continuously improve employees' ability to use intellectual property rights and protection awareness. They are designed for R&D personnel, technical experts and technical core personnel with the goal of continuously improving employees' intellectual property application ability and protection awareness. The Dongshan Base planned and implemented the "Baosteel R&D Personnel Intellectual Property and Information Retrieval Qualifications Training", which effectively supported the talent training of the base. We also supported the Group's green apple training activities, and carried out special training on "Patent Application and Writing Guidance" for young scientific and technological workers. The intellectual property operations management team of Baosteel is committed to providing accurate, efficient and professional intellectual property services for the development of Baosteel. It has been widely recognized in the industry for its successful practice over the years. Baosteel won the "2020 China Outstanding Enterprise" issued by "China Intellectual Property Magazine" Intellectual Property Management Team", and the 2021 "Intellectual Property Excellent Brand" issued by the Metallurgical Industry Information Standards Research Institute.

R&D Incentive

"Reform and innovation" is in the genes of every Baosteel employee. The Company actively implements mass economic and technological innovation. We provide opportunities and a good environment to stimulate employee potential to the greatest extent and create value together with them. Baosteel has created a great atmosphere for technological innovation, helped employees to achieve technological breakthroughs, and lead the high-quality development of the steel industry. We continue to roll out employee innovation incentives, including regular incentives and medium and long-term incentives:

Regular rewards

including R&D rewards and continuous improvement rewards

Medium- and long-term incentives

Implement medium and long-term incentives for technical personnel's innovative contributions, including contribution accumulation funds and profit sharing plans.

Quality Service

While striving to create high-quality products, Baosteel is also devoted to become a leader in service quality in the industry. We have established a complete customer relationship management mechanism, fully understanding customer needs. We also grasp any customer feedback on products and services, continuously improve product and service quality, and integrate superior resources to better deliver value to customers.

Service System

Baosteel implements a "three-level service system" oriented by customer needs, and continuously improves the customer relationship management mechanism. Baosteel has built a customer cognition management system to improve customer information management, optimize customer value analysis, and enhance customer classification management. We continue to improve the customer value plan, escort the service plan, and formulate more detailed service planning plans from quality assurance, supply assurance, service assurance (technology, logistics, channels), price and credit. We attach great importance to the management of customer satisfaction and the evaluation of customer value solutions as well as digital management platform to deepen the cognition of customers. We aim to continuously improve customer experience, and practice “customer-centered" and "market-oriented" service strategy.

Baosteel effectively categorizes customers according to their value, and continues to provide value services. For different types of customers, we formulate corresponding customer maintenance strategies.

Case Core value customer maintenance

Core value customers are in line with the Company's strategic development direction. Their industry development direction is highly dependent on the Company, and they contribute significantly to the Company's profits, production and sales. Targeting core value customers, Baosteel has designed a responsibility system for the general representative (manager level) of key customers, and established a key customer service team to provide individualized and packaged overall solutions including products, services, and supply based on customer needs.

Three-level service system

Baosteel has built a technical service organization structure integrating management, execution and support to achieve optimal allocation of service resources and improve service efficiency. The systematic design of hierarchical support, with mutual division of labor and coordination, brings customers an efficient, professional and personalized service experience.

On the one hand, we take technical solutions and supply chain solutions as carriers to provide customers with high-value products and services they need; on the other hand, we accurately identify user needs, carry out technical cooperation and development, undertake industry technology "think tanks", and provide application technical support. Furthermore, on-site technical services are provided for customers and we serve users in real time, while responding quickly to user needs, and providing timely technical solutions for users.

In 2021, Baosteel's domestic customer satisfaction rate was 92.8, continuing to demonstrate the outstanding performance in the industry. There were about 1,000 respondents completing the satisfaction survey, which covers key customers in all industries, and all Baosteel products were involved.

Early Vendor Involvement (EVI) Concept

The concept of early vendor involvement (EVI) sets the cornerstone for Baosteel's implementation of the user-oriented strategy, enriching culture with thinking and guiding innovation with culture. Baosteel fully participated in the value creation activities of the supply chain in the early stage of manufacturing, provided technical solutions for users, continuously improved the competitiveness and applicability of products, and made products develop in the direction of high strength, light weight, high corrosion resistance and environmental protection.

The EVI concept of Baosteel helps the industry realize "green manufacturing and green manufacturing". The EVI concept focuses on the application and expansion of the actual life cycle evaluation method in the ecological design of steel products, builds shared value, reduces communication costs, and mainly promotes the green development of the industry.

Customer demand management

Baosteel constantly improves the customer demand response mechanism, actively discovers opportunities for market expansion, product and service improvement from product certification, unavailability of inquiries, customer demand and complaint feedback, visits and exchanges and on-site service activities, and transmits customer information in an orderly manner. We seek internal continuous improvement to meet customer requirements. To better enhance the competitiveness of Baosteel's products and promote the realization of the Company's business objectives, it is necessary to implement user authentication. User authentication is conducive to further optimizing product structure and expanding differentiated competitive advantages. Especially in the current market situation where the supply of steel products exceeds demand and the homogenization competition is serious, carrying out user certification can further set technical thresholds and increase user stickiness. It is an important guarantee to achieve the Company's business goals. We focus on the "order conversion" and "one-time sample delivery pass rate" of user authentication, taking into account the matching of product scale and product profitability.

Active user service

Baosteel created the pre-position of user demand identification, and established the digital management process and mechanism of demand identification. We sort out a user material list, standard manufacturable capacity list, high-risk product list, and product line division rules. We have also established a user tree and product tree at the sales end, opening and sharing information to channel companies, marketing centers, and manufacturing bases.

Customer complaint handling

Committed to developing customized products, Baosteel adheres to the principle of providing customers with high-value products and high-quality services. We have established customer objection handling procedures and standards to guarantee customer production needs, solve customer problems, and continuously strengthen our understanding towards customer needs. Facing customers, Baosteel has established a complete three-level service system, integrating processing and distribution centers, channel companies, marketing centers, and manufacturing R&D units. Relying on the integrated marketing management platform of iBaosteel IMC (Intergrated Marketing Center), we have realized closed-loop management of the whole process of complaint collection, identification, transformation and disposal, rapid response to customer needs externally, and improvement of manufacturing and R&D capabilities internally.

Baosteel has set up iBaosteel IMC digital platform to manage customer complaints. Customer complaints will be directly dispatched by the system to the zero-distant service team. Handling customer complaints with ensuring customer production as the primary principle, we implemented standardized management for each complaint from the whole process of reporting, acceptance, investigation, claim settlement to improvement, aiming to implement claims in the fastest time. Customer complaint information is provided by the IMC business center, which simultaneously shares with the manufacturing base, analyzes the causes of production and outflow, formulates improvement measures, prevents similar customer complaints, and continuously improves products and services.

Client activities

Baosteel shares industry-leading manufacturing experience, such as new products, new technologies, industry dynamics and quality improvement experience, through product promotion conferences, new product launches and other activities. These strengthen customer communication, and promote mutual development across the industry.

The 4th Oriented Silicon Steel Application Technology Conference

Responsible Marketing

In terms of marketing, we strictly abide by laws and regulations including the Consumer Rights Protection Law of the People's Republic of China and the Advertising Law of the People's Republic of China. We build a professional team that understands users better than users themselves, and know the scene inside out. Baosteel continues to focus on basic work, such as improving systems and standardizing business processes, to ensure compliance and eliminate all forms of false/exaggerated publicity. In the process of signing steel product sales contracts, product promotion, brand promotion and other business processes, we strictly abide by different regulations and systems to prevent unfair competition. During the reporting period, the Company carried out sustainable procurement training for all procurement personnel, and there was no lawsuit in the area of responsible marketing.

03 Combating climate change

- Corporate Strategy
- Risk and Opportunity Identification
- Management Structure
- Corresponding Measures

At present, addressing climate change is an important issue for the human society, and the realization of carbon neutrality for the society at large has become the future development trend. Baosteel actively responded to the national goals of "carbon peak" and "carbon neutrality", guided by green development, realized the green, low-carbon and harmless steel production process with low-carbon metallurgy and smart manufacturing. We realized the use of green and low carbonization steel products, and made positive contributions to building a carbon neutral society. In 2021, the Global Environmental Information Reporting Platform (CDP), an international non-profit environmental organization, rated Baosteel as B in terms of climate change in 2021.

CDP DISCLOSURE INSIGHT ACTION B

Baosteel aims to promote the global metallurgical industry to establish a new development concept of innovation, coordination, greenness, openness and sharing. We garner strong synergy for the sustainable development of the global metallurgical ecosystem, seize the rare opportunity of the new round of scientific and technological revolution, and actively respond to global climate governance. The inaugural meeting of the Global Low-Carbon Metallurgy Innovation Alliance and the 2021 (1st) Global Low-Carbon Metallurgy Innovation Forum hosted by China Baowu was held from 18 to 19 November 2021. We collaborated with 62 alliance units of metallurgical counterparts, upstream and downstream industry chains, and R&D institutions in 15 countries around the world to build a shared exchange platform, exploring green and low-carbon transformation technology paths, gathering wisdom to build a bright future.

Corporate Strategy

Baosteel actively undertakes social responsibilities. We pledge to achieve carbon neutrality ahead of schedule by 2050, achieve carbon peak by 2023, and reduce carbon emissions by 30% in 2035. The Company adjusts and updates relevant planning every three years, and the 2022-2027 green and low-carbon plan has been compiled, to ensure the carbon reduction goal can be achieved in 2035.

Combined with the "Dual carbon" target plan, it is clear that reducing energy efficiency is the fundamental path for carbon reduction. Baosteel actively participates in carbon market transactions. Baoshan, Dongshan and Qingshan bases participate in the local pilot carbon market. Based on actual emission reduction carbon gap, we perform the contract in a timely manner through CCER purchase, agreement transfer, listing transaction and auction.

Management Structure

Baosteel actively responds to the national-level "Dual carbon" target and the emission reduction target of the Paris Agreement. The Company has established and continuously improved its carbon management system. During the reporting period, the Strategy, Risk and ESG Committee was established under the Board of Directors to review major climate-related goals, investment plans, and monitor the achievement of performance goals. We made it clear that the achievement of climate change goals would be linked to management's remuneration performance. In addition, we have established a carbon neutrality work promotion system, and established a carbon neutrality promotion committee and a carbon neutrality office under the Strategy, Risk and ESG Committee, which are responsible for the specific promotion of carbon emission reduction, carbon neutrality best practice promotion and carbon data, carbon asset management and other work.

Strategy, Risk and ESG Committee

Carbon Neutrality Promotion Committee

- Review Baosteel's carbon emission reduction, carbon neutrality development overall goals and development plans, and study all major issues in the process of making decisions about carbon neutrality;
- Review and determine the key construction investment projects and R&D projects of Baosteel for carbon emission reduction and carbon neutrality development;
- Review and approve the annual promotion work plan for carbon emission reduction and carbon neutrality development;
- Review and study the development trend and key technologies of carbon emission reduction and carbon neutrality innovation technologies, and clarify key R&D directions;
- Check the progress of carbon neutrality promotion and supervise the implementation of tasks;
- Coordinate internal and external resources of the Company to support the promotion of carbon neutrality;
- Other matters need to be coordinated and considered by the Carbon Neutrality Promotion Committee.

Carbon Neutraulity Office

- Research and implementation of carbon emission reduction and carbon neutrality policies
- Strategic management of carbon emission reduction and carbon neutrality development
- Carbon neutral innovation project promotion management
- Overall management of carbon assets
- Carbon neutrality management system management
- Carbon Neutrality Exchange Cooperative Management

Framework of Risk Governance Addressing Climate Change

Risk and Opportunity Identification

Climate change risks can bring direct or indirect impact to a corporate's operations and finances. According to the operations of each base, Baosteel evaluates the risks and opportunities brought about by climate change from multiple dimensions, such as current laws, emerging regulations, technology, and markets, and systematically identifies the risks and opportunities that may cause substantial economic or strategic damage to the Company's business. There are 4 types of climate-related risks.

climate-related risks

4 types

Risk Type		Risk indicator	Financial or Strategic Impact
Transitional risk	Current regulations	Carbon pricing mechanism	In the future, with the rising carbon price and the shortage of allowances, the cost of carbon compliance will continue to increase; The company has implemented a number of carbon reduction measures and the corresponding investment and operating costs have increased.
	Technology	Transition to low-emission technologies	The Company needs to invest a substantial amount of money in the R&D of low-carbon metallurgical technology, and R&D costs are rising.
	Market	Changing consumer behavior	The market demand for traditional steel products has gradually shifted to the demand for low-carbon steel, and the Company has not followed up on the demand for low-carbon steel in automobiles and home appliances, resulting in a decrease in market share.
Physical risk	Typhoon	Increased severity and frequency of extreme weather events such as cyclones and floods	The Company's two bases are located along the sea. During a year, the bases are hit by a typhoon one or two times, leading to a pause in certain production lines to ensure the safety of production facilities and thus a reduction in revenue.

Climate change risk identification

Climate change promotes the transformation of social and economic growth patterns, and brings corresponding opportunities for sustainable development of enterprises. Baosteel analyzed internal and external conditions, combined with the strategic layout of the enterprise, and identified the following opportunities:

Resource Efficiency

- Investing in low-carbon emission reduction technologies can reduce energy costs while ensuring production capacity.

Products and Services

- Through R&D and innovation, such as coated products and other green products, to meet customers' needs for low-carbon products and services.
- Opportunities for new energy development using steel. The Company actively develops steel for wind power and high-grade non-oriented steel for new energy electric vehicles.

Energy Source

- By generally increasing the proportion of green power procurement , it helps reduce the Company's carbon emissions and the cost of carbon compliance.

Identifying Climate Change Opportunities

Corresponding Measures

While identifying risks and seizing opportunities, Baosteel took multiple rasonable measures to effectively reduce risks. The Company actively pursues ultimate energy efficiency by establishing the Company's best energy-saving and low-carbon technology library and promoting its application in various production bases. Photovoltaic power generation on the roof of the plant was developed. We actively participate in green power transactions in the power market to increase the green power use ratio. We carry out research and develop two low-carbon metallurgical routes of circulating blast furnace and hydrogen-based shaft furnace to accelerate the pace of transformation. We explore the research of multi-point scrap steel addition in the traditional blast furnace-converter process, increase the use of recycled steel, and establish a steel production-use-recycling circular economy. We enhance employee understanding of low-carbon development through numerous training sessions to cultivate their awareness of low-carbon development. We actively work with multiple organizations to improve low-carbon craftsmanship and technology innovation, while jointly formulating energy efficiency improvement action plans.

During the reporting period, Baosteel complied with the ISO 14064-1:2018 standard. According to the scope of operations control, inspect the manufacturing bases (Baoshan, Qingshan, Meishan and Dongshan), independent rolling mills purchased in major steel raw material markets, steel shearing processing distribution centers and trade distribution service providers, with the verification of Standard Technology Service Co., Ltd. (SGS), the Company's GHG emissions are as follows:

Baosteel Greenhouse Gas Emissions:

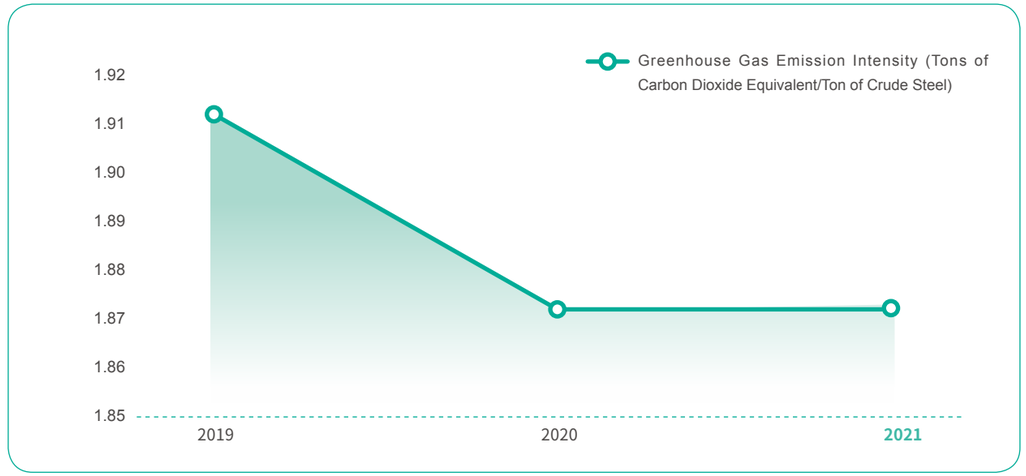
Indicator	Unit	2020	2021
Total Greenhouse Gas Emissions (Category 1 + Category 2)	10,000 tons of carbon dioxide equivalent	8,993.7	9,080.5
Direct Greenhouse Gas Emissions (Category 1)	10,000 tons of carbon dioxide equivalent	8,591.7	8,698.0
Indirect Greenhouse Gas Emissions (Category 2)	10,000 tons of carbon dioxide equivalent	402.0	382.4
Greenhouse Gas Emission Intensity (Category 1 + Category 2)	tons of carbon dioxide equivalent/ton of crude steel	1.898	1.897

The greenhouse gas emission data of Baosteel's Four Bases are as follows:

Indicator	Unit	2019[2]	2020	2021
Total Greenhouse Gas Emissions (Category 1+Category 2)	10,000 tons of carbon dioxide equivalent	9,262.1	8,860.6	8,954.2
Direct Greenhouse Gas Emissions (Category 1)	10,000 tons of carbon dioxide equivalent	8,862.9	8,533.1	8,645.6
Indirect Greenhouse Gas Emissions (category 2)	10,000 tons of carbon dioxide equivalent	399.2	327.5	308.6
Greenhouse Gas Emission Intensity (Category 1+Category 2)	tons of carbon dioxide equivalent/ton of crude steel	1.910	1.870	1.870

[2] The 2019 GHG emissions data disclosed in the 2021 Sustainability Report is based on the "Methodology for Accounting and Reporting of Greenhouse Gas Emissions from Steel Producers in China (Trial)". This has been amended in accordance with the ISO 14064 standard.

Trend of Greenhouse Gas Emission Intensity in Recent Three Years



During the reporting period, In 2020 and 2021, Baosteel's transportation, products and services used, and supply chain indirect greenhouse gas emissions (excluding category 2) generated by investment companies are sorted as follows:

Category	Greenhouse Gas Emissions	Unit	2020	2021
3.1	Transportation of purchased goods and services	10,000 tons of carbon dioxide equivalent	336.07	380.00
3.2	Employee commute	10,000 tons of carbon dioxide equivalent	2.73	2.73
3.4	Product shipping	10,000 tons of carbon dioxide equivalent	1,257.75	1,108.76
3.5	Business travel	10,000 tons of carbon dioxide equivalent	0.74	0.91
4.1	Emissions from procured goods and services (manufacturing related)	10,000 tons of carbon dioxide equivalent	2,809.46	2,979.20
4.2	Capital goods	10,000 tons of carbon dioxide equivalent	23.74	22.33
4.3	Waste disposal	10,000 tons of carbon dioxide equivalent	17.62	19.53
5.4	Invested company	10,000 tons of carbon dioxide equivalent	72.30	- *
Total		10,000 tons of carbon dioxide equivalent	4,520.41	4,513.45

* Emissions from share investment = equity ratio × turnover × investment emission intensity by industry. The turnover in 2021 had not been disclosed during the reporting period.

Energy Management

In 2021, under the stricter "Dual carbon" policy system, our production and operations faces multiple environmental challenges. Baosteel continues to strengthen the construction of energy management system and improve the efficiency of energy management. The Company applies the BACT (Best Available Control Technology) in the industry in a comprehensive and whole-process, and uses advanced new technologies to continuously reduce the energy consumption in the steel production process. Furthermore, the Company carried out the docking of BACT energy-saving and low-carbon technology in four bases, and improved the energy-saving and low-carbon technology database. During the reporting period, Baosteel continued to promote energy management, and achieved the goals of safe and stable economic operations of the company's energy system, overall control of environmental risks, continuous improvement of energy conservation and emission reduction performance indicators, and orderly advancement of various key tasks.

Optimize power generation structure

- Continue to promote the optimization of the power generation structure, and effectively reduce the amount of purchased energy by completing the transformation of the power supply and distribution system and adjusting the safe operations load of the power generation in the plant.

Reduce process energy consumption

- Actively carry out the energy consumption benchmarking of internal and external processes of the four bases, improve the efficiency of production energy use, reduce the energy consumption of main processes, and promote the implementation of the latest BACT application in the industry.

Control fuel usage

- Actively carry out cross-provincial alternative transactions of green power to increase the proportion of clean energy power in the company;
- Improve the quality requirements of fuel raw materials, use purchased natural gas instead of fuel, and reduce the use of High-carbon fuels in the production process.

Planning and operations control

- Meticulously plan and arrange the operation, maintenance and decommissioning work of the generator sets in the plant to ensure that the Company fulfills the requirements of “dual control” of energy consumption.

Smart Energy Management

- Start the construction of a smart energy management information system, build an energy domain, implement refined energy management, and steadily promote the implementation of basic management of energy and environmental protection.

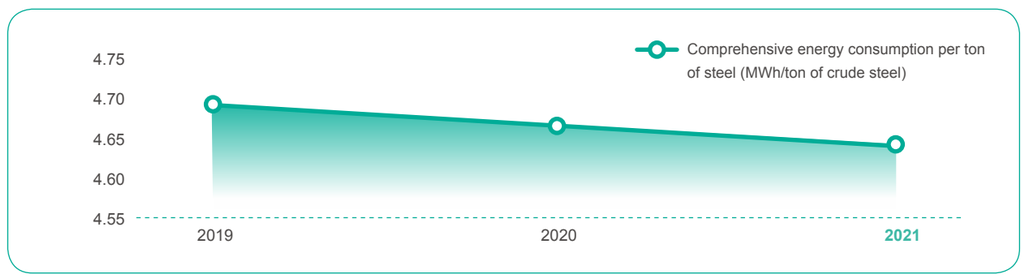
Energy management measures

The main factories of Baosteel have passed ISO 50001 energy management system certification, and the overall certification ratio is 80%, and the effectiveness of the system has been ensured through regular system audits and benchmarking to identify differences. During the reporting period, Baosteel carried out third-party external audits, regular internal audits and special audits of the energy management system, looked for common problems and individual problems in various departments, and put forward improvement suggestions for existing problems, so as to achieve continuous improvement.

During the reporting period, Baosteel's energy consumption is as follows:

Indicator	Unit	2019	2020	2021
Comprehensive energy consumption per ton of steel	MWh/ton crude steel	4.70	4.67	4.62

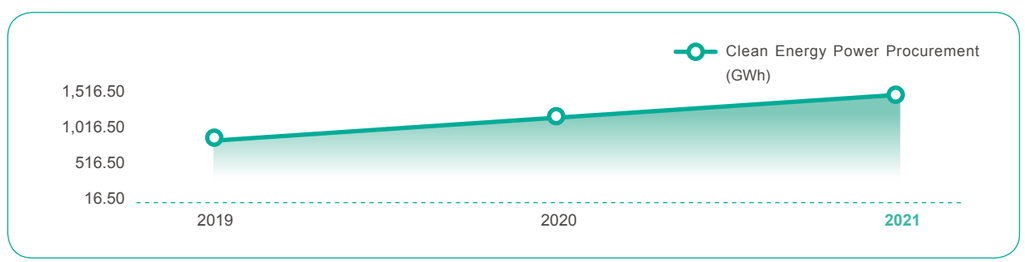
Changing trend of energy consumption per ton of steel in the last three years



Baosteel has increased the development of photovoltaic projects on the roof of its factories, and joined the power trading market to continuously increase the purchase of green power.

Indicator	Unit	2019	2020	2021
Plant rooftop photovoltaic installed capacity	MW	90	97	164
Plant rooftop photovoltaic power generation	MWh	68,013	68,166	73,184
Clean Energy Power Procurement	GWh	851	1,150	1,370

Changing trend of clean energy power purchase in the last three years



Case **The first distributed photovoltaic power generation project of Dongshan base successfully connected to the grid for power generation**

Baosteel implements the new development concept, aiming to achieve high-quality development through extreme efficiency, extreme cost, extreme quality and extreme environmental protection. In addition to sctively exploring green metallurgical construction of hydrogen-based shaft furnaces, the Company's Dongshan base also actively deploys clean energy such as photovoltaic power generation.

On 15 December, 2021, the photovoltaic power generation (Phase I) project with an installed capacity of 48.2MW in the Dongshan base of Baosteel was successfully connected to the grid. The average annual power generation of the project is 47.55 million kWh, which is equivalent to saving 15,700 tons of standard coal and reducing carbon dioxide emissions by 46,900 tons per year.

The average annual power generation of the project is **47.55** million kWh

reducing carbon dioxide emissions by **46,900** tons per year

Low carbon metallurgy

Baosteel has formulated the main technical route of carbon neutral metallurgy, which mainly covers six aspects: ultimate efficiency, hydrogen-rich carbon cycle blast furnace, hydrogen-based shaft furnace, near-net-shape manufacturing, metallurgical resource recycling, and carbon recovery and utilization. Also, the Company has formulated the technology emission reduction potential and deployment schedule based on the evaluation of various technologies, and clarified the implementation path of carbon neutrality.

Ultimate efficiency

Focus on the innovation and application of waste energy resource utilization, improving interface energy efficiency, and realizing the improvement of energy efficiency in the whole process.

Hydrogen-rich carbon cycle blast furnace

With hydrogen-rich carbon cycle as the main technical means, the chemical energy of carbon is used to the maximum extent to reduce the ratio of reducing agent in the blast furnace. Green electric heating, green raw material and green technical measures are added to achieve a substantial carbon reduction in the blast furnace process.

Hydrogen based shaft furnace

Use clean energy to produce hydrogen, develop a hydrogen-based shaft furnace direct reduction ironmaking process, and achieve a near-zero carbon emission steel smelting process.

Near Net Shape Manufacturing

Near-net-shape manufacturing is an effective way to realize endless rolling and reduce the energy consumption of repeated heating and repeated forming. The two processes of solidification and forming can be rigidly connected to form a continuous casting and rolling production line, leading to shorter production line length, simpler production process, higher efficiency, lower energy consumption and emissions.

Metallurgical resource recycling

Making full use of iron and carbon solid waste, iron and steel recycling materials and organic biomass resources can reduce the consumption of new resources. This also reduces the harm to the environment and society, and effectively reduces the dependence of ironmaking on fossil energy.

Carbon recovery and utilization

It constructs full-life-cycle use technologies from C to CO, CO to CO_2 and CO_2 resource utilization, lengthening the carbon value chain and integrating CO_2 solidification with modern metallurgy. It creates a new carbon cycle industry chain with net zero emissions, and form a carbon neutrality metallurgical ecosystem to achieve sustainable green development of the steel industry.

Main technical routes of carbon neutral metallurgy

Case

Construction off Baosteel's first full-hydrogen green and zero-carbon demonstration production line kicked off

On 15th Feb 2022, Construction of Dongshan base Zero-Carbon Demonstration Plant's million-ton hydrogen-based shaft furnace project kicked off. This project is the first one million-ton hydrogen-based shaft furnace in China, and also the first direct reduction production line integrating hydrogen and coke oven gas for industrial production. The project is expected to be completed by the end of 2023. After launching, the project can reduce carbon dioxide emissions by more than 500,000 tons per year compared with the same-scale molten iron production of the traditional full-process blast furnace ironmaking process.

Carbon asset management

Carbon assets are an emerging asset type under the carbon market mechanism. Strengthening carbon asset management will help improve the management efficiency of enterprises and effectively achieve corporate carbon neutrality. During the reporting period, Baosteel improved the company's carbon asset management capabilities from three aspects.

Build a digital platform

Start the construction of the company's carbon asset management and product carbon footprint digital system project, and build the company's unified carbon asset management and transaction data platform to meet the Company's needs for the uniformity, online benchmarking, and refined management of carbon data for each base and unit.

Carbon Accounting and Management

We completed annual carbon emission reporting and verification and emission monitoring plan formulation according to the requirements of local governments in China. We also made carbon asset management plans, optimized and improved the financial accounting process of CCER purchase, transfer by agreement, listing transaction, auction, etc., to reduce compliance cost.

Develop forestry carbon sinks

Cooperate with external stakeholders to develop forestry carbon sinks, and absorb and store carbon dioxide in the atmosphere through measures such as afforestation and vegetation restoration.

Carbon Asset Management Measures

Case

Baosteel and Pu'er signed a strategic cooperation framework agreement on forestry carbon sink development

Scientific management of forests can effectively increase the amount of carbon dioxide absorbed by trees. On 8 November, 2021, Baosteel and Pu'er signed a strategic cooperation framework agreement on forestry carbon sink development to jointly develop forestry carbon sink projects. Pu'er has superior geographical conditions and unique advantages in forest resources. In addition, Baosteel implements the concept of green development and proposes the goal of "achieving carbon peak in 2023 and carbon neutrality in 2050". Both parties will give full play to their respective advantages and make every effort to promote green and low-carbon transformation and development.

Internal and External Communications

Achieving carbon neutrality requires the joint efforts of all employees. Baosteel actively carries out internal carbon management training. We promote low-carbon implementation and guide employees to achieve a low-carbon lifestyle. The company has held a series of special training sessions, such as "Carbon Management Focused Training", "Challenges and Opportunities of the Steel Industry in Reaching Carbon Peak and Carbon Neutrality", and "Interpretation and Application of Carbon Emission ISO 14064 Standard". We aim to enhance employees' understanding of the importance and major tasks of "Dual Carbon" situation, strategy and work. Also, we fully and systematically deployed "Dual Carbon" training and promotion with the help of "Baosteel Straight Train", "Publicity materials". To this end, we compiled and published promotional posts of "Baosteel Achieving Carbon Peak Neutrality Blueprint", as well as popular science posts and comic posts, such as "Green Low-Carbon Knowledge" and "Biodiversity Mini Classroom". We focus on "Baosteel BeCOREs™" to support the promotion of "carbon peak", "carbon neutrality" and our signature green products, actively spreading the concept of green and low-carbon development while guiding employees to lead a green, low-carbon lifestyle.

During the reporting period, all units of the Company participated in eight carbon-themed trainings, and 100% of the low-carbon environmental protection training covered all company's employees.

Case

Baosteel carbon emission management system special training

At the beginning of 2021, Baosteel's Carbon Neutrality Office organized and planned a special seminar on carbon emission management system to understand relevant knowledge and management requirements, such as carbon emission and product carbon footprint, to support the Company to build a carbon emission management system. The Company rolled out carbon emission yearly budget, accounting, emission reduction, certification, carbon trading, product carbon footprint and other specific work in an orderly manner.

Case **Carbon peak and carbon trading training series in the iron and steel industry**

In March 2021, Baosteel participated in the "Carbon Peak and Carbon Trading Training Series in the Iron and Steel Industry" led by China Iron and Steel Association and undertaken by China Iron and Steel Research Institute. It was led by external experts and analyzes the new situation and requirements of the steel industry in the context of carbon neutrality from various aspects, such as policies, emission reduction technologies, and carbon verification operations. The objective was to strengthen employees' understanding of domestic and foreign carbon policies and trading markets.

Case **Committed to Carbon Neutrality: Challenges and Opportunities Faced by Baosteel**

On 8 September, 2021, the Baoshan Base carried out on-site teaching of " Achieving Carbon Peak, Carbon Neutrality - Baowu Group's Challenges and Responses". Trainees visited Baosteel's white car body made by X-GPa, the fourth smart factory of silicon steel, and unmanned warehouse. They also listened to the introduction of Baosteel's "Dual Carbon" strategy by Baosteel Central Research Institute on site. They gained a comprehensive understanding of Baosteel's exploration and efforts in promoting " Dual Carbon" from various perspectives, including product development, smart manufacturing and customer services.. Through training, we promoted Baosteel's green development concept and changed the students' negative understanding of the steel industry.

In addition to internal publicity training, Baosteel also actively participated in industry construction, reached low-carbon consensus with industry partners, and jointly explored green and low-carbon transformation opportunities. During the reporting period, Baosteel actively participated in industry communication and promoted green and low-carbon metallurgical technology exchanges. We also evaluated technological innovation progress, promoted engineering and industrialization of low-carbon technologies, forming a low-carbon value innovation chain of steel and promoting low-carbon transformation of the steel industry.

Case **Environmental Product Declaration (EPD) Platform Construction**

The Environmental Product Declaration (EPD) system is the most widely used Type III environmental declaration in the world. It carries transparent and comparable environmental information documents throughout the product life cycle, widely recognized worldwide. Baosteel and Ouyeel Cloud Commercial Co., Ltd. jointly supported the China Iron and Steel Association to build an EPD platform with third-party credibility, making up for the EPD registration gap of China's iron and steel.

According to the Baowu Group plan, in 2022, the steel mills under China Baowu will select key steel varieties to register and certify on the EPD platform. Meanwhile, Baowu Group will revise "the green development index" evaluation indicator system, add carbon-related indicators, and strengthen weight of carbon indicators.

After the EPD platform construction and "the green development index" plan are revised and improved, they will be launched simultaneously in 2022. The two systems will be combined and support each other for the construction and promotion of the EPD platform.

04 Environment and Ecology

- Environmental Management
- Waste Management
- Air Pollution Management
- Water Resources Management
- Biodiversity

For sustainable development, the Company adheres to the protection of the ecological environment. A number of indicators, such as clean water resources, air pollution and waste discharge, and biological population protection, are taken as the main direction of environmental management. To ensure the effective implementation of environmental governance, Baosteel has formulated strict policies and implemented supervision and management with a positive environmental management attitude. Creating a green and harmonious living environment for the society is our goal.

Environmental Management

Adhering to the theme of high-quality and sustainable development, Baosteel continues to advance the work of "three governance and four modernizations" (means ultra-low air pollutions, zero wastewater discharge, no solid waste disposal from the factory, as well as going clean and green, beautifying, and shaping culture) to a new level through active environmental management, and deeply implements the tough battle of pollution prevention and control. It drives the green and low-carbon transformation of the energy structure and the quality of the ecological environment through carbon reduction. Synergistic improvement to achieve the synergistic effect of pollution reduction and carbon reduction. In addition, the Company continuously improves its own environmental management system and "environmental policy" to minimize related risks.

Environmental Management Organizational Framework

The energy and environmental protection management structure of Baosteel is mainly managed by the corporate strategy, risk and ESG committee, consisting of three tiers. The first tier is Baosteel Energy and Environmental Protection Management Committee, which is mainly responsible for the evaluation and decision-making of major energy and environmental protection risks. It is also responsible for reviewing planning, implementation and supervision of urban steel mills, and communicating on the sustainable development strategy of external urban steel mills. The second tier is the Department of Energy and Environmental Protection, which is mainly responsible for the planning and overall planning of the Company's overall and environmental management system. The third tier is the energy and environmental protection department of each base, localized construction, management and monitoring of the energy system and environmental protection system.

In addition, our management policy clearly stipulates that the completed situation of environmental performance goals is linked to management performance remuneration. If a major environmental incident occurs, or a major problem is discovered during the internal inspection process, the relevant responsible unit and responsible manager will determine whether to give the responsible unit a performance veto and the manager’s economic punishment and administrative punishment according to the severity level outcome of the environmental problem.

455

Environmental supervision and inspections were conducted by Baosteel during reporting period

The Green Development index rising to

82

Baosteel Energy and Environmental Protection Management Committee

which is mainly responsible for the evaluation and decision-making of major energy and environmental protection risks. It is also responsible for reviewing planning, implementation and supervision of urban steel mills, and communicating on the sustainable development strategy of external urban steel mills.

⇩

Department of Energy and Environmental Protection

which is mainly responsible for the planning and overall planning of the Company's overall and environmentalmanagement system

⇩

energy and environmental protection department of each base

localized construction, management and monitoring of the energy system and environmental protection system.

Strategy, Risk and ESG Committee ⇨

Energy and Environmental Protection Management Committee (Joint Stock Company)

- Major energy and environmental protection decisions;
- Critical energy and environmental risk assessment and countermeasure approval;
- Urban steel mill planning approval and implementation supervision;
- Communication at the strategic level of sustainable development of external urban steel mills.

⇩

Professional functional management of energy and environmental protection (Department of Energy and Environmental Protection)

- "Three streams and one state" energy management system;
- Unified planning and hierarchical management of environmental protection;
- Overall management

⇩

Energy and environmental protection system of each base (four bases)

- Localization is responsible for energy system construction, energy production and supply, energy-saving technologies, and local carbon emission mechanisms.
- Localized management of environmental protection system construction, environmental events, environmental monitoring, environmental costs, etc.

Environmental Management Strategy

Baosteel published the Outline of Baosteel Urban Steel Plant Overall Planning (2019-2024) and compiled the Green and Low-Carbon Development Plan of Baosteel (2022-2027). The Company adheres to the three dimensions of environment, economy and society in its strategic planning, while paying close attention to green products and the green needs of customers. We also actively seek green development of the industrial chain and low-carbon solutions, and fully implement the requirements for dual control of energy consumption intensity and total volume. In addition, the Company actively undertakes social responsibilities, building an "urban steel mill" that integrates industry and city and is ecologically harmonious.

During the reporting period, Baosteel invested RMB 6.94 billion in environmental protection and RMB 5.22 billion in capitalized projects.

Also, Baosteel actively carried out environmental protection awareness training to promote the implementation of the Company's environmental protection management strategy. During the reporting period, our environmental protection training coverage rate was 100%.

in environmental protection

RMB **6.94** billion

in capitalized projects

RMB **5.22** billion

Environmental Management System

Baosteel effectively fulfills its environmental protection management responsibilities, and strictly abides by the "Environmental Protection Law of the People's Republic of China" and other laws and regulations. The Company conducts scientific management of environmental protection issues involved in the operations process in accordance with the "Environmental Protection Compliance Management Measures" and other systems. We effectively perform environmental protection management responsibilities, and give early warning of relevant environmental risks. We regularly review our environmental management system in accordance with the "Environmental and Environmental Protection Process Management Measures" and "Environmental Protection Performance Evaluation and Environmental Protection Accountability Management Measures". We issued the "Environmental Management System Review Report" to clarify the accountability for environmental accidents and improve environmental responsibility awareness.

During the reporting period, Baosteel conducted a total of 455 environmental supervision and inspections of various types; and no non-compliance problems were found. The green development index reached a new high, rising to 82 points from 77 points in 2020. We were awarded "Environmentally Friendly Enterprise of Clean Production in China's Iron and Steel Industry".

Environmental Management Certification

During the reporting period, all factories of Baosteel have passed the certification of the external environmental management system, and the certification ratio is 100%. In the Company's daily production and operations, we take the relevant regulations of the system as the criterion, integrating with international standards, while optimizing management and improving efficiency.

ISO 14001

the certification ratio is

100%

Environmental Management Goals and Performance

Indicator	Unit	2021 Actual	2021 Target
Total NOx emissions	Tons	25,332	38,038
Total SOx emissions	Tons	9,158	13,669
Total chemical oxygen demand emissions	Tons	795	980
Comprehensive utilization rate of solid waste	%	99.8	99.5
New water consumption per ton of steel	Tons of water/ ton of crude steel	2.62	2.62

Waste Management

In accordance with the target requirement of "not disposing solid waste from the factory", Baosteel has strengthened the management and control of solid and hazardous waste emission reduction at the source. We have increased the production and utilization of solid waste and the commercialization of solid waste from external use. During the reporting period, Baosteel revised and improved the "General Industrial Solid Waste and Hazardous Waste Management Standards" to standardize the transfer and storage record ledgers of general industrial solid waste at each generating point and receiving point. Based on the above, Baosteel mainly carries out waste management work in the following aspects.

Solid waste productization standards

Match the direction of solid waste recycling in accordance with national standards, industry and group standards, and promote the standardization of resource-based products that lack non-related supporting standards.

Implementation of key solid waste projects

Accelerating the construction of key projects such as rotary hearth furnaces, we continue to promote the consumption of electric furnace ash, zinc-containing sludge and other wastes.

Strengthen management of solid and hazardous waste reduction at the source

Through measures such as scientific research on solid waste returning to production, economic operations of rotary hearth furnace, collaborative utilization of chromium-containing waste, and labor competition for "solid and hazardous waste management and control", the goal of comprehensive utilization of solid waste is ensured, and the utilization rate of solid waste returning to production is further improved. The maximum green ecological effect is achieved at the cost price.

Implement standardized management of hazardous waste

We carry out standardized inspections on the site, continue to urge all generating units to do a good job in the compliance of hazardous waste collection and storage, and realize the standardization of the entire process of hazardous waste generation, collection, transportation, storage, transfer, utilization, and disposal, and form standardized operations requirements.

Baosteel actively looks into the use of scrap steel. We explore and optimize torpedo car (TPC) plus scrap steel on techo-interface of BF-BOF route to add scrap steel and reduce the ratio of molten iron in the converter. We also research the technology of adding scrap steel in blast furnace, preheating the scrap steel, heat preservation in smelting process, reducing process loss and other technical means to drive large scrap steel ratio production.

Case R&D of comprehensive utilization technology of iron-containing solid waste resources

Since 2021, Baoshan Base has strengthened the R&D of comprehensive utilization technology of iron-containing solid waste resources generated in the production process. New production lines, such as rotary hearth furnace and steel slag processing center, have been gradually put into operations. This has improved the sorting and recycling of iron-containing solid waste resources. Moreover, we strive to maximize the recycling and utilization of iron-containing solid waste resources in the factory. For the recycling of scrap steel in the factory, the Company strengthens on-site responsibility through metal balance and source output management to avoid resource loss. The Company implemented source classification and recycling of scrap steel in the factory and users use it according to the steel type, so as to improve the utilization value of scrap steel in the factory.

During the reporting period, we realized 100% of the iron-containing resources in the plant are returned to production and recycled. At present, the proportion of scrap steel smelted by converter remains at 18%, and the proportion of scrap steel smelted by electric furnace remains at 60%. Scrap usage rose to 4.2 million tons from 3.85 million tons in 2020.

During the reporting period, the comprehensive utilization rate of solid waste of Baosteel reached 99.8%, the utilization rate of return to production reached 27.67%, and 100% of hazardous waste was disposed of in compliance with regulations, reaching the advanced and historically best level in the industry.

The raw materials and solid waste related indicators of the four bases are as follows:

Indicator	Unit	Data
	Raw Materials Consumption	
iron ore	10,000 Tons	7,357
Outsourced scrap	10,000 Tons	733
Other excipients[3]	10,000 Tons	1,444
	Solid Waste	
Solid Waste	10,000 Tons	3,037.93
Total solid waste generation	10,000 Tons	50.67
Hazardous waste generation	10,000 Tons	50.67
Harmless disposal of hazardous waste	10,000 Tons	2,987.25
General waste generation	10,000 Tons	2,987.43
General waste recycling	10,000 Tons	3.82

[3] Other excipients include dolomite and limestone.

Air Pollution Management

Baosteel actively promotes ultra-low emission transformation to strengthen comprehensive control of air pollutants. The Company promotes ultra-low emission in accordance with the requirements of laws and policies, such as the Law of the People's Republic of China on the Prevention and Control of Air Pollution and the Implementation Plan for the Ultra-low Emission Transformation of the Iron and Steel Industry. During the reporting period, the Company fully supported ultra-low emission transformation, gave preferential policies such as investment in ultra-low emission transformation projects, carried out active promotion, and completed organized and unorganized governance, and clean transportation upgrading and transformation.

Promoting fugitive ultra-low emissions in material handling, processing and storage

On the basis of closing the raw material yard and belt corridor, we promote the transformation of unorganized emission control projects, such as ironmaking, coking coal, and primary treatment of iron and steel slag from the second smelting.

Retrofitting of ultra-low emissions of organised pollutants from exhaust gases

Through the construction of flue gas desulfurization, coke oven gas fine desulfurization and other facilities, the existing dust system will be transformed, and the organized ultra-low emission control will be accelerated.

Advancing clean transportation

Improve the proportion of clean transportation by optimizing logistics routes, increasing the proportion of water transportation, phasing out old vehicles and non-road mobile machinery that do not meet the ultra-low requirements, and updating new energy vehicles.

Ultra-low emission monitoring and evaluation

Entrust external third parties to carry out organized monitoring and evaluation work to achieve precise pollution control, scientific pollution control, and law-based pollution control.

Case Constructed and put into operations the first 4,000-cubic-meter blast furnace hot blast furnace flue gas purification device in China

Blast furnace hot blast stove flue gas purification technology has always been a gap in the domestic steel industry. The Baosteel project team started from scientific research, independently developed and integrated the design of the device system, and successfully constructed and put it into production. The system adopts an integrated calcium-based fixed-bed dry desulfurization process as the technical solution for hot blast furnace flue gas purification, and is equipped with a desulfurization control system. The whole system has a high level of automation of "unattended, regular inspection". Through monitoring, adjustment, handling and troubleshooting of abnormal and accident conditions, it can complete the start/stop control of the desulfurization system and the normal operations of the desulfurization system through the unit PLC operations station in the existing iron-making centralized control center and the desulfurization system control room. This is another important achievement of Baosteel's in-depth promotion of the establishment of A-level enterprises in the steel industry and the implementation of ultra-low emission transformation.

Case **Dongshan base realized ultra-low emission transformation of the whole process**

Dongshan Base devoted itself to ultra-low emission transformation in 2021. Through the evaluation of organized emissions, unorganized emissions, clean transportation and monitoring and monitoring, the problems found in technical transformation, engineering maintenance, management improvement and other aspects will be solved, changed and upgraded.

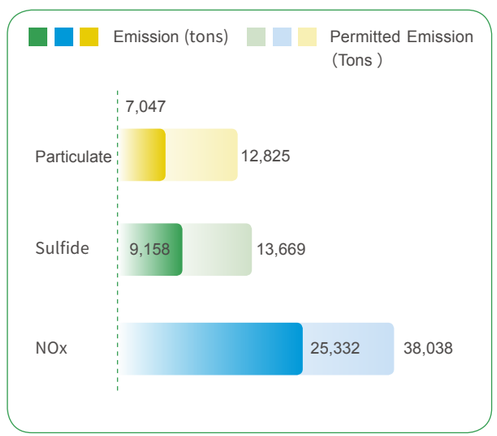
During the reporting period, 12 stock yards and 14 storage yards of Dongshan Base are fully enclosed. The belt corridor with a total length of about 70 kilometers has been closed and transformed and TSP monitoring has been installed. In the raw material yard, environmental protection facilities such as car wash stations, micro-fog dust suppression, and fog cannons are readily available. The site is clean and ash-free, and the environment continues to improve. Dongshan Base also actively promotes clean transportation, with the proportion of clean transportation reaching more than 90%, and ultimately achieving ultra-low emissions throughout the entire process. at the end of 2021, Dongshan Base became the first enterprise in Guangdong to reach Grade A for industrial furnaces and kilns, demonstrating Baosteel's commitment to guarding the blue sky.

During the reporting period, the proportion of clean transportation in the four bases of Baosteel exceeded 80%, and the emission performance of various air pollutants was significantly improved compared with previous years.

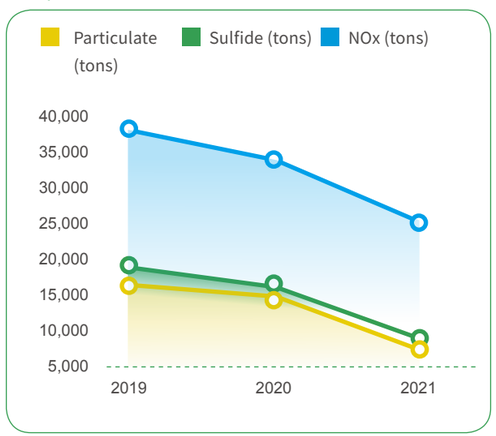
Various air pollutants of the four bases and Huangshi coated plates in 2021

Indicator	Unit	Emission[4]	Permitted Emission
NOx	Tons	25,332	38,038
Sulfide	Tons	9,158	13,669
Particulate	Tons	7,047	12,825

Emission level indicators of major pollutants in exhaust gas



Change trend of main pollutant emissions of air pollutants in recent three years



[4] The air pollution data of the four bases in 2021 was organized emission data.

Water Resources Management

Water environment risk management

Water environment is one of the important resources that may influence the steel industry. Baosteel attaches great importance to water resource management and resource conservation in the entire value. Efforts were made for global water conservation initiatives while achieving the Company's environmental protection goals. We strictly abide by the relevant requirements of the "Administrative Measures for Water Intake Permits", conduct regular water balance tests according to the relevant management measures for water balance testing in the regions where each base is located, and predicts the short-term and medium-term long-term surplus and shortage of water resources through the analysis of water availability and water demand. Spatial and temporal distribution to promote the Company's water resources management and improve water use efficiency.

Baosteel not only guarantees its own production and domestic water, but also provides supplying guarantee for each bases' surrounding municipal water. Baosteel Reservoir is a supporting reservoir for Baoshan production services. The water quality is relatively clear, and various indicators such as chloride ion concentration in the water are excellent. In addition to ensuring the water source for production, it also shoulders the responsibility of avoiding salt and storing fresh water, and assists the Chenhang municipal Reservoir to supply high-quality raw water to the citizens of Shanghai when the salt tide hits the Yangtze River.

Water consumption

Baosteel follows the principle of "multiple use of one water, graded utilization, and cascaded use". We strengthen water conservation at the source and cascade utilization. We improve the internal water circulation system by continuously optimizing the water supply pipe network, and enhance the water metering system. The recycling and utilization of externally discharged wastewater is improved, while careful check on the equipment in various technological processes is carried out to reduce unnecessary losses of water resources. During the reporting period, the water recycling rate of four bases reached 98%, average water recycle use rate reached the best level of 98.3%.

the water recycling rate of four bases reached

98%

average water recycle use rate reached the best level of

98.3%

Refinement Management

Actively promote the construction of the professional control center of the water ecology center, strengthen the process water consumption indicators and the refined management of the water balance of the whole plant.

Unconventional Water Resources Recycling

Based on the geographical environment of each base, carry out unconventional water resource recycling projects such as rainwater recycling and seawater desalination to reduce the consumption of fresh water.

Case **Centralized control data center for the whole process of water system**

Dongshan Base optimized the centralized intelligent management and control platform of water system for the whole plant in 2021. This project gathered 160,000 points of data and 260 cameras originally distributed in more than 40 sets of independent systems in the whole plant into the big data center of the water system through the CISDigital industrial Internet platform. We established an integrated intelligent management and control platform of "operation, control, and management", open up the information flow of each link, efficiently integrated decentralized operations with centralized operations, realizing a meter of water volume and a map of production monitoring in the whole plant. This greatly improved the efficiency of management and control, and effectively reduced fresh water consumption per ton of steel.

Case **Rainwater Recycling Project**

Taking advantage of the local rainy climate, Dongshan Base has built a rainwater collection system. The system includes head pond, west puddle, and rainwater collection tank, which can collect 12 million m³ of rainwater throughout the year, i.e. equivalent to 45.70% of the new water consumption. This increases water saving at the source of the unit and the concentration of circulating water in the whole plant. Through the quality of water supply and cascade utilization, the water consumption per ton of steel in the whole plant reaches 2.4m³. Dongshan base is also the first iron and steel enterprise in China to use a large area of artificial wetlands to purify wastewater.

rainwater throughout the year

12 million m³

i.e. equivalent to

45.70%

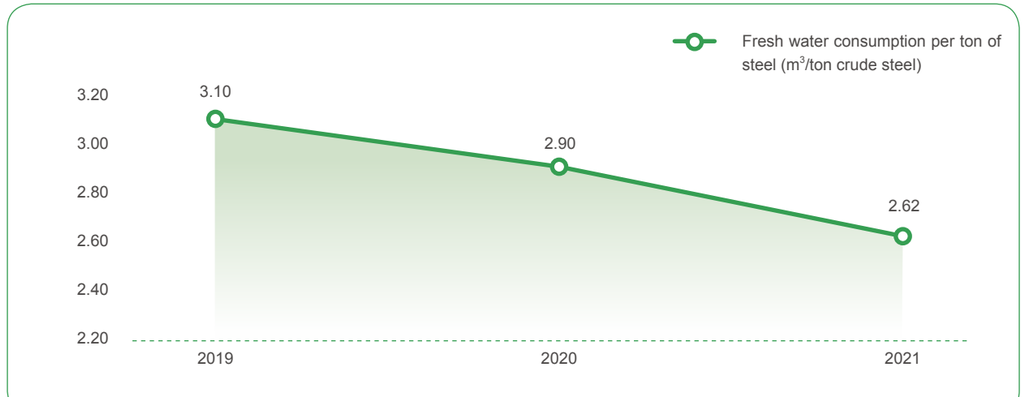
of the new water consumption

During the reporting period, the water resources utilization indicators of Baosteel's four bases are as follows:

Water resource utilization indicators of the four bases

Index	Unit	2019	2020	2021
Annual fresh water consumption	million cubic meters	165	150	125
Fresh water consumption per ton of steel	m^3/ton crude steel	3.10	2.90	2.62
Decrease rate of fresh water consumption per ton of steel	%	3.9	6.0	9.7

Change trend of fresh water consumption per ton of steel in recent three years



Wastewater discharge

Baosteel continues to promote the special campaign of "zero discharge of wastewater". The Company has set up a professional team to conduct unified management of the water treatment systems of Baoshan Base, Qingshan Base, Dongshan Base and Meishan Base. This is to strengthen the management of water resources of the Company. During the reporting period, Baosteel and Baowu Water signed an entrusted management agreement for water treatment business, entrusting the relevant water treatment systems of the four bases to Baowu Water for trusteeship. This helps each base to continuously improve operations and management efficiency, while reducing production, operations and maintenance costs.

System capacity building

Provide all-round support for the operations management and equipment management of each wastewater treatment station, and further improve the level of wastewater treatment in terms of cost, efficiency, quality and value.

Promote standard implementation of zero wastewater discharge

Promote the implementation and trial operations of the planning project of the zero-discharge demonstration zone of wastewater.

Strengthen sewage outlet management

For the investigation of sewage outfalls into the river, cooperate with the investigation, sort out the problems and implement the rectification, so as to fulfill the promise of "the Great Protection of the Yangtze River".

Improve circulating water quality control standards

Organize and carry out the optimization of industrial water quality and the dynamic monitoring test of the water quality of the circulating water system, improve the concentration ratio of the system, reduce the water consumption of the process, and realize the reduction of the wastewater source.

Case **Process route of zero discharge of wastewater version 3.0**

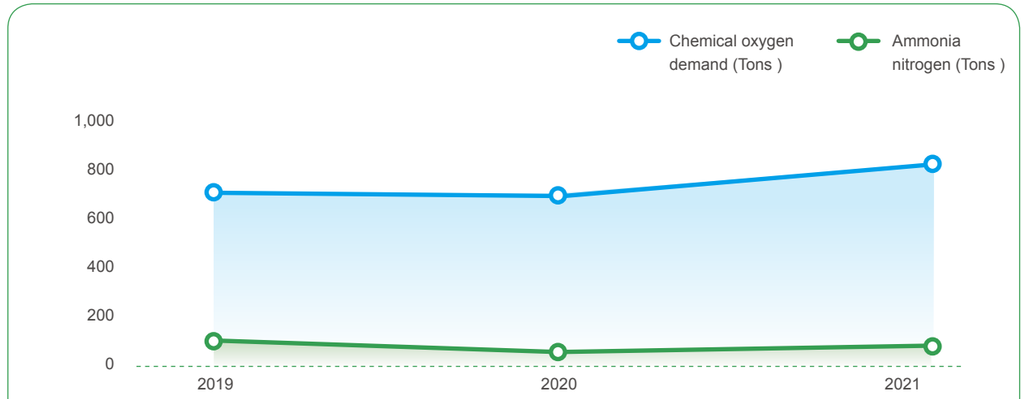
Baosteel has continuously optimized and improved the relevant process routes based on the actual operation experience and difficulties of the two demonstration projects of Baoshan Base and Dongshan Base. In view of this, we have discussed and formed the 3.0 version of China's Baowu Wastewater Zero Discharge Process Route. The new version of the process route optimizes the sodium sulfate crystallization process, and solves the problem of unstable sodium sulfate output that may be caused by fluctuations in sodium sulfate concentration. It also optimizes the activated carbon adsorption regeneration process and equipment selection, and activated carbon selection, improving the stability of the device and the quality of the effluent. The selection of the core equipment has been clarified to ensure that the selected equipment can meet the needs of the whole process. The 3.0 version of the process package of zero discharge of wastewater is formulated, which is conducive to the rapid promotion and replication of the zero discharge process of wastewater. The establishment of modular wastewater zero-discharge process can meet the needs of zero-discharge of different types of wastewater, as well as reduce the investment cost of zero-discharge devices.

During the reporting period, the wastewater discharge and related indicators of Baosteel's four bases and Huangshi coated plates are as follows:

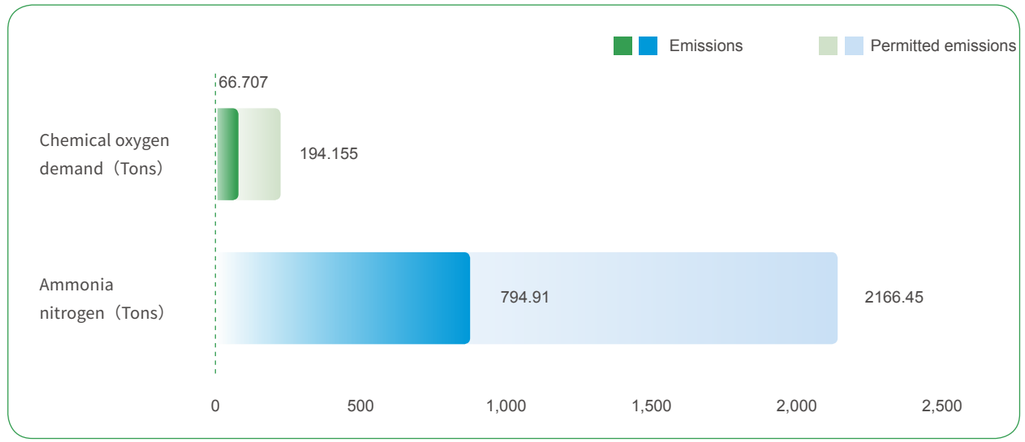
Wastewater discharge and related indicators of the four bases and Huangshi coated plates in 2021

Indicator	Unit	Emission[5]	Permitted Emissions
COD	Tons	794.91	2,166.45
Ammonia nitrogen	Tons	66.707	194.155
Wastewater discharge	million cubic meters	50	/

Changing trend of discharge of major pollutants in wastewater in the past three years



Discharge level indicators of major pollutants in wastewater



[5] The COD and ammonia nitrogen emissions data of the four bases in 2021 are organized emissions data.

Biodiversity

Baosteel fully understands the importance of biodiversity to the company and the industry, and has included it in the Company's Basic Policy for Sustainable Development. The company abides by the relevant laws and regulations of the project location, and conducts biodiversity protection and land use assessments for each node from project design to project operations in accordance with relevant requirements, so as to reduce the impact of production and operation on the ecological environment.

Conduct biodiversity training and practice

We compiled and distributed popular science stickers and comic stickers such as "Biodiversity Classroom" to improve employees' awareness of biodiversity, and organized and participated in biodiversity conservation activities.

Construct a garden factory

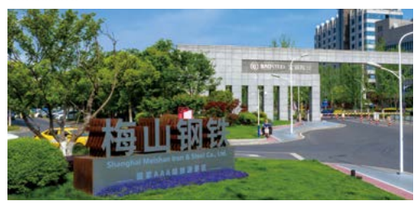
We continued to improve the coverage of green plants in the base, and constantly pursued the balance between industrial elements and natural elements.

Application of steel slag in marine ecosystem

We continued to explore the role of trace elements contained in steel slag in promoting biological growth, and used steel slag to build reefs to provide habitats for marine organisms.

Case Meishan Base Industrial and Cultural Tourism Zone won National AAA-level Tourist Attraction

The Meishan Base aims to be "higher than the standard, stand out from the city, and integrate into the city". It strives to build the factory appearance according to national tourist attraction standard, and establish a new factory history exhibition hall and steel cultural corridor to create a full-process steel craftsmanship experience. The industrial cultural tourism area not only creates an immersive interactive experience scene to introduce the steel culture to tourists, but also enhances the ecological environment of the park through plants and landscapes. The steel mills and the landscape environment bring synergy together, creating a "green" urban steel mill. In 2021, the Meishan Base Industrial and Cultural Tourism Zone was approved as a national 3A-level tourist attraction.



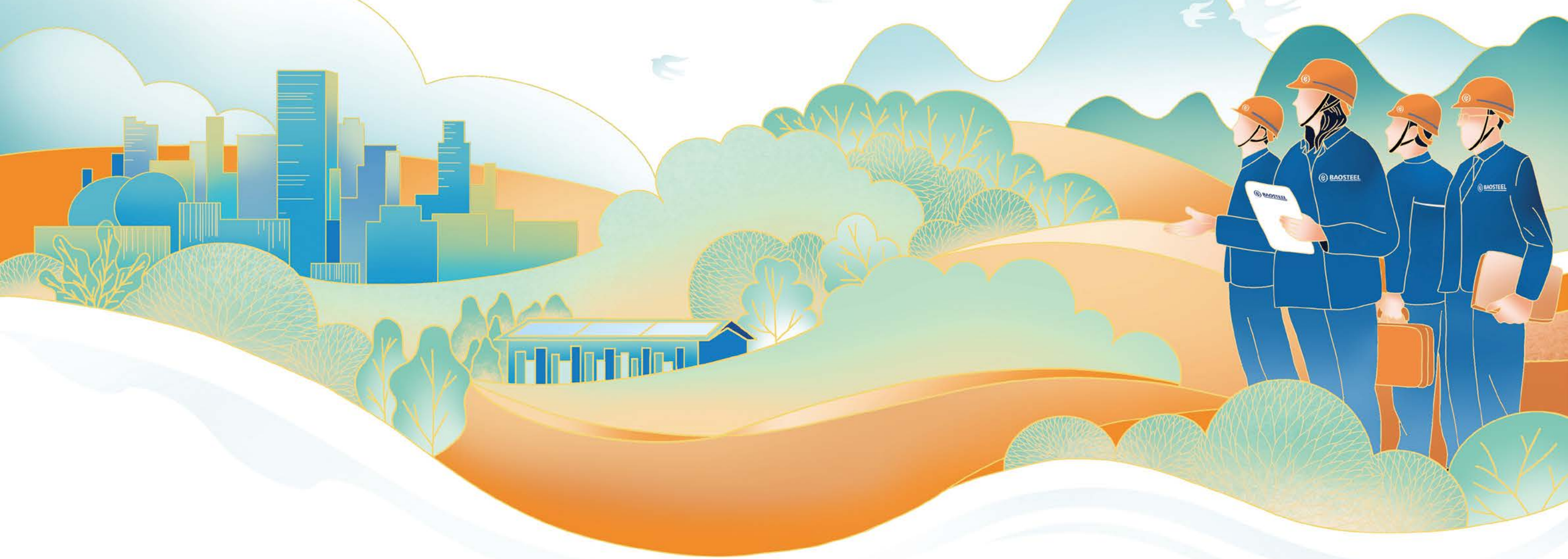
Case Dongshan base carried out proliferation and release environment day activity

Carrying out proliferation and release of fishery resources is an important measure to protect aquatic biodiversity. It plays an active role in the restoration of marine resources and marine ecological restoration. On 5 June 2021, Dongshan Base carried out proliferation and release environment day activity. It arranged an expert group and the notary unit to supervise the whole process of fish and shrimp fry procurement, acceptance, and release to ensure the scientific and effective process of the whole release. This activity not only compensated and increased the number of aquatic organisms in the surrounding waters, restore and improve the population structure of aquatic organisms, but also further increased the awareness of biodiversity protection in the society through activities. It helped strengthen the awareness of respecting, protecting and conforming to nature.

05 Human Resources

- Staff Overview
- Employee Rights
- Remuneration and Benefits
- Talent Development
- Employee Training
- Health and Safety
- Employee Care

Baosteel regards employees as an important asset of the enterprise, and always emphasizes that "a high-quality workforce is a valuable asset for enterprise development". The Company regards "people as treasures" as the core concept of enterprise management. We care for employees, respect their human rights, and earnestly safeguard and protect the legitimate rights and interests of every Baosteel employee in terms of employment, remuneration and benefits, career development, learning and training. We conscientiously implement the work of safeguarding the legitimate rights and interests of employees, and ensure that each employee is provided with opportunities for growth and development, a diverse and flexible training system, a sound health guarantee, and a friendly and harmonious working environment. In a relaxed and pleasant atmosphere, employees can create value for Baosteel while realizing their own value.



Staff Overview

Baosteel respects the legitimate rights and interests of every employee. We have formulated the "Baosteel Code of Conduct" and "Human Rights Basic Policy" based on the Company's own operations. We are committed to eradicating employment discrimination, forced labor, child labor and workplace harassment in the workplace. To ensure that there is no child labor in the workforce, we conduct employee background checks in accordance with relevant policy requirements to eliminate false job-seeking information. The Company adopts a zero-tolerance attitude towards any forms of harassment, and eliminates any behavior or policy rules linked to gender, marital status, physical condition, region, ethnicity or religion during the recruitment, promotion and selection process, ensuring that everyone basic human rights are respected. We embrace a corporate culture of equality for all and are committed to creating a diverse, inclusive work environment.

Baosteel regularly conducts human rights and labor rights training for all employees, and the training coverage rate is 100%. Every two years, according to the requirements of the RBA (Responsible Business Alliance), we conduct special audits on human rights and labor in all the Company's factories in terms of social responsibility. During the reporting period, Baosteel did not receive any reports related to hiring child labor, forced labor, discrimination or harassment.

Indicator	Unit	Number
Number of employees	people	45,405
By gender		
Male employees	%	87.99
Female employees	%	12.01
Proportion of women in senior management positions	%	7.28
By age		
Employees under the age of 30	%	16.15
Employees aged between 30 to 40	%	32.14
Employees aged between 40 to 50	%	33.95
Employees over the age of 50	%	17.76
By nationality		
China	%	99.99
Overseas	%	0.01
Minorities/Vulnerable Groups		
Minority employees (minorities)	%	1.94
Vulnerable employees	%	0.80
Hire		
Number of new employees hired	Px	1,008
Lost		
Number of employees who resigned voluntarily	Px	790
The number of employees who resigned as a percentage of the total number of employees	%	1.74

Employee Rights

Harmony and equality are the cornerstone of Baosteel's labor relations. The Company tracks the relevant labor regulations and policies of operating places and makes adjustments toward internal labour relationship in a timely manner. The "Labor Contract Management Measures" was updated during the reporting period. Furthermore, Baosteel encourages every employee to understand, participate in and supervise the Company's internal and external governance work, so as to promote the Company's progress and transformation. Each new employee will learn about the rights and obligations of the labor union after joining the Company, and can freely choose whether to join the labor union. We also strictly abide by the "Trade Union Law of the People's Republic of China", "Regulations on Collective Contracts" and the laws and regulations where we operate. The labor union signed the "2021-2022 Collective Contract of Baoshan Iron and Steel Co., Ltd." on behalf of the majority of employees and enterprises to effectively protect the rights and interests of employees. During the reporting period, all employees of Baosteel are members of the labor union, and the collective agreement coverage rate is 100%. The employee rights training such as employment risk prevention training has achieved 100% coverage of all employees.

Case **Baosteel employee representative meetings**

Baosteel's Workers' Congress operates in a standardized manner. According to the "Regulations on Democratic Management of Enterprises", "Regulations of Shanghai Workers' Congress", "Shanghai Workers' Congress Work Regulations" and relevant system requirements of China Baowu Workers' Congress, on 5 February, 2021, Baosteel held the fourth employee representative meeting of the fifth session. There were 403 delegates expected to attend the meeting, and 383 delegates actually attended the meeting, which was in line with the quorum. The meeting voted and passed the "Resolution (Draft) of the Fourth Session of the Fifth Workers' Congress of Baoshan Iron & Steel Co., Ltd.".

Case **Strictly regulating the working hours of employees and protecting their rights and interests**

Baosteel stipulates that the daily working hours shall not exceed 8 hours, and the average weekly working hours shall not exceed 40 hours. During the reporting period, the Company gradually implemented the comprehensive calculation of working hours on a monthly basis to strengthen the management of employees' working hours. For other positions and types of work that need to implement a special working hour system due to continuous production, the Company reports to the labor management department for review in strict accordance with legal procedures. They were reviewed and approved by employees in the region where they perform democratic procedures to ensure that employees' rest time throughout the year conforms to national regulations.

Baosteel genuinely listens and reply to the demands from employees. The Company continuously improves the labor union mechanism and builds a bridge for internal communications. The labor union helps Baosteel to bring employees closer to the Company and helps the Company understand the needs of all employees. During the reporting period, we revised and improved the "Administrative Measures for Employee Complaints and Appeals", and established a labor dispute mediation committee to be responsible for employee labor dispute mediation. In addition, each employee can respond to the matter to various functional departments of the Company through the "8088 Complaint Service Hotline", visits, letters and other communication channels, so as to ensure that the employee's complaint channel is unobstructed and the right to democratic communication is not infringed.

Remuneration and Benefits

Baosteel is dedicated to creating a competitive and fair remuneration system. We strictly abide by the laws, regulations and policies of the place where we operate, build a salary management standard system that conforms to the actual situation of Baosteel and an operation mechanism to continuously increase the income of employees. This is to ensure that every employee receives a competitive salary, and employees can get the reward they deserve.Also, it attracts and retains all kinds of talents required for Baosteel's strategic development, and advocates the synchronous and harmonious development of the Company and its employees.

Baosteel adheres to the salary distribution principle of "classified assessment and precise incentives". We provide equal pay for men and women for equal work, advocate that salary distribution is linked to performance evaluation results, and that performance results are strongly correlated with salary levels. We encourage a reasonable widening of the distribution gap, and allow employees and the Company to make progress together. We encourage our employees to give their best efforts at work by constantly revising and improving the mid- and long-term incentive mechanism, including equity incentives for outstanding key employees, profit sharing plans for the transformation of scientific and technological achievements, accumulation fund plans for technological innovation talent, and incentives for value-creating teams.

Baosteel is committed to building a team of employees with high cohesion and a sense of belonging. In order to stimulate employees' enthusiasm for work, we have formulated a more competitive multi-level welfare insurance system. This is to ensure that the quality of life of employees has a competitive advantage in the industry and region. Baosteel strictly abides by relevant laws and regulations. While ensuring the timely and full payment of various social insurance benefits and other national statutory benefits for employees, we also provide employees with welfare policies containing features unique to Baosteel. Additional leave such as paid leave, marriage leave, maternity leave, personal leave, company leave and parental leave are provided. We have optimized the maternity leave and related treatment for female employees in accordance with relevant regulations, extended maternity leave from 30 days to 60 days, and added parental leave to ensure that the legitimate rights and interests of female employees are protected. Moreover, we adhere to the basic principle of respecting women and are committed to reducing the income gap between male and female employees. In addition, in line with the Company's "inclusive + precision" principle, we actively integrate and expand employee self-purchased insurance resources on the basis of existing accident comprehensive insurance, explore employee self-paid group purchase value-added insurance solutions, and provide them with more insurance plan options to meet individual needs. During the reporting period, the Company's social security coverage rate was 100%.

Highlights of Baosteel's Benefits

- **Rent a home**
  - Rental Subsidy
  - Expand the scope of settlement allowance
  - Helping young people settle down
  - Increase probationary remuneration
- **Physical examination and rest**
  - Supplementary physical examination
  - Independent exercise
  - Trial recuperation
  - Special health checkup for female employees
- **Old age security**
  - Increase in annuity contributions
  - Optimize the way of receiving annuity
- **Health protection**
  - Accident comprehensive insurance value-added service
  - Employer Comprehensive Insurance
  - Optimized Accident Comprehensive Insurance
- **Leave**
  - extended maternity leave
  - Newly added maternity leave
  - Newly added company leave

Talent Development

Baosteel adheres to the concept of "talent is the primary productive force". We actively cultivate talent and value building employee capacity. We help employees grow and develop. Committed to escorting the growth and development of employees through various channels, we encourage them to continuously realize their self-worth.

Recruitment

Baosteel adheres to the concept of "talent drives development, development creates talents". Through campus recruitment, social recruitment and other channels, it continuously attracts outstanding talent who resonate with Baosteel's philosophy, and strengthen the construction of talent echelon in core positions. In terms of attracting fresh graduates, the Company has established a cooperation platform with colleges and universities through the "dual system" talent cooperation training mode to carry out targeted talent training. Also, we carry out recruitment activities through online and offline methods, such as "Baosteel Campus Ambassadors", "Walking through C9 Colleges" and "Live Broadcasting", to promote the Company's employer image and improve the attractiveness of school recruitment, aiming to attract more great people to join.

Case **Baoshan University Talent Work Alliance held an exchange event**

Baoshan University Talent Work Alliance held the exchange activity of "Entering Baoshan Key Enterprises - The First Stop of Baosteel" to further implement the ten action plans of Baoshan University Talent Work Alliance, deepening the alliance's understanding of Baoshan, and promote school-enterprise cooperation and exchanges. The university alliance group visited the iron-making blast furnace centralized control center, the hot rolling 1580 production line, the Baosteel historical exhibition hall and so forth, providing an experience of the whole process of intelligent manufacturing at zero distance. The intelligence of the manufacturing enterprises represented by Baosteel in the new era was demonstrated.

Career Development

Baosteel prioritizes the construction of employees' career promotion paths, and is committed to creating diverse, rich career development opportunities for different types of outstanding employees. At Baosteel, the development paths of various occupational categories and ranks are open and transparent. We have three occupational categories: skilled personnel, technical personnel and management personnel. Each occupational category allows employees to set their own career goals based on career development levels and qualification standards. The Company regularly conducts performance appraisals for all employees throughout the year.

On this basis, we facilitate employee career growth through qualification evaluation and coaching. In order to focus on the cultivation of high-quality technical talent, Baosteel provides special development channels for talent with outstanding job performance and skills. During the reporting period, the Company carried out a new round of centralized evaluation and recruitment of chief executives and technical experts, creating a team of more than 300 chiefs and more than 70 skill masters, and further optimized the Company's high-quality technical talent team structure. In addition, in 2021, we started the selection of the first batch of "Baowu Scientists" to encourage outstanding talent to contribute to Baosteel.

Skilled employee career path:

Slills Expert → Chief Operation → Senior Operation → Main Operation → General Operation → Preparation Post

Technical employee career path:

Technical Assistant → Regional Engineer → Engineer → Senior Engineer → Chief Engineer

Management employee career path:

Line Manager → Branch Manager → Deputy of the plant → Director of the plant

Case **The first batch of Baowu scientists licensed**

Baowu Scientist is the highest academic post of China Baowu Group, and plays a significant role in the technological innovation and management innovation of the Group. On 9 August, 2021, the signing ceremony of the first batch of Chinese Baowu scientists was held at the Academia Sinica. According to the Baowu Group's research and release of the "Implementation Opinions on the Selection, Recruitment and Management of Chinese Baowu Scientists (Trial)" in February 2021, it cultivated "over 100 million tons of Baowu" green development talents. This is to achieve technological leadership, provide talent guarantee, and further improve the general technical personnel enthusiasm. The various departments of the Group coordinated the work and carried out relevant end-to-end exploration pilots. The first stage cultivated a total of 17 engineering scientists and 5 management scientists.

Employee Training

Baosteel has built a comprehensive employee training system. We have created a rich, flexible and diversified training course platform to help employees develop their career and exert their full potential. To meet the personal situation and interests of employees and provide more targeted training opportunities, we collect training needs through on-site research and online collection of the HER learning and training module system, formulate training plans, and regularly carry out professional skills, management capabilities, innovation competencies, as well as special training on laws, regulations and industry requirements. In 2021, Baosteel adopted the management training visualization analysis platform to classify and visualize the training situation of the Company's personnel, aiming to realize the online management of the whole process of the Company's training.

Baosteel training plan classification

Main training program

- Corporate culture training
- Job training
- Leadership and management Training
- Management level training
- Technician training
- Professional technical skills training
- Skill appraisal and training on computer language tools and methods

In addition, Baosteel strongly encourage employees to enhance their own abilities. We have formulated the "Administrative Measures for Employees' Sparetime Self-study and Training" to standardize relevant support and reward system, and motivate [??]employees to independently participate in various types of academic qualifications (positions) and vocational qualifications according to their own conditions, job needs and learning level in their spare time.

Case **Professional skills improvement - iron smelters (blast furnace workers) skills competition finals**

Baosteel is committed to improving the innovation ability and skill level of the workforce. We create a highly skilled workforce, and pioneer the training model of "promoting learning through competition and promoting application through learning". In September 2021, Baosteel implemented the blast furnace pre-worker skills competition. At the preliminaries, each participating unit formulated detailed rules and organize the competition according to the work plan of the skills competition and the actual situation of the unit, and select 6- 8 outstanding players participated in the finals. The finals comprises theoretical knowledge and practical assessments. The assessment team of the pre-furnace skills competition will issue questions and focus on the examination according to the competition outline. The four major bases mobilized 519 employees to participate in online training, established more than 2,500 question banks, and organized pre-competition special training for the finalists to achieve the Company's goal of improving the quality of employees' work.

During the reporting period, our training coverage rate reached 100%, the total number of employee training hours was 5.173 million hours, and the average training time for employees was 128.23 hours.

Health and Safety

Baosteel prioritizes the health and safety of employees in its management work. It is our ley responsibility and obligation to create a healthy and safe working environment for employees, and to ensure that the production work is carried out safely under the condition of quality and quantity.

Management structure

Baosteel has set up a safety committee, which is responsible for the unified leadership of the Company's safe production work, research and decision-making on major issues, key tasks and corresponding measures. The safety committee reviews and approves the Company's annual safe production work plan, various safe production inputs, evaluation and other relevant major issues.

The Company has formulated short- and long-term health and safety goals. No major or above production safety accidents have occurred during the reporting period.

Indicator	Unit	2021	2021 Target	Long-term Target
Accident injury frequency	Number of injuries/million hours worked	0.04	0.23	By 2025, the injury frequency of company employees and cooperating employees is less than 0.21
Accident Injury Severity Rate	Lost days/million hours worked	45	198	-

Occupational Health and Safety Management System

Baosteel regards "safety first, zero violations" as the primary concept of safe production, and continuously optimizes and improves the occupational health and safety management system. We strictly implement the laws and regulations of the places where we operate, such as the "Production Safety Law of the People's Republic of China", "The Law of the People's Republic of China on the Prevention and Control of Occupational Diseases" and "Administrative Measures for Emergency Response Plans for Production Safety Accidents". Taking into account the Company's operations, we formulated "Occupational Health Management Procedures", "Management Procedures for Labor Protection Supplies", "Management Procedures for Retirement and Recuperation for Employees in Occupational Disease Hazardous Positions", " Management Procedures for Safety Accident Reports, Investigation and Handling", and "Management Measures for Labor Protection Supervision and Inspection" to strengthen the occupational health and safety for all employees and standardize management measures. In 2021, we built a more complete security information management system, and further improve the function of the hidden risk module, revise the base safety performance evaluation and scoring rules, and provide guidance on the distribution rules of positive safety incentives for each unit. The safety ledger has been streamlined and the identification of hazards has been strengthened.

Baosteel Safe Production Concept

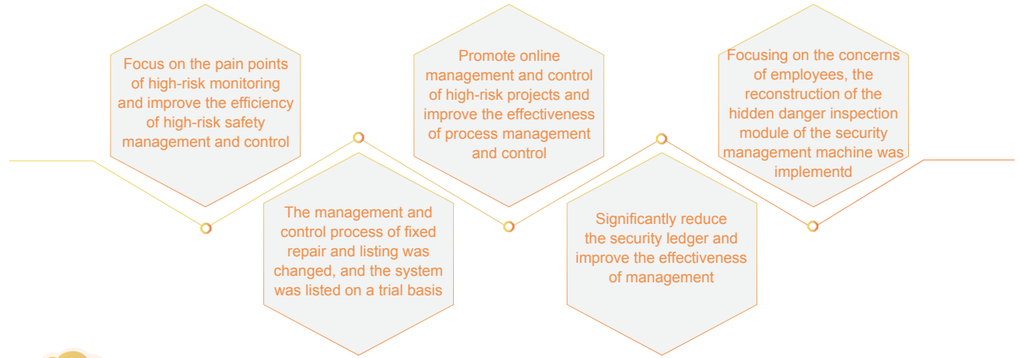
[6]Accident injury frequency = Loss of working hours of the accident / Total working hours * 1,000,000

[7]Accident Injury Severity Rate = Days lost due to injury / Total working hours * 1,000,000

The Company implements the management and control model of "one company with multiple bases". The Environment, Health and Safety (EHS) management system of each base is formulated and improved according to its own situation. To ensure the occupational health of every employee, all operating locations of Baosteel have passed the ISO 45001 occupational health and safety management system, with a certification rate of 100%. We conducted annual internal audits under this system standard to ensure the rights and interests of employees' health and safety.

Baosteel continuously introduces digital and information-based management to its safety construction. From the perspectives of smart security, smart fire protection and smart public security, we have conducted research on the security information management system of each factory in Baoshan Base and the application of on-site smart security. We then formulated the 2022-2027 smart security planning content and specific implementation projects. During the reporting period, the Company's hidden danger entry and closed-loop operations steps were reduced by 38%, and the company-level security ledger was simplified by 84%, which greatly improved the management and control efficiency and improved the management and control level.

Safe production information construction



Case **Digital smart management**

Baosteel continuously promotes the construction of intelligent factories and increases the use of automation, mechanization and intelligent technologies. During the reporting period, the Company fully promoted the "intelligent helmet" technology: popularized and applied in four designated work scenarios: ① gas area inspection cannot be carried out by two people; ② dangerous work carried out by one person cannot be monitored by the side. ③ For the maintenance of the first-level high-risk operations (high places, combined cranes, hanging cages, etc.), it is impossible to ensure that Party A's personnel continue to effectively monitor the operation sites; ④ For technical renovation construction, teams with high frequency of violations or violations of prohibitions, Or when employees carry out work at heights such as scaffolding. Improve work efficiency while increasing safety levels.

The production results of Baosteel require full help from all cooperative units. Our safety work covers all cooperative units. To implement safety management concept of "cooperation safety is equally important", we have established the "Party A Intervention". We integrated leadership, classified guidance and hierarchical management and control" to promote the progress of the "cooperative 3+1" special work.

Case **Actively carrying out sensible leadership to improve the effectiveness of health and safety management**

Baosteel promoted the implementation of "one post with two responsibilities" in 2021. We issued the "Notice on Further Standardizing the Safety Management and Performance of the Leaders of All Units", which requires management personnel to compare the performance list and refine the requirements of the annual personal safety work plan. We actively carried out the "Three Ones" work of safe and sensitive leadership, and continuously improve work efficiency by encouraging managers to dive deeply into the front line to observe on-site work activities, understand shortcomings and make rectification measures.

Furthermore, the Company has implemented the policy of "Sign with accountability". We require managers to check and sign on site to ensuresafety requirements are met. We focus on solving problems, such as non-compliance with approval and issuance, unreasonable high-risk plans, inadequate safety disclosure, and insufficient identification of the sources of hazard. These increase the awareness and ability of management personnel to perform their duties. In the third quarter, the Company further drove the inspection of the policy of "Sign with accountability"; 26 problems were found, while accountability assessment was done for managers who seriously violated the regulations.

During the reporting period, Baosteel entrusted a third-party organization to conduct annual monitoring and evaluation of occupational hazard factors. The detection pass rate was 98.4%, reaching the annual occupational health control index. The Company provided occupational health examinations for employees exposed to occupational hazards, with a coverage rate of 100%. The number of occupational diseases is 0.

Health and Safety Training and Drills

Baosteel attaches importance to improve employee's knowledge and skills on health and safety. To improve employees' emergency response and accident prevention ability, we encourage employees to participate in relevant safety training, competitions and exercises. To strengthen employees' awareness of safety accident prevention, we compiled "The Price of Violation" based on real events, and let employees learn through Baosteel training and group learning. Online training is used to enhance employees' safety awareness and managers' performance of duties, allowing employees to understand the cost, loss and impacts of illegal operations, so as to realize the safety concept of "violating safety ban is an accident".

During the reporting period, our total investment in safe production was RMB 742 million; the number of safety training sessions was 44,324, with a safety training coverage rate of 100%.

Case **Integration of Technology and Training – Steelmaking Simulation System 2.0 & Simulation Training Classroom**

Baosteel applies innovation to all aspects of the Company's development. During the reporting period, we integrated scientific and technological elements for employee safety training. We developed the "Steelmaking Simulation System 2.0" on a pilot basis in the steelmaking plant, and piloted "Simulation Training Classroom" in cold rolling plant. Through the use of simulation and virtual reality (VR) technologies, the two pilots broke through geographical and time constraints, provided employees with training in simulation operations and VR troubleshooting, allowing participants to realistically operate equipment and understand production conditions in a virtual environment. Moreover, these technologies allow multi-base employees to communicate, exchange knowledge and compete on the same platform, and finally achieve quantitative, accurate and standardized evaluation under unified standards, and help employees to be fully aware of the "standardized production and safe operation". It has greatly improved the safety awareness of employees.

Baosteel is committed to optimizing the emergency plan management system to ensure that the Company's safe production is not affected. We regularly organize special promotion meetings for firefighting equipment and facility management, formulate and strictly implement functional testing and testing plans every year, and ensure that functional testing are fully completed throughout the year. Each unit conducts practical exercises of various emergency plans every year according to plan, covering different aspects such as fire protection, flood control and typhoon prevention and pandemic prevention. In addition, Baosteel carries out various safety training and education for the cooperative suppliers of various business lines.

During the reporting period, Baosteel carried out special fire-fighting rectification work, and promoted key fire-fighting areas, facilities as well as fire emergency inspection and drill. We impose clear management requirements, such as carrying out fire protection renovation projects at cold rolling mills. We consistently promote fire safety rectification in the rolling mill area, improving management and control measures in various units, and implementing accountability management system. In addition, we continue to optimize the fire management system. Under controllable conditions, we optimize and adjust the scope of hot work and the approval process to ensure that managers can effectively carry out on-site approval and the measures are effective.

Case **Safety somatic training**

Baosteel strives to improve safety awareness of employees. In view of this, we organized safety somatic training for 1,709 key front-line employees, including new employees, transferred employees, employees at high-risk positions and employees who violated regulations. This was to help them receive behavioral experience closest to the actual situation in mechanical injuries, object strikes, lifting injuries, and falling from heights. We strengthen awareness of safe production and achieve the purpose of standardizing behavior and avoiding risks, continuously improving employee’ s safety awareness.

Employee Care

Baosteel understands that a harmonious and friendly working atmosphere is an important cornerstone to improve cohesion within the Company and the contentment of employees. We are committed to optimizing and promoting employee health care plan, with the goal of protecting physical and mental health of employees while improving their quality of life. Medical assistance for critical illnesses, "Love Student Aid" grants, "Help Needy Fund" subsidies, and activities such as "One-Day Donation" and "Micro Wishes" are carried out to effectively support employees in need. By organizing networking activities, group buying activities, and formulating policies for settlement, we have tackled practical issues, including marriage, dating, and housing among young employees. We provide in-depth, precise caring activities for employees, fully protect physical and mental health of employees, and ensure that the Company can provide timely assistance when employees need help.

We also actively explore new ideas for employee and caring activities. Diversified caring activities are constantly organized, including different training seminars, sports events, cultural and sports activities, whilerelevant assistance is provided to expatriate and overseas employees. Activities such as self-care and blood donation not only stimulate employees to "Treat Baosteel as our Home", but also ensure that they can strike a healthy work-life balance.

Case **Assuring the health of employee families**

Baosteel puts employees in priority, while their family members are also important to the Company. During a family visit of an employee sent to South Korea, we learned that his 8-year-old daughter suffered a broken thigh in an accident. She was covered by plaster from the chest to the feet, and her whole body could not be flexed or stretched. The employee’s wife took days off to take care of their daughter with the help of the employee’s parents in the country. During the recovery period, they encountered a lot of difficulties when calling an ambulance for help, including the insufficient number of ambulances, stretchers, medical staff, and late arrival. Therefore, the family sought assistance and support from the Company.

After understanding the situation, the labor union of Baosteel immediately contacted the emergency center and relevant departments. After liaising with different departments several times, we overcame difficulties, such as the pandemic and cold wave, and developed a green medical treatment channel in just a short period of time. An ambulance was arranged along with medical staff. Also, 2 young volunteers were arranged to provide door-to-door service four times. They set off at 6:00 in the morning to send the family to the hospital, and sending them home after treatment. Later on, the family sent us a gratitud letter, appreciating our timely and warm assistance.

Case **“Rose Blooms" - Baosteel's Women's Day Special Event**

On 5 March, 2021, Baosteel held a press conference for female employees' meritorious service competition and the Baosteel Commendation Conference to commemorate the "8 March" Women's Day. Female employee representatives from different fields and positions of Baosteel shared their growth stories and "one solution". A total of 52 advanced female workers, including the "8 March Red-Banner Pacesetter" were commended at the meeting. Baosteel plans to organize a "rose garden" activity, in which advanced female employees cast their dreams of steel with clanging roses, showing our connotation of "innovation, coordination, greenness, openness, and sharing". This would show our care and inclusiveness for women, which reflects the "rose" spirit of "strong women" in the steel industry.

Rose Garden

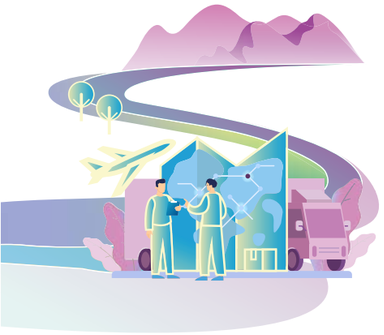
06 Win-win Cooperation

- Responsible Supply
- Strategic Cooperation
- Co-building the industry

Baosteel is committed to integrating the concept of sustainable development into value chain management. We constantly improve social responsibility management level of suppliers. By strengthening cooperation and linkage between upstream and downstream industries, we work with different partners to build a high-quality steel ecosystem.

Responsible Supply

Suppliers are important partners of Baosteel in the operations process. While constantly standardizing basic management process of suppliers, we continue to strengthen ESG management level of supply chain, strengthen mutual trust with each supplier partner, work closely and develop together.



Management Methods

Baosteel's suppliers are mainly divided into two categories: raw material suppliers and spare parts suppliers. We systematically manage supplier entry, auditing, evaluation and other internal rules and regulations in accordance with the "Administrative Measures for Raw Material Suppliers", "Administrative Measures for the Certification of Spare Parts Suppliers", "Administrative Measures for On-site Audit of Suppliers", and "Evaluation Standards for Raw Material Suppliers". In addition, the Company's spare parts procurement business has been entrusted to Ouyeel Industrial Products, a subsidiary of Baowu Group, to undertake full responsibility. Supplier management system was strengthened through "Goods Supplier Review Standards", "Goods Supplier Performance Evaluation Standards" and other systems.

Supplier entry

- According to customer needs, strict screening of new suppliers, and put forward professional management and qualification requirements such as quality, safety, environmental protection (such as ISO 14001, ISO 9001, etc.);
- Implement classified management for different types of suppliers (production type, trade type, logistics service type, etc.), and require specific license documents.

Supplier verification

- Fill out the "Supplier Qualification Review Form" for new suppliers, and submit it to the leader in charge and the procurement center for review before it can take effect;
- For suppliers who have established stable relationships, regularly conduct on-site quality audits by establishing an annual audit plan;
- For the unqualified items raised in the audit, guide the supplier to formulate rectification measures, and track and verify the rectification effect.

Supplier assessment

- User unit evaluation consists of three parts: quantitative performance, purchaser evaluation and user unit evaluation
- Combined with the comprehensive evaluation system (supplier performance, physical quality, price level, contract performance, on-site service, objection handling, user opinions, etc.), give suppliers an annual comprehensive score.

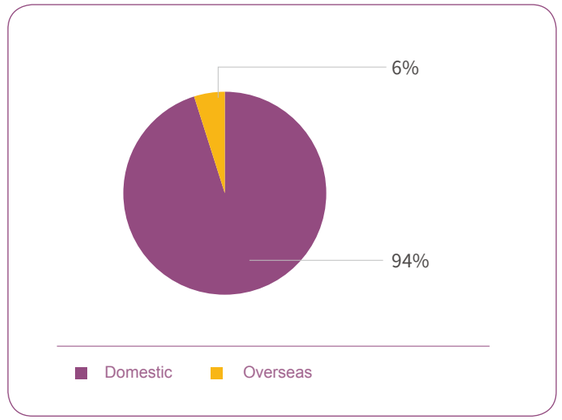
Supplier classification

- Raw material suppliers: suppliers are divided into 5 grades, A, B, C, D, and E. The suppliers below grade D are unqualified suppliers and will be considered suspending cooperation;
- Spare parts suppliers: According to the principle of "industry-leading, excellent performance", suppliers are divided into 7 grades, and suppliers with a total annual evaluation score greater than 85 points can be promoted.

Supplier Management Measures

According to the above management measures, the Company had a total of 3,548 suppliers of raw materials and spare parts during the reporting period. The distribution of suppliers by region is as follows:

Number of Suppliers by Regions



the Company had a total of

3,548 Supplies

Supplier ESG Management

Building a sustainable supply chain is one of the important tasks for companies to fulfill their social responsibilities and achieve long-term goals. We published Baosteel's "Suppliers Code of Business Conduct" and "General Rules of Supplier Human Resources" on the official website, and implemented them in our operations. Suppliers are strictly required to abide by code of conduct in the process of business exchanges, contract performance, after-sales service and other cooperation processes. Working closely with suppliers, we jointly bulid a more prosperous, responsible, and sustainable supply chain system. During the reporting period, 100% of suppliers signed the Supplier Code of Business Conduct, covering environmental, labor and human rights requirements.

In addition, Baosteel has taken the above social responsibility criteria as one of the requirements for supplier entryl and performance evaluation. During the reporting period, by revising and improving procurement policies such as the Management Measures for Raw Material Suppliers and the Performance Evaluation Standards for Goods Suppliers, we included occupational health and safety, conflict mineral management, business ethics, environmental management, and green and low-carbon supply and other ESG performance to the supplier audit and rating system. We required suppliers to operate in compliance and adhere to clean production, jointly creating a harmonious and integrity supply chain with shared responsibility.

During the reporting period, a total of 38.10% of suppliers passed the social responsibility assessment; and no major violations involving labor disputes or environmental violations were found. Baosteel actively conducts special training on ESG audits. We promote ESG sustainable development, the Company's supply chain code of conduct, and ESG concerns in the raw material procurement supply chain (including conflict minerals, environment, labor, human rights and carbon emissions) as well as other related content. During the reporting period, the Company completed ESG special training for all procurement personnel and raw material suppliers.

suppliers signed the Supplier Code of Business Conduct

100%

suppliers passed the social responsibility assessment

38.10%

Supplier ESG Audit Criteria

Regarding on-site audit and evaluation criteria, the Company puts more **importance** on ESG-related issues, such as EHS performance, risk management (including child labor and forced labor), business ethics, and green supply. Serious violations, such as conflict mineral disputes and the use of child labor, are listed as a **one-vote veto system.** Suppliers that violate the regulation will not be cooperated.

Green Supply Chain

Baosteel adheres to the concept of green and low-carbon, and the value of "development and green synchronization". We actively promote and advocate green construction of supply chain, helping our production bases to achieve sustainable development. During the reporting period, the Company formulated and implemented the carbon reduction plan for the supply chain according to the released carbon reduction action plan. In regards to equipment technology and process technology, we work with supply chain partners to explore and develop together.

Green Supply Chain Vision

Supporting Baosteel's steel bases to achieve low-carbon and green transformation, for industrial product procurement:

2023
The procurement link achieves **carbon peak**

2025
30% carbon reduction in the supply chain

2050
achieving a **zero-carbon supply chain**

Supply Chain Carbon Verification

Focus on building a low-carbon management system, strengthen business exchanges with well-known domestic and foreign companies and international standards organizations, improve the low-carbon system module in the procurement system, and conduct basic data surveys on carbon emissions from major suppliers;

Sort out the purchased items, determine the priority of carbon management promotion, and firstly promote the carbon accounting of key and bulk products.

Carbon Grading Management

Realize the online management of carbon data, implement the carbon emission label of all items, fully promote the carbon footprint management of the supply chain, and carry out the carbon classification management of suppliers;

Incorporate green and low-carbon construction into supplier management and evaluation, fully promote supplier entry, on-site audit, annual performance evaluation and other links, revise supplier on-site audit standards, increase green and low-carbon requirements for suppliers, and promote supplier release Annual ESG report.

Carbon Reduction Practices

Carry out in-depth carbon emission reduction activities and promote the ecological operations of industrial product platforms;

Continue to expand the influence of the platform and export services such as supply chain carbon emission information management, low-carbon solutions, and industrial carbon management data.

Supply Chain Green Development Planning

Regarding green procurement, we give priority to green products and green-manufactured products, and established a guidance mechanism for the selection of low-carbon products. We formulate reasonable rules, and encourage suppliers to increase their early-stage development of low-carbon new processes, technologies, equipment, materials, R&D and investment. In addition, we prioritize cooperating with suppliers and subcontractors with good environmental performance. This is to continuously improve the performance of suppliers in environmental management and low-carbon operations, and jointly build a green supply chain. During the reporting period, the green procurement ratio of the Company's materials and spare parts was 26%.

Company's materials and spare parts was

26%

Stable Supply Chain

With the increasingly complex and severe situation of fighting against COVID-19 locally and abroad, we face serious negative impact on stable operations of manufacturing industry chain. Baosteel actively planned and responded proactively, sorted out important materials in production and operations in a comprehensive manner. A supply tracking table of key production materials was formed, and we discussed with suppliers to establish a risk management mechanism. We promoted the normalized "color" management of supply risk of key production materials. During the reporting period, Baosteel did not experience interruptions in the supply of key production materials, and continued to ensure stable output of each product line.

Case Baosteel stabilized hardcore forces of the system and ensure supply amid the pandemic

Baosteel cooperates with industry forces to actively guarantee product supply. We efficiently completed the supply of 100 tons of urgent materials needed within 48 hours, allowing users to experience the real strength of Baosteel's production, sales and research team in efficient coordination during the pandemic. On 13th Augst, BYD Passenger Vehicle Procurement Center sent two gratitude letters to Baosteel, thanking the Western Company and Huazhong Company for staying customer-oriented during the pandemic in August, and for we went deep into the front line of users, focusing on "fast and efficient" and "collaboration". The orderly, comprehensive and professional team abilities ensured the delivery node of materials demanded by BYD in Changsha, and has won unanimous praise from all BYD companies.

urgent materials needed within 48 hours

100 tons

Sunshine Procurement

Baosteel is committed to maintaining a clean, fair, just and open supply chain environment. Through the implementation of "sunshine procurement", corruption, monopoly and other unfair competition behaviors are eliminated. We require suppliers to enter into integrity agreements. Through continuous improvement of adverse event punishment methods, we carry out bidding and procurement in accordance with the law, urging suppliers to stay legal and compliant. During the reporting period, the Company signed integrity agreements with all suppliers.

During the reporting period, the Raw Material Purchasing Center further promoted the development and construction of the Sunshine Purchasing Index System. Through data development and integration, we can intuitively reflect the situation of bright procurement from multiple perspectives and dimensions, build a comprehensive index that organically combines business, management, and supervision, forming a Sunshine procurement risk control mechanism. This is to timely detect and give warn of regulatory risks in procurement business management, building a firewall for a integrity supply chain.

Conflict Minerals Management

Baosteel strictly prohibits mining, trading, processing or export of mineral resources in conflict-affected and high-risk areas. We fully respect the rights and interests of laborers in mining areas, and pay attention to the possible environmental and social impacts. We published the "Statement on Not Purchasing Minerals from Conflict Area" on our website, pledging not to purchase conflict minerals from conflict-affected and high-risk areas, including 3TG (tantalum, tin, tungsten, gold and other metal minerals) and other products. In addition, we have established a responsible mineral team composed of key functional departments, such as the Board Secretary Office, the Operation Reform Department, the Energy and Environment Department, and the Procurement Center, to coordinate the management of the Company's conflict minerals-related matters.

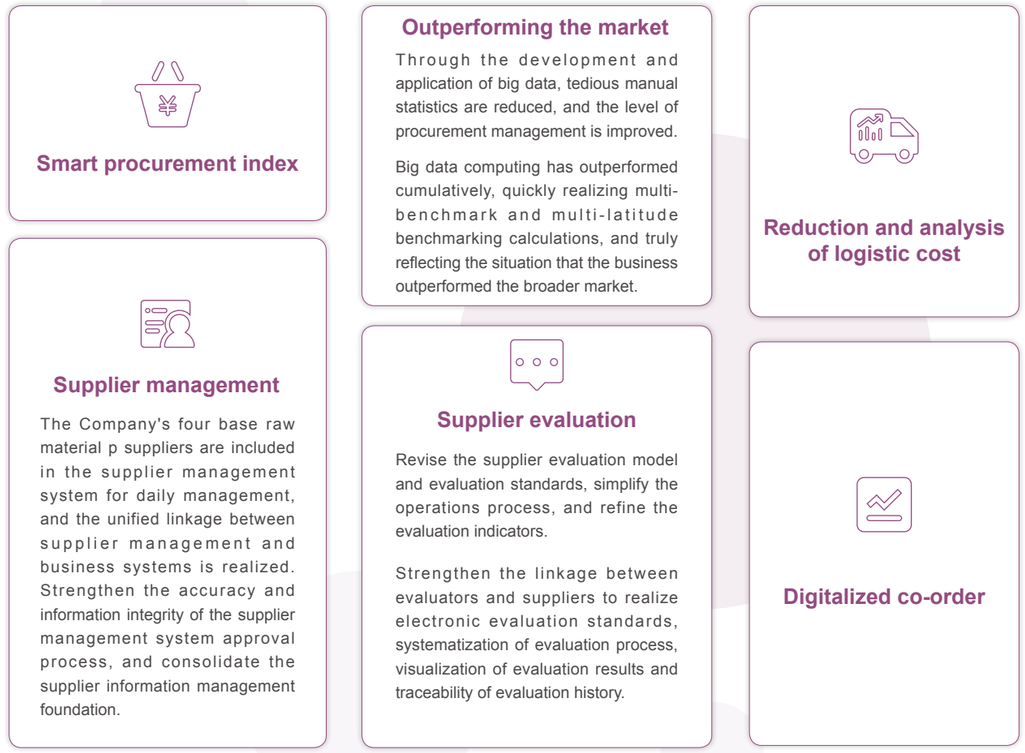
To ensure that the procurement of any products containing tantalum, tin, tungsten and gold purchased from our company are not directly or indirectly purchased from, and do not provide funds or benefit for armed groups that violate human rights in Congo or surrounding countries/regions, we use questionnaires and conduct due diligence on suppliers that may be involved in conflict minerals. This is to ensure that the process complies with their Certificates of Origin and the Conflict Minerals Reporting Template Minerals Initiative (RMI) developed by the Responsible Minerals Reporting Template (CMRT). In the supplier entry criteria, the use of conflict minerals is expressly prohibited. The Company evaluates risks of suppliers according to survey results, and immediately stops cooperating with high-risk suppliers. During the reporting period, all suppliers were listed on the audit compliance list published on the US CFSI (Conflict-Free Minerals Sourcing Program) website.

Establish management system	Risk identification and assessment	Measures responding to risk	Independent third-party audit	Disclosure of management conditions
• Manipulate responsible mining policy • Corresponding departments to form a responsible mining work advancement working group • Requirements clearly list in Supplier Code of Business Conduct	• Collect information through research table • Sort out 3TG raw materials supply • Send accountability assessment form to suppliers who are involved in the mining conflicts (RMI's SMRT can be taken as reference) • Searching the suppliers' progress via internet • Classify the supply chain risk in low, middle or high	• For high risk suppliers, terminate any business and confirm the risk through third party audit • For middle risk suppliers, conduct third party audit to identify the risk • For low risk suppliers, carry our regular information tracking • Newly add the terms for mining conflicts in suppliers' contract	• Independent third party audit must be carried out for suppliers with high and middle risk • Auditory organization is specified and chosen by Baosteel • Share audit report with Baosteel	• Disclose how mining conflicts are managed in Baosteel's Annual Sustainable Development Report

Conflict Minerals Management Process

Smart Procurement

Baosteel actively shares development achievements of supply chain, and join forces to explore digital ecology of the supply chain. We continuously improve the efficiency of procurement operations, and achieve standardization with intelligence by reshaping the supplier management system. During the reporting period, we made every effort to promote the "PLMS (Product Life Cycle Management System) upgrade, transformation and procurement big data pilot project" to provide support for refined supply chain management while reducing procurement costs.



Smart Procurement Module Development

During the reporting period, the overall promotion and operations of Obei Mall[6] Baosteel Zone was in good condition; and the application coverage of the four major steel bases and Baowu Aluminum has been achieved. The total number of orders in the mall was 102,726, the total order amount was RMB 673.33 million, and the total number of products exceeded 288,819 varieties (SKUs[7]). Average turnaround was within 5 working days, which is significantly shorter than the conventional procurement cycle.

The total number of orders in the mall was **102,726**

the total order amount was **RMB 673.33 million**

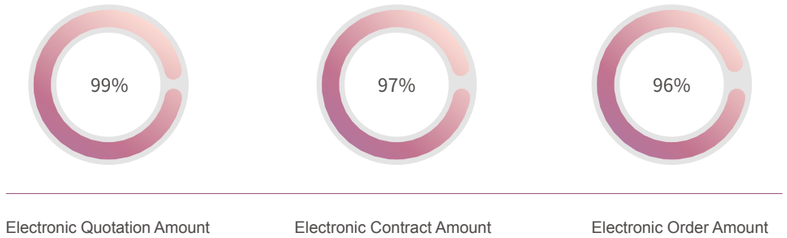
the total number of products exceeded **288,819**

[6] Obei Mall: A new supply chain ecological platform constructed by Ouyeel Industrial Products Co., Ltd., a subsidiary of Baosteel

[7] SKU:standard product unit

In 2021, our four bases in Baoshan, Qingshan, Dongshan, and Meishan further improved the level of electronic coordination between the procurement of materials and spare parts and suppliers. The performance of the collaborative indicators of electronic quotation, electronic contract and electronic order is as follows:

Electronic collaboration performance (proportion)



Corporate Support

As a leader in China's steel industry, Baosteel has a large and stable supply chain network. It is therefore our responsibility to encourage wider market participation and cooperation. Leveraging its strong capital strength and ability to manage the overall market, the Company continuously empowers local enterprises and various small- and medium-sized enterprises through cooperative procurement. This gradually forms an industrial cluster effect, and drives the economic construction and development of local communities.

Localized procurement[8]

During the reporting period, the procurement amount of local spare parts at the Company's four bases reached RMB 14.8 billion, and the procurement ratio was 47%.

Support SME[9]

Actively support the development of small and medium-sized enterprises, and regularly track the actual performance of each base in purchasing equipment and materials from small and medium-sized enterprises:

During the reporting period, the Company's four bases purchased spare parts and materials from small- and medium-sized enterprises with an amount of RMB 5.7 billion, and the proportion of equipment and materials purchased was 18%.

the Company's four bases reached

RMB **14.8** billion

the procurement ratio was

47%

materials from small- and medium-sized enterprises with an amount of

RMB **5.7** billion

materials purchased was

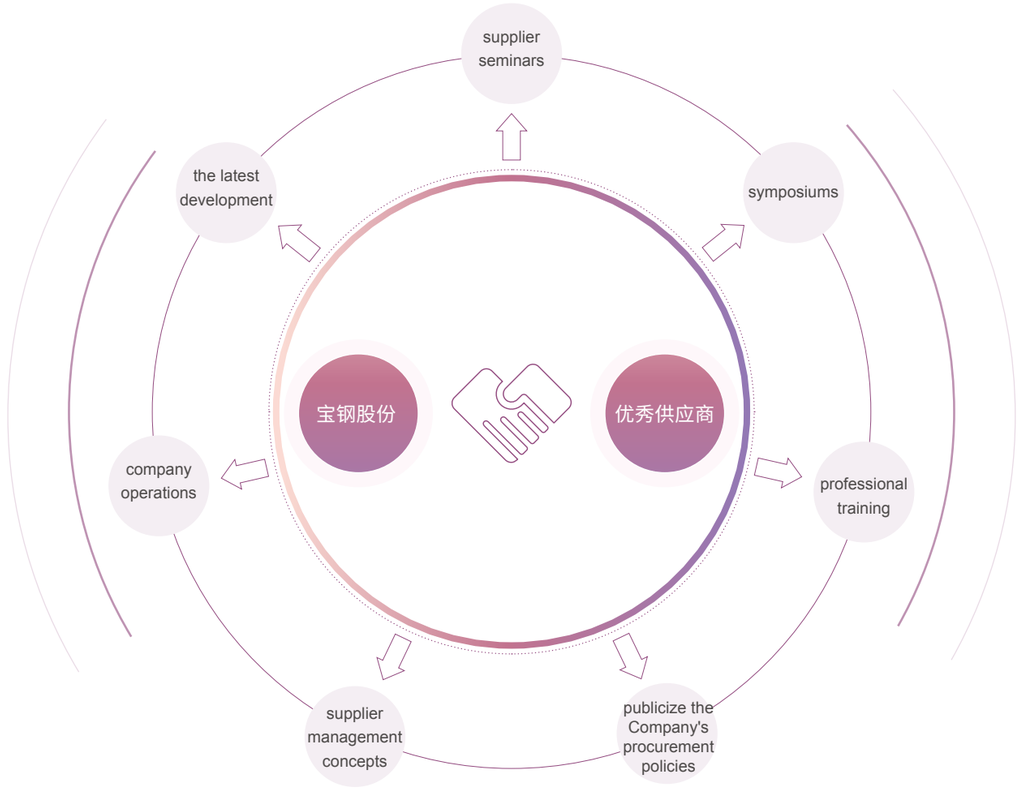
18%

[8] Localized Procurement: Suppliers registered in Shanghai, Guangdong Province, Jiangsu Province and Hubei Province are defined as local enterprises in the four bases of Baoshan, Dongshan, Meishan and Qingshan.

[9] Small and medium-sized enterprises: refer to the "Regulations on the Standardization of Small and Medium-sized Enterprises" (Ministry of Industry and Information Technology [2011] No. 300), and use the standard of registered capital of ≤ RMB 10 million to be defined as a small and medium-sized enterprise supplier).

Communication and training

Baosteel Co., Ltd. is looking forward to establishing and maintaining good cooperative relations with excellent suppliers, further expanding cooperation with outstanding enterprises. We organize supplier seminars, symposiums, professional training and other activities from time to time to publicize the Company's procurement policies, supplier management concepts, company operations and the latest development. We aim to create a good business atmosphere for win-win cooperation.

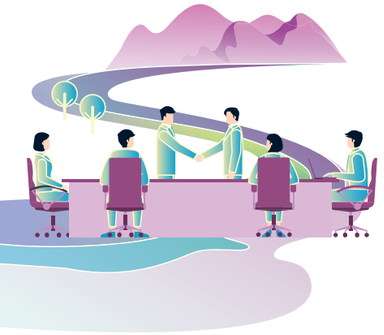


Exchange with Ouyeel

Technical exchange meeting with Huaibei Mining Group

Strategic Cooperation

Baosteel actively implements the concept of co-construction and sharing. It cooperates with the government, enterprises and universities to promote industrial development and talent construction. It combines the characteristics of different enterprises to explore innovative cooperation ecological models and support strategic emerging industries planned by the country or the city where it is located.



Government-enterprise cooperation

As the "national team" of scientific and technological innovation in major fields, Baosteel fully supports the country by strengthening its mission, continuously improving its independent innovation capability, and actively serving national strategies. During the reporting period, we made great efforts to advance the key core technologies of "stuck neck", and effectively supported the Xiapu fast reactor nuclear power project, the "Blue Whale". The successful implementation of major special projects and key projects, such as the Hong Kong-Zhuhai-Macao Bridge, the Three Gorges Baihetan Hydropower Station, and the Sino-Russian East Line Natural Gas Pipeline, fully reflects the mission of a major national team.

Case **Efficient, high-quality guarantee for pipeline project in southern pipeline of China and Russia, contributing to national energy security**

The Sino-Russian East Route Natural Gas Project is another important achievement of strengthened comprehensive energy partnership as well as strategic coordination under enormous support from the leaders of China and Russia. Responding to China's " the Belt and Road Initiatives", it is a major project of the country's four major energy transportation channels. The introduction of natural gas on the eastern route of China and Russia will bring positive effects. Benefits include improving the country's clean energy supply, optimizing energy structure, realizing energy conservation and emission reduction, improving atmospheric environment, controlling air smog, improving people's quality of life, and achieving sustainable social and economic development.

The total length of the main pipeline project is 3054km, and the southern section is 1480km long. It is the X80 gas pipeline with the largest diameter, wall thickness and transmission capacity in the world. It has high technical requirements. After the construction of the southern section of the Sino-Russian Eastern Route was launched at the end of 2020, Baosteel focused on key tasks. We organized manufacturing management department and other departments to ensure efficient and high-quality supply of the Sino-Russian southern section of the pipeline through system-wide mobilization, technology improvement, and production line optimization. The project requires 396,000 tons of pipeline steel. The application of this product indicates that Baosteel and the national pipeline network have made new progress in the joint construction of "safe, green and advanced pipeline of good relations".

Cooperation between Enterprises

With a humble, sincere and pragmatic attitude, we are delighted to share scientific research and economic achievements with industry partners. We will carry out exchanges and integration with upstream and downstream enterprises in the industry chain in all fields, aiming to promote common prosperity of Chinese industries.

Case **"Lingyun-Baosteel" Advanced Automotive Steel Joint Laboratory Contract-signing and Inauguration**

During the reporting period, Baosteel and Lingyun Industrial Co., Ltd. signed a strategic agreement to establish the "Lingyun-Baosteel" joint laboratory for advanced automotive steel. Baosteel leverages its advantages in basic material research. We work with Lingyun to reduce the weight of automotive materials and study on key technologies to improve market competitiveness. The scientific and technological R&D of high-strength steel and aluminum alloy materials in the automotive field and application are further strengthened, accelerating the development of advanced metal materials in China. It better meets the development trend and market demand of lightweight, low-carbon, and electrified vehicles.

The establishment of the joint laboratory reflects the determination of Lingyun Co., Ltd. and Baosteel to actively implement national innovation-driven strategies, adhering to independent and controllable key technologies and materials. The cooperation will further promote the localization of advanced automobile steel rather than imported ones, and provide strong scientific and technological support for the automobile industry.

Case **Baosteel's first order of "carbon neutral" products**

Baosteel and Royal Dutch Shell Group signed an Enterprise Framework Cooperation Agreement (EFA), officially becoming Shell's global strategic supplier of energy steel. During the reporting period, Baosteel delivered over 1,700 tons of X65MSO high-grade straight seam submerged arc welded pipes. Baosteel's steel pipe products were printed with "carbon neutral" for the first time, elevating market competitiveness of Baosteel's marine pipe products to a new level, which fills the gap for Baosteel to supply international petroleum oil companies, providing a reliable transportation channel for international natural gas.

Baosteel is actively transforming from a traditional steel supplier to a material supplier under the change of new energy. It focused on more than 20 fields and established 7 material solution centers to carry out R&D of high-strength, lightweight products. The aim was to help boost downstream user's product life, reduce materials, adhere to green manufacturing, and realize supply chain value sharing.

Case

Baosteel signed the Green Steel Enterprise Framework Cooperation Agreement (EFA) while Shell signed the Emission Rights Trading Master Agreement

In February 2022, Baosteel signed the Green Steel Enterprise Framework Cooperation Agreement (EFA) while Shell signed the Emissions Trading Master Agreement, marking a new level of cooperation between the two in the low-carbon field. Over the years, Baosteel has provided high-quality pipeline steel plates, high-grade line pipes, oil country pipes and other products for Shell's pipeline projects around the world. With common goals and vision of green transformation, Baosteel and Shell will focus on the low-carbon theme, while maintaining growth in cooperation in the fields of green steel, low-carbon travel, and lubricants. The two will also cooperate to achieve breakthrough in the fields of hydrogen energy, carbon capture and storage. One of the important achievements of the cooperation between the two is Shell providing 43 charging piles for new energy vehicles in the parking area of Baosteel Baoshan Base.

Case

Baosteel and Midea jointly built a million-ton cooperation platform

Since the beginning of the reporting period, Baosteel and Midea Group have joined forces to formulate and implement the "2021 Baosteel-Midea Cooperation Goals and Plans". The two have made substantial progress in building a million-ton cooperation platform. We have built two near-site service pilots, "Baosteel Zhanjiang Base - Midea Guangdong Base" and "Baosteel Qingshan Base - Midea Base in Wuhan and Wuhu", solving problems quickly through close linkage. From January to July, the supply ratio of hot-dip galvanizing orders increased by 180% year-on-year, greatly improving Baosteel's whole-process efficiency as well as customer satisfaction and loyalty.

With the strategic cooperation between Baosteel and Midea strengthened, the two continue to explore smart manufacturing and supply chain value enhancement. Baosteel Co., Ltd., committed to promoting smart steel ecosystem, will take the smart factory as the carrier and the intelligence of key manufacturing links as the core to promote multiple exchanges at the technical level between the two. It will carry out innovative application research in existing cooperation fields. Moreover, by providing new products and new brands alongside improved product performance, Midea will have more advantageous products. In addition, the two have initial consensus to carry out information and systematic docking to effectively reduce operating costs, reduce manual errors, and achieve win-win cooperation.

the supply ratio of hot-dip galvanizing orders increased by

180%

Co-building the industry

While carrying out strategic cooperation, we actively participate in industry exchanges and knowledge sharing. We work closely with all sectors of the society to grow together. We contribute new strength and new achievements to drive high-quality development of the steel industry. We have joined 95 social organizations, including the World Steel Association, China Iron and Steel Association, and Global Low-Carbon Metallurgy Innovation Alliance. Through exchanges and sharing with major members, we will jointly realize the ideal of "achieving solid industry results to serve and strengthen the country ".

Case

Baosteel participated in the Metal Coating Technology Branch of the Chinese Society for Metals

During the reporting period, Baosteel participated in and hosted the metal coating technology branch of the Chinese Society for Metals. A total of 36 units, including the Chinese Society for Metals, China Baowu, China Iron and Steel Research Technology Group, Shougang Co., Ltd., Angang Steel Co., Ltd., University of Science and Technology Beijing, and Northeastern University, sent representatives and professional technicians to attend the meeting. At the meeting, it was made clear that in the next five years, the Metal Coating Technology Branch of the Chinese Society for Metals will lead the development of China's metal coating industry, continue to improve its innovation and service capabilities, and strengthen the development direction of green, low-carbon, intelligent and efficient technology. We strive to promote high-quality development of the entire industry, while joining hands with partners to advance and lead new green and low-carbon development of the coating industry.

Case

The national standard for coated iron drafted by Baosteel was approved by the Steel Standards Committee

During the reporting period, the National Steel Standardization Technical Committee Steel Plate and Strip Sub-Technical Committee organized a standard review meeting for the national standard "Plastic Film Heat Laminated Steel Plates and Steel Strips" drafted and formulated by Baosteel.

The formulation of the national standard "Plastic Film Heat Laminated Steel Plates and Strips" fills the gap in this field. By specifying important technical indicators and testing methods of coated iron products, it can promote the continuous, long-term development of coated iron products in the country. This helps adjust the product structure of the country's metal packaging industry, and help the industry to switch towards energy conservation, environmental protection, cleanliness, efficient production and high quality.

07 Social influence

- Rural revitalization
- Community support
- Educational and cultural development
- Response to the pandemic

Baosteel takes "integrity and synergy" as its core value, adhering to the corporate mission of "becoming a model of high-quality development in the steel industry and a leader in the future of steel". We combine knowledge and action to promote continuous, vibrant development of enterprises. We take social responsibilities seriously, and strictly follow the 2021 donation project plan to build a beautiful community home. Also, we actively participate in public welfare and charity to contribute to social development. During the reporting period, Baosteel's total social donation amounted to RMB 78.56 million.

Rural revitalization

Baosteel fulfills its social responsibilities and focuses on "rural revitalization". We have long been committed to poverty alleviation in poverty-stricken areas. Through substantial donations, regular condolences, and large-scale procurement of local agricultural and sideline products, we have achieved fixed-point assistance to poverty-stricken counties in Yunnan. We have also cooperated with local party organizations for joint construction, accelerated organic connection between poverty alleviation and rural revitalization, and improved the living conditions of local people in various ways. During the reporting period, Baosteel invested a total of RMB 73.35 million according to actual needs of designated assistance counties on the basis of standardizing the donation process. We carried out construction assistance projects in Yunnan, Guangdong, Jiangsu and other regions.

Case **Xiali Bong Rural Tourism Construction Project in Banmao Village, Jiimo Township, Guangnan County**

Baosteel supports rural revitalization and infrastructure construction. Through developing tourism projects, it helps to build cement fences for leisure lakes in Xialibeng Village, cultural corridors, bus shelters with waiting chairs, solid roads around the village, and green lawns, and laying colored cement bricks. We lay a solid foundation for building a rural revitalization tourism demonstration site. The investment of the project amounted to RMB 400,000, benefiting a total of 321 people from 74 households, including 33 people from 10 poverty alleviation households.

Case **Multi-channel consumption assistance, helping to boost local income**

To further implement multi-dimensional cooperation of Taishiban Village and achieve win-win cooperation, we helped consolidate and expand the achievements of poverty alleviation. We also promoted rural revitalization in a comprehensive manner by making use of local green industry resources to provide point-to-point precise consumption assistance. Initiatives that support rural industry development included purchasing summer tea leaves.

Case **Agricultural and special product exhibition center project of Xingguang Village, Mohei Town, Ning'er County**

To further realize "Beautiful Village Project", Baosteel helped with the construction of an agricultural product exhibition and sales center in Mohei Town. The center will effectively attract signature agricultural products from mountainous areas to the area in the future. We strengthen the overall economy of the village by storefront leasing, agricultural products exhibition and sale, and the integration of tourism and agricultural products. As of the end of the reporting period, Baosteel invested RMB 1.98 million in the project, which is expected to boost the income of beneficiary farmers by more than RMB 150,000 each year. After completion and the start of operations of the project, the output value is expected to reach more than RMB 2 million.

Community support

Baosteel is committed to better supporting the development of local communities. The Company takes the mutual benefit between the Company and the community as its driving force. An interactive mechanism between the Company and the community is established, and the relationship is one of the Company's competitive advantages. As the Company develops, we form an organic cycle of mutual benefit with surrounding communities, promote the stability and security of the project area, and drive the sustainable development of the community.

Case **Bring change with pragmatic work**

To improve the quality of life of villagers, and combine learning and education with rural revitalization, Baosteel carried out construction of farmhouse bookstores and book rafting activities. We bring new hopes with pragmatic work. The Company's manufacturing management department calls on employees of the four major bases, party members and the public to participate in book donation, collect books that help villagers increase their knowledge, broaden their horizons and improve their life quality, and guide them to build better villages. More than 2,000 books were donated to the event with over 500 participants.

Educational and cultural development

Baosteel believes education and culture are the foundation of social development. The Company takes the initiative to undertake social responsibility of protecting community culture and promoting children's education. Through a series of charitable activities, we support cultural, sports and educational work in project areas and promote social progress and development.

Case **Public welfare education ignites dreams**

To support rural revitalization of four counties in Yunnan, on this year's "World Reading Day", the labor union of Baosteel organized the Literature Association to carry out the "Scholarly Baosteel·Love Donation" activity. Employees were mobilized to participate in public welfare education and donate books not in used yet in good condition to primary and secondary school students, dedicating love to students in mountainous areas of Yunnan.

In less than 10 days, 590 employees from Baoshan Base who participated donated 3,800 books, including picture books and comics, literary popular science, human geography, classic pieces and periodicals. Books were sent to Baosteel assisted rural primary schools in Zhenyuan County, Jiangcheng County, Ning'er County and Guangnan County in Yunnan Province. The children of some employees wrote letters and made greeting cards to go with the books to express their care, encouragements and wishes for local students.

The children in Yunnan were delighted receiving the books and letters. They responded immediately to express their gratitude. Their childish handwriting revealed their simplicity, cuteness and sincere gratitude.

Response to the pandemic

In recent years, the pandemic has swept the world. Baosteel shoulders its social responsibility and fully responds to national and local pandemic prevention and control deployment. While ensuring smooth operations and production, we actively organized volunteer activities and implemented pandemic prevention work. We strived to contribute to the society and build a safety barrier against the pandemic.

Case **"Little Raindrops" Volunteer Service Station**

In the post-pandemic period, emergency nucleic acid testing took place from time to time. The team members of Baosteel Meishan Iron and Steel Company "Little Raindrop" Volunteer Service Station and young employees of Meishan Iron and Steel Company actively responded to the urgent task of nucleic acid detection of the pandemic, and worked on the front line with medical staff. They continue to cooperate with the Company's multiple pandemic nucleic acid testing, and provide volunteer services for surrounding communities and companies.

Case **Baosteel Committee donated to Henan disaster area**

Since late July, many places in Henan have continued to experience extremely heavy rainfall, and serious flooding have affected Zhengzhou, Xinxiang and other places. These weather conditions have caused heavy losses to the lives and properties of local people. Although disasters are ruthless, we deploy the Democratic National Construction Association to send care to disaster areas. After the Shanghai Municipal Committee of the Democratic National Construction Association issued an initiative in the face of the disaster, all Baosteel members, concerned about the disaster situation, actively responded to the call of the Municipal Committee of the Democratic National Construction Association. Contributions were made to disaster areas in Henan through WeChat or mobile banking transfers. A total of RMB $16,410 was raised. This donation activity demonstrated the social responsibility of Baosteel Civil Construction employees and their care for disaster-stricken people.

through WeChat or mobile banking transfers. A total of

RMB$ **16,410**

Appendix 1 Key Performance

"/": Baosteel has not disclosed historical data for some of the indicators, and the data has been disclosed starting in 2020 or 2021 through the improvement of the level of management of ESG indicators.

Economic performance	Unit	2019	2020[12]	2021
Total revenue	100 million RMB	2,924.3	2,822.81	3,653.42
Total costs	100 million RMB	2,817.7	2,697.44	3,371.63
Operating costs	100 million RMB	2,598.7	2,519.89	3,160.48
Sales costs	100 million RMB	33.8	15.42	17.20
Administrative costs	100 million RMB	56.1	44.00	43.96
Research and development costs	100 million RMB	88.6	87.73	113.71
Financial costs	100 million RMB	24.6	14.50	17.88
Impairment loss of assets	100 million RMB	3.2	1.94	-11.08
Investment income	100 million RMB	35.0	31.41	39.75
Operating profit	100 million RMB	161.2	170.34	325.63
Total profit	100 million RMB	156.0	161.00	307.08
Net profit	100 million RMB	138.7	140.53	264.55
Social contribution value per share	RMB per share	2.21	1.75	2.44

Environmental Performance	Unit	2019	2020	2021
Environmental expensed inputs	100 million RMB	63.9	62.4	69.4
Environmental capitalized investment	100 million RMB	43.3	35.4	52.2
Number of environmental pollution incidents		4	3	3
Environmental penalties faced during the financial year	10,000 RMB	69.5	138.8	117.43
Proportion of sites with environmental risk assessment	%	100%	100%	100%
Proportion of sites with EMS	%	100%	100%	100%
Proportion of sites that have passed the environmental management system ISO14001, EMAS	%	100%	100%	100%
Iron ore consumption (four bases data)	10,000 tons	7,994	7,583	7,357
Other auxiliary materials (four base data)	10,000 tons	/	1,479	1,444
Renewable materials (four base data)	10,000 tons	522	598	733
Purchased steel scrap (four bases data)	10,000 tons	522	598	733
Total fuel energy (four bases data)	MWh	/	198,863,944	196,647,371
Energy intensity (four bases data)	MWh/ton crude steel	4.70	4.67	4.62
Power generation from photovoltaic projects (four bases data)	MWh	68,013	68,166	73,184
Purchased electricity from clean energy (four bases data)	MWh	851,000	1,150,000	1,370,000
Greenhouse gas emissions (category 1 + category 2) (Baosteel)	10,000 tons of carbon dioxide equivalent	/	8,993.7	9,080.5

[12]2020 financials restated based on audit report

Environmental Performance	Unit	2019	2020	2021
Greenhouse gas emission intensity (category 1 + category 2)	tons of carbon dioxide equivalent/ton crude steel	/	1.898	1.897
Greenhouse gas emissions (category 1 + category 2) (four base)	10,000 tons of carbon dioxide equivalent	9,262.1[13]	8,860.6	8,954.2
Greenhouse gas emissions (category 1) (four base)	10,000 tons of carbon dioxide equivalent	8,862.9[14]	8,533.1	8,645.6
Greenhouse gas emissions (category 2) (four base)	10,000 tons of carbon dioxide equivalent	399.2[15]	327.5	308.6
Greenhouse gas emission intensity (category 1 + category 2) (four base)	Tons of carbon dioxide equivalent/ton crude steel	1.910	1.870	1.870
Greenhouse gas emissions (category 3, category 4 and category 5)[16]	10,000 tons of carbon dioxide equivalent	/	4,520.41	4,513.45
Sulphide emissions (2019 and 2020 for the four bases, 2021 for the four bases and Huangshi Coated Plate)	tons	14,366	11,268	9,158
Nitrogen oxide emissions (2019 and 2020 for the four bases, 2021 for the four bases and Huangshi Coated Plate)	tons	37,400	32,339	25,332
Particulate emissions (2019 and 2020 for the four bases, 2021 for the four bases and Huangshi Coated Plate)	tons	11,546	9,736	7,047
COD (2019 and 2020 for the four bases, 2021 for the four bases and Huangshi Coated Plate)	tons	712	710	795
Ammonia (2019 and 2020 for the four bases, 2021 for the four bases and Huangshi Coated Plate)	tons	82	47	67
Total waste generation (*four base*)	tons	/	29,869,089	30,379,258
Total hazardous waste generation (*four bases*)	tons	/	445,984	506,748
Total harmless disposal of hazardous waste (*four bases*)	tons	/	445,984	506,748

[13]The 2019 GHG emissions data disclosed in the 2021 Sustainability Report is based on the "Methodology for Accounting and Reporting of Greenhouse Gas Emissions from Steel Producers in China (Trial)". This has been amended in accordance with the ISO 14064 standard.
[14]The 2019 GHG emissions data disclosed in the 2021 Sustainability Report is based on the "Methodology for Accounting and Reporting of Greenhouse Gas Emissions from Steel Producers in China (Trial)". This has been amended in accordance with the ISO 14064 standard.
[15]The 2019 GHG emissions data disclosed in the 2021 Sustainability Report is based on the "Methodology for Accounting and Reporting of Greenhouse Gas Emissions from Steel Producers in China (Trial)". This has been amended in accordance with the ISO 14064 standard.
[16]Other GHG emissions include eight categories: transportation of purchased goods and services, employee commuting, product transportation, business travel, emissions from purchased goods and services (manufacturing related), capital goods, waste disposal and investment.

Environmental Performance	Unit	2019	2020	2021
Total general waste generation (*four bases*)	tons	/	29,423,105	29,872,510
Total general waste recycling (*four bases*)	tons	/	29,313,107	29,834,315
Total general waste disposal (*four bases*)	tons	/	109,998	38,195
Total waste disposal (*four bases)*	tons	/	555,985	544,943
Fresh water consumption (*four bases*)	Million cubic meters	165	150	125
Fresh water consumption intensity (*four bases*)	Cubic meters / ton crude steel	3.10	2.90	2.62
Wastewater discharge (2019 and 2020 for the four bases, 2021 for the four bases and Huangshi Coated Plate)	Million cubic meters	/	46	50
Operational impact of water-related events	10,000 RMB	/	0	0

Social Performance	Unit	2019	2020	2021
R&D expenses	100 million RMB	88.6 [17]	87.3	113.7
R&D investment ratio	%	2.6	3.1	3.2
Patent Applications		1,111	1,271	1,292
New product sales rates	%	12	14	14
Unique new trial product ratio	%	28	32	32
Unique new trial product ratio	100 million RMB	28	30.9	28
Total investment in safety	100 million RMB	16.3	6.4	7.4
Number of production safety accidents		/	/	11
Frequency of injuries to employees in workplace accidents (including direct and collaborative employees)	Number of injuries/ million hours worked	0.06	0.05	0.04
Occupational health checks coverage	%	/	100	100
Number of occupational morbidity	person	/	0	0
Deaths due to work-related injuries (Baosteel employees)	person	/	/	0
Deaths due to work-related injuries (Baosteel contractors)	person	/	/	2
Employees representing the Health and Safety Committee, as a percentage of all employees in all areas	%	100	100	100
Proportion of workplaces with OHS certification (ISO 45001/OHSAS 18001)	%	100	100	100
Number of suppliers		/	3,875	3,548
Number of suppliers in China	%	/	95	94
Number of overseas suppliers	%	/	5	6
Proportion of suppliers that have signed the Sustainable Sourcing Charter/ Supplier Code of Conduct	%	100	100	100

[17] The coverage of R&D expenditure data for 2019 was reconciled and revised.

Social Performance	Unit	2019	2020	2021
Proportion with CSR assessment (e.g. questionnaire)	%	/	/	38.1
Proportion that have undergone a CSR on-site audit	%	/	/	1.52
Number of orders from Ouyeel		50,448	94,411	102,726
Cumulative amount of Ouyeel orders	10,000 RMB	6,740	19,134	67,333
Number of categories purchased in Ouyeel (SKU)		90,000	13,000	288,819
Proportion of procurement of spare parts and suppliers' e-quotations	%	99	99	99
Proportion of e-contracts between procurement of spare parts and suppliers	%	95	96	97
Proportion of procurement of material and spare parts with suppliers' electronic order synergy	%	94	96	96
Proportion of green procurement of spare parts	%	6	25	26
Amount of local spare parts purchased (Figures for 2019 are for three bases in Baoshan, Dongshan and Meishan, and figures for 2020 and 2021 are for four bases)	100 million RMB	98	114	148
Proportion of local spare parts purchased (2019 for Baoshan, Dongshan and Meishan bases, 2020 and 2021 for the four bases)	%	49	36	47
Amount of spare parts procured from SMEs (Data for Baoshan, Dongshan and Meishan bases in 2019, data for 2020 and 2021 for the four bases)	100 million RMB	43	53	57
Proportion of spare parts procured from SMEs (Data for 2019 for Baoshan, Dongshan and Meishan bases, and data for 2020 and 2021 for the four bases)	%	22	17	18
Total number of employees	person	52,323	47,710	45,405
Employees under 30 years of age	%	/	15	16
Employees aged 30-40	%	/	32	32
Employees aged 40-50	%	/	36	34
Employees aged 50 and over	%	/	17	18
Male employees	%	/	88	88
Female employees	%	/	12	12
Chinese employees	%	/	99.99	99.99
International employees	%	/	0.01	0.01
Ethnic Minorities	%	/	2.10	1.94
Disadvantaged groups	%	/	0.86	0.80
Proportion of managers who are female	%	/	/	7
Average number of employee training hours	hour	98	123	128

Social Performance	Unit	2019	2020	2021
Proportion of employees trained in business ethics as a percentage of total employees	%	/	100	100
Proportion of employees trained in vocational and technical skills	%	/	100	100
Proportion of employees trained in anti-discrimination, anti-human rights violations	%	/	100	100
Percentage of employees trained in environment-related training	%	/	100	100
Proportion of staff resignations to total staff	%	/	1.2	1.7
Social insurance coverage rate	%	100	100	100
Proportion of people covered by collective agreements	%	100	100	100
Number of incidents of child labour, forced labour and human trafficking		0	0	0
Number of incidents related to diversity, discrimination and harassment		0	0	0
Customer Satisfaction		92.5	92.6	92.8
Sales of BETTER products	10,000 tons	817	858	1,000
Sales of BEST products	10,000 tons	224	269	387
Sales of BETTER+BEST green products	10,000 tons	1,041	1,127	1,387
Total amount of donations	10,000 RMB	5,681	7,335	7,856
Charitable Donations	10,000 RMB	4,800	6,664	7,335
Community donations and other amounts	10,000 RMB	881	671	521

Governance Performance	Unit	2019	2020	2021
Earnings Releases		5	7	7
Investment Strategy Sessions		43	33	59
Teleconferences		24	46	41
Receiving interviews with investors		2	9 batches / 25 people	18 batches/77 people
Other：		/	/	Roadshow communication: 36 times Answered investor questions: 280 Investor relations questionnaires: 127 External communication: 1
Proportion of operating sites that have conducted internal audits/risk assessments for business ethics issues as a percentage of total operating sites	%		100	100
Proportion of sites with anti-corruption management system certification out of total sites	%		100	100
Number of reports generated by the whistleblowing process		/	/	24
Confirmed cases of corruption and bribery		/	0	0
Number of information security incidents recognised		/	/	0

Appendix 2 GRI Standard Content Index(Core)

Disclosure	Description	Chapters
GRI 101：Foundation 2016		
GRI 102：General Disclosures 2016		
Organizational Profile		
102-1	Name of the organization	About us - Corporate Profile
102-2	Activities, brands, products, and services	About us - Corporate Profile
102-3	Location of headquarters	About us - Corporate Profile
102-4	Location of operations	About us - Corporate Profile
102-5	Ownership and legal form	About this report
102-6	Markets served	About us - Corporate Profile
102-7	Scale of the organization	About us - Corporate Profile
102-8	Information on employees and other workers	Human Resources - Employee Overview
102-9	Supply chain	Win-win Cooperation - Responsible Supply
102-10	Significant changes to the organization and its supply chain	No significant changes
102-11	Precautionary Principle or approach	Environment and Ecology - Environmental Management
102-13	Membership of associations	Win-win Cooperation - Co-building the industry Combating Climate Change - Corporate Strategy
Strategy		
102-14	Statement from senior decision-maker	Message from Senior management
Ethics and Integrity		
102-16	Values, principles, standards, and norms of behavior	About us-Corporate Profile Corporate Governance - Business Ethics
Governance		
102-18	Governance structure	Corporate Governance - ESG Management See Details in Annual Report
Stakeholder Engagement		
102-40	List of stakeholder groups	Corporate Governance - ESG Management
102-41	Collective bargaining agreements	Human Resources-Remuneration and Benefits
102-42	Identifying and selecting stakeholders	Corporate Governance - ESG Management
102-43	Approach to stakeholder engagement	Corporate Governance - ESG Management
102-44	Key topics and concerns raised	Corporate Governance - ESG Management
Reporting Practice		
102-45	Entities included in the consolidated financial statements	See Details in Annual Report
102-46	Defining report content and topic Boundaries	About This Report
102-47	List of material topics	Corporate Governance - ESG Management
102-48	Restatements of information	About This Report
102-49	Changes in reporting	About This Report
102-50	Reporting period	About This Report
102-51	Date of most recent report	About This Report
102-52	Reporting cycle	About This Report
102-53	Contact point for questions regarding the report	About This Report

Disclosure	Description	Chapters
102-54	Claims of reporting in accordance with the GRI Standards	About This Report
102-55	GRI content index	Appendix 2 GRI Standard Content Index
102-56	External assurance	Appendix 4 Assurance Statement
Topic-Specific Disclosures		
Economic		
GRI 201：Economic Performance 2016		
201-1	Direct economic value generated and distributed	See Details in Annual Report
201-2	Financial implications and other risks and opportunities due to climate change	Combating Climate Change - Risk and Opportunity Identification
201-4	Financial assistance received from government	See Details in Annual Report
GRI 204：Procurement Practices 2016		
204-1	Proportion of spending on local suppliers	Win-win Cooperation - Responsible Supply
GRI 205：Anti-corruption 2016		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Corporate Governance – Building Integrity
	The management approach and its components	Corporate Governance – Building Integrity
	Evaluation of the management approach	Corporate Governance – Building Integrity
205-1	Operations assessed for risks related to corruption	Corporate Governance – Building Integrity
205-2	Communication and training about anti - corruption policies and procedures	Corporate Governance – Building Integrity
205-3	Confirmed incidents of corruption and actions taken	Corporate Governance – Building Integrity
GRI 206：Anti-competitive behavior 2016		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Corporate Governance – Business Ethics
	The management approach and its components	Corporate Governance – Business Ethics
	Evaluation of the management approach	Corporate Governance – Business Ethics
206-1	Legal actions for anti-competitive behavior, anti-trust and monopoly practices	Corporate Governance – Business Ethics
GRI 207：Tax 2019		
207-1	Approach to tax	About Us – Tax
207-2	Tax governance, control, and risk management	About Us – Tax
207-3	Stakeholder engagement and management of concerns related to tax	About Us – Tax

Disclosure	Description	Chapters
Environmental		
GRI 301：Materials 2016		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Environment and Ecology – Waste Management
	The management approach and its components	Environment and Ecology – Waste Management
	Evaluation of the management approach	Environment and Ecology – Waste Management
301-1	Materials used by weight or volume	Environment and Ecology - Waste Management
301-2	Recycled input materials used	Environment and Ecology - Waste Management
301-3	Reclaimed products and their packaging materials	Environment and Ecology - Waste Management
GRI 302：Energy 2016		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Combating Climate Change - Corresponding Measures
	The management approach and its components	Combating Climate Change - Corresponding Measures
	Evaluation of the management approach	Combating Climate Change - Corresponding Measures
302-1	Energy consumption within the organization	Combating Climate Change - Corresponding Measures
302-2	Energy consumption outside of the organization	Combating Climate Change – Corresponding Measures
302-3	Energy intensity	Combating Climate Change – Corresponding Measures
302-4	Reduction of energy consumption	Combating Climate Change – Corresponding Measures
302-5	Reduction in energy requirements of products and services	Leading Manufacturing – Green R&D
GRI 303：Water and Effluents 2018		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Environment and Ecology – Water Resources Management
	The management approach and its components	Environment and Ecology – Water Resources Management
	Evaluation of the management approach	Environment and Ecology – Water Resources Management
303-1	Interactions with water as a shared resource	Environment and Ecology – Water Resources Management
303-2	Management of water discharge-related impacts	Environment and Ecology – Water Resources Management
303-3	Water withdrawal	Environment and Ecology – Water Resources Management
303-4	Water discharge	Environment and Ecology – Water Resources Management
303-5	Water consumption	Environment and Ecology – Water Resources Management

Disclosure	Description	Chapters
GRI 304：Biodiversity 2016		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Environment and Ecology – Biodiversity
	The management approach and its components	Environment and Ecology – Biodiversity
	Evaluation of the management approach	Environment and Ecology – Biodiversity
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Environment and Ecology – Biodiversity
304-2	Significant impacts of activities, products, and services on biodiversity	Environment and Ecology – Biodiversity
304-3	Habitats protected or restored	Environment and Ecology – Biodiversity
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Environment and Ecology – Biodiversity
GRI 305：Emissions 2016		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Combating Climate Change – Corresponding Measures Environment and Ecology – Air Pollution Management
	The management approach and its components	Combating Climate Change – Corresponding Measures Environment and Ecology – Air Pollution Management
	Evaluation of the management approach	Combating Climate Change – Corresponding Measures Environment and Ecology – Air Pollution Management
305-1	Direct (Scope 1) GHG emissions	Combating Climate Change - Corresponding Measures
305-2	Energy indirect (Scope 2) GHG emissions	Combating Climate Change - Corresponding Measures
305-3	Other indirect (Scope 3) GHG emissions	Combating Climate Change - Corresponding Measures
305-4	GHG emissions intensity	Combating Climate Change - Corresponding Measures
305-5	Reduction of GHG emissions	Combating Climate Change - Corresponding Measures
305-6	Emissions of ozone-depleting substances (ODS)	Not relevant
305-7	Nitrogen oxides (NO_x), sulfur oxides (SO_x), and other significant air emissions	Environment and Ecology – Air Pollution Management
GRI 306：Waste 2020		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Environment and Ecology - Waste Management
	The management approach and its components	Environment and Ecology - Waste Management
	Evaluation of the management approach	Environment and Ecology - Waste Management

Disclosure	Description	Chapters
306-1	Waste generation and significant waste-related impacts	Environment and Ecology - Waste Management
306-2	Management of significant waste-related impacts	Environment and Ecology - Waste Management
306-3	Waste generated	Environment and Ecology - Waste Management
306-4	Waste diverted from disposal	Environment and Ecology - Waste Management
306-5	Waste directed to disposal	Environment and Ecology - Waste Management
GRI 307：Environmental Compliance 2016		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Environment and Ecology - Environmental Management
	The management approach and its components	Environment and Ecology - Environmental Management
	Evaluation of the management approach	Environment and Ecology - Environmental Management
307-1	Non-compliance with environmental laws and regulations	Environment and Ecology - Environmental Management
GRI 308：Supplier Environmental Assessment 2016		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Win-win Cooperation - Responsible Supply
	The management approach and its components	Win-win Cooperation - Responsible Supply
	Evaluation of the management approach	Win-win Cooperation - Responsible Supply
308-1	New suppliers that were screened using environmental criteria	Win-win Cooperation - Responsible Supply
308-2	Negative environmental impacts in the supply chain and actions taken	Win-win Cooperation - Responsible Supply
Social		
GRI 401：Employment 2016		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Human Resources – Employee Overview
	The management approach and its components	Human Resources – Employee Overview
	Evaluation of the management approach	Human Resources – Employee Overview
401-1	New employee hires and employee turnover	Human Resources – Talent Development
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Human Resources-Remuneration and Benefits Human Resources- Employee care
401-3	Parental leave	Human Resources-Remuneration and Benefits
GRI 402：Labor Management Relations 2016		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Human Resources-Remuneration and Benefits Human Resources- Employee care
	The management approach and its components	Human Resources-Remuneration and Benefits Human Resources- Employee care

Disclosure	Description	Chapters
GRI 103: Management Approach	Evaluation of the management approach	Human Resources-Remuneration and Benefits Human Resources- Employee care
402-1	Minimum notice periods regarding operational changes	Human Resources-Remuneration and Benefits Human Resources- Employee care
GRI 403：Occupational Health and Safety 2018		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Human Resources- Health and Safety
	The management approach and its components	Human Resources- Health and Safety
	Evaluation of the management approach	Human Resources- Health and Safety
403-1	Occupational health and safety management system	Human Resources- Health and Safety
403-2	Hazard identification, risk assessment, and incident investigation	Human Resources- Health and Safety
403-3	Occupational health services	Human Resources- Health and Safety
403-4	Worker participation, consultation, and communication on occupational health and safety	Human Resources- Health and Safety
403-5	Worker training on occupational health and safety	Human Resources- Health and Safety
403-6	Promotion of worker health	Human Resources- Health and Safety
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Human Resources- Health and Safety
403-8	Workers covered by an occupational health and safety management system	Human Resources- Health and Safety
403-9	Work-related injuries	Human Resources- Health and Safety
403-10	Work-related ill health	Human Resources- Health and Safety
GRI 404：Training and Education 2016		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Human Resources – Talent Development Human Resources – Employee Training
	The management approach and its components	Human Resources – Talent Development Human Resources – Employee Training
	Evaluation of the management approach	Human Resources – Talent Development Human Resources – Employee Training
404-1	Average hours of training per year per employee	Human Resources – Employee Training
404-2	Programs for upgrading employee skills and transition assistance programs	Human Resources – Talent Development
404-3	Percentage of employees receiving regular performance and career development reviews	Human Resources – Talent Development

Disclosure	Description	Chapters
GRI 405：Diversity and Equal Opportunity 2016		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Human Resources – Employee Overview
	The management approach and its components	Human Resources – Employee Overview
	Evaluation of the management approach	Human Resources – Employee Overview
405-1	Diversity of governance bodies and employees	Human Resources – Employee Overview
405-2	Ratio of basic salary and remuneration of women to men	Win-win Cooperation - supplier management
GRI 406: Non-discrimination 2016		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Human Resources – Employee Overview
	The management approach and its components	Human Resources – Employee Overview
	Evaluation of the management approach	Human Resources – Employee Overview
406-1	Incidents of discrimination and corrective actions taken	Human Resources – Employee Overview
GRI 408：Child Labor 2016		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Human Resources – Employee Overview
	The management approach and its components	Human Resources – Employee Overview
	Evaluation of the management approach	Human Resources – Employee Overview
408-1	Operations and suppliers at significant risk for incidents of child labor	Human Resources – Employee Overview
GRI 409：Forced or Compulsory Labor 2016		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Human Resources-Employees Overview
	The management approach and its components	Human Resources-Employees Overview
GRI 103: Management Approach	Evaluation of the management approach	Human Resources-Employees Overview
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Human Resources-Employees Overview
GRI 413：Local Communities 2016		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Social Influence – Community Support
	The management approach and its components	Social Influence – Community Support
	Evaluation of the management approach	Social Influence – Community Support
413-1	Operations with local community engagement, impact assessments, and development programs	Social Influence – Community Support
413-2	Operations with significant actual and potential negative impacts on local communities	Social Influence – Community Support

Disclosure	Description	Chapters
GRI 414：Supplier Social Assessment 2016		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Win-win Cooperation-Responsible Supply
	The management approach and its components	Win-win Cooperation-Responsible Supply
	Evaluation of the management approach	Win-win Cooperation-Responsible Supply
414-1	New suppliers that were screened using social criteria	Win-win Cooperation-Responsible Supply
414-2	Negative social impacts in the supply chain and actions taken	Win-win Cooperation-Responsible Supply
GRI 416：Customer Health and Safety 2016		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Leading Manufacturing - Quality Frist
	The management approach and its components	Leading Manufacturing - Quality Frist
	Evaluation of the management approach	Leading Manufacturing - Quality Frist
416-1	Assessment of the health and safety impacts of product and service categories	Leading Manufacturing - Quality Frist
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Leading Manufacturing - Quality Frist
GRI 417：Marketing and Labeling 2016		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Leading Manufacturing - Quality Service
	The management approach and its components	Leading Manufacturing - Quality Service
	Evaluation of the management approach	Leading Manufacturing - Quality Service
417-1	Requirements for product and service information and labeling	Leading Manufacturing - Quality Service
417-2	Incidents of non-compliance concerning product and service information and labeling	No incidents of non-compliance concerning product and service information and labeling occurred during the reporting period
417-3	Incidents of non-compliance concerning marketing communications	No incidents of non-compliance concerning marketing communications occurred during the reporting period
GRI 418：Customer Privacy 2016		
GRI 103: Management Approach	Explanation of the material topic and its Boundaries	Leading Manufacturing - Quality Service
	The management approach and its components	Leading Manufacturing - Quality Service
	Evaluation of the management approach	Leading Manufacturing - Quality Service
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	No substantiated complaints concerning breaches of customer privacy and losses of customer data occurred during the reporting period

Appendix 3 Sustainable Development Goals Content Index

Sustainable Development Goals	Initiative introduction	2021 Sustainability Report
SDG1.No Poverty	Eradicate all forms of poverty in the world	Social Influence - Rural Revitalization
SDG3.Good Health and Well-being	Ensuring healthy lives and promoting the well-being of people of all ages	Human Resources - Remuneration and Benefits Human Resources - Employee Care
SDG4. Quality Education	Ensuring inclusive and equitable quality education with lifelong learning opportunities for all	Social Influence – Educational and Cultural Development
SDG5.Gender Equality	Achieving gender equality and the empowerment of all women and girls	Human Resources - Employee Overview
SDG6.Clean Water and Sanitation	Water drinking sanitation for all and its sustainable management	Environment and Ecology – Water Resources Management
SDG7.Affordable and clean energy	Ensuring access to affordable, reliable and sustainable modern energy for all	Combating Climate Change
SDG8.Decent work and Economic Growth	Promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Human Resources - Employee Overview Human Resources - Remuneration and Benefits Win-win Cooperation
SDG9.Industry, Innovation and Infrastructure	Building resilient infrastructure, promoting inclusive and sustainable industrialisation and fostering innovation	Leading Manufacturing
SDG10.Reduced Inequalities	Reducing inequalities within and between countries	Human Resources - Employee Overview
SDG11.Sustainable Cities and Communities	Building inclusive, safe, disaster-resilient and sustainable cities and human settlements	Social Influence - Community Support
SDG12.Responsible Consumption and Production	Ensuring the adoption of sustainable consumption and production patterns	Leading Manufacturing - Green R&D Environment and Ecology Win-win Cooperation-Responsible supply
SDG13.Climate Action	Take urgent action to address climate change and its impacts	Combating Climate Change
SDG14.Life Below Water	Conservation and sustainable use of oceans and marine resources for sustainable development	Environment and Ecology - Biodiversity
SDG15.Life on Land	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt the loss of biodiversity	Environment and Ecology - Biodiversity
SDG16.Peace, Justice and Strong institutions	Advocating for peaceful and inclusive societies for sustainable development, access to justice for all, and effective, accountable and inclusive institutions at all levels	Corporate Governance
SDG17.Partnerships for the goals	Strengthening the means of implementation and reinvigorating the global partnership for sustainable development	Leading Manufacturing - Quality Service

Appendix 4 Assurance Statement

ASSURANCE STATEMENT

SGS-CSTC’ S REPORT ON SUSTAINABILITY ACTIVITIES IN THE BAOSHAN IRON & STEEL CO., LTD. FOR 2021

NATURE AND SCOPE OF THE ASSURANCE/VERIFICATION

SGS-CSTC STANDARDS TECHNICAL SERVICES CO., LTD. (thereafter as “SGS”) was commissioned by Baoshan Iron & Steel Co., Ltd. (hereinafter referred to as “Baosteel”) to conduct an independent assurance of the 2021 Sustainability Report. The scope of the assurance, based on the SGS Sustainability Report Assurance methodology, included the text, and data in accompanying tables, contained in this report of Baosteel for on-site assurance, which located at No. 885 Fujin Road, Baoshan District, Shanghai, P. R. China, Data and information of other companies were not included in this assurance process.

The information in the 2021 Sustainability Report of Baosteel and its presentation are the responsibility of the board of directors strategy, risk and ESG committee of Baosteel. SGS has not been involved in the preparation of any of the material included in the 2021 Sustainability Report.

Our responsibility is to express an opinion on the text, data, graphs, and statements within the scope of verification with the intention to inform all Baosteel’s stakeholders.

The SGS protocols are based upon internationally recognized guidance, including the Principles contained within the GRI STANDARDS for accuracy and reliability and the guidance on levels of assurance contained within the AA1000 series of standards and guidance for Assurance Providers.

This report has been assured at a moderate level of scrutiny using our protocols for:

- evaluation of content veracity;
- evaluation of the report against the GRI STANDARDS.

The assurance comprised a combination of pre-assurance research, interviews with relevant employees; documentation and record review and validation with external bodies and/or stakeholders where relevant.

Financial data drawn directly from independently audited financial accounts has not been checked back to source as part of this assurance process.

STATEMENT OF INDEPENDENCE AND COMPETENCE

The SGS Group of companies is the world leader in inspection, testing and verification, operating more than 2,600 affiliates in more than 140 countries. SGS affirms our independence from Baosteel, being free from bias and conflicts of interest with the organisation, its subsidiaries and stakeholders.

The assurance team was assembled based on their knowledge, experience, and qualifications for this assignment, and comprised of CSR Lead Assuror, SAI Registered SA8000 auditor, CCAA Registered ISO 9001 auditor, ISO 14001 auditor, ISO 45001 auditor and ISO 14064 Verifier etc.

VERIFICATION/ ASSURANCE OPINION

On the basis of the methodology described and the verification work performed, we are satisfied that the information and data contained within 2021 Sustainability Report verified is accurate, reliable and provides a fair and balanced representation of Baosteel sustainability activities in 2021.

The assurance team is of the opinion that the Report can be used by the Reporting Organisation’s Stakeholders.

SGS believes that the organization has chosen an appropriate option for the reporting.

GRI STANDARDS CONCLUSIONS, FINDINGS AND RECOMMENDATIONS

In our opinion the 2021 Sustainability Report is presented in accordance with the core option for GRI STANDARDS and fulfills all the required content and quality criteria.

Principles

Stakeholder Inclusiveness

Baosteel can fully identify the stakeholders and established a channel and platform for stakeholder’s communication and participate. To ensure that the opinions and suggestions of stakeholders are used as an important basis for decision-making on sustainable development of organization.

Sustainability Context

Baosteel considers these factors in terms of data disclosure by analyzing from the economic, environmental, and social stakeholders.

Materiality

Based on the determined topics concerned by the stakeholders, Baosteel has considered reasonably disclosing issues and indicators with materiality, which substantively influencing the assessments and decisions of stakeholders, to reflect the organization’s significant economic, environmental, and social impacts.

Completeness

Baosteel uses the issues concerned by stakeholders as framework to disclose relevant information and data, and fully reflects the significant economic, environmental, and social impacts.

Balance

Baosteel unbiasedly discloses the performance of the company based on the expectations of stakeholders, avoiding possible inappropriate influence on the decision-making or judgement of the readers of the Report.

Comparability

The Report disclosed relevant performance indicators of Baosteel in 2021, Some performance indicators were disclosed for historical data, which verify stakeholders’ intuitive comparison and understanding of their sustainable development performance.

Quantitative

Baosteel performs the statistic and analysis on KPIs, plans the management approaches and sets the internal objectives. The disclosure of performance indicators refers to the corresponding criteria and international rules, and the impact and purpose are disclosed in the Report.

Timeliness

Baosteel discloses its sustainability performance timeliness. Stakeholders can obtain information to make a reasonable decision in a timely manner.

Clarity

The Report used various expression ways such as words, charts, graphs, photos, and combination with the case analysis, it was easily understood by stakeholders.

Reliability

The data and information can be traced and verified by internal collection, recording, compiling, analysis and disclosure to ensure the quality and materiality of information.

Management Approach

The report has clearly presented the management approach of identified material topics and evaluate the management approach effectiveness.

General Disclosures

The general disclosure requirements of the GRI STANDARDS core option in the report can all be met.

Topic-Specific Disclosures

Topic-specific disclosures such as the importance of economic, environmental, and social impacts on the organisation and the substantive impact on stakeholder assessments and decisions can be described in detail.

Limitations of assurance

The assurance scope did not involve assurance of the original data of other subsidiaries and partners.

The assurance process only involved interviews with the heads of relevant departments and certain employees and consultation with relevant documents didn't involve external stakeholder.

As the financial information in the 2021 financial report has passed independent assurance, the assurance does not contain traceability and assurance of such information.

Signed:

For and on behalf of SGS-CSTC

David XIN Director
16/F Century Yuhui Mansion, No.73, Fucheng Road, Beijing, China

April 24th 2022

WWW.SGS.COM

Statement of Conformity CN22/00000466

Greenhouse Gas Verification Statement

The inventory of Greenhouse Gas emissions in
01 Jan., 2020 to 31 Dec., 2020 of

Baoshan Iron & Steel Co., Ltd.

Business address: No. 885, Fujin Road, Baoshan District, Shanghai City, P.R. China
Organization boundary: Detail organization boundary information has been listed in Annex, for multi-site statement

has been verified in accordance with ISO 14064-3:2019 as meeting the requirements of

ISO 14064-1:2018

Direct Emissions [Category 1]
85,916,939.41 tonnes of CO_2e
Indirect Emissions from Imported Energy [Category 2]
4,020,421.86 tonnes of CO_2e
Indirect Emissions from Transportation [Category 3]
15,972,918.76 tonnes of CO_2e
Indirect Emissions from Products Used by An Organization [Category 4]
28,508,131.55 tonnes of CO_2e
Indirect Emissions Associated with The Use of Products from The Organization [Category 5]
723,047.14 tonnes of CO_2e
Indirect Emissions from Other Sources [Category 6]
[be determined as non-significant indirect emissions and not quantified]
Total Emissions Quantified
135,141,458.73 tonnes of CO_2e

Authorised by

DATE: 11 Feb., 2022

SGS-CSTC Standard Technical Services Co., Ltd Knowledge
Country Headquarter 16/F Century Yuhui Mansion, No.73, Fucheng Road
Beijing, China 100142
Several statements have been issued for this scope, this is main statement

Page 1 of 4

Statement of Conformity CN22/00000467

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ISO 14064-1:2018

Direct Emissions [Category 1]
86,980,463.45 tonnes of CO_2e
Indirect Emissions from Imported Energy [Category 2]
3,824,170.94 tonnes of CO_2e
Indirect Emissions from Transportation [Category 3]
14,923,977.31 tonnes of CO_2e
Indirect Emissions from Products Used by An Organization [Category 4]
30,210,520.76 tonnes of CO_2e
Indirect Emissions Associated with The Use of Products from The Organization [Category 5]
0 tonnes of CO_2e
Indirect Emissions from Other Sources [Category 6]
[be determined as non-significant indirect emissions and not quantified]
Total Emissions Quantified
135,939,132.45 tonnes of CO_2e

Authorised by

DATE: 11 Feb., 2022

SGS-CSTC Standard Technical Services Co., Ltd Knowledge
Country Headquarter 16/F Century Yuhui Mansion, No.73, Fucheng Road
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