



2024

Shanxi Taigang Stainless Steel Co., Ltd.
Sustainability (ESG) Report



About This Report

This is the 17th annual Sustainability (ESG) report released by Shanxi Taigang Stainless Steel Co., Ltd. (“Taigang Stainless”, “STSS”, “the Company”, or “we/our” for short), which is released simultaneously with the Company’s annual report.

This report was approved and released at the 29th meeting of the 9th Board of Directors of the Company on April 24, 2025.

Reporting scope

The Report focuses on Shanxi Taigang Stainless Steel Co., Ltd. The Report covers Shanxi Taigang Stainless Steel Co., Ltd. and its directly affiliated second-tier subsidiaries and branches.

Reporting period

The reporting period is from January 1, 2024 to December 31, 2024. To enhance the comparability and timeliness of the Report, some information dates back to previous years or refers to the first quarter of 2025.

Preparation Basis

This report is prepared mainly based on the *Self-Regulatory Guidelines No.17 for Companies Listed on Shenzhen Stock Exchange—Sustainability Report (For Trial Implementation)*, *Self-Regulatory Guidelines No.3 for Companies Listed on Shenzhen Stock Exchange — Preparation of Sustainability Report* and the *Guidelines for the Preparation of CSR and ESG Reports for Subsidiaries of China Baowu Steel Group Corporation Limited (Baowu)*. It also references the United Nations Sustainable Development Goals (SDGs), the *GRI Sustainability Reporting Standards (GRI Standards)* issued by Global Sustainability Standards Board (GSSB), ISSB standards, the *China Corporate Sustainability Reporting Guidelines (CASS-ESG 6.0)* released by Chinese Academy of Social Sciences, and other guidelines and initiatives.

Data Information

The financial data in this report complies with the provisions of the Chinese *Accounting Law* and *Accounting Standards for Business Enterprises*, and has been audited in accordance with national auditing standards.

Preparation process

The preparation process for the Report covers team building, research on domestic and international policy trends, initiation training, data collection, stakeholder surveys, dual materiality analysis, framework establishment, report drafting, translation, design, review by departments and senior management, and report grading.

Reliability assurance

The Company ensures the completeness, materiality, balance, and comparability of the content disclosed in the Report, and systematically introduces the Company’s philosophy, systems, actions, and performance in pursuing economic, environmental, and social development. The Company assures that this report is free of false records or misleading statements.

Reporting language and access

The Report is published in both Chinese and English versions. In the event of any discrepancies in understanding between the Chinese and English versions, the Chinese version shall prevail. Furthermore, this report is published in both print and electronic formats, with PDF version available on our website <http://tgbx.tisco.com.cn> for viewing or download.

CONTENTS

About This Report	01
Message from the Chairman	03
About Us	05
Key Figures of 2024	08
Sustainability Management	09
Honors	14
CSR Spotlights	15

29

Pursuing Excellence and Nurturing New Quality Productive Forces

Upgrading Innovation Management	31
Seeking Innovation-driven Development	34
Achieving Excellent Quality	36
Supporting Industrial Upgrading	40

59

Striving for Win-Win Progress Toward Social Harmony

Upgrading Quality Services	61
Building a Responsible Supply Chain	64
Fulfilling Employees’ Value	66
Contributing to Social Harmony	73

21

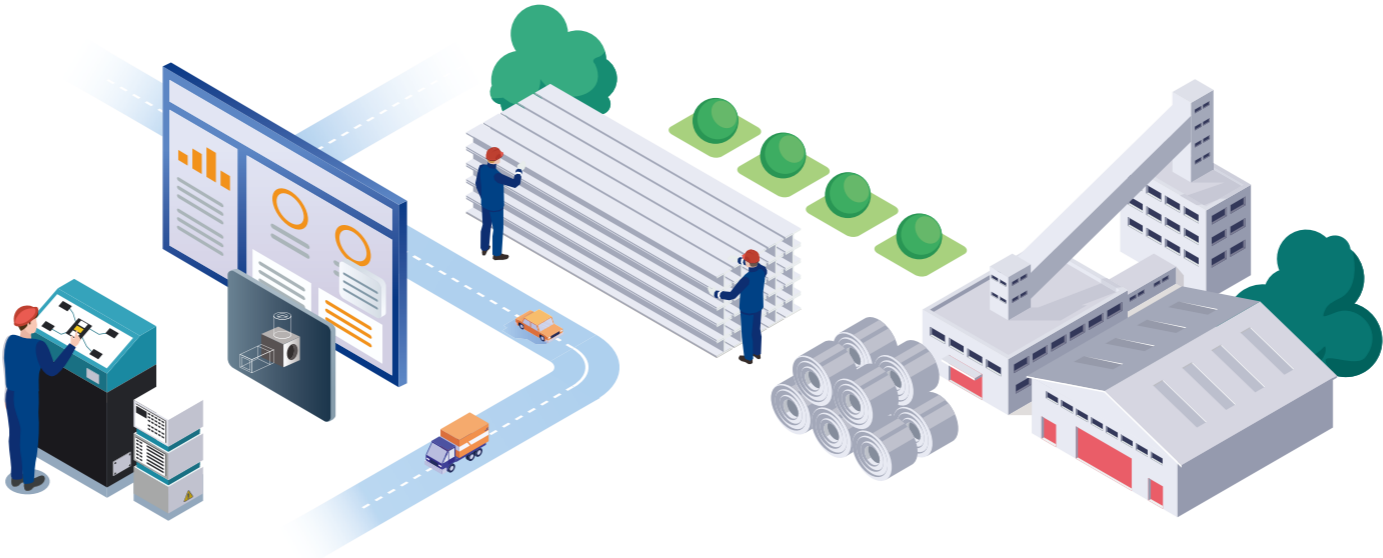
Building a Solid Foundation and Fostering Growth Drivers

Strengthening the Leading Role of Party Building	23
Improving Corporate Governance	25
Following Business Ethics and Compliance Requirements	28

41

Building a Beautiful China Through Green and Low-Carbon Development

Strengthening Environmental Management	43
Implementing Green Production	45
Making Green a Defining Feature	51
Tackling Climate Change	53



Outlook in 2025	75
Key Performance Table	77
ESG Indicator Index	82
Third-party Rating	83
Feedback	85

Message from the Chairman



Thank you for reading our 2024 Sustainability (ESG) Report.

In 2024, amid the steel industry's market complexities, we navigated cyclical downturns of the industry while promoting high-end, smart, green, and efficient development. Embracing a mindset to bring out all development potential, we seized on-site improvement and market opportunities and advanced product-based, integrated, and lean operations that make financial sense. These efforts boosted our value creation capabilities and kept our business performance among the best in the stainless steel industry.

In 2024, we remained committed to high-end development and tackled China's technological bottlenecks.

Thanks to our product and technology R&D, we launched seven products to the global market and eight in China. We also advanced customer-centered mechanism reforms and strengthened our product teams, resulting in a significant increase in sales of high-end and differentiated products.

In 2024, we maintained smart development by advancing projects to replace manual labor with mechanization, reduce the workforce through automation, and achieve unmanned intelligent operations.

By driving AI innovations, we optimized production sites with minimal or even zero human intervention. With measurable standards and metrics, we built data models, automated equipment, and introduced intelligent systems. The application of big data continued to expand, elevating our lean manufacturing capabilities.

In 2024, we devoted ourselves to green development by making intensive adjustments to key processes to consolidate and extend the results achieved as an A-level environmental performance enterprise.

Following the requirement of "Cleaner Water into the Yellow River", we implemented project to upgrade wastewater standards and salt recovery system retrofitting, earning recognition as a water-efficient corporate model in Yellow River Basin's high-quality development. Additionally, we developed and applied low-carbon manufacturing processes and launched three low-carbon products, with our hot-rolled coils becoming one of the first eight recognized low-carbon steel categories in the industry.

In 2024, we focused on efficient development by raising our intrinsic efficiency and promoting lean operations.

We refined production line task distribution, thus improving efficiency. The "one headquarters, multiple bases" integration delivered significant synergies and value creation. We achieved progress in personnel efficiency, per capita steel output, and profit margins per ton of steel. By deepening internal reform, we fostered an increasingly dynamic, clean, and motivating culture, gathering significant strengths to seek breakthroughs and overcome challenges.

The year 2025 marks an important milestone for the Company to seize opportunities, foster new growth drivers and advantages at a faster pace, and sharpen core competitiveness amid multiple challenges posed by a prolonged industry downturn. Driven by reform and innovation, we will benchmark ourselves against others to identify gaps and spare no effort to optimize our structure, reduce costs, improve efficiency, strengthen the supply chain, and prevent risks. These efforts will enhance our operational efficiency and performance, helping us secure greater achievements in building the world's most competitive high-tech enterprise with a complete stainless steel industry chain.

Chairman

About Us

Company Overview

As a global stainless steel leader, Shanxi Taigang Stainless Steel Co., Ltd. boasts an annual production capacity of 14.56 million tons of steel, including 6.12 million tons of stainless steel. With total assets worth CNY 67.53 billion, the Company has 13,080 full-time employees and generates revenues of CNY 100.38 billion. During the reporting period, the Company produced 13.98 million tons of steel, including 6.20 million tons of stainless steel.

In October 1997, the Company was founded, which was solely initiated by Taiyuan Iron & Steel (Group) Co., Ltd. (TISCO) with additional capital raised through public funding. The Company was listed on the Shenzhen Stock Exchange in June 1998 (Stock Code: 000825). In June 2006, STSS acquired TISCO's core steel assets, bringing the Company a complete steel production process and supporting facilities. In December 2020, Shanxi State-owned Capital Investment and Operation Co. Ltd., which held 100% equity in TISCO, transferred 51% of it to China Baowu Group at no cost. As a result, China Baowu Group became the indirect controlling shareholder of the Company, and our actual controller changed from the State-owned Assets Supervision and Administration Commission of Shanxi Provincial People's Government to the State-owned Assets Supervision and Administration Commission of State Council (SASAC).

The Company specializes in the development of special steel, especially stainless steel. We have established innovation platforms such as the national key laboratory for advanced stainless steel materials and the national physical and chemical laboratory, with over 800 core and proprietary technologies containing independent intellectual property rights, primarily in stainless steel. We have led or participated in the formulation of more than 70% of China's stainless steel plate and strip standards. The Company has developed a portfolio of high-efficiency, energy-saving, and long-lifespan steel products, including stainless steel, cold-rolled silicon steel, and high-strength, high-toughness steel. Our stainless steel products cover plates, strips, wires, tubes, and extreme specifications such as ultra-wide, ultra-thick, and ultra-thin materials. Our cutting-edge products, such as pen-tip steel, hand-torn steel, nuclear-grade stainless steel, railway-grade steel, duplex stainless steel, and high-grade silicon steel for new energy vehicles, are renowned at home and abroad. "TISCO-brand" stainless steel has been recognized as a "China Famous Brand Product" and the "Most Influential Stainless Steel Brand in China."

Committed to green and low-carbon development, we accelerate our work agenda centering around carbon peaking and carbon neutrality and coordinate the reduction of pollution and carbon emissions. Building on our achievement of A-level environmental performance for ultra-low emissions across the entire production process, we pursue the goals of "higher than the standard, better than the urban area, integrating into the city." Guided by these goals, we intensify our efforts by launching the campaign to build an all-factor ultra-low-emission AA enterprise, targeting ultra-low air emissions, zero wastewater discharge, zero solid waste leaving the plant, minimal noise pollution, and a cleaner, better plant environment. These measures have elevated our environmental performance from good to excellent. As a result, we have been recognized as one of China's first green plants and an A-level environmental performer in the steel industry. We also contribute to harmonious coexistence with cities by treating municipal wastewater for reuse in city landscapes and supplying heating resources to cities.

Going forward, driven by our mission to "supporting advanced manufacturing and creating a better life," we will uphold our vision to "become a global leader in the stainless steel industry." Devoted to high-end, intelligent, green, and efficient development, we will leverage technological innovation as the driving force, benchmark ourselves against others to identify gaps, and empower ourselves through reform and innovation. We will strengthen our core capabilities and competitiveness, striving to become the world's most competitive high-tech enterprise with a complete stainless steel industry chain and a world-class stainless steel manufacturer.

CNY **67.53** billion
Total assets

CNY **100.38** billion
Revenue

Corporate Culture



Mission

To support advanced manufacturing and create a better life



Vision

To become a global leader in the stainless steel industry



Values

Integrity Innovation
Green Collaboration



Corporate Spirit

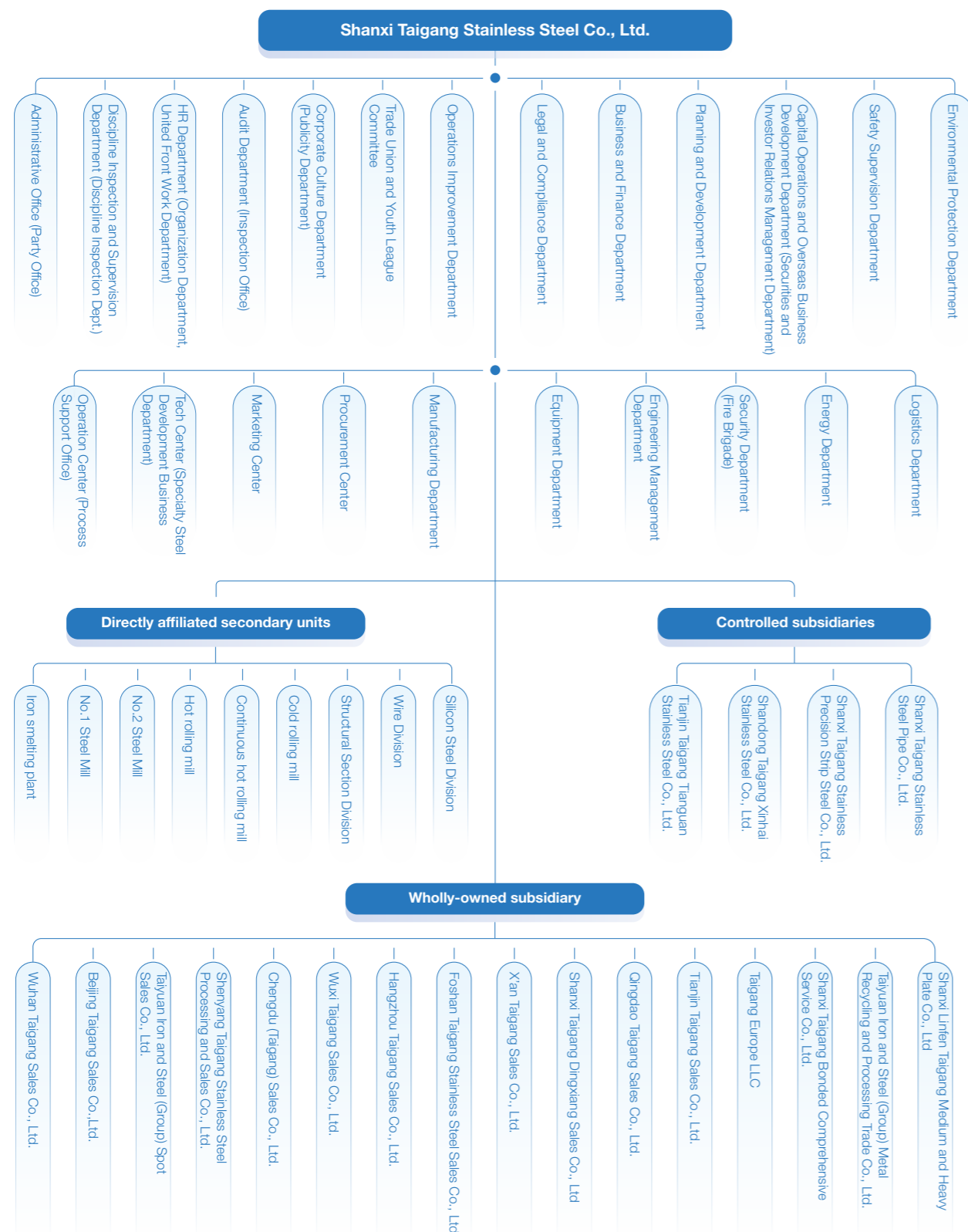
Li Shuangliang Spirit



Sub-culture

Integrity culture Innovation culture
Safety culture Quality culture
Green culture Marketing culture
Responsibility culture Integrity culture

Organizational Structure



Note: On February 14, 2025, the Coking Plant and the Iron Smelting Plant were merged into the Ironmaking Plant.

Key Figures of 2024



CNY **67.53** billion
Total assets

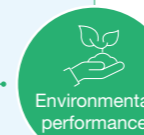
CNY **100.38** billion
Revenue



CNY **463** million
Total tax payment

CNY **32.57** billion
Total equity attributable to the owner of a listed company

0.579 CNY/share
Social contribution value per share



CNY **455** million

Total investment in environmental protection projects

CNY **293** million

Total investment in energy-efficient technology retrofits



99.53 %
Utilization rate of solid waste

24.93 million m³
Urban sewage and reclaimed water treated



99.02 %
Water reuse rate

22.8 %
Consumption of fresh water per ton of steel decreased

0.16 million tons
Scope 1 GHG emission reduction*

0.01 million tons
Scope 2 GHG emission reduction*



CNY **166** million
Investment in work safety

CNY **4.11** billion
R&D investment



98.9 %
User complaint resolution rate

87.9 points
Customer satisfaction

393
New patent applications

41 sessions, totaling **130** hours
Supplier ESG training

100 %
Employee training coverage rate

CNY **25.13** million
Employee training investment

Scope 1: Direct greenhouse gas (GHG) emissions from sources owned or controlled by a company.

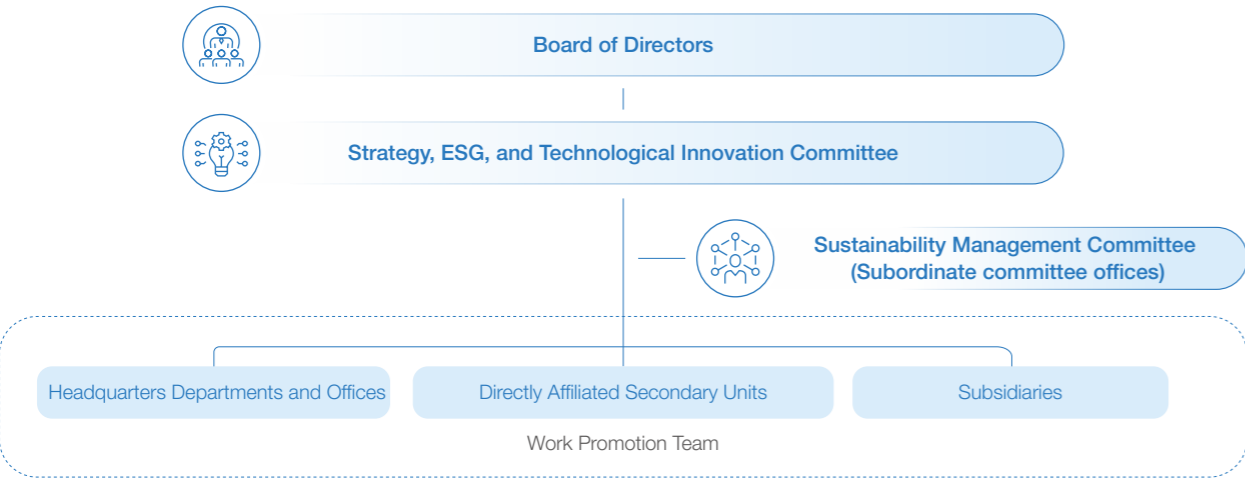
Scope 2: Indirect greenhouse gas (GHG) emissions from purchased electricity, steam, heat, or cooling consumed by the company.

Sustainability Management

Organizational System

Upholding the principle of “leveraging stainless steel know-how to create exceptional quality and generating value for stakeholders,” the Company is committed to sustainable development by enhancing our sustainability framework and capabilities. We strive to create long-term corporate value and resilience, and work with stakeholders to achieve sustainable growth and responsible business practices, contributing to sustainable development around the world.

To effectively implement the Company’s sustainability principles, the Company has established a well-defined, tiered ESG management framework. The Board of Directors has set up the Strategy, ESG, and Technological Innovation Committee. It studies and advises on the Company’s ESG objectives, strategic planning, governance structure, and management policies, while also supervising, guiding, and assessing ESG-related matters and performance. The Sustainability Management Committee oversees company-wide sustainability initiatives by setting overarching strategies, goals, missions, and guidelines and refining sustainability management processes. It also strengthens the governance and coordination of major sustainability matters and activities. The office of the Sustainability Management Committee is established at the Corporate Culture Department, which collaborates with all subsidiaries and departments to advance daily sustainability efforts, enhance sustainability management, and improve our performance. The sustainability promotion group of each subsidiary and business unit implements sustainability tasks and requirements to ensure systematic, normalized, and integrated sustainability management.



Organizational structure for sustainability management

Implementation Mechanism

According to prevailing sustainability (ESG) policies and standards at home and abroad, we improve our ESG indicator system to make it more science-based and meet the Company’s reality. The Company integrates ESG into strategic planning and annual business plans, with a well-structured, clearly defined, and efficient ESG management mechanism. This framework strongly supports the continuous improvement of corporate governance.

Capacity Building

Emphasizing specialized ESG management and training, we optimize corporate management based on the ESG framework and strive to enhance our ESG management and capabilities. The Company has established the CSR/ESG Work Group, and organize them to participate in online training and exchanges offered by top CSR/ESG institutions. For the executives and professional managers, We host training programs on better CSR/ESG management and sustainability reporting, and produced the online lecture on *China Baowu CSR/ESG Management System Development*, which has been uploaded to the Employee E-education/training Platfor. These efforts enhance the Company’s value creation, corporate governance and CSR performance.

ESG Communication

The Company prioritizes sustainability management as well as the summary and dissemination of best practices. Through multiple communication channels, including newspapers, television, websites, mobile reports, WeChat, and Weibo, we showcase our sustainability achievements. On the Company’s official website, a dedicated section “CSR Updates”, under “Sustainable Operations,” provides stakeholders with comprehensive insights into our best sustainability practices and cases. This helps strengthen employees’ awareness of and engagement in fulfilling social responsibility.

ESG Performance

In 2024, the *STSS 2023 Sustainability (ESG) Report* received a five-star (excellent) rating from the Chinese Academy of Social Sciences for the eighth consecutive year and was recognized with the “GoldenBee Excellent Corporate Sustainability Report 2024 – Environmental Information Disclosure Award.” The Company received the Silver Award for the 2022–2023 “Baowu Social Responsibility Pioneer Award.” The case of *Establishing TISCO’s Nuclear-Grade Stainless Steel as a Global Brand* was recognized as a “2023 Baowu Benchmark Case in Social Responsibility.” And the Company was listed in the “Central SOE ESG Pioneer 100 Index,” ranking 49th.

ESG Material Topics

Conducting ESG materiality assessments is fundamental to STSS’s ESG strategic planning, risk and opportunity management, and information disclosure. In 2024, the Company followed double materiality assessments according to the latest international sustainability disclosure standards. This upgrade incorporated financial materiality assessments into the existing impact materiality assessments, ensuring that we evaluate not only the external environmental and social impact of our business operations but also the critical topics that impact our financial performance.

Step 1: Identifying ESG topics and establishing an ESG topic repository

Based on the 21 topics required by the *Self-Regulatory Guidelines No.17 for Companies Listed on Shenzhen Stock Exchange—Sustainability Report (For Trial Implementation)* (hereinafter referred to as the Guidelines), the Company has preliminarily established an ESG topic repository after fully considering factors such as international and domestic sustainability standards and initiatives, ESG capital market rating criteria, industry policy trends, peer company focus, and the Company’s strategic development. The repository covers 24 topics, including 9 environmental topics, 11 social topics, and 4 governance topics.

Topic Metric	Topic		Descriptions and Changes
Environmental (9)	<ul style="list-style-type: none">Environmental compliance managementEnergy utilizationWater resources utilizationCircular economyClimate response	<ul style="list-style-type: none">Green productsPollutant dischargeWaste disposalBiodiversity conservation	<ul style="list-style-type: none">New topics: “Environmental compliance management” and “energy utilization” have been added to the materiality analysis. Information on these topics has been continuously disclosed in the Reports.Topic change: To align with the requirements of the Guidelines, topics such as “waste utilization,” “water resource management” and “renewable resource utilization” have been renamed to “waste disposal,” “water resource utilization,” and “circular economy,” respectively. “Air pollution management” has been renamed to “pollutant discharge” to expand the scope of the topic.
Social (11)	<ul style="list-style-type: none">Technological innovationProduct quality and safetyCustomer serviceNew materialsSupply chain securityPromotion of industrial development	<ul style="list-style-type: none">Protection of employees’ rights and interestsEmployee developmentOccupational health and safetyRural revitalizationSocial contribution	<ul style="list-style-type: none">Undisclosed topics: To align with the requirements of the Guidelines, topics such as “ethics of science and technology” and “equal treatment of SMEs” as stipulated in the Guidelines are not included in the ESG topic repository.Topic change: “Public welfare” and “volunteer services” have been incorporated into the topic of “social contribution.” “Customer service” has been kept the same since its broader connotation covers service quality as well as data security and customer privacy protection. “Data security and customer privacy protection” has not been set up separately. “Product quality” has been renamed to “product quality and safety.”
Governance (4)	<ul style="list-style-type: none">Corporate governanceDue diligenceBusiness integrityBusiness ethics		<ul style="list-style-type: none">Topic change: “Risk management” has been renamed to “due diligence”; “anti-commercial bribery and anti-corruption” and “anti-unfair competition” have not been set up separately since “business ethics” has a broader connotation.“Stakeholder communication” has not yet been included in the ESG topic repository for materiality analysis, but the section of “stakeholder communication” has been set up in the Report to align with the requirements of the Guidelines.

Step 2: Materiality assessment

Conducting impact materiality assessment

Considering the degrees of impact and likelihood of occurrence of ESG topics on the economy, society, and environment, a questionnaire survey is conducted among the Company's stakeholders, with an impact materiality threshold set to assess the materiality of these topics based on their potential impact.

Conducting financial materiality assessment

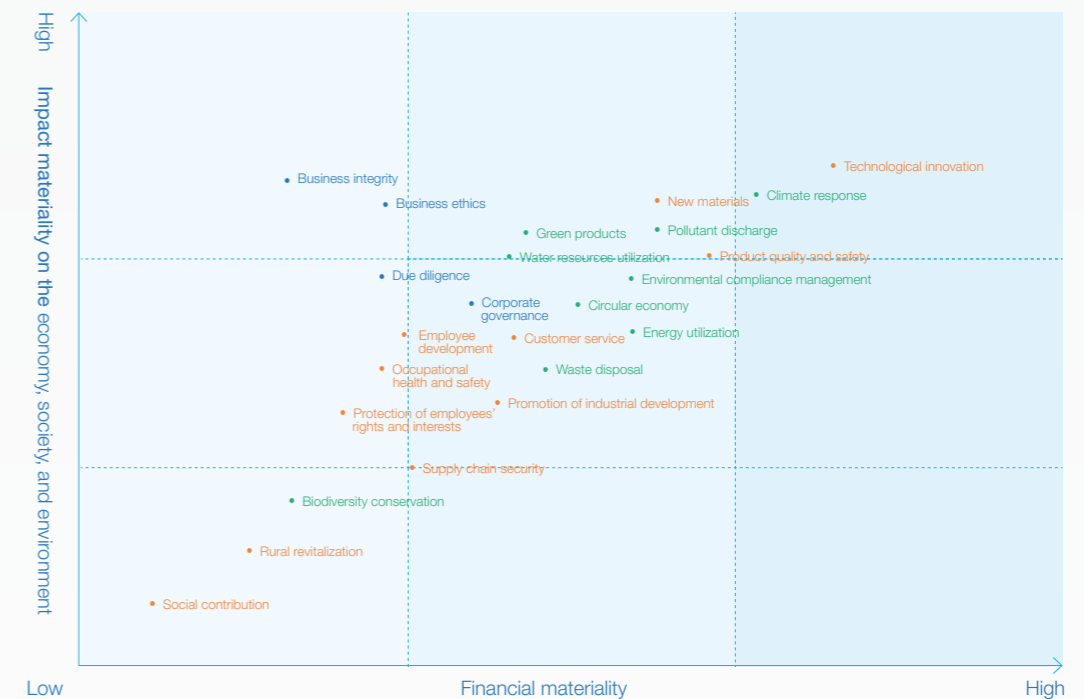
Considering the risks and opportunities and likelihood that may arise in short, medium, and long terms, a questionnaire survey is conducted among the directors, senior management, and representatives from Legal Compliance Department, Finance and Operations Department, Securities and Investor Relations Department, and Corporate Culture Department, as well as external investor representatives, with a financial materiality threshold set to assess the significance of the financial impacts of ESG topics on the Company.




Step 4: Topic review, confirmation and disclosure

For topics with high financial materiality, including technological innovation and climate response, a comprehensive analysis is conducted on their scope of impact, risks and opportunities, and impact cycle, with focused reporting of related governance, strategy, impact and risk opportunity management, as well as metrics and targets. Relevant management and actions are disclosed for topics with medium and general materiality in the Report. Considering that environmental topics within the medium-materiality category are generally more significant, information related to governance, strategy, impact and risk opportunity management, and metrics and targets for environmental topics are also disclosed in the Report.

Step 3: Materiality ranking

Based on the ranking of the above ESG topics in terms of impact materiality and financial materiality, a dual-materiality topic matrix is established. Through matrix analysis, two ESG topics with high financial and impact materiality are identified, namely technological innovation and climate response. There are 19 topics of medium materiality and 3 topics of general materiality.



High Financial Materiality	Scope of Impact			Affected Stakeholders	Risk	Opportunity	Impact Cycle	Chapter	SDGs
	Upstream Value Chain	Corporate Operation	Downstream Value Chain						
Technological innovation		✓	✓	<ul style="list-style-type: none"> Customers Partners Employees 	<ul style="list-style-type: none"> A significant amount of R&D investment often required may increase the Company's costs in the short term Technological innovation may lead to uncertain market acceptance of products or services, which in turn increases market risks. 	<ul style="list-style-type: none"> Technological innovation oriented towards customer needs enables the Company to adapt more flexibly to market trends and enhances its competitiveness and leadership within the industry in the long term. 	Medium and long term	Upgrading Innovation Management Seeking Innovation-driven Development	 
Climate response	✓	✓	✓	<ul style="list-style-type: none"> Suppliers Customers Partners Employees Communities 	<ul style="list-style-type: none"> Trends such as climate-induced natural disasters, unstable energy supplies, policy updates, and changes in market preferences cause physical and transition risks to the Company, which may increase the Company's costs and affect its operations. 	<ul style="list-style-type: none"> Seizing the business opportunities for low-carbon products and pursuing innovative sustainable business development models enhance corporate reputation and image, and improve the Company's market competitiveness. 	Medium and long term	Tackling Climate Change	

Impact cycle: The short term refers to less than 1 year; the medium term refers to 2 to 5 years; and the long term refers to more than 5 years.

Stakeholder Communication

Stakeholders are influenced by a company's ESG performance and their actions affect a company's long-term development. To better understand stakeholder expectations and foster a positive relationship, the Company has established a regular stakeholder communication mechanism. This ensures a timely understanding of stakeholder interests and concerns while seeking their understanding and support for ESG strategy.

Stakeholders	Expectations and demands	Response methods
 Government	<ul style="list-style-type: none">• Tax payment in accordance with the law and job creation• Promoting economic and social development• Compliant and legal operation, and fair competition• Fulfilling corporate social responsibility	<ul style="list-style-type: none">• Field research• Group discussions• Compliance information disclosure
 Shareholders	<ul style="list-style-type: none">• Operational compliance• Stable investment return• Business information disclosure	<ul style="list-style-type: none">• Shareholders' meetings• Investor meetings• Earnings announcements• Press releases/announcements
 Customers	<ul style="list-style-type: none">• Contract fulfillment with integrity• High quality products• Quality services	<ul style="list-style-type: none">• Customer satisfaction surveys• Customer complaints and countermeasures• Product promotion activities
 Suppliers	<ul style="list-style-type: none">• Honesty and integrity• Openness and fairness• Mutual benefits	<ul style="list-style-type: none">• Supplier trainings• Exchange meetings
 Employees	<ul style="list-style-type: none">• Protection of rights and interests• Career development• Occupational health• Humanistic care	<ul style="list-style-type: none">• Employee communication activities• Employee trainings• Care and assistance activities• Internal publications, WeChat official account and others
 Partners	<ul style="list-style-type: none">• Fair procurement• Honesty and mutual benefits• Long-term stable relationship	<ul style="list-style-type: none">• Exhibitions• Project cooperation
 Peers	<ul style="list-style-type: none">• Fair competition• Industry development	<ul style="list-style-type: none">• Industry exchange meetings
 Communities	<ul style="list-style-type: none">• Paying attention to community development• Strengthening community communication• Engagement in social welfare	<ul style="list-style-type: none">• Public welfare activities• Community communication
 Media	<ul style="list-style-type: none">• Information disclosure and transparency	<ul style="list-style-type: none">• Press releases/announcements• Official media platforms

Honors

Date	Award	Sponsor
2024.01	Three products were awarded the Metallurgical Product Physical Quality Gold Cup for outstanding quality	China Iron and Steel Association
2024.06	Well-performing “Technological Reform Enterprise” of Central SOEs	State-owned Assets Supervision and Administration Commission of the State Council (SASAC)
2024.08	The “Modeling Innovation and Application of Multi-Category High-Quality Integration Based on Quality Technology” project won the second prize of Quality Technical Awards	China Association for Quality
	Second prize of China Quality Innovation and Quality Improvement Achievements Exchange Activities	China Association for Quality
	Metallurgical Science and Technology Award	China Iron and Steel Association
2024.10	Typical Case of Water-Saving Industrial Enterprises with High-Quality Development in the Yellow River Basin	Yellow River Conservancy Commission of Ministry of Water Resources
2024.11	Listed in Central SOEs (ESG): Pioneer 100 Index	Bureau of Social Responsibility, SASAC
2024.12	Dual Carbon Best Practice Energy Efficiency Benchmarking Demonstration Processes/Equipment	China Iron and Steel Association
	Advanced Enterprise in the Three-Year Action for Energy Efficiency Benchmarking in the 2024 China Steel Industry Ultimate Energy Efficiency Project	China Iron and Steel Association
	Second place in Dual Carbon Skills Competition for National Steel Industry Workers of the First Green Hanggang Cup	China Machinery, Metallurgy and Building Materials Workers Technical Association
	Shanxi Science and Technology Awards	Department of Science and Technology of Shanxi Province
	2024 GoldenBee CSR China Honor Roll · Environmental Responsibility Information Disclosure Award	GoldenBee ThinkTank
2025.01	The Company's “hand-tear steel” innovation and R&D team is honored as the “Role Model of Central SOEs”	CPC Committee of SASAC
	Recognized as “Excellent” on the Ranking of Dual Carbon Leadership of China's Top 100 Listed Companies Ranked first in the steel sector on the Carbon Efficiency Ranking of China's Top 100 Listed Companies	Caijing Magazine

Thin Steel

CSR Spotlights

Ultra-thin Steel

Fostering the Ultimate Excellence of Stainless Steel via Technological Innovation

Hand-torn steel, as thin as cicada wings, is hailed as the “crown jewel of the steel industry.” By developing hand-torn steel, we have transformed hardened steel into material as soft as silk around a finger. From conventional steel products to emerging materials, we continuously push the limits of innovation and creation, reflecting our relentless pursuit of technological innovation and our support for the high-quality development of China's stainless steel industry.

June 22, 2017

Xi Jinping, Chinese President, visited TISCO and emphasized the importance of “catching up and forging ahead.”



2020

May Xi Jinping, Chinese President, revisited TISCO and inspected the 0.22mm stainless steel hand-torn steel foils, commenting, “Our sophisticated techniques produce steel as thin as foil, the countless refinements make hardened steel as soft as silk around a finger.”

August We developed 0.015mm-thick hand-torn stainless steel, setting a new world record for Chinese manufacturing.

October Our R&D team is pushing the research of metal masks for OLED displays.



“

Products and technology form the foundation of a company's success. Companies should continue to push the boundaries of technological innovation and strive for greater breakthroughs, making greater strides in supporting the development of advanced manufacturing.

—Xi Jinping, Chinese President, made the comment during his 2020 inspection of “hand-torn steel” foil

”



May 2021

Two “hand-torn steel” products, precision foil with a smooth surface and 0.07mm ultra-flat stainless precision strip, have been launched globally.



May 2022

The JDA61 precision stainless strip for hydrogen fuel cell bipolar plates has made its global debut.

2024

January Mass production has begun for “chip steel” designed for lead frame applications.

July We have developed precision steel strips, flexible screen steel, and low-magnetic, high-strength, and ultra-flat materials for the next-generation high-end 5G electronics.

By the end of 2024: We have over 20 products in four major categories with 44 core stainless steel patents, including 30 invention patents.



2016

The Company transformed from traditional crude steel to high-precision, cutting-edge products, and quickly established the “hand-torn steel” R&D team.



June 2018

After 711 trials, overcoming more than 170 equipment problems and 450 process problems, the first batch of hand-torn stainless steel (0.02mm thick, 600mm wide) was produced, overcoming the limits of rolling mill specifications. STSS became the only company globally capable of mass-producing ultra-thin, wide stainless steel precision foils.



2023

March We have initiated the development of the 4J42K nickel-based precision alloyed steel strip for lead frames.

April We completed the first sample delivery of metal photomask base materials.

August We successfully rolled the first batch of photomask base materials.

October The first domestically produced metal masks have been launched, marking a milestone for metal masks made in China and used in Chinese products.



The hand-torn steel R&D team is honored as a “Central SOE Role Model” by the SASAC

Green

CSR Spotlights

Green Transition

Nurturing New Momentum for Green Steel Development

In response to China's strategy of carbon peaking and carbon neutrality (decarbonization), the Company steadily advances the "13473" initiative (1 low-carbon development center, 3 low-carbon development stages, 4 low-carbon implementation steps, 7 low-carbon development pathways, and 3 low-carbon management platforms) for green and low-carbon development. By leveraging the dual benefits of "green manufacturing" and "manufacturing green," the Company accelerates carbon reduction across the entire production process covering all factors of production. Expanding the application of low-carbon steel products in diverse settings, the Company continues to unleash "green momentum" featuring greater impact and stronger competitiveness, with steady progress achieved in the pursuit of green and low-carbon development.

Maximizing energy efficiency



Guided by an approach of "saving resources and expanding utilization," the Company improves multi-steam-source integration. We have upgraded the cooling part of the 1549 waste heat unit, expanded steam extraction capacity for the CDQ2# unit, optimized peak cooling for the CDQ1# unit, and transformed the new steelmaking waste heat unit. These measures significantly improve waste heat and steam recovery efficiency. In 2024, the Company was recognized as a "Benchmark Enterprise for Best Decarbonization Energy Efficiency."

Optimizing energy structure and processes



The Company advances photovoltaic power projects, with an installed capacity of **15.53** MW and an annual electricity output of **15.57** GWh, reaching a leading level within the China Baowu Group. The Company has also purchased **258.5** GWh of green electricity, maintaining an annual procurement volume exceeding **0.2** TWh for two consecutive years, effectively supporting the R&D and production of low-carbon steel.

15.57 GWh
Photovoltaic power generation

258.5 GWh
Purchased green electricity

Building a green logistics network



The Company prioritizes the use of new-energy off-road vehicles and new-energy vehicles for transportation and continuously optimizes the logistics of bulk materials and products. Through green logistics, the Company has achieved a clean transportation ratio of **80.2%**. Additionally, we have developed an intelligent raw material yard that reasonably arranges and tracks the storage, transportation, and mixing of raw materials, realizing automation, mechanization, and digitalization. This has significantly reduced dust by over **80%** and road pollution from vehicles by over **98%**.

80.2%
Clean transportation ratio

Deepening the integration with cities



The Company maximizes the use of industrial waste heat from production processes to supply clean heating for urban areas, meeting **60%** of heating demand. During the reporting period, the Company's centralized heating coverage has reached **21.5** million square meters, fostering deep city-enterprise integration, enhancing energy efficiency, and reducing carbon emissions.

60%
The ratio of supply clean heating

Revolutionizing technologies



The Company consistently adopts a high pellet ratio in blast furnace smelting to control coal consumption in ironmaking effectively. We also advance the research and application of new energy-saving, low-carbon technologies, including carbon capture, utilization, and recycling.

Launching an industrial demonstration project for CCUS



The Company have launched an industrial demonstration project for carbon capture, utilization, and storage (CCUS) using chemical absorption. The initiative includes constructing a CO₂ production line with an annual capacity of **60,000** tons, primarily for use in steelmaking converters. The captured CO₂ contains over **28%** CO, increasing its calorific value by **32%**, making it more efficient for reheating furnaces in the rolling process. This project pioneers a new technology pathway integrating CO₂ capture, CO₂ top-bottom combined blowing energy-efficient converter operations, and high-CO-content gas reuse.

Integrating smart control system



Guided by six key low-carbon development pathways, the Company has established the first decarbonization intelligent information management platform in China's stainless steel industry. This platform includes carbon data management, carbon footprint management, carbon emissions management, carbon asset management, carbon information management, and carbon inclusion. With this system, STSS has achieved the traceability of carbon emissions data for steel products, ushering in refined and comprehensive carbon management.



Exploring advanced materials



The Company Upholds an eco-friendly product design philosophy, we seek new applications, functions, and performances for existing products, broadening the scope of stainless steel applications.

Stainless steel replaces carbon steel, offering long-lifespan, green, and low-carbon solutions and lowering lifecycle costs.



STSS has developed a low-carbon stainless steel short-process smelting process, reducing carbon emissions by more than **70%** compared to conventional methods.

Synergy

CSR
Spotlights

Industrial Synergy

Building a High-Quality Specialty Steel Industry Ecosystem

As the backbone of an industrial chain, the chain leader drives technological innovation and transformation, grasps market trends, and sets development direction. As the dual leader of the specialty steel industry in Shanxi Province and the high-end metal materials industry in Taiyuan City, we give full play to our comprehensive resources and leadership. Guided by our plans, we adopt a project-based approach and attract investments to strengthen our industry fundamentals. Together with upstream and downstream partners, we channel resources into the specialty steel industry, aiming to build a world-class, domestically leading high-quality specialty steel ecosystem.

Precise layout of industrial chain development



The Company has implemented the *2024 Action Plan for the Specialty Steel Industry in Shanxi Province* and followed the development logic of “strengthening key players, extending the supply chain, fostering industrial clusters, and solidifying the foundation.” The Company explores new pathways for coordinated innovation and supply chain integration in clustered industrial parks by focusing on product and technology development, new application scenarios, innovative resource allocation, industrial chain extension, and full lifecycle services. This approach ensures that every enterprise in the industrial chain becomes both a value creator and a beneficiary. The Company has been recognized as an outstanding leading enterprise in Shanxi province’s key industries for 2023.

In 2024

Nearly **35%**

Industry revenue increase attributed to the Company’s efforts

6

New specialized and sophisticated enterprises

3

Recognized as national “little giant” specialized and sophisticated SMEs

2

New market entities

2

New investment projects for industrial chain implemented

23%

From 11% to
Increase in local consumption of specialty steel due to the coordination of provincial enterprises

Focusing on high-end new materials



The Company accelerates high-end, digital, intelligent, green, and clustered development of new materials, contributing to the government’s strategic emerging industry clusters. In 2024, three of the Company’s products were listed in the *First Batch of Shanxi Province’s New Materials Catalog*, the highest number among enterprises in the province.



SUS430LX ultra-pure ferritic stainless steel possesses a domestic market share exceeding 80%. This product has been certified and supplied in bulk to leading domestic and international home appliance brands, laying a solid foundation for Chinese home appliance products to expand into global high-end markets.



Thin, high-efficiency, high-strength, non-oriented silicon steel features superior magnetic and mechanical properties. This product meets international advanced standards and has been widely adopted in the motor platforms of renowned global and domestic automotive manufacturers, providing essential materials for high-end manufacturing.



Hand-torn steel breaks foreign monopolies. This steel achieves mass production at an extreme specification of 0.015×600mm. It surpasses industry standards in specification, performance, delivery cycle, and coil weight, serving as a critical material for high-end manufacturing.



Establishing a “government + industrial park + leading enterprise” model to attract businesses



Focusing on downstream deep-processing within the specialty steel industry, the Company engages with leading enterprises while partnering with the Jiancaoping District government and Zhongbei High-Tech Zone Management Committee to establish a “government + industrial park + leading enterprise” model to attract businesses. Together, we have hosted three targeted investment conferences for the specialty steel and high-end metal materials industries, attracting over **160** enterprises to reach out for partnerships. As a result, **11** companies have signed investment agreements worth over CNY **2.6** billion. Once in operation, these projects are expected to consume **486,000** tons of specialty steel materials.



❖ Hosting industry collaboration and targeted investment conferences for specialty steel and high-end metal materials industries

Building a Solid Foundation and Fostering Growth Drivers

National Call

To improve the modern corporate system with Chinese characteristics, it is imperative to give play to the advantages of the socialist system with Chinese characteristics, strengthen the leadership of the CPC, and improve corporate governance. It is also imperative to promote enterprises to establish and improve a modern corporate system, under which property ownership as well as rights and obligations are clearly defined, and the functions of the government and enterprises are separated. Such a system should be managed in a scientific manner so as to foster more world-class enterprises.

—Stressed by Chinese President Xi Jinping when he presided over the fifth meeting of the Central Commission for Deepening Overall Reform

Corporate Actions

Taigang Stainless integrates the Party leadership into every aspect of corporate governance and strengthens the Board of Directors to create a modern corporate governance system for SOEs with Chinese characteristics. By adhering to principles of integrity and compliance, we have reinforced organizational structure and systems, streamlined operational mechanisms, and strengthened risk prevention. High-quality governance drives the Company's steady development in the long run.

**SUSTAINABLE
DEVELOPMENT
GOALS**



Strengthening the Leading Role of Party Building

Guided by the Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, the guiding principles of the 20th CPC National Congress and the second and third plenary sessions of the 20th CPC Central Committee, as well as the important discourses and directives of the Chinese President Xi Jinping regarding the reform and development of state-owned enterprises (SOEs) and for Taigang, we radically implement the decisions and plans made by Baowu and the Shanxi Provincial Party Committee and Provincial Government. In tandem with our Party members and cadre staff, we deeply implement the business principles of “4 Operations” (high-end, intelligent, green, and efficient operations) and “4 Withs” (production with orders, output with margins, revenue with profits, profit with cash), and diligently promote cost-conscious management, product-oriented management, integrated collaboration, and lean operations. As a result, we have made new progress in Party's construction and all undertakings, and are moving toward stable and positive high-quality development.

Strengthening theoretical guidance

At STTS, the “first agenda” system at Party Committee Meetings and the learning system led by the Party Committee's theoretical study groups are in place to stay updated with and act on the Chinese President Xi Jinping's latest important speeches and directives. We have organized 32 special study sessions on reform and deepening, sci-tech innovation, work safety, ecological civilization, Party building, etc. Taking the important discourses and directives of Chinese President Xi Jinping to Baowu, especially to Taigang, as paramount political missions, we have made the 4 major to-do lists and broken them down into 18 items and 66 specific tasks to ensure effective execution.



❖ The Party Day is conducted, with participants signing their names on banners

Primary-level Party building

The Company thoroughly implements the important thoughts of Chinese President Xi Jinping on Party building, and conscientiously follows the Party's organizational line for the new era. We have continuously amplified the political and organizational functions of primary-level Party organizations, and constantly improved the mechanisms for the management and impact maximization of Party member education to propel the comprehensive improvements and excellence of primary-level Party organizations.

In 2024

1

Advanced central SOE primary-level Party organization

3

Excellent Taiyuan City Party members

3

Outstanding Taiyuan City Party affairs administrators

3

Advanced Taiyuan City primary-level Party organizations

22

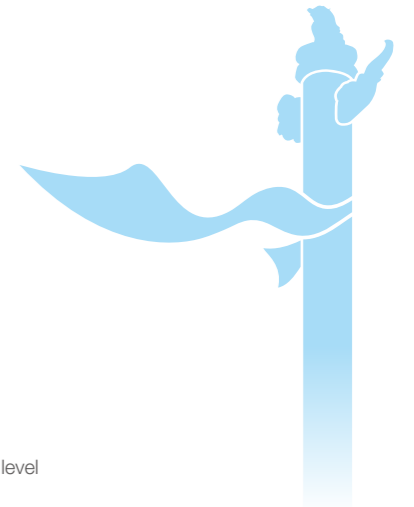
Excellent China Baowu Party members

10

Outstanding China Baowu Party affairs administrators

11

Advanced China Baowu primary-level Party organizations



Full and strict governance over the Party

To deepen Party discipline education, The Company organizes study groups, expert lectures, themed Party courses, and special presentations. We encourage the study of Xi Jinping's important statements on strengthening Party discipline in all aspects and the Regulations on Disciplinary Actions of the Communist Party of China, ensuring that Party members and cadres fully understand and adhere to these standards. Through warning videos, typical cases, and visits to integrity education bases, Party members are encouraged to learn from past mistakes and remain vigilant. Those initiatives have strengthened their discipline awareness, fostering a new culture of integrity and responsibility. In 2024, 17 Party discipline cases were investigated and closed, with 12 individuals receiving disciplinary warnings within the Party and 5 individuals receiving serious warnings (one of whom received a serious warning with a two-year effect).

In 2024

3,040

Warning education sessions

72,587

Party members covered

222

Issues reported from inspections

2

Complaints taken and addressed



❖ The Integrity Education

- Training sessions for Party member executives at the C-level and above and Party organization secretaries have been provided, including the **6** sessions of 5-day study seminar for central enterprises' executives on “Learning and Implementing the Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era”, and the **3** sessions of 4-day centralized rotation training seminar on “Learning and Implementing the Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and the Guiding Principles of the Third Plenary Session of the 20th CPC Central Committee”.
- All Party members have been organized to attend the “Joint Study Program for Central Enterprises' Party Members on Learning and Implementing the Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era” on the “SASAC's e-Learning” platform, achieving **100%** training coverage.
- All Party members have been organized to attend the “Training Program on Learning and Implementing the Guiding Principles of the Third Plenary Session of the 20th CPC Central Committee” on the website for CPC Party members (www.12371.cn), achieving **100%** training coverage.

Improving Corporate Governance

Sound corporate governance is fundamental to sustainable development and stronger stakeholder collaboration. Taigang Stainless strictly adheres to the *Company Law*, the *Code of Corporate Governance for Listed Companies*, the *Basic Norms for the Internal Control of Enterprises*, and other relevant regulations and requirements for listed companies. To improve the modern corporate system with Chinese characteristics, the Company puts in place a governance framework featuring clear responsibilities, science-based standards, and efficient operations, ensuring long-term stability and growth.

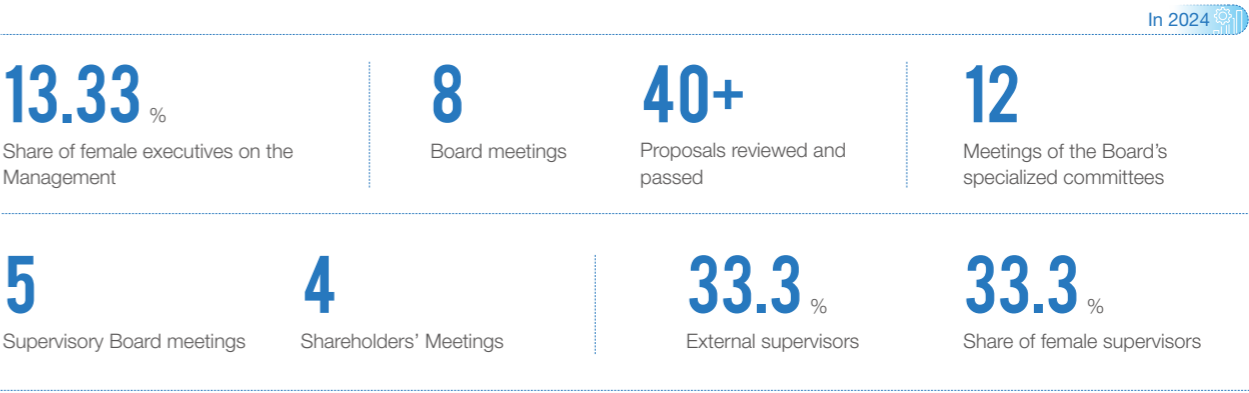
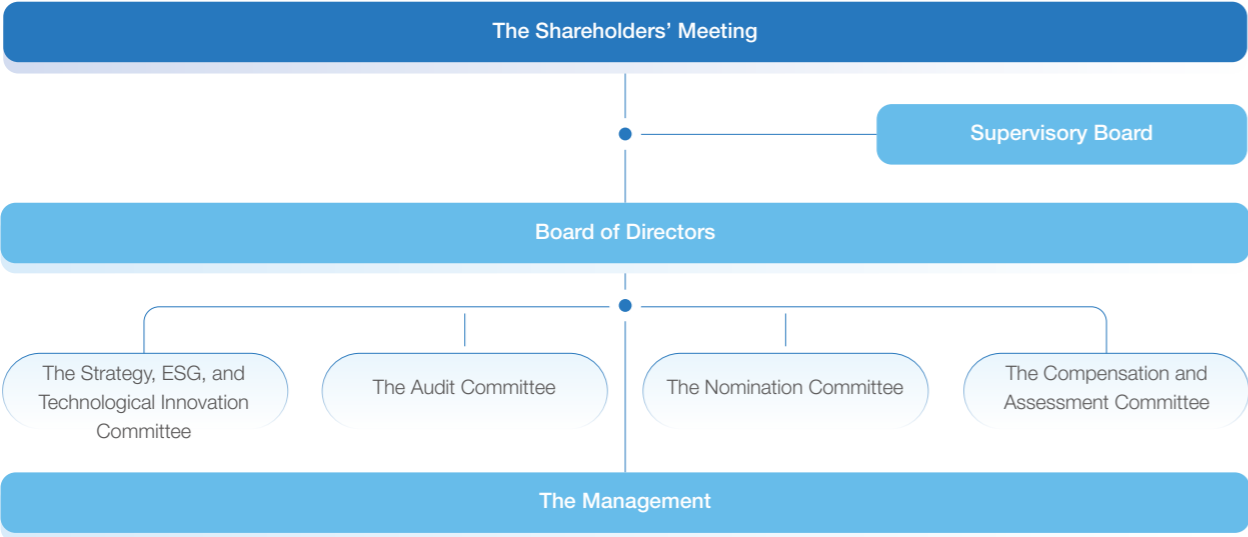
Governance structure

To adapt to the revised *Company Law* and enhance governance, we have overhauled the charters for TISCO and TISCO's subsidiaries. Taking this opportunity, we have implemented the *TISCO Subsidiary Board Development and Operation Plan (Trial)* to build Boards of Directors at all levels and establish a "1+N" governance system. This ensures that the Board follows standards in effectively fulfilling its strategic, decision-making, and risk-prevention responsibilities.

The Company has established the Shareholders' Meeting, Board of Directors, Supervisory Board, and the Management. The Shareholders' Meeting is the highest decision-making body, while the Board of Directors is accountable to it. The Board oversees four specialized committees: the Strategy, ESG, and Technological Innovation Committee, the Audit Committee, the Nomination Committee, and the Compensation and Assessment Committee. These committees report directly to the Board. The Supervisory Board, responsible for oversight, reports to the Shareholders' Meeting. The Board Secretary prepares shareholders' and board meetings, manages documents and shareholders' records, and handles matters related information disclosure.

The Board of Directors consists of 11 members: 7 directors and 4 independent directors. Independent directors, comprising one-third of the Board, do not engage in corporate management but ensure independent and effective operations of the Board. Board members bring diverse expertise in corporate management, human resources, finance, investment, legal affairs, and sustainability. With their extensive industry experience, they can provide professional suggestions for the corporate development and help guarantee the effective operations of the Board.

According to the Board-approved incentive and performance assessment policy for the management members, the Company requires the management team to sign annual performance responsibility agreements that incorporate key indicators, including green development, intelligent technology, low-carbon transition, and total energy consumption. Performance assessments are weighted to reflect the differences in executives' responsibilities.



IR management

In compliance with applicable laws, the *Articles of Association*, the *Corporate Information Disclosure Policy*, and the *Management System for Investor Relations*, the Company has developed a 2024 investor relations (IR) communication plan to strengthen engagement with existing and potential investors. This helps improve investors' understanding of the Company, fully guarantees their right to know, standardizes IR management, and elevates corporate governance and reputation.

Information disclosure

The Company discloses information in strict accordance with relevant laws and normative documents. Based on lawful and compliant information disclosure, we explore to expand information disclosure oriented towards investor needs and helping investors make value judgments and investment decisions, enhancing the depth and breadth of information disclosure. With growing investor attention to ESG topics, we regularly release reports to address the concerns and expectations of stakeholders. To ensure timely, accurate, complete, and legal information disclosure, we disseminate key updates on major projects, operations, energy conservation, environmental protection, and technological innovation through media platforms, including *China Securities Journal*, *Securities Times*, *Shanghai Securities News*, *Securities Daily*, and CNINFO (<http://www.cninfo.com.cn>).



Investor engagement

Relying on the platforms such as the Shenzhen Stock Exchange Easy Interaction (SSEI) platform, online reception days, earnings briefings, visiting research and visits, the Company bridge efficient communication with investors through direct communication and diverse interaction to engage extensively with investors on industry trends, corporate governance, development strategies, sustainability, and business operations. Such interactions better communicate the Company's values to investors and ensure that investors gain a deeper understanding of the Company's investment value, enhancing the Company's image in the capital market and increasing investor recognition of the Company.



❖ Shareholders are Coming" activity of "Focus on high-quality development, explore new quality productivity forces

ERM

To strengthen enterprise risk management (ERM), Taigang Stainless reinforces the “three lines of defense.” The Company follows a process that includes identifying key risks, developing work plans, deploying control measures, establishing major risk early warning indicators, and preparing quarterly reports to track implementation. In 2024, in terms of six level 1 categories—strategic, financial, market, operational, legal, and other risks—along with level 2 risks associated with macroeconomic situations, reform and business transformation, and technological innovation, We provide precise evidence for subsequent adjustments to risk prevention strategies by quarterly tracking the monitoring of risk indicators and analyzing the causes of data fluctuations, and build a more efficient and flexible risk response mechanism, ensuring overall risks were under control.



To enhance the internal control system, the Company analyzes internal control risks across development strategies, human resources, social responsibility, sales, procurement, and R&D. We incorporate risk and compliance management into the internal control process and system, translate external regulatory requirements into the Company's internal policies to better the corporate internal management system. Additionally, accountability for business misconduct is embedded in internal management systems to strengthen restraints. In 2024, the company has completed 21 auditing projects, with 100% auditing issues corrected by due date.

Deepening SOE reform

The Company implements the work ledger for the initiative to deepen SOE reform by integrating reform tasks into business management and annual priorities. In 2024, in the SASAC's evaluation of SOE reform projects, The Company was recognized as an outstanding “technology reform enterprise” among central SOEs.

Following Business Ethics and Compliance Requirements

Taigang Stainless adheres to Chinese laws and regulations such as the *Law Against Unfair Competition*, the *Anti-monopoly Law*, and the *Anti-Money Laundering Law*. We continue to strengthen our leadership accountability framework, law-based governance system, regulatory framework, compliance management system, and operational structure, enhancing our compliance capabilities to ensure law-based decision-making and standardized management.

Strengthen integrity building

Adhering to systematic, holistic and collaborative thinking, we introduce the full-cycle management approach into anti-corruption and continuously strengthen efforts to promote integrated “non-corruption in three aspects.”



In 2024

297

Newly identified integrity risk points

217

New or revised systems

100 %

Anti-commercial bribery and anti-corruption training coverage for personnel with business disposal rights

16,700

Total visits to Taigang Integrity Culture Educational Base

5

Integrity culture educational bases built at the primary-level

Standardized compliance management

Based on our experience of obtaining the British Standards Institution (BSI) domestic and international certifications for comprehensive compliance, the Company continues to deepen compliance management, and fosters a culture of compliance, making it an intrinsic part of employee conduct. In 2024, taking advantage of the revised *Company Law*, we conducted a comprehensive review and revision of our corporate charter, developed compliance manuals covering key areas such as safety, overseas operations, and anti-corruption, and enhanced our governance framework.

Furthermore, the Company has upgraded the smart legal information system, which identifies, analyzes, and evaluates legal and compliance risks online while standardizing, streamlining, and digitalizing risk prevention. This upgrade significantly improves our law-based governance and risk management capabilities. To promote a compliance culture, we utilize annual meetings, corporate social media accounts, lectures, and primary-level activities delivered by court personnel. All newly hired employees are required to sign a *Compliance Commitment Letter*, resulting in a substantial improvement in overall compliance awareness. During the reporting period, the Company achieved a 100% employee signing rate of the *Compliance Commitment Letter*, with no major legal or compliance risk incidents.



The opening ceremony of the smart legal information system

Fair competition

Taigang Stainless operates with integrity in strict compliance with the *Law Against Unfair Competition* and other relevant Chinese laws and regulations to foster a fair business environment. In 2024, the Company did not receive any penalties from domestic or international market regulators for unfair competition practices, nor were we involved in any unfair competition lawsuits, contributing to an orderly market environment.

Pursuing Excellence and Nurturing New Quality Productive Forces

National Call

Traditional manufacturing industries are the mainstay of China's manufacturing industry and the foundation of a modern industrial system. Promoting the transformation and upgrading of traditional manufacturing industries is a strategic choice to proactively adapt to and lead the new round of technological revolution and industrial transformation. The important initiative that enhances the resilience and security level of the industrial chain and the supply chain is an inevitable requirement for advancing new industrialization and building a manufacturing major country at a faster pace, which is crucial to the overall development of a modern industrial system.

—Excerpt from the *Guideline on Accelerating the Transformation and Upgrading of Traditional Manufacturing Industries* issued by the Ministry of Industry and Information Technology and seven other departments

Corporate Actions

Committed to product and technological innovation, Taigang Stainless focuses on key national projects, critical material supply, and bottlenecks in new equipment materials. We are dedicated to establishing a cradle for original stainless steel technology and developing a portfolio of cutting-edge, proprietary products. These efforts aim to address the challenges in supplying new materials for China's high-end manufacturing and contribute to Shanxi's high-quality development.

**SUSTAINABLE
DEVELOPMENT
GOALS**

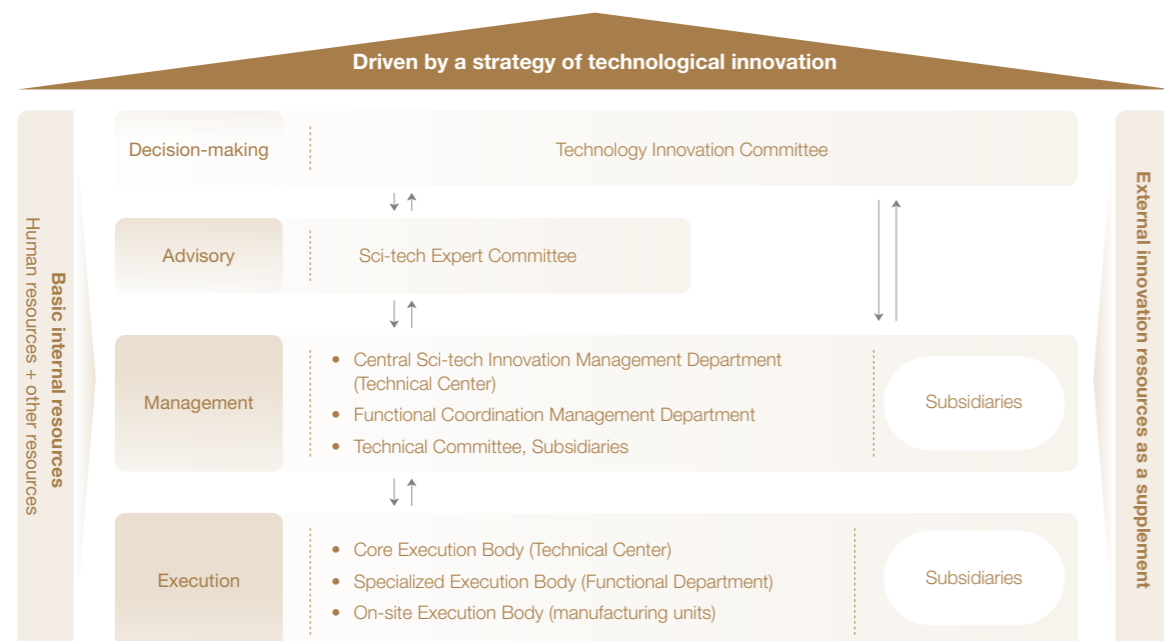


Upgrading Innovation Management

Governance

As we optimize our technological innovation management system, we have established a four-tier governance structure comprising decision-making, consulting, management, and execution. This structure is supported by internal human and other resources and supplemented by external innovation resources. Under centralized management and planning as well as tiered implementation, the Company adopts a process-driven management approach to ensure systematic, integrated, and efficient execution.

Taigang Stainless implements the *2024 Technology Innovation Evaluation Plan, Enhanced Plan for "One Headquarters, Multiple Bases" Technology Innovation Management, Patent Management Measures*, and *Technical Secrets Management Measures*. These policies aim to ensure systematic and law-based technology innovation management and strengthen the Company's overall innovation capacity and efficiency.



❖ Technology innovation governance structure

Strategy

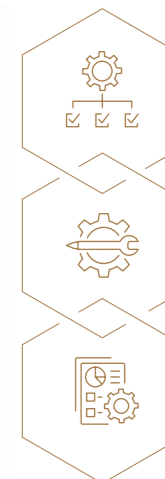
Under the *2024–2026 Strategic Plan*, the Company is pushing forward with a global vision, breakthrough innovations, and highly efficient management. We have realized industry-leading technology innovation by developing premium products, shaping brand excellence, and pursuing outstanding performance. Our goal is to lead the market of global stainless steel products and technologies when we celebrate our centennial. Focusing on critical and frontier technologies, we have built strategic alliances and joint laboratories for technological innovation with over 40 leading universities and research institutions at home and abroad. Through the innovation consortium, we enhance collaborations with upstream and downstream partners to develop new technologies and products, promoting industry development.

Three strategic goals for technology innovation

Our stainless steel products and technologies reach world-class quality levels, with other products and technologies meeting internationally advanced standards

We work to build a national base for high-end strategic material R&D and manufacturing and make ourselves a key innovator in specialty steel technologies and a cradle for original stainless steel technologies

We aspire to build ourselves as the world's most competitive high-tech enterprise with a complete stainless steel industry chain, with technology innovation as the primary driver of business performance and sustainable development, contributing to China Baowu Group's vision of becoming a world-class enterprise



Impact, risk, and opportunity management

As China prioritizes technological innovation with continuous policy support and the global technology industry rapidly evolves, the Company faces significant growth opportunities and multiple challenges, including technological, market, and collaboration risks. Throughout new product development, we conduct contract reviews, technical evaluations, and design verifications based on systematic management protocols to effectively manage impact, identify and mitigate risks, and seize emerging market and technology opportunities. This ensures product-market fit, reliable quality, accelerated commercialization, and stronger competitiveness.

Impact management

Before pilot production, the Company conducts contract reviews that integrate technical and manufacturing considerations to align product design with market demand. This helps minimize post-launch negative feedback and enable fast adjustments based on user feedback to elevate our brand.



Risk management

The Company assesses technology, market, and production risks during new product development. Technical reviews are integrated early in the design phase to ensure feasibility, while initial pilot production validates manufacturing stability to reduce mass production risks.



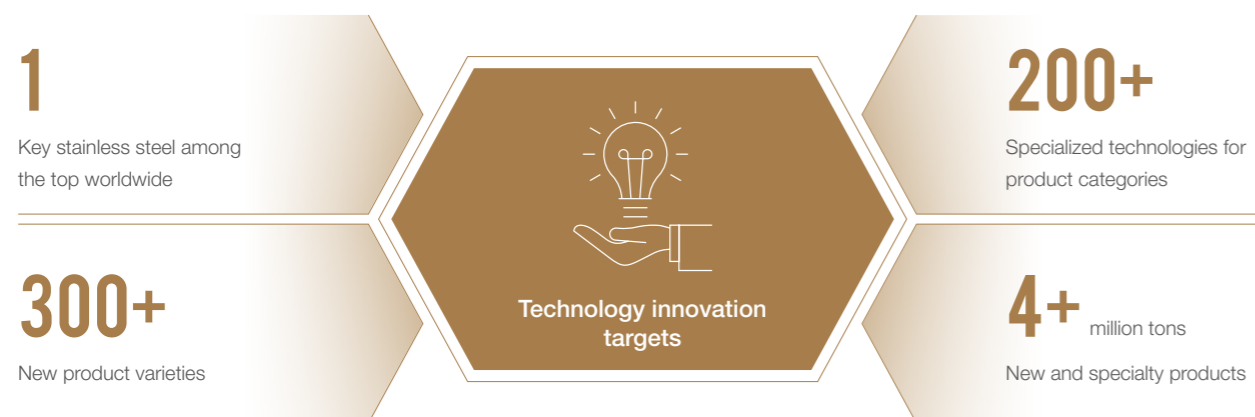
Opportunity management

Given market demand and our technological strengths, we develop differentiated new products and participate in industry exchanges to stay informed of technology trends. The Company rapidly markets successful new products to drive swift growth in market share.



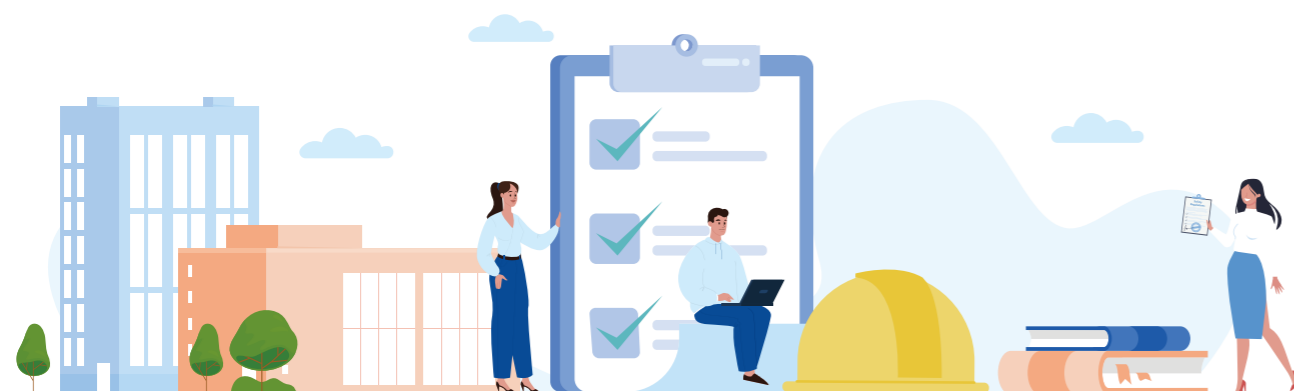
Metrics and targets

According to the 2023–2032 technology innovation plan and the 2024–2026 strategic plan, the Company has set goals to achieve global leadership in the quality of key stainless steel products and technologies and become a core material supplier that supports China's high-tech industries, which points out the direction for and inject impetus into the Company's technological innovation.



To track progress and target accomplishment in technological innovation, the Company develops an annual technology innovation business plan and implements a process control mechanism with key metrics monitored each month. This provides strong support for continuous improvement and innovation.

In 2024

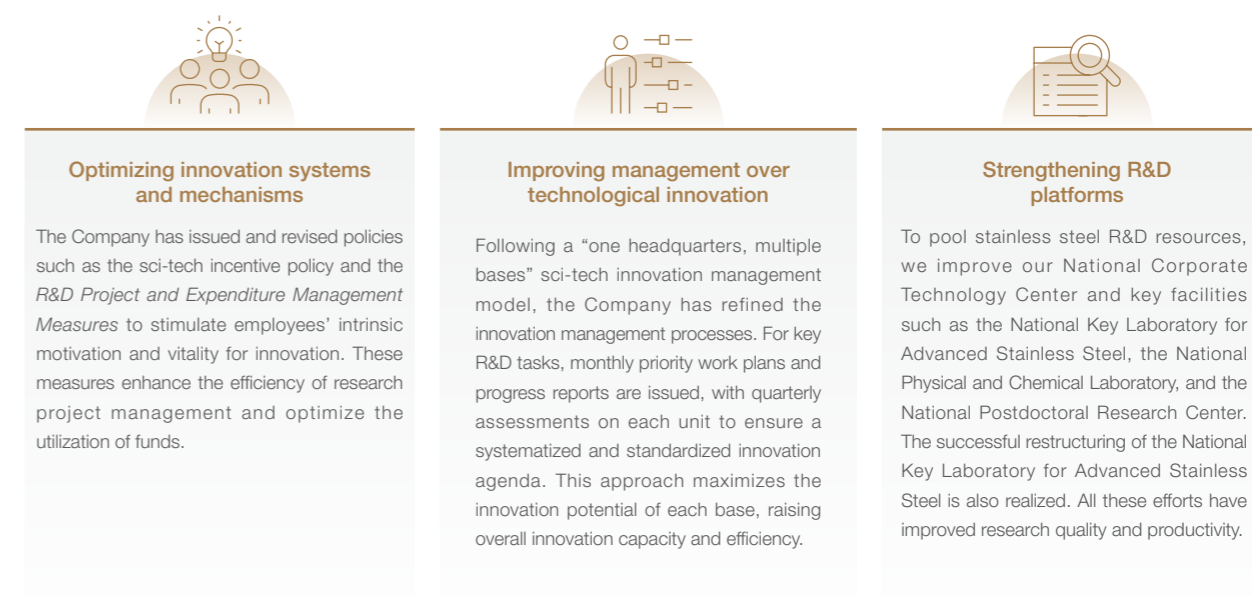


Seeking Innovation-driven Development

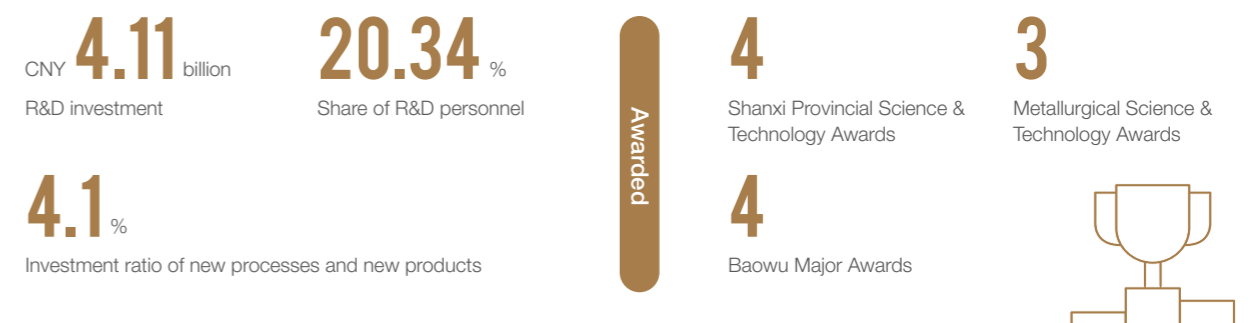
Guided by an innovation-driven strategy, Taigang Stainless improves its systems and mechanisms while ramping up investments in R&D and product innovation. Employees are encouraged to innovate, which improves their innovation efficiency and capability. These efforts enable the Company to move up the value chain and industrial chain, better adapt to market dynamics, and realize sustainable growth.

Innovation management

Integrating technological and industrial innovation, we adopt a structured and law-based approach to advance sci-tech innovation, strengthen R&D platforms, refine incentive management, and form teams of high-caliber and highly skilled individuals. Through systematic, standardized, and institutionalized management, our capability and efficiency of technological innovation have been improved, laying a solid foundation for high-quality development and better competitiveness.



In 2024



Recruitment and training of high-caliber talent

Talent drives technological innovation. Adhering to the principle of "more competent, more opportunities," the Company maintains a balanced approach to attracting, nurturing, utilizing, and retaining talent. We have implemented a value-driven major project contracting system, enabling researchers to form teams freely, choose research topics independently, and get rewarded based on contributions. Immediate and targeted incentives fuel innovation, reinforcing both technological innovation and on-site technical support.

Sci-tech talent team

The Company has built a high-caliber sci-tech team led by experts such as Wang Yide, an academican of the Chinese Academy of Engineering, Li Jianmin, China Baowu's Chief Scientist, and Li Guoping, a distinguished expert under China's "Ten-Thousand Talents Plan." The team includes one academican of the Chinese Academy of Engineering, one China Baowu chief scientist, one China's Baowu engineering scientist, three TISCO scientists, 14 senior chief researchers, and 65 chief technology researchers.

High-skilled talent team

We have established a high-skilled workforce, led by national master craftsmen Lvy Tao and Niu Guodong. The team includes 14 national technical experts, 67 national steel industry and Shanxi provincial technical experts, and 35 chief technicians.

IPR protection

As an outstanding intellectual property right(IPR) holder in China, we follow national strategies and industry trends and venture into key and emerging technologies. We enforce rigorous *Patent Management Regulations* and *Technical Secret Management Regulations*. These measures leverage the value of patents and technical secrets in the protection of knowledge assets, stimulate innovation, and guarantee robust IP protection.

In 2024, the Company's patent "composition control method for ultra-pure stainless steel used in nuclear power" won second prize at the Shanxi Provincial Patent Awards. Another ten patents received recognition at the National Invention Exhibition, including four gold medals and six bronze medals. The Company also designed and registered 22 trademarks for seven key product varieties, all approved by China National Intellectual Property Administration, providing strong support for new product development.

In 2024

393

New patent applications

85.24

% Including, invention patents

106

Authorized patents

58

Invention patents

1,335

Total valid patents

1,000

Including, invention patents

0.013

Valid patents per CNY one million of revenues



Achieving Excellent Quality

Innovations in premium products

Focusing on "full variety, full series, and full coverage" and "high-end, sophisticated products and new areas," Taigang Stainless implements an innovation-driven development strategy to move up the value chain and industrial chain. We aim to meet the needs of major national projects and economic development in all aspects and make greater contributions to China's technological progress and industrial advancement.

The Company pushes forward the development of mission-driven materials and advances R&D of new products. Multiple brand-new products in energy, transportation, aerospace, and other sectors have been developed, further expanding our product portfolio and filling the gap in the world. This has boosted our market competitiveness at home and abroad. During the reporting period, we developed 106 new products, with a total output of 810,000 tons.

Seven products launched globally for the first time



Stainless steel plates for nuclear power applications, 1,300 MPa hot-formed wheel steel, high-grade magnetic yoke steel sheets for pumped-storage power stations, aerospace-grade high-chromium ultra-pure alloy base materials, and durable steel for breaker cylinders in extremely cold environments.

Eight products launched domestically for the first time



Ultra-pure ferritic stainless steel for plate-fin heat exchangers, high-efficiency, high-strength quick self-bonding silicon steel, ultra-pure ferritic stainless steel for heat exchangers, steel for high-power locomotive axles of Fuxing trains, pure iron for precision alloys for aerospace applications, high-strength stainless steel cold-rolled products for rocket fuel casings (Baoxin).

Launching the world's widest lanthanum-containing iron-chromium-aluminum sheets



In February 2024, the Company successfully launched the world's widest and heaviest lanthanum-containing iron-chromium-aluminum sheets, setting new global benchmarks in key component control and high-temperature performance. The sheets, widely used as critical materials in industrial furnaces, food machinery, vehicles & transportation, home appliances, and environmental equipment, are recognized as one of the most durable and heat-resistant iron-chromium-aluminum materials, with promising market prospects. Before this product, the prevailing iron-chromium-aluminum sheets worldwide were 950 mm wide. After years of R&D, we expanded the sheets to 1,300 mm with a maximum coil weight of 18 tons, suitable for large-scale and continuous production. This milestone boosted the global competitiveness of the Company's iron-chromium-aluminum products while strongly supporting the high-quality development of equipment manufacturing in China.



Successfully producing the heavy and wide N06625 nickel-based alloy hot-rolled coil



In December 2024, we trial-produced a wide N06625 nickel-based alloy hot-rolled coil weighing over 14 tons, marking a major technological breakthrough in the global specialty alloy market. As a solid solution-strengthened nickel-based alloy, N06625 offers exceptional corrosion resistance, so it is widely used in high-end equipment manufacturing, petrochemical applications, and other industries. Our attempt overcame key global challenges such as segregation during solidification and narrow hot-working temperature ranges, making STSS now the third company worldwide—and the only one in China—capable of full-process, large-scale production of this wide alloy coil. This innovation not only enhances China's competitiveness in the high-end metal materials market but also provides global customers with more diverse, high-quality, and efficient materials, driving industrial upgrading and economic growth.



New precision strip steel used for high-end semiconductor “core” components



In March 2024, in response to a tight supply of semiconductor lead frame materials, we assembled a cross-departmental research team to overcome key technical challenges, including alloy purity, thermal expansion coefficient, and surface quality control. As a result, we developed 4J42K precision alloyed steel strips. After rounds of process improvements, we realized stable production totaling several dozen tons in small batches. Almost equivalent to imported counterparts, the strip steel met customers' quality requirements. With a thickness range of 0.1-0.4 mm, the steel offers excellent magnetic, electrical, processing, and welding properties, making it an ideal material for semiconductor lead frames. The breakthrough not only resolves quality and supply instability for domestic lead frame materials but also enables large-scale supply to industry leaders, reducing pressure on imports and enhancing the competitiveness of China's semiconductor lead frame materials.



Quality management

Regarding quality as our lifeline, the Company remains committed to quality excellence by implementing a rigorous quality management system. The Company strictly adheres to international standards and specific customer requirements throughout the production process, ensuring continuous improvement at every stage. At the same time, the Company obtains authoritative quality system and product certifications and improve product quality and service to earn industry recognition and customer trust, laying a solid foundation for the Company's long-term development.

Product quality testing

The Company adopts fully automated equipment to precisely test product composition and mechanical properties. The system's automated evaluation and real-time data transmission significantly enhance testing efficiency, objectivity, and accuracy, providing customers with reliable quality assurance.

Quality system certifications

To cement our quality management foundation and meet the stringent requirements of special industries, the Company has acquired key quality system certifications, including ISO 9001, JIS, IATF 16949, TISI, SIRIM, GJB, PED, and CPR. These certifications drive continuous improvements in our quality management.

Authoritative product certifications

In the field of specialty steels, the Company has obtained multiple authoritative product certifications, including ship use certifications from seven countries, technical assessments for pressure equipment materials, recyclable materials certifications, and the French GTT certification for LNG vessel materials.

- The “Modeling Innovation and Application of Multi-Category High-Quality Integration Based on Quality Technology” project won **the second prize at the China Association for Quality's Technical Quality Awards**.
- The Company's austenitic stainless steel cold-rolled sheets and strips, ultra-pure ferritic stainless steel cold-rolled sheets and strips, and welding gas cylinder steel strips were awarded **the Metallurgical Product Physical Quality Gold Cup for outstanding quality**.

In 2024

7

Quality management systems revised

5

New quality management systems

32

Effective quality management systems

99.68 %

Product percent of pass

181

QC team activities held

4300 medium-thickness plate production line receives EU CE marking



In March 2024, the Company's 4300 medium-thickness plate production line obtained CE marking for 15 steel varieties, including PED certification for 13 stainless steel varieties and CPR certification for 2 carbon steel varieties. As a key export product, stainless steel medium-thickness plates feature high production capacity and superior quality. Through intelligent upgrading and process optimization, the Company has strengthened process control and ensured effective quality management, continuously improving product quality. Our products have wider and thicker specifications, high-end varieties, and excellent quality. The newly certified products under CE marking are widely used in industries with high safety requirements, such as machinery, chemicals, petroleum, and construction, offering domestic and international customers more reliable options. This certification also reinforces our market position and facilitates further global expansion.



Upgrading of smart manufacturing

As we advance smart manufacturing, we implement special projects to replace manual labor with mechanization, reduce the workforce through automation, and achieve unmanned intelligent operations. By exploring AI-driven innovations, we have significantly improved production quality and efficiency while reducing operational costs, injecting strong momentum into our digital transformation and sustainable development.

Data value exploration

By leveraging existing resources, we innovate in value-added data applications, improve data quality, and optimize data models. This enables us to uncover data possibilities for improving profitability, expanding markets, reducing costs, optimizing processes, enhancing quality, and ensuring stable equipment operations. In addition, we gather cases for innovative data applications.

Smart mining development

Leveraging the establishment of intelligent non-coal mining demonstration projects at Yuanjiacun and Ekou Iron Mines in Shanxi Province, the Company has promoted smart mining. By integrating digital technologies into mining operations, we enhance technical support and drive the efficient development of the mining sector.

In 2024

43

Unmanned operation projects promoted

18

Company-level technology R&D projects set up

85+

%
Digital control rate for key processes



❖ Urea feeding robot realizes intelligent SCR catalyst flow

AI-powered upgrading in steelmaking – new manufacturing execution system (MES) launched

In May 2024, after 398 days of development, the northern section of the Company's No.2 steelmaking plant embraced smart transformation with the official launch of a new Manufacturing Execution System (MES). As the intelligent center for production management, the system integrates AI-driven models to address operational bottlenecks through 26 targeted management and business improvement measures, providing a solid foundation for lean operations. The new MES system localizes metallurgical MES as a domestic software substitute while fostering technological innovation and industrial upgrading. This smart transformation injects fresh momentum into the plant's development and sets a benchmark for digital transformation in the industry.



Supporting Industrial Upgrading

Leveraging our resources and expertise, Taigang Stainless promotes coordinated development between regions, and between upstream and downstream players. The Company deepens the integration of industry, academia, and research, contributes to the formulation of industry standards, and facilitates the effective sharing of knowledge, technology, and resources. By fostering close cooperation across the supply chain, the Company supports the transformation and high-quality development of the stainless steel industry.

Closer industry collaboration

The Company has established in-depth exchange and collaboration mechanisms with governments, upstream and downstream enterprises, and research institutions. Through strategic technology innovation alliances, shared laboratories, R&D centers, and industry-academia-research cooperation bases, we gather industry expertise and resources to incubate new technologies and products, injecting strong momentum into the industry's prosperity and advancement.

Promote industrial clusters

Taking the lead in building the Taiyuan Special Steel Materials Cluster by fully leveraging the leading roles of key enterprises. The cluster upstream utilizes Taiyuan's abundant iron ore and coking coal resources, while midstream companies serve as the core of a specialty steel manufacturing and deep processing base, effectively promoting a better allocation and use of resources. Downstream players supply high-quality specialty steel materials to equipment manufacturers such as Taiyuan Heavy Machinery Group Co., Ltd., Shanxi Yangmei Chemical Machinery (Group) Co., Ltd., Taiyuan Boiler Group Co., Ltd., and Jinxi Axle Company Limited. The cluster drives product upgrade and sharpens market competitiveness, with its innovation capabilities ranking No. 1 in all regions of Shanxi Province for many years, fostering strong industrial competitiveness overall.

Advancing multi-party collaborative innovation

We collaborate with domestic universities and research institutes and apply for national and Shanxi provincial key R&D programs. We have submitted applications for 24 projects. In 2024, we undertook six key R&D projects in Shanxi Province, including the "development and application of high-nitrogen, high-strength stainless steel plates for special vehicle protection." Additionally, we led 10 projects, covering national key R&D programs, Shanxi's "open bidding for selecting the best candidates" projects, and provincial key R&D plans, all of which have passed final assessments.



❖ Industry-academia-research collaboration with Xi'an Jiaotong University

Contribution to standard formulation

The Company leads and promotes the standardization of stainless steel and related materials to align with global standards. We have advanced the ISO 4653 international standard project to the committee draft stage and contributed to the release of the ISO 6435 international standard. Four national standards, which we have helped formulate or revise, including the *Specification for Cold-Rolled Alloy Structural Steel Plates for Aerospace Applications*, have been released, providing solid technical support for improving product quality and facilitating the industry upgrade.

In 2024

We contributed to the formulation and release of following standards

1

International standard

4

National standards

1

Industry standard

5

Group standards

Building a Beautiful China Through Green and Low-Carbon Development

National Call

It is necessary to vigorously promote green and low-carbon economic and social development, accelerate the green and low-carbon transformation in the fields of energy, industry, transportation, urban and rural construction, and agriculture, strengthen green technological innovation, and enhance the internal driving force and innovative vitality for building a beautiful China.

—Excerpt from the *Opinions of the Central Committee of the Communist Party of China and the State Council on Advancing the Construction of a Beautiful China*

Corporate Actions

The Company proactively takes on the mission of environmental protection, continuously advances the initiatives to address climate change and protect the ecological environment, and comprehensively improves its capabilities and standards in green and low-carbon development. We strive to build a resource-conserving and environmentally friendly enterprise for high-quality development.

SUSTAINABLE
DEVELOPMENT
GOALS



Strengthening Environmental Management

The Company strictly implements environmental protection requirements. We improve our environmental management system and ensure its effective operation. While comprehensively strengthening our environmental risk management, we clarify the primary responsibility for environmental protection to fully support the Company's compliant and green production and operations.

Governance

The Company has established a three-tier environmental protection management framework consisting of the Environmental Protection Management Committee headed by the Chairman, the Department of Ecology and Environment (the Carbon Neutrality Office), and the environmental protection departments of subsidiaries. They supervise and manage waste gas, wastewater, solid waste, noise, as well as energy conservation and carbon reduction. To ensure effective management of environmental risks, we prepare a quarterly briefing on comprehensive risk management, and report it to the Company's Party Committee each quarter.

We have formulated management regulations, such as the *Energy and Environmental Protection Management Measures*, the *Provisions on the Responsibility for Ecological Protection (Trial)*, the *Accountability Management Measures for Environmental Protection Incidents*, and the *Implementation Plan for Differential Evaluation of Environmental Protection Management*. Additionally, we continuously improve the Company's environmental protection through environmental management system certification.

We organize regular training sessions on the laws, regulations, knowledge and skills on ecological protection, enhancing employees' awareness, management capabilities, and professional skills in this aspect. In 2024, the Company launched 10 environmental protection training programs concerning the certification for environmental management system internal auditor, hazardous waste pollution prevention and control technologies, management technologies for online monitoring facilities of pollution sources, soil and groundwater pollution prevention and control, as well as relevant environmental protection forums, with 670 participants trained, totaling 78 class hours.

Strategy

In accordance with action plans such as the *Energy Efficiency Benchmarking Work Plan (2023-2025)* and the *Three-Year Action Plan for Tackling Key Challenges in Nuclear and Radiation Issues (2024-2026)*, the Company systematically identifies and manages environmental risks concerning the discharge of hazardous solid waste, noise pollution, radiation, soil and groundwater contamination, and pollutant discharge permits. We have also formulated the *Carbon Peaking and Carbon Reduction Action Plan*, clarifying the "13473" green and low-carbon development mode and goals. These efforts will contribute to achieving China's 30·60 Decarbonization Goal and building a beautiful China.

Impact, risk and opportunity management

By fully integrating environmental risks into the Company's risk management process, we continue to strengthen environmental risk prevention and control and strictly manage all types of environmental risks. Based on our regular environmental monitoring and evaluation system, we regularly monitor and prevent environmental risks through "specialized + on-site" inspections, supervision, guidance and other management models.

The Company pays much attention to environmental risk management throughout the entire life cycle of projects. We require the environmental impact assessment at the feasibility study stage of new projects that shall only be launched with approval from relevant government authorities. We strictly follow 'Three Simultaneities' principle--simultaneous design, simultaneous construction, and simultaneous commissioning of safety facilities, occupational hazard control systems, and environmental protection installations with the main project--in project construction, and take ecological and environmental protection measures, maximizing the prevention and reduction of project-related environmental risks. To tackle sudden environmental incidents, we have formulated emergency plans such as the *Environmental Emergency Response Plan* and the *Radiation Accident Emergency Response Plan*. Our regular emergency drills and timely improvement of environmental risk management measures also help effectively prevent and manage environmental accident risks.



Metrics and targets

Based on a problem-oriented approach, we sign the *Energy Conservation, Carbon Reduction, and Environmental Protection Target Responsibility Letter* with our subsidiaries at the beginning of each year. This document covers three binding targets, including the total emissions of sulfur dioxides, nitrogen oxides, and chemical oxygen demand, as well as 16 key task metrics, and requires regular monitoring of their progress, ensuring the effective control of all environmental emission indicators.

Indicator	Unit	Targets in 2024	Progress in 2024
Sulfur dioxide emissions	t	< 650	628.87
Nitrogen oxide emissions	t	< 3,000	2,819.97
Chemical oxygen demand (COD) emissions	t	85	56.22
Utilization rate of solid waste	%	99.5	99.53

In 2024

CNY 455 million

Total investment in environmental protection projects

CNY 293 million

Total Investment in energy-efficient technology retrofits

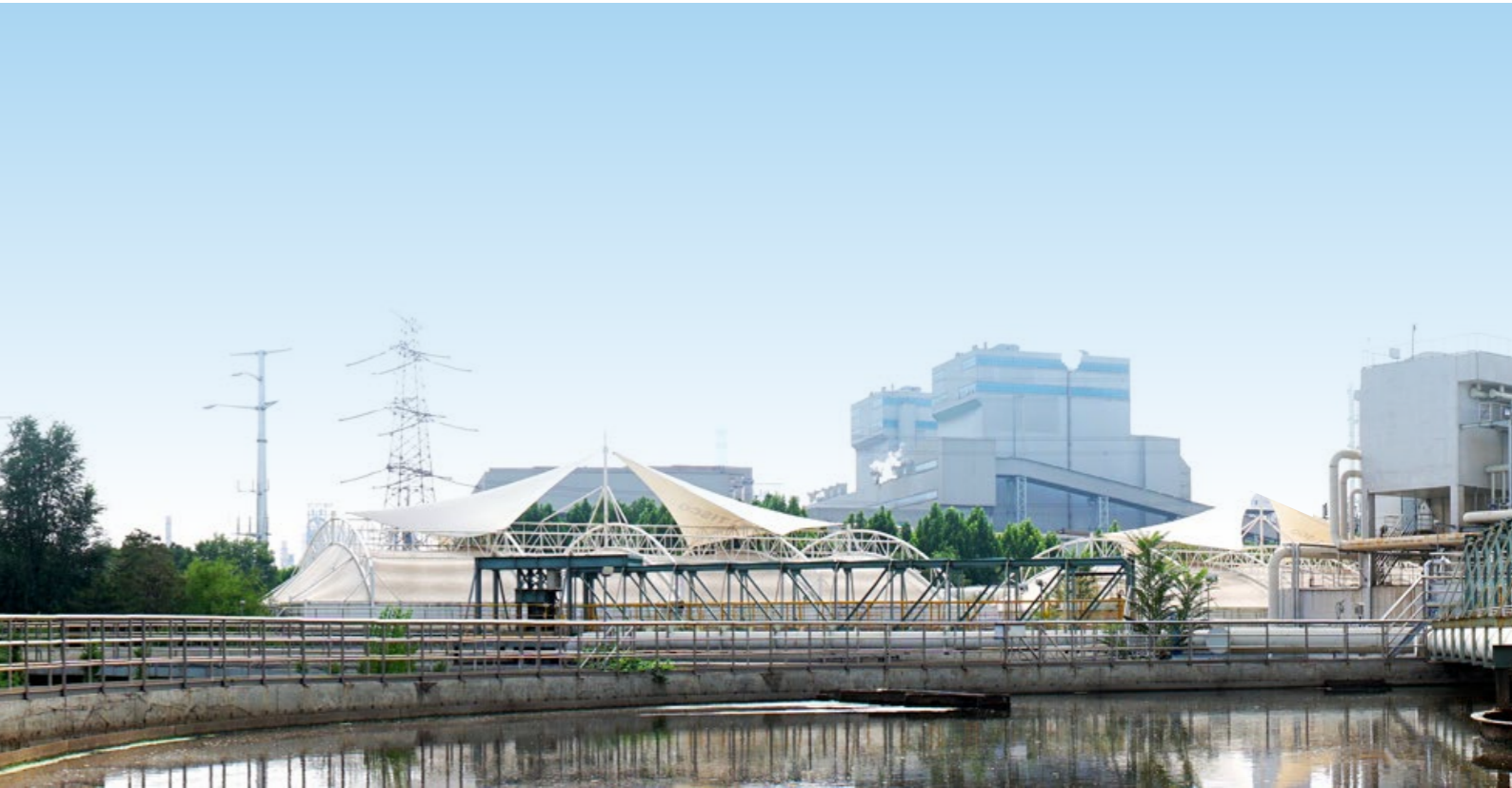
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Environmental protection penalty

11

Emergency drills organized

The Company has enlisted **A**-level environmental performance for ultra-low emissions across the entire production process, with Grade **A** performance in ultra-low emissions.



Implementing Green Production

Taigang Stainless emphasizes the management of wastewater, waste gas, and solid waste. We advance the comprehensive prevention and control of air, water, and soil pollutions, as well as the overall utilization of solid waste, continuously improving resource utilization efficiency. We also accelerate the green and low-carbon transformation of production modes, driving a dynamic synergy of pollution control and carbon reduction.

Reducing pollution emissions

The Company steadily advances energy conservation and carbon reduction, waste gas ultra-low emission, compliant wastewater treatment, and the building of a zero-waste enterprise. We strictly comply with permitted emissions specified in discharge permits to achieve the overall control of pollutant emissions. Through measures like system establishment, process optimization, and technological innovation, we enhance the management level, achieve 100% standard discharge of three wastes, aiming to build a green steel plant in harmony with nature. In 2024, by actively participating in environmental rights trading including emission rights, the Company sold 147 tons of particulate matters and 47 tons of nitrogen oxides reduced through ultra-low emission retrofitting, with a trading revenue of approximately CNY 1.67 million.

Wastewater management

The Company strictly complies with the regulatory requirements of "Cleaner Water into the Yellow River" set by Taiyuan City and Shanxi Province. We have formulated the *Management Measures for the Prevention and Control of Wastewater Emission Pollution* accordingly. Through "precision water use control + specialized rectification of drainage," we steadily improve the reuse efficiency of wastewater membrane and the quality of water supply, enhancing the efficiency of water circulation. During the reporting period, the Company completed the comprehensive management project for desulfurization wastewater from the 2×300MW power generation units and fully connected the Phase VI pipeline of sewage inflow to the neutralization station. These measures have significantly improved the water quality indicators of the entire industrial wastewater system and greatly reduced the operational load of subsequent advanced treatment of membrane units.

In 2024

22.48 million m³
Drainage volume

6.31 million m³
Volume of wastewater discharge

0.52 ton of water/ton of steel
Volume of wastewater discharge per ton of steel

24.93 million m³
Volume of urban sewage and reclaimed water treated

99.02 %
Water reuse rate



Comprehensive treatment project for desulfurization wastewater from 2×300MW power generation units commence operation



The Company has launched the comprehensive treatment project for desulfurization wastewater from 2×300MW power generation units. Based on the technological route of "low-temperature triple-effect flash evaporation + bypass rotary spray drying," the Company boasts the wastewater treatment capacity of 25 tons per hour. In September 2024, the project was put into operation. Subsequently, the recovery rate of the low-temperature multi-effect flash evaporation concentration system exceeded 80%, and all the water quality test results met performance indicator requirements, with the recovered water quality being superior to that of industrial water. Through such efforts, the Company has achieved zero wastewater discharge at the source of the desulfurization system for its 300MW power generation units, and promoted a synergy of pollution control and carbon reduction among its thermal power units.

Waste gas management

The Company has formulated the *Management Measures for the Prevention and Control of Waste Gas Emission Pollution*, strictly controlling environmental risks of air pollution and enhancing Grade A performance in ultra-low emissions. We strengthen the management of unorganized emissions through mobile monitoring, drone aerial photography, online monitoring, video surveillance, and cross-checks. Based on the principle of "four prohibits" and the incident management mechanism, we strictly manage the incidents of organized excessive emissions and unorganized smoke emissions.

In 2024, focusing on the emissions of air pollutants, the Company completed the desulfurization and denitrification retrofitting project for coke oven flue gas at the coking plant, as well as the low-carbon energy-saving comprehensive utilization retrofitting project for the 300MW unit, etc. All the Company's air pollutant emission indicators met the requirements of ultra-low emissions, with key processes achieving the emission level of advanced treatment.

In 2024



288,485.89 million m³
Waste gas emissions

1,959 tons
Particulate matter emissions

1,482.88 tons
Volatile organic compound (VOC) emissions

1.33 tons
Ammonia nitrogen emissions

5.79 tons/km²/month
Atmospheric depositions in the plant area

Advanced treatment project of heating furnace flue gas from the 4300mm production line at the Company's Hot Rolling Plant



In January 2024, the project was officially put into operation. As a typical case of "super ultra-low emissions" for heating furnace flue gas, it has achieved targeted emission concentrations of particulate matters, sulfur dioxides, and nitrogen oxides at no more than 5, 15, and 100 milligrams/m³, respectively. After putting into operation, the project has significantly reduced pollutant emissions, with an annual reduction of approximately 10 tons of sulfur dioxide emissions and 20 tons of nitrogen oxide emissions.

❖ Advanced treatment project of heating furnace flue gas from the 4300mm production line at the Company's Hot Rolling Plant



Waste management

The Company actively builds zero-waste plants. We have released the *Work Plan for Building a Zero-Waste Group*, and the *Management Measures for General Industrial Solid Waste*. We steadily maximize the reduction of solid waste at the source, minimize its disposal from the plant, standardize its collection and storage, optimize its utilization and discharge, promote the resource-to-product transformation, and enhance intelligent supervision and monitoring of solid waste, aiming to achieve the goal of “zero solid waste leaving the plant no solid waste from the plant.” To reduce waste at the source, we take measures such as replacing sulfuric acid with hydrochloric acid for acid washing and reusing clarified dilute acid water, and promote the reuse of iron-containing dust and sludge from water treatment in production. To better utilize solid waste resources, we have completed and put into use the sinter machine head dust collection and utilization project, effectively preventing environmental risks associated with solid waste.

The Company has formulated the *Regulations for the Standardized Management of Hazardous Waste*. To improve the harmless utilization and disposal of hazardous waste, we adopt an integrated governance and management model focusing on coordinated utilization and disposal during the production (to control risks associated with off-site disposal), supplemented by entrusted qualified organizations for disposal. We have also built facilities for the regeneration of waste hydrochloric acid and the treatment of alkaline oily wastewater, and ensure their efficient operation, strengthening the disposal of hazardous waste. Our hazardous waste management information system regulates the treatment of hazardous waste and its compliance with external disposal, ensuring that our hazardous waste management meets relevant national requirements. In 2024, the Company engaged a third party to track and manage the risk control of entrusted utilization and disposal of solid waste, and organized specialized training sessions on hazardous waste pollution prevention and control technologies, essentially bringing risks associated with hazardous waste under control.



❖ On December 2, 2024, the unveiling ceremony of the North China region of China Baowu Hazardous Waste Utilization and Disposal Center was held in Taigang Slag Field

In 2024

7.17 million tons
General industrial solid waste generated

7.13 million tons
Used

0.68 tons/ton steel
General industrial solid waste production strength is not higher than

0.69 million tons
Hazardous waste generated

0.55 million tons
Used and treated independently

0.14 million tons
Treated by entrusted qualified external units

100 %
Safe disposal rate of hazardous waste

Sinter machine head dust collection and utilization project at the processing plant



Taigang Stainless launched the sinter machine head dust collection and utilization project at the processing plant, and put it into use in May 2024. After putting into operation, the dust from sinter machine heads were fully treated within the plant, reducing the risk of environmental disposal traceability. Moreover, iron-containing filter cakes generated were reusable for sintering, with potassium chloride products sold externally for added value, maximizing the circular utilization of solid waste resources. The project saved external disposal fees of CNY 42.5 per ton and transportation fees of CNY 34.16 per ton, with an annual profit of about 2 million yuan, achieving the goal of “no solid waste from the plant, and products as the only outputs generated.”

Noise management

The Company works to establish an environmental protection intelligent management and control system, intensifying noise monitoring at key noise source areas. The Company continuously improves our noise reduction measures to ensure a quiet plant. The Company also strengthens noise control to prevent any disturbances to the public during special periods, including the national college entrance examination and the high school entrance examination.

Radiation risk management

The Company actively organizes specialized training sessions on radioactive sources and those from Class II radiation devices, radiation protection instruments and meters. Through monthly inspections of hidden dangers, routine professional management, special inspections during key time frames, as well as emergency drills for radioactive sources and radiation devices, the Company comprehensively enhances the essential safety of our radiation-related operations.

Resource recycling

The sustainable use of resources is crucial for environmental protection. The Company actively promotes the recycling of water, energy, mineral resources and solid waste, strengthen resource conservation, and vigorously develop circular economy, effectively improving resource utilization efficiency.

Water resource management

The Company's water sources mainly include reclaimed water from urban sewage and nearby urban sewage treatment plants, tap water, and surface water from the Fen River. The Company upholds the principle of “sourcing water properly, using water as less as possible, and achieving zero discharge,” and standardize the use and management of water resources. The Company also increases the use of unconventional water sources such as municipal sewage and reclaimed water, improve the quality of membrane-based produced water, reduce water use at the source, adopt water-saving facilities and equipment in production, and implement water-saving measures. Those initiatives help us actively explore our water-saving potentials and promote water conservation throughout production and other procedures. In 2024, the company has set a target of freshwater consumption per ton of steel of 1.78 tons of water/steel, and has consumed 1.39 tons freshwater of water/steel actually.

The Company insists on independent innovation. For example, advanced water-saving technologies such as differentiated water supply, closed-loop circulation, evaporative air cooling, reverse osmosis membrane treatment, and advanced treatment of municipal domestic wastewater, are applied across all procedures. The Company has successively launched new-type wastewater treatment projects, including the rolling area wastewater treatment system, the smelting wastewater treatment system, the membrane-based water treatment system, the domestic sewage treatment system, the reclaimed water advanced treatment system, and the rolling steel wastewater differentiated treatment system, greatly improving water use efficiency.

In 2024

16.79 million tons
Fresh water consumption

1,694.68 million tons
Circulating water

The Company's water-saving experience was included in typical cases of **water-saving industrial enterprises in the high-quality development of the Yellow River Basin released by the Yellow River Conservancy Commission of the Ministry of Water Resources**.

Freshwater consumption per ton of steel (tons of water/steel)

2021	1.93
2022	1.81
2023	1.80
2024	1.39

Wastewater reuse rate per ton of steel (%)

2021	84.95
2022	91.84
2023	91.80
2024	99.02

Energy Utilization

The Company is one of the pioneers implementing energy system management in China's steel industry. The Company has established a complete set of *Integrated System Management Manual*, the *Energy Management Measures*, the *Measures for Energy Metering and Management*, and the *Job Descriptions*. The Company guides each position to carry out energy management in accordance with strict standards and continue to improve and enhance our management through the PDCA (Plan-Do-Check-Act) cycle, systematically reducing energy consumption.

The Company sets energy consumption targets at the beginning of each year, and successively breaks them down to various departments and units for effective implementation. We annually organize an internal audit of the energy system and an external audit to examine the operation of the system and identify issues within the energy system, and continuously address these issues through rectification actions. In 2024, the Company revised and issued the *Management Measures for Energy Reviews*, the *Measures for Energy Management Evaluation*, and the *Specifications for Energy Management Evaluation*, encouraging our subsidiaries to strengthen energy management and the research and application of energy-saving process technologies based on monthly performance reports and quarterly evaluations, maximizing energy efficiency.



Taiyuan Stainless Steel won the “**Advanced Enterprise in the Three-Year Action Plan for Energy Efficiency Benchmarking under the Steel Ultimate Energy Efficiency Project in 2024**” and the “**Best Practice for Dual Carbon, Energy Efficiency Benchmarking Demonstration Process/Equipment**” by China Iron and Steel Association.

Indicator	Unit	Targets in 2024	Progress in 2024
Comprehensive energy consumption per ton of steel	kgce/t	No more than 528	525.01
Residual energy and waste heat recovery per ton of steel	kgce/t	No less than 104	110.5

No.9 coke oven riser gas waste heat recovery and utilization project at the Company's Coking Plant



In line with the national strategy of “developing a circular economy and promoting energy conservation and emission reduction” and the energy-saving technology promotion requirements of the Baowu Group, the Company launched the No.9 coke oven riser gas waste heat recovery and utilization project at the coking plant. Waste heat from the riser gas was collected via heat exchanges to produce steam, achieving the goals of energy conservation, carbon sequestration and emission reduction. In July 2014, the project was put into use. After operation, the hourly steam recovery rate reached approximately 11.3 tons of steam per hour, with an annual saving of 9,599.96 tons of standard coal.

In 2024

6.91 million tons of standard coal
Total energy consumption

6.87 million tce
Including, Direct energy consumption

274.07 GWh
Green electricity used by photovoltaic power generation and green electricity purchase

0.43 million tce
Indirect energy consumption

0.83 tce/ ten thousand yuan
Energy consumption per CNY ten thousand of output value

Circular economy

The Company attaches great importance to the comprehensive utilization of solid waste. Focusing on industrial solid waste such as blast furnace slag, steel slag, and fly ash, we efficiently operate facilities for ultra-fine powder production from blast furnace slag and resource utilization of steel slag, aerated concrete production lines using fly ash, and standard brick production lines, and produce green products, providing green building materials for urban construction.

Indicator	Unit	Targets in 2024	Progress in 2024
Recycled steel scrap	10,000 tons	115	117

In 2024

99.53 %
General industrial solid waste comprehensive utilization rate

24.24 %
Return-to-production utilization rate



Biodiversity protection

Iron and steel companies mainly put pressure on biodiversity through greenhouse gas emissions, pollution and waste emissions, water use, land use and other factors. The company attaches great importance to the protection of local biodiversity in the whole process of project site selection, construction, production and operation, and takes necessary measures to reduce the impact on biodiversity as much as possible.

Site selection

Through environmental impact assessment during the stage of project feasibility study, we systematically analyze the impact of projects on the ecological environment and argue the technical feasibility of environmental protection measures. Construction can commence only after the assessment is approved by relevant gove.

Construction

We strictly enforce on-site environmental protection and conduct responsible construction management. We increase the frequency of inspections and the intensity of assessments at construction sites, and strengthen the management of processes such as earthwork operations, demolition, concrete construction, slag transportation, and material transport to minimize the Company's environmental impact. In 2024, the Company conducted 47 inspections for environmentally friendly and responsible construction, and no environmental incidents occurred in the construction field.

Production

We strictly monitor and manage the emissions of exhaust gases, wastewater, and waste materials, and organize regular inspections on hidden dangers in soil and groundwater to avoid negative impacts on the natural ecological environment. Based on supporting sewage treatment facilities, we collect and re-treat domestic sewage from surrounding residents and industrial wastewater. The reclaimed water is used both as supplementary water for the Company's production and as water for urban landscaping, protecting the Fen River water system.

Operations

Based on geographical locations, seasonal characteristics, and climatic features of the plant area, we grow green plants accordingly and improve the environmental quality, aiming to build a garden-style plant . In 2024, the Company planted 1,604 trees and 1,598 shrubs, with an investment of CNY 34.17 million,with a greening coverage rate of 35.15%.

Advocate for green office

Upholding the concept of "green office and low-carbon lifestyle," we encourage employees to adopt a simple, moderate, green, and low-carbon lifestyle and work style. We set the summer air conditioning temperature no lower than 26 degrees Celsius, use energy-saving lighting and recycle water in office areas. Other measures include paperless office practices, video conferences, double-sided use of paper, and scientific classification of office waste, and a low-carbon application. Our goal is to reduce the consumption of office resources and implement green office practices.

Making Green a Defining Feature

With a focus on our main business market, we improve our supply system for green stainless steel products throughout the entire chain ranging from basic raw materials to end consumer goods. We work to expand the supply of green and low-carbon products, and accelerate the development of green and low-carbon transportation and packaging methods. A carbon emission data chain for stainless steel products has taken shape, ranging from raw material production to steel product shipment. It will help reduce the environmental impact of products throughout their entire life cycle.

Eco-friendly products

The Company is driving product iteration and upgrading by prioritizing green and low-carbon features, such as "corrosion resistance, energy saving, high strength, lightweight, and long service life." We vigorously develop high value-added, high-tech, and eco-friendly stainless steel products, and conduct a life cycle assessment (LCA) of these products to track their carbon footprints, facilitating the green and low-carbon development of steel-using industries and the entire society. In 2024, the Company became the first in the world to pass the SCS recycled content certification for its stainless steel precision strip, with the highest 98% recycled content, demonstrating our leading circular utilization of green products.

Developing low-carbon steel

The Company actively promotes the development of low-carbon products. In 2024, we released three representative low-carbon products: austenitic cold-rolled stainless steel strip/stainless steel precision strip (SUS304/304, SUS316L/316L) and ferritic cold-rolled stainless steel strip (SUS430LX). These products are widely used in national economic sectors, including electronic information and home appliance manufacturing. According to the on-site verification by TÜV SÜD, the carbon footprint of these low-carbon products was reduced by over 60% compared with conventional processes, creating a green and efficient value point for stainless steel products.



❖ Launch event of low-carbon stainless steel products

By the end of 2024

15

Green products owned

100

%

Steel scrap used in electric arc furnace to advance ultra-low carbon process

Hot-rolled carbon steel coils are enlisted as one of **the first batch of eight major low-carbon emission steel products released** by China Iron and Steel Association(CISA)

Releasing EPD

Environmental product declaration (EPD) is an internationally recognized tool for quantifying the environmental impacts of a product throughout its entire life cycle. The release of the document not only enhances the market competitiveness of products but also provides reference for downstream customers when selecting green materials. In 2024, Taigang Stainless Steel released EPDs for four categories of cold-rolled steel sheets (316L, SUH409L, PTG316L, 430LX). We plan to widely apply relevant products in sectors such as construction, automotive, machinery, home appliances, petrochemicals, transportation, and warehousing.

In 2024

9

Steel product EPDs

3

Low-carbon products developed and tested

Green packaging

The Company precisely identifies customer needs and logically selects packaging methods. We attempt to reduce the use of packaging materials based on simplified packaging solutions and their consumption by replacing elaborate packaging with simplified or lightweight packaging. The Wire Products Division of the Company uses recycled refractory wood pallets for packaging steel billets, achieving the reuse of packaging materials. In 2024, the Company made market research and benchmarking analysis on packaging. Through measures such as thinning inner and outer protective panels, narrowing outer protective rings, and reusing packaging materials, the Company has reduced the consumption of packaging materials, successfully minimizing resource and energy consumption.

Green logistics

The Company continuously improves clean transportation, accelerates the adjustment of transportation structures, and promotes new energy transportation methods. High-emission transport vehicles are phased out, achieving a higher level of clean transportation. We have also launched a digital logistics system, which reduces cross-transportation based on its automatic design of optimal logistics routes. This system lowers logistics costs and effectively improves production efficiency while reducing energy consumption during the transportation.

1

Prioritizing rail transport

We take rail transport for all raw materials and products that can be transported by rail as much as possible.

2

Optimizing road transport

We ensure that 50% of the existing transport vehicles shall be electric vehicles and others shall comply with the National VI emission standards.

3

Promoting clean transport

We develop and implement electric heavy-duty truck transportation plans for superfine powders and steel products.

80.2

%
Clean transport ratio

85

%
Utilization rate of hybrid locomotives

210.81

tons/10,000 ton-kilometers
Comprehensive energy consumption of locomotives



Tackling Climate Change

As global climate change intensifies, the steel industry faces unprecedented challenges and pressures. The Company fully recognizes the potential impacts of climate change on its operations and actively explores effective pathways to achieve carbon peaking and carbon neutrality goals. The Company strategically strengthens climate-related risk management and takes measures to reduce its carbon emissions and minimize the environmental impact of its operations.

Climate governance

We set forth a comprehensive and responsibility-specific climate governance framework to ensure the effectiveness of climate change risk management initiatives. To enhance our climate governance capabilities, we have incorporated climate-related impacts, risks, and opportunities into our strategic practices, major transaction decisions and risk management.

Governance structure

The Environmental Protection Management Committee

The Environmental Protection Management Committee is composed of the CEO (serving as the director), the general manager (serving as the first deputy director), the Company's leaders in charge of energy, environmental protection, and low-carbon work (serving as the executive deputy director), and other relevant leaders of the Company and the chief responsible person of each department and unit. The Environmental Protection Management Committee is responsible for comprehensively advancing government initiatives at all levels, including advanced pollution control, the vision of "Cleaner Water into the Yellow River," ensuring the flow of clear water into the Yellow River," zero-waste group, energy conservation and carbon reduction, as well as climate risk and opportunity management. According to work needs and the division of professional responsibilities, several sub-committees have been established, with their heads appointed from the Company's divisional leaders.

The Management Team

The management team reviews the annual green and low-carbon budget, engages in due diligence during acquisitions and divestitures, and advises on issues, such as environmental protection, low-carbon development and climate change. The team also deliberates on major climate policies or special reports on investment projects associated with the Company's operations. Climate-related risks and opportunities are assessed and managed in line with relevant climate policies and regulatory requirements. The team also guides and advances the Company's low-carbon work through a top-level design, so as to mitigate risks and seize development opportunities.

The Carbon Neutrality Office

The Carbon Neutrality Office oversees various green and low-carbon tasks, such as timely revision of plans, implementation of carbon peaking and carbon reduction action plans, tighter management of carbon emission data statistics and accounting, carbon asset management and trading, carbon footprint evaluation and EPD publication of key products, and carbon emission reduction, ensuring the progress of plans and budget targets.

Governance mechanism

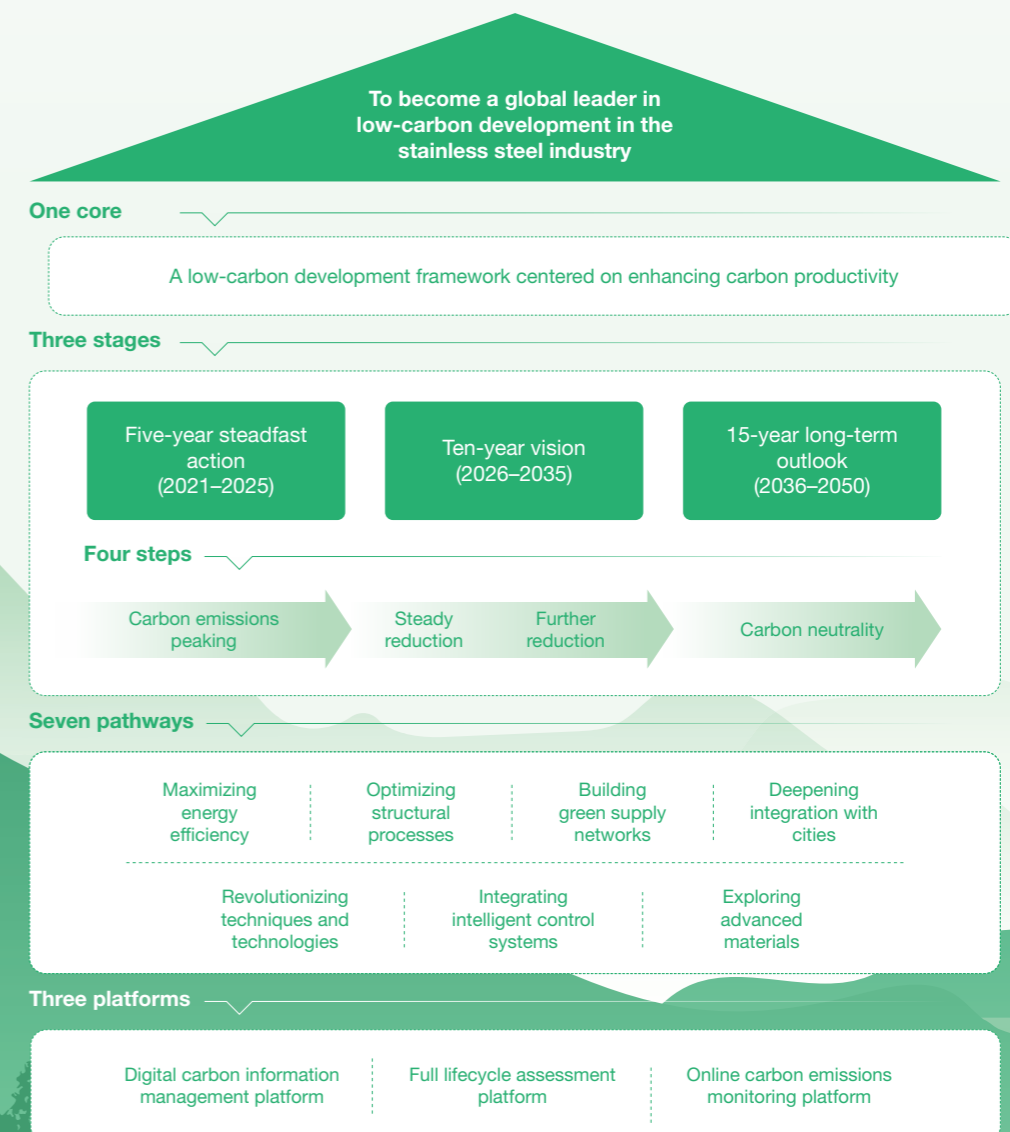
The Company strictly observes the requirements of the Ministry of Ecology and Environment and other departments for submitting professional environmental protection and low-carbon reports, data, and other relevant information. In terms of environmental control, the Company submits quarterly and annual reports on the implementation of pollution discharge permits through the National Pollution Discharge Permit Management Information Platform. We also submit quarterly and annual environmental statistics through the Ecological Environment Statistics Business System of the Ministry of Ecology and Environment. Based on our environmental incident information reporting mechanism, we immediately report to local departments of ecology and environment by phone in the event of environmental emergency. As for low-carbon control, the Company's coal-fired power generation units engage in the carbon emission information reporting for the power generation industry by submitting monthly reports through the National Carbon Market Management Platform. As a steel enterprise, the Company also submits its annual report through the platform.

In 2024, the Company organized training courses on tackling climate change, including topics on energy metering review standards for key energy-consuming units, carbon emission data quality management, and the inclusion of the steel industry in the unified national carbon market, enhancing our capacity to manage climate change.

Climate strategies

To address medium- and long-term climate change risks, the Company has formulated the *Carbon Peaking and Carbon Reduction Action Plan*, proposing the "13473" green and low-carbon development model (1 low-carbon development center, 3 low-carbon development stages, 4 low-carbon implementation steps, 7 low-carbon development pathways, and 3 low-carbon management platforms), and setting targets of "peaking carbon emissions by 2023; reducing carbon emission intensity by 6% by 2025; lowering carbon emission intensity by 16% by 2030; striving to reduce carbon emission intensity by 30% by 2035; and working to achieve carbon neutrality by 2050."

To manage climate change impacts, risks, and opportunities, the Company accelerates the development and promotion of green and low-carbon products, and continuously optimizes its product structure to enhance market competitiveness and low-carbon premium capability. Additionally, the Company actively conforms to national policies on green transformation, and completes ultra-low emission retrofitting and advanced treatment of air pollution. These efforts not only generate positive social and environmental benefits, but also create favorable conditions for our stable operations, enhancing our resilience.



❖ The "13473" green and low-carbon development model

Management of climate change risks

The Company increases investment in environmental equipment and facilities, and accelerates ultra-low emission and advanced treatment projects. We prioritize strategic energy-saving and environmental projects to manage and address climate risks when formulating the annual investment budget. We also track domestic and international low-carbon policies, and interpret climate policies quarterly through the Environmental Protection Committee. Furthermore, relevant countermeasures will be developed based on our regular risk identification and assessment.

The Department of Environmental Protection (the Carbon Neutrality Office) has designated specialty-based management personnel to supervise and manage the Company's air emissions, wastewater, solid waste, noise, as well as energy conservation and carbon reduction initiatives. The Company has also established management and evaluation methods including the *Energy and Environmental Protection Management Measures*, the *Management Measures for Carbon Peaking and Carbon Neutrality* and the *Comprehensive Evaluation Plan for Environmentally Friendly and Low-Carbon Energy*.

Category		Risks/Opportunities	Time Frame	Scope of Impact	Countermeasures
Physical risks	Acute risk	Severe events related to climate change, such as typhoons and floods, can lead to extreme weather conditions or natural disasters, which may affect the Company's product transportation, goods supply, and the Company's operations, resulting in a decrease in operating revenue.	Short term	The Company, major suppliers, and other stakeholders	Emergency response plans for extreme weather conditions are established along with practical drills, ensuring the improvement of employees' capabilities in response to disasters or emergencies.
	Chronic risk	Long-term changes in nature, such as rising sea levels and sustained high temperatures, may cause adverse effects on the Company's normal production, resulting in a decrease in the operating revenue.	Long term	The Company, major suppliers, and other stakeholders	Flood and disaster prevention materials for extreme weather events are prepared, ensuring the Company's routine production and operations.
Transition risks	Policy risk	Inadequate implementation of environmental protection policies or insufficient tracking of downstream customers will result in environmental risks. The European Union's Carbon Border Adjustment Mechanism (CBAM) and the expansion of the national carbon market adds pressures on the Company's carbon emission management and raises compliance costs.	Medium and long term	The Company, major suppliers, and other stakeholders	We stay informed of environmental regulations, and have established environmental information systems to enhance supervision and manage environmental risks. A CBAM calculation module is developed to calculate relevant CBAM report data for products according to CBAM calculation rules, and analyze and improve factors with a significant impact on the report data.
	Technology risk	Failure to upgrade outdated equipment and technology in a timely manner could result in falling behind in production efficiency, product quality and price competitiveness compared to industry peers, which in turn, can reduce product sales revenue and expose the Company to the risk of being phased out.	Medium and long term	The Company	Organize the elimination and upgrading of key energy-using products and equipment in an orderly manner, and develop and apply a number of new processes, technologies, and achievements in the energy conservation and low carbon field, including low-carbonization, carbon dioxide capture, and energy resource reusing.
	Market risk	The increasingly strict environmental information disclosure for the Company's products and those in the upstream and downstream of the supply chain adds pressure on the Company's carbon emission management and raises compliance costs.	Medium and long term	The Company, major suppliers, and other stakeholders	A full-process online carbon management platform has been established to expand comprehensive service functions including carbon data management, carbon footprint management, carbon emission control management, carbon asset management, carbon information management, and carbon inclusion, achieving the tracking and tracing of carbon emission data for steel products.
Opportunities	Policy opportunity	Advancing the construction of green electricity projects like self-built photovoltaic systems and relevant purchasing is beneficial to fulfilling increasingly strict carbon emission management requirements and lowering compliance costs.	Medium and long term	The Company, major suppliers, and other stakeholders	The complementary use of multiple energy sources is promoted through the pathways of introducing and independently developing green energy to replace high-emission energy sources.
	Technology opportunity	Optimized processes increase the use proportion of steel scrap and enhance energy utilization efficiency, achieving cost reduction and efficiency improvement while reducing carbon emissions.	Medium and long term	The Company	The production structure is adjusted to increase the use proportion of steel scrap; and a series of energy-saving projects have been launched, including the recovery and utilization of waste heat from No.9 coke oven riser pipes, sinter dust collection and frequency conversion retrofit of cooling ring system.
	Market opportunity	Differentiated competition in product lines enhances the R&D, production, and marketing capabilities for low-carbon products, which in turn, adds the value of low-carbon products and increases product sales and operating income.	Medium and long term	The Company, major suppliers, and other stakeholders	Vigorous efforts have been made to develop highly value added, technological and environmentally friendly stainless steel products.

Notes: The short term refers to less than 1 year; the medium term refers to 2 to 5 years; and the long term refers to more than 5 years.



Risk management process

Risk identification

We implement assessments and surveys of major risks, identify key risks for the year using weighted scoring, and determine early warning indicators for major risks.

Risk management

We improve the four-color (red, orange, yellow and green) early warning mechanism for major risks. We make annual risk prevention and resolution efforts, and manage major risks, focusing on the Company's comprehensive risk management work plan.

Risk monitoring

We monitor carbon emissions and management through online monitoring, video surveillance, manual monitoring, and on-site inspections, and analyze potential risks. We also regularly track and analyze the progress of risk management, major risk prevention and control measures, and disposal of occurred risk events. Meanwhile, we compile a quarterly comprehensive risk management work briefing to ensure the overall control of risk management.

Metrics and targets

The Company has formulated the *Carbon Peaking and Carbon Reduction Action Plan*, clarifying its medium- and long-term goals, and decompose to form an annual emission reduction target..In 2024, we continued our energy-saving project retrofits, further enhancing the comprehensive utilization of residual heat and energy resources, and contributing to tackling climate change.

Greenhouse gas(GHG) emitted by the Company mainly come from production facilities such as coke ovens, blast furnaces, converters, electric arc furnaces, and power generation units, covering combustion, electricity, heating, cooling, and steam. The primary scope of impact is Taiyuan, Shanxi Province, where the Company locates. Since the 2×300MW power generation units were included in the national carbon trading market for the power generation industry in 2019, the Company has completed fulfillment and trading at three compliance periods, with all quota settlements and compliance fulfillment on schedule.

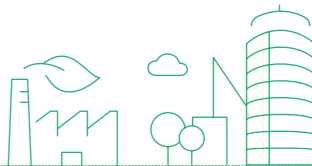
In 2024

0.16 million tons

Scope 1 greenhouse gas emission reduction

0.01 million tons

Scope 2 greenhouse gas emission reduction



Indicator	Unit	Targets in 2024	Progress in 2024
Greenhouse gas emission intensity	Tons of carbon dioxide equivalent per ton of crude steel	No more than 1.79	1.78

Indicator	Unit	2022	2023	2024
Total Ggreenhouse gas emissions (Scope 1 + Scope 2)	10,000 tons of CO ₂ e	2,160.1	2,180.1	2,114.51
GHG emissions (Scope 1)	10,000 tons of CO ₂ e	2,154	2,160.1	2,114.51
GHG emissions (Scope 2)	10,000 tons of CO ₂ e	6.1	20.0	0

Note: The GHG emission data is calculated in accordance with the requirements of the *Technical Guidelines for Verification of Corporate Greenhouse Gas Emissions: Steel Industry*.
Scope 1: Direct greenhouse gas (GHG) emissions from sources owned or controlled by a company.
Scope 2: Indirect greenhouse gas (GHG) emissions from purchased electricity, steam, heat, or cooling consumed by the company.



Striving for Win-Win Progress Toward Social Harmony

National Call

Acting on the people-centered development philosophy, we will fulfill our responsibilities to meet people's basic needs and provide a cushion for those most in need and take more steps to deliver real benefits to the people to their satisfaction. We will make solid progress toward prosperity for all and promote social harmony and stability. By doing so, we will give our people a growing sense of fulfillment, happiness, and security.

—Excerpt from the 2024 Report on the Work of the Government

Corporate Actions

Taigang Stainless continuously improves its after-sales service system and supply chain management capabilities. We also promote employee career development, and extensively engage in social welfare activities. Together with our shareholders, customers, suppliers, employees and all sectors of society, we seek to build a cooperative network based on shared value and mutual benefits. Our shared exploration and pursuit of sustainable development will contribute to a more harmonious and prosperous society.



SUSTAINABLE
DEVELOPMENT
GOALS



Upgrading Quality Services

The Company advances the transformation from production-centered operations to customer-centered operations. To upgrade the standards of high-quality service, we constantly improve the marketing, processing, and service network system through refined management and technological innovation. By providing customers with one-stop, personalized, and comprehensive services, we strive for efficient and precise responses to diverse customers' needs, contributing to a closer and more trustful relationship with customers and a win-win future.

Improving service systems

With the core objective of improving service systems, we have built a comprehensive and efficient after-sales service system that meets and even goes beyond the diversified demands of customers. As a result, we have won widespread acclaim from domestic and international customers. Meanwhile, we strengthen global market networks, particularly in Belt and Road countries, to bolster their infrastructure and industrial modernization.

Channel optimization and efficient response

We have built a direct supply model to focuses on key customer groups, converting unmet needs into direct supply increment and value enhancement. Meanwhile, our real-time information collection, rapid order response, and comprehensive user services, form an ever-improving closed-loop management system that constantly improves our service efficiency and quality.

Differentiated on-demand services

We have stepped up efforts to build a stronger product management team. Focusing on factors that affect customer experience and loyalty, we have established a plant management team to efficiently connect with markets. Meanwhile, our intensified development of differentiated products ensures more diversified and higher value-added product choices so that we can navigate the specific needs of different customers and boost our market competitiveness.

All-round services

Focusing on customer needs, we have established a "dual manager" mechanism to provide users with all-round services. The mechanism is led by professional marketing managers and supported by technical marketing managers of finished products plants. To meet the differentiated and personalized demands of users, we offer services in line with the principles of "one policy for one customer" and "one standard for one customer", thus continuously elevating our customer satisfaction.

Expansion into international markets

We vigorously improve our international market channels and increase our export market shares. In particular, the overseas market expansion of high-value-added products, the sales growth in Belt and Road countries, and the first-time supply of products such as economical steel for exhaust systems and advanced ultra-supercritical boiler tubes all have made a positive contribution to the upgrading of the global industrial chain.

In 2024

57%

Sales ratio of differentiated products

30+%

Increase in 439 steel for appliances

0.92 million tons

Exports of Taiyuan base

46.2%

Year-on-year increase

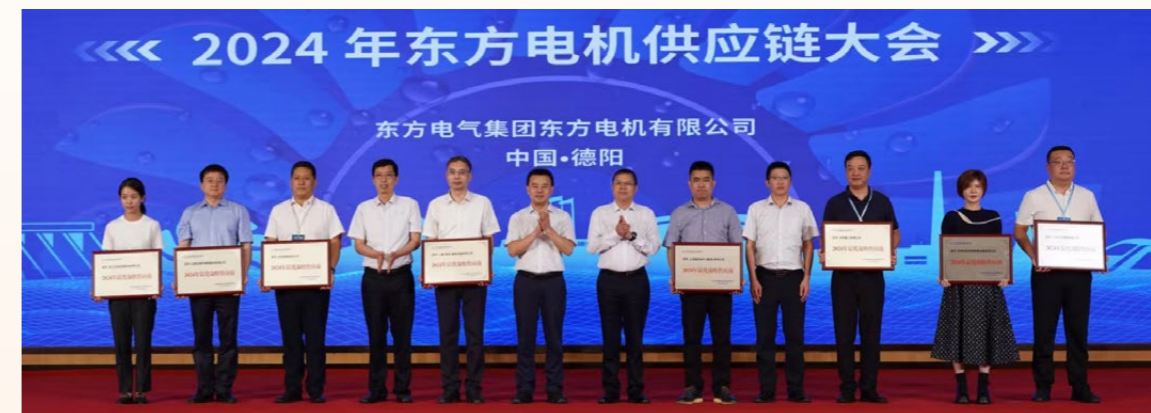


❖ Offering technical services to end-users on site

Taigang Stainless awarded the title of "Best Strategic Supplier" by Dongfang Electric Machinery



In September 2024, Taigang Stainless was honored with the title of "Best Strategic Supplier" at the supply chain conference of the Dongfang Electric Machinery, a subsidiary of the Dongfang Electric Corporation (DEC), becoming the only steel manufacturer among nearly a thousand material suppliers to receive this honor. During the long-term cooperation, we have satisfied the stringent requirements of the company for high-end steel products with technological innovation and product upgrades. We not only supported the construction of national high-quality projects such as Baihetan, Panlong, and Changlongshan, but also driven continuous business growth of both parties through mutually beneficial models. Moreover, we will continue to improve our product and service quality to contribute to the localization of high-end equipment manufacturing together with Dongfang Electric Machinery.



Taigang Stainless recognized as a "Core Business Partner" by Zoppas Industries China



In 2024, with unparalleled product performance, stable quality and premium customer service, Taigang Stainless finally stood out and was recognized as the "2024 Core Business Partner" by Zoppas Industries China, the world's largest manufacturer of heating elements. This title is not only a recognition of our excellent product performance and stable quality, but also an affirmation of our long-lasting commitment to technological innovation and customer services. We will continue our close partnership with Zoppas Industries China to drive technological progress and industrial upgrading of the sector.

Protecting customer rights

Upholding the business philosophy of "satisfying consumers with high-quality products", the Company always puts the rights of customers at the forefront. To boost customer satisfaction, we continuously improve our product quality and customer services, develop policies to protect customer privacy, and optimize the customer complaint handling process to efficiently address customer concerns. Together with other parties, we crack down on illegal activities that disrupt market order and infringe on the legitimate rights of the Company and customers. By joining hands with customers, we strive to establish and maintain our brand image, and contribute our share to high-quality development.

In 2024



87.9 points

Comprehensive customer satisfaction index

98.9%

User complaint resolution rate

Guaranteeing product safety



We ensure that our products and services do not pose threats to the health and property of customers. Once potential issues are identified, we will take immediate measures to recall or withdraw products, thus protecting customers' safety. In 2024, the Company saw no such incidents that cause harm to customer health and safety due to product quality issues.

Improving customer complaint handling solutions



Through rapid information classification and circulation, we promptly convey customer feedback to relevant departments for investigation and resolution. Meanwhile, the objection handling process is streamlined and the on-site verification is accelerated to improve overall response efficiency. For customer losses caused by product quality issues, we conduct on-site verification immediately, and provide return services or negotiate compensation plans, effectively protecting customers' economic interests.

Boosting customer satisfaction



Through third-party satisfaction surveys and satisfaction surveys of specific customer groups, we identify and address shortcomings accordingly. This allows for closed-loop management and continuous improvement of product quality.

Protecting information security and privacy



We take strict control over customer information access and grant the minimum necessary permissions based on employees' job responsibilities and demands. We also continuously raise employees' awareness of information security. To effectively protect the personal information of users, sensitive data is encrypted during transmission and storage, and important data is backed up on a regular basis. In 2024, there were no incidents of customer privacy leakage.

Intensifying anti-counterfeiting efforts



By working closely with customs, public security, and quality supervision departments, we tighten the control over export products at ports and clamp down on counterfeit and substandard products. We also publish anti-counterfeiting announcements and strengthen public opinion guidance to regulate online information. In addition, we have established a joint rights protection mechanism with customers to cooperate with victims in defending their rights, thereby guarding against counterfeit products in collective efforts.

Responsible marketing

STSS continuously cements marketing business collaboration, and benchmarks industry leaders. By implementing the marketing control model of "one headquarter and multiple bases" and promoting project-based synergistic value creation, we boost sales performance and internal collaboration efficiency. Marketing organization reform and digitalization are implemented to strengthen centralized management and analysis of multi-base data, achieving comprehensive information-based marketing management. Meanwhile, we actively participate in domestic and international exhibitions, product promotion presentations, and seminars. In our promotional activities, we strictly follow relevant regulations of the Company to promote our new and special products in a realistic, objective, and effective manner. This effectively increases our brand influence and market recognition.

In 2024

16

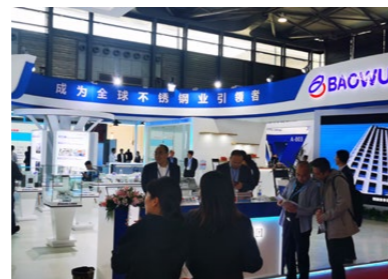
Presentations in domestic and international exhibitions

2

Presences in product promotion meetings and seminars



❖ Participating in the 3rd China Nuclear Energy High-Quality Development Conference & Shenzhen International Nuclear Energy Industry Innovation Expo



❖ Participating in the 2024 China International Special Steel Industry Exhibition

Building a Responsible Supply Chain

Supplier management

The Company adheres to open supplier admission, transparent procurement platforms, standardized processes, and fair design. Stringent compliance with supply chain management laws, regulations, and industry standards ensures the integrity of our honest, open, fair, and just procurement system and platform. By strengthening information sharing, process coordination, and technical alignment, STSS builds seamless collaboration and deep trust with suppliers to jointly create a transparent, efficient, and collaborative supply chain ecosystem.

Operating under a "one headquarters, multiple bases" procurement management model, the Company strictly manages supplier access and exit procedures and performs dynamic qualification reviews to introduce high-quality suppliers. All these efforts are geared towards building a stable and responsible supply chain.



In 2024

289

Qualified suppliers

41

New suppliers reviewed

50

Suppliers certified by ISO 14001 system



0

Number of suppliers suspended due to non-compliance

0

Number of potential suppliers rejected for non-compliance

41

ESG training sessions for suppliers held

130

hours
Total ESG training hours for suppliers

Responsible procurement

STSS is committed to building a procurement platform based on the principles of integrity, openness, fairness, and impartiality. Effective measures, including standardized processes, transparent operations, and acceptance of supervision, ensure all-round oversight of the entire procurement process. Meanwhile, we actively promote a green procurement strategy, deeply embedding environmental concepts into every aspect of supply chain management. By strictly following the ISO 14001 Environmental Management System, we strive to create a green and eco-friendly procurement supply chain, and lead the industry towards a greener and healthier future.

Business ethics and code of conduct



We strive to build a transparent, honest, and standardized procurement system. Through policy development, compliance management, and educational campaigns etc., we comprehensively enhance the business ethics standards of management and employees. This approach effectively prevents such risks as commercial bribery and corruption, ensuring transparent and efficient procurement operations. In 2024, the fulfillment rate of procurement contracts was 96.21%.

Green procurement and eco-friendly supply chain



We actively promote green procurement, encouraging suppliers to use clean energy vehicles for transportation. Our procurement contract mandate adherence to implement relevant requirements of ISO 14001 Environmental Management System. Moreover, we advocate for the reduction of packaging and the use of renewable and biodegradable packaging materials to drive toward an eco-friendly supply chain and to reduce procurement costs in the long run.



Fulfilling Employees' Value

Adhering to the people-oriented principle, the Company values the comprehensive development of talents, and provides all-round protection of employee rights and interests. We strive to provide employees with a platform for diversified development, enhance their satisfaction and sense of belonging, and create a healthy and safe workplace, promoting the sharing of development achievements between employees and the Company.

Protecting employee rights

In line with the applicable provisions of the *Labor Law of the People's Republic of China*, the *Labor Contract Law of the People's Republic of China* and other laws and regulations, we vehemently oppose child labor, forced labor, harassment, bullying, and intimidation, ensure that employees enjoy the legitimate rights and consolidate the talent pool, providing an important guarantee for the Company's stable development.

Employee recruitment

We continuously improve our recruitment channels such as campus recruitment, industry-education integration programs, and social recruitment. Besides, we refine recruitment systems, standardize management processes, and embrace "transparent recruitment" to ensure all external hires are brought in through open recruitment. Moreover, we have innovatively set up a shared employment pipeline, which allows for more flexible mobilization of human resources and more employment opportunities.

As of the end of 2024

13,080

On-the-job employees

30

Female managers

4.50%

The rate of the female managers accounting

129

Ethnic minority employees

In 2024

335

Employees brought in through open recruitment

4

Overseas students brought in through open recruitment

118

Total number of shared employees

0.12%

Employee turnover rate

100%

Signing rate for labor contracts

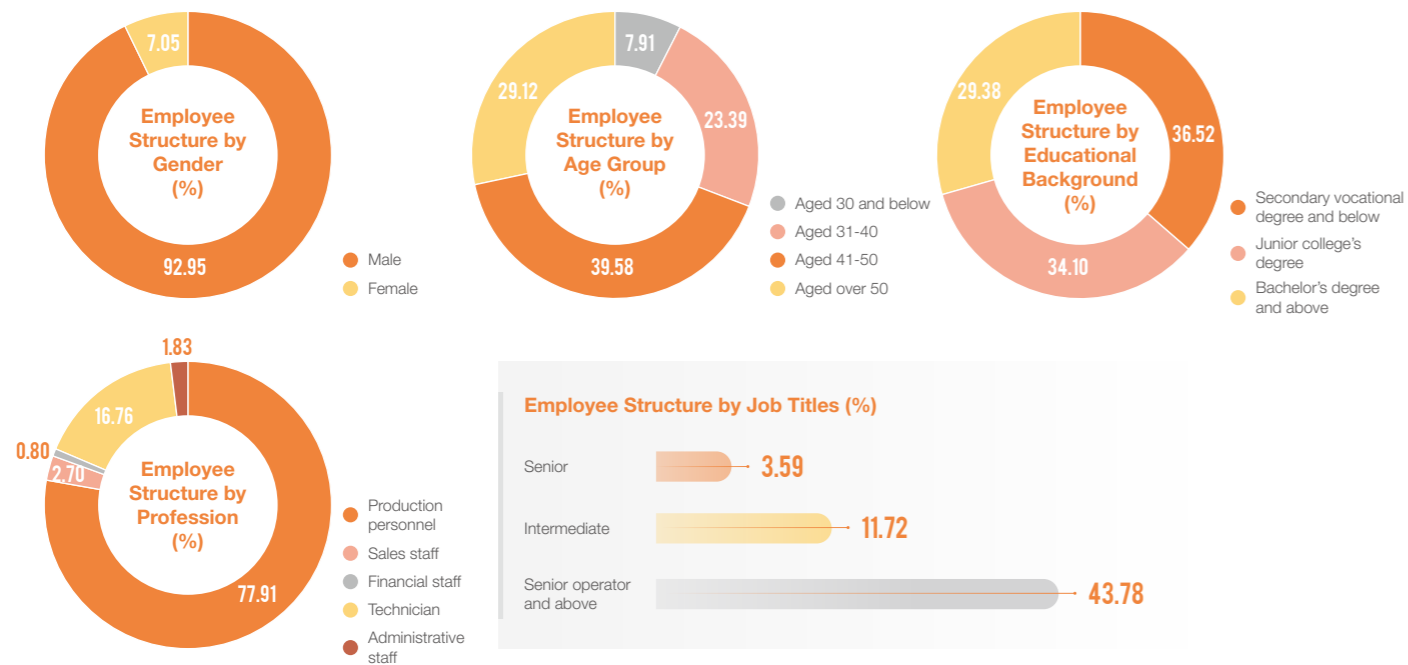
100%

Coverage of social insurance

0

Significant labor disputes, incidents of forced labor or employment of child labor





Compensation and benefits

We have established a market-oriented salary distribution system that follows the principles of scientific and fair distribution. Through a variety of salary methods such as performance-based annual salaries and position-based wages, we provide employees with competitive salary in the market and pay employees in time. In 2024, we made a reform of our compensation and benefit system. By launching the salary point mechanism for employees, we increase the incentive effect of salaries and propel the development of employees together with the Company.

In terms of employee benefits, we pay social insurance and housing provident funds for employees as required by law. We also provide annuities, paid annual leave, work meals, fitness facilities, and other benefits for our employees.

In 2024

11.63 days

The number of paid annual leave days per capita on average

Democratic communication

We are committed to providing comprehensive and multi-dimensional protection for employees' rights to information and supervision. Through approaches such as "Plant Affairs Publicity Columns", workers' congress, business briefing meetings, internal media, WeChat public account, and special progress meetings, we promptly disclose key employee concerns, including business operations, role model selection, professional title evaluation, labor competitions, and employee care programs. To deepen democratic management within the organization, the Company's labor union has taken the lead in corporate reform and actively provided suggestions on policies that had been reviewed by the workers' congress, such as the *Employee Reward and Punishment Management Regulation* and the *Safety Accountability Measures*. The Company has established a grievance mechanism, which enables the Labor Union to raise objections to the Company in the implementation of rules and regulations, as well as decisions on major matters, and urge the Company to make improvements through consultation if the Labor Union considers it inappropriate.

Through equal negotiation, we enter into the *Collective Contract*, the *Special Collective Contract for Special Labor Protection of Female Employees* and the *Collective Wage Contract* with our employees. Recognizing the evolving needs of both the Company and our workforce, we periodically adjust the content of these agreements. In the event of any disputes arising from the implementation of collective contracts, equal consultation shall be conducted between the Company and the Labor Union. We have also conducted employee representative inspections and addressed "the most concerned, the most relevant, and the most realistic issues of employees". In 2024, we conducted inspections over 1,000 times and pinpointed 169 such issues with a resolution rate of 100%.

In 2024

100 %

Percentage of employees in the Labor Union

100 %

Coverage rate of collective contracts

100 %

Performance rate of collective contracts

Unblocking employee vitality

Attaching great importance to the all-round development of our employees, the Company fosters long-term growth through accessible career advancement pathways, well-structured training systems, and the competition-driven learning mechanism. Guided by the principle of equality, we ensure fair and just treatment for all employees, irrespective of nationality, race, gender, religious belief, or cultural background. We offer equal growth opportunities for each employee to thrive alongside the Company's progress.

Career development

STSS has established and improved the career advancement mechanisms for employees, including the recruitment, promotion, demotion (dismissal), and cross-functional transfers. We have formulated the *Employee Development Management Measures (Trial)* to set up career paths for managerial, technical, and operational roles and positions at all levels, and to specify the position levels and recruitment standards for the three roles. We have developed a hierarchical structure and career progression routes ranging from the managerial sequence Level B and above to technical sequence Associate Technicians to TISCO Scientist, and from operational sequence General Operator to TISCO Skill Master, among other levels.

We have also formulated policies such as the *Employee Education and Training Management Measures* and the *Job Transfer Training Management Measures* to carry out on-the-job training and job transfer training based on the Company's strategy and employee development needs. The training provides support for employee development and career shifts.

In 2024

1

Newly-appointed Engineering Scientist of China Baowu, TISCO Management Expert, and Senior Chief Engineer respectively

8

Internal job transfer training classes

19

Positions transferred through open recruitment



Employee training

We have formulated employee development policies such as the *Employee Education and Training Guidelines* and the *Employee Education and Training Management Measures*. To continuously improve employee quality, a three-tiered training management system has been established, encompassing the company level, plant level, and operation area (departmental) level.

With a focus on supporting strategic implementation, and integrating training with production and operation planning, we develop and execute annual training plans. This involves building effective training courses, establishing a robust pool of qualified trainer, and advancing an assessment system for operational staff, and improving a cloud learning platform for empowerment. These efforts provide intellectual and talent support for the Company's growth.

In 2024

CNY **25.13** million
Invested in employee training

100 %
Training coverage rate

83
Average online training hours of all employees

97.5 %
Employee training satisfaction

113
Average training hours of employees

133
Average training hours of managers

97
Average training hours of technical/business staff

90
Average training hours of operational staff

Competition-driven learning

Our extensive engagement in labor competitions, including the host of the 45th Skills Competition and the groups' attendance in external competitions, has helped strengthen skill training, cultivate skilled technicians, and sharpen employees' capabilities. In 2024, the Company won the "Excellence Award for Group" at the 11th National Iron and Steel Industry Vocational Skills Competition (the "Shagang Cup"), and four individuals were honored as National Steel Industry Technical Experts.



Our team "Steel Olympics" makes good results

Promoting occupational health and safety

Employee health is a paramount concern for the Company. Focusing on the physical and mental well-being, we actively promote the "Safety and Health Escort Initiative". To this end, we provide all employees with necessary protections in line with occupational health and safety standards, and fully safeguard employee occupational health and safety.

Strengthen workplace safety

Safety management system

The Company and all its affiliated entities have set up Work Safety Committees, which serve as the highest safety management bodies at their respective levels. Dedicated safety management organizations have also been established within the Company and its entities, staffed with safety management personnel responsible for safety supervision and management. In addition, we have formulated 17 work safety management policies and 34 safety management standards, including the *All-employee Work Safety Responsibility System*, the *Measures for the Rewards and Accountability of Work Safety*, the *Measures for the Management of Occupational Health* and the *Measures for the Management of Emergency Response Plans for Work Safety Accidents*. These comprehensively cover the entire work safety process, including accountability for safety accidents, hidden hazard investigation and rectification, emergency rescue, and recognition and compensation of work-related injuries. In June 2024, STSS achieved ISO 45001:2018 Occupational Health and Safety Management System certification.

Safety risk control

We conduct all-encompassing risk identification and hierarchical control over occupational health risks arising from production, maintenance, construction, and other processes. Routine safety inspections and quarterly safety evaluations are carried out. Besides, we strengthen the distribution and use of personal protective equipment (PPE). We have also strengthened intelligent and unmanned operations for positions with high risks, poor working conditions, and repetitive strenuous labor, to continuously improve the working environment for employees. For personnel whose health and safety have been compromised, we provide treatment and claim workers' compensation in accordance with laws and regulations, ensuring that employees' rights and interests are well protected.

Hidden hazard management

To prevent accidents arising from vehicle injuries, confined spaces, lifting and hoisting operations, hazardous chemicals, and metallurgical gas, we have carried out a series of investigations and rectifications to achieve closed-loop management of hidden hazards. In addition, all units are required to identify and control hazard sources from operational activities, equipment and facilities, production processes, and management activities. Such hazard sources are incorporated into the graded management system of safety risks to ensure effective risk control.

Creating a safety culture

The Company has built and put into use a safety training experience center, which includes 10 high-risk operation experience projects such as working at heights, lifting injuries, gas poisoning and operation at confined spaces, creating an immersive safety training experience. We also organize specialized safety education and training, safety awareness enhancement campaigns, safety skills competitions, and emergency evacuation drills, aiming to improve employees' awareness and capabilities in safety production.

Safety management of partners

In accordance with the principle of "4 Sames" (same system, same standards, same requirements, and same treatment), all suppliers and ecosystem partners fall within the scope of our safety management. Through safety work meetings, daily safety inspections and evaluations, and regular guidance and instruction, we help improve their safety management capabilities.

In 2024

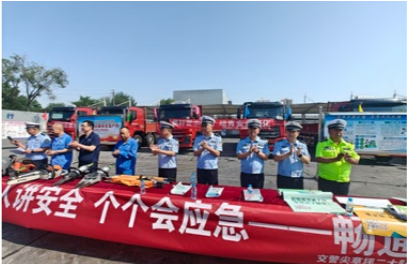


- The company had **3** Work safety accidents, including **2** minor injury accidents of formal employees, and **1** serious injury accident of suppliers' worker. **2** formal employees suffered from work-related injuries, accounting for **0.015%** of the total number of employees. The total lost time due to work-related injuries was **920** hours, **115** days, and the accident rate of missed work was **0.075**.

Year	Number of work-related fatalities	Fatality rate
2022	1	0.01%
2023	0	0
2024	0	0



Opening of Safety Training Experience Center



Safety emergency drills



Fire safety drills

Ensuring physical and psychological well-being

Highlighting psychological well-being

We have formulated the *Guidelines on the 2024 Employee Psychological Care Work*. We organize a series of activities such as theme-based psychological lectures, book reading sessions of the *Life Blueprint*, and psychological care from small psychological counseling teams as needed. During the reporting period, our psychological adjustment and stress relief services provided at the “Care House” have benefited over 3,000 employees.

Providing healthcare services

The Company offers employees diverse health insurance plans, including accidental injury coverage, medical coverage, and critical illness coverage. We build health stations, equip with health kits, and organize activities such as employee rest and recuperation, summer heat relief, and on-the-job healthcare, providing comprehensive support for employees’ physical and mental well-being. Furthermore, we continue to improve health check-up services to make it more convenient for employees to take health check-ups nearby and promptly receive their health reports, enhancing employees’ satisfaction with the check-up services. During the reporting period, the physical examination rate of on-duty employees was 96.38%.



❖ Psychological counseling activity themed



❖ Plaque-unveiling ceremony of the Health Station

In 2024

6

Outstanding Labor Protection Workers by the China Iron and Steel Association

3

Outstanding Labor Protection Publicists

2

Outstanding Safety Demonstration Team

Employee care

We continuously enriches employee care initiatives. Focusing on the specific needs of five special groups: core talents, expatriate staff, employees in difficulties, female employees, and young employees, we provide targeted support. Besides, we organize various cultural and sports activities, guiding employees to pursue better lives and achieve work-life balance.

Assistance and allowances

During festivals such as the Spring Festival and the Mid-Autumn Festival, we visited and provided allowances for employees in key projects, special positions, and employees in difficulties, with CNY **1,018,100** of relief funds distributed.



Benefit distribution

We improves employee benefits and care systems through birthday gifts, holiday gifts, movie tickets and other benefits to enhance employees' corporate identity.



Care for female employees

To show care for female employees, we have issued the *Decision on Commending Advanced Female Collectives and Advanced Female Individuals for 2023*, and organized activities such as a tea culture experience in celebration of International Women's Day, “Business Accounting” she-power experience exchange, and rose-themed reading for female employees.



Cultural and sports activities

A variety of cultural and sports activities, including seminars, employee fun sports meetings, singing competitions and artistic performances, fitness and arts shows, calligraphy and photography exhibitions, themed essay collection, sports competitions, and a “vintage items” collection, were organized to enrich employee life. Furthermore, we have built employee reading rooms and deepened education on the Company's history and culture, all aimed at inspiring company-wide morale.



❖ Sports meetings



❖ Basketball game



❖ Table tennis competition



❖ Reading Room

Contributing to Social Harmony

Committed to joint contributions and shared benefits with local communities, we actively engage in rural vitalization to promote coordinated regional development. We also conduct regular voluntary and public welfare activities to pool charitable resources and to pass on the warmth. Through these efforts, we strive to create sustainable social value.

Rural vitalization

Firmly upholding its corporate social responsibility and mission, STSS fully leverages its strengths to offer targeted assistance based on the demand surveys on assistance programs. The targeted assistance initiatives include organizational, project-based, consumption-driven, and educational assistance. These efforts contribute to building well-governed, livable, and harmonious villages, thereby promoting comprehensive rural vitalization.



Organizational assistance

- We continuously promote the in-depth and practical implementation of the "Three Ones" initiative, mobilizing team members stationed in villages to undertake over 400 practical tasks, good deeds and problem-solving efforts.
- We intensify the building of village-level party organizations. Through Party Lecture System delivered by First Secretaries and educating on Party discipline, we give full play to the role of the party branches as fighting bastions and the exemplary role of outstanding party members.

400+

Practical tasks, good deeds and problem-solving undertaken



Consumption-driven assistance

- We have organized diverse activities such as distributing collective welfare benefits on the Dragon Boat Festival, engaging employees in the "Agriculture Vitalization Week" event for state-owned enterprises, and encouraging employees and ecosystem partners to purchase Loufan potatoes. Through these efforts, we procured and distributed a total of over CNY 9.7 million worth of specialty agricultural products from our targeted assistance areas and impoverished regions in Shanxi.

6.8

CNY over million

The Directly invest in assistance funds through the purchase of jumbo bags by us and by our ecosystem partner

3.67

CNY million

Paid assistance funds introduced



Educational assistance

We are pushing ahead with the "Green Steel into Schools" student aid program and have donated stainless steel products to primary and secondary schools in assisted areas.



Project-based assistance

Following the principles of "6+10 commitments" and "5 clarifications" for village-based assistance, we bring assistance programs into effect with concrete measures, such as promoting industrial development, elevating public services, and improving the living environment in assisted villages.



In the 2023 comprehensive assessment of organizations stationed in villages of Shanxi Province to offer rural assistance, we continued to rank in the top tier of provincial-level entities. Labor union chairman of the Company Meng Yongquan successfully completed his duties as the head of the provincial-level unit detachment stationed in Loufan County and was honored as an "Outstanding Dispatched Head Stationed in Counties".

Public welfare

Dedicated to public welfare and committed to common development with communities, we continuously organize voluntary activities, including "March 5th Learning from Lei Feng Day", "Supporting College Entrance Exams", "Fulfilling the Dreams of Orphans on Children's Day", voluntary blood donation, civilized construction, competition and conference support, and environmental clean-ups. These warm-hearted and meaningful voluntary services demonstrate our commitment to spreading love and warmth, and to forming an open, sincere, and harmonious relationship with society.

In 2024



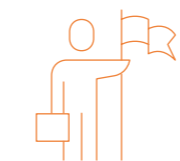
1,302

Volunteers registered on the Volunteer Hub platform of the Communist Youth League as of the end of 2024

29

Volunteers reaching the Star level

In 2024



1,561

Engagements in voluntary services in 2024, with

6,832

Voluntary service hours in total



❖ Voluntary rubbish removal activity



❖ Voluntary activity to support college entrance exams



❖ Voluntary blood donation



❖ Volunteer in a nursing home

Outlook in 2025

Look ahead to 2025, STSS recognizes it as a pivotal year to aggressively navigate the prolonged downturn in the steel industry, firmly advance intrinsic growth, and resolutely overcome challenges to achieve success. It is also a crucial period to seize development opportunities, accelerate transformation and upgrading, and foster new growth drivers and advantages to enhance our core competitiveness. Committed to high-end, intelligent, green, and efficient development, we will leverage reform and innovation as catalysts and benchmark ourselves against others to identify gaps. We will also spare no effort to optimize our structure, reduce costs, improve efficiency, strengthen supply chains, and prevent risks. These efforts will boost our operational efficiency and business performance, enabling us to take even greater strides towards becoming the world's most competitive high-tech enterprise with a complete stainless steel industrial chain.

STSS will maintain a strong focus on technology-driven innovation

With insights into advanced stainless steel products and technologies, our unwavering commitment lies in advancing product and technology innovation to deliver original, groundbreaking, and pioneering stainless steel technologies that foster new quality productive forces. Additionally, we will serve major national strategies by customizing “mission-driven” products and upgrading conventional materials for applications in new fields, which will shape our differentiated competitiveness.

STSS will elevate product operations and intrinsic efficiency

By implementing integrated reform covering production, sales, and research, we will offer more cost-effective products and convenient, efficient services, generating greater value to our customers. We will deepen our benchmarking efforts to identify and close gaps, implement practical cost reduction measures, and enhance value creation efficiency of all factors. Ultimately, our overall business performance will be improved. Our aim is to realize intensive and efficient operations for maximum efficiency. Meanwhile, we will upgrade our “one headquarters, multiple bases” management system and capabilities to create greater synergistic value.

STSS will deepen digital and green development, propelling our transformation to a new level

By deepening the integration of digital technology with steel manufacturing, we will build smart production lines, intelligent bases, and intelligent plants. Additionally, we will strengthen carbon emissions management throughout the product lifecycle, enhance carbon data management and application, and develop low-carbon metallurgical processes, positioning ourselves as an industry leader in green and low-carbon practices.

STSS will implement comprehensive risk control to ensure the Company's steady growth

With a bottom-line mindset, we will heighten risk awareness and strengthen risk prevention and mitigation. Committed to business compliance, we will balance risk prevention and development and evaluate and prevent risks at the source. We will diligently strengthen safety management at production sites with a well-defined, collaborative, integrated, standardized, and efficient work safety monitoring system to improve our safety management capabilities.

STSS will continue fulfilling our corporate responsibilities

Aware that value creation is the foundation of value sharing, we will stimulate the vitality of all employees while delivering our social responsibilities. In addition, we will strengthen branding, safeguard our corporate image, ensure transparency in major matters, and produce high-quality corporate social responsibility reports. These efforts will improve transparency and recognition, bolster investor confidence, and cultivate a positive public image.

Key Performance Table

"/": STSS has not disclosed historical data for some of the indicators, and the data has been disclosed starting in 2023 or 2024 through the improvement of the level of management of ESG indicators.

Economy				
Indicator	Unit	2022	2023	2024
Revenue	CNY billion	97.65	105.62	100.38
Total assets	CNY billion	72.86	68.24	67.53
Total equity attributable to the owner of a listed company	CNY billion	34.83	33.58	32.57
Total profit	CNY million	209	-1,203	-937
Social contribution value per share	CNY/share	1.161	0.773	0.579
Tax payment	CNY million	1,920	1,418	463
Steel production	million tons	12.17	13.91	13.98
Stainless steel production	million tons	4.14	5.59	6.20

Governance				
Indicator	Unit	2022	2023	2024
Share of female executives on the Management	%	12.5	12.5	13.33
Board meetings	session	13	14	8
Proposals reviewed and passed by the Board	/	60	70	40
Meetings of the Board's specialized committees	session	12	6	12
Shareholders' Meetings	session	3	4	4
Supervisory Board meetings	session	8	5	5
Announcements issued	/	148	67	43
New points of integrity risks identification	/	/	/	297
Anti-commercial bribery and anticorruption training coverage for personnel with business disposal rights	%	/	/	100
Auditing projects	/	18	44	21
Auditing issues corrected by due date	%	100	100	100
Partipants of ESG training	headcount	91	102	128

Social				
Indicator	Unit	2022	2023	2024
Product percent of pass	%	89.6	99.06	99.68
Customer satisfaction	point	90.1	86.8	87.9
User complaint resolution rate	%	89	98.8	98.9
Number of qualified suppliers	/	/	268	289
Review of new suppliers	/	/	58	41
Suppliers certified by ISO 14001 system	/	135	62	50
Procurement contract fulfillment rate	%	99	95	96.21
Number of suppliers suspended due to non-compliance	/	/	0	0
Number of potential suppliers rejected for non-compliance	/	/	0	0
Supplier ESG training	session	13	58	41
R&D investment	CNY billion	3.40	3.41	4.11
Share of R&D personnel	%	/	/	20.34
Investment Ratio in new processes and products	%	/	/	4.1
Patent applications	/	335	370	393
Authorized patents	/	192	157	106
Authorized invention patents	/	109	110	58
Total employees	headcount	15,123	14,012	13,080
Female employees	headcount	1,491	1,327	922
Ethnic minority employees	headcount	149	144	129
Share of female managers	%	5.26	5.92	4.50
Employees hired through open recruitment	headcount	114	320	335
Employee turnover rate	%	0.03	0.07	0.12
Labor contract signing rate	%	100	100	100

Indicator	Unit	2022	2023	2024
Social insurance coverage rate	%	100	100	100
Coverage rate of collective contracts	%	100	100	100
Paid annual leave days per employee	day	8.28	12.41	11.63
Investment in employee training	CNY million	18.46	41.45	25.13
Training hours per employee	hour	186.5	169	113
Employee training satisfaction	%	96.3	97.1	97.5
Employee health check-ups coverage rate	%	84.47	96.38	96.38
Investment in work safety	CNY million	145	108	166
Invested in workers' compensation insurance	CNY million	/	/	29.36
Coverage of workers' compensation insurance for employees	%	/	/	100
Investment in work safety liability insurance	CNY million	/	/	1.44
Coverage of work safety liability insurance for employees	%	/	/	100
Coverage rate of safety training	%	100	100	100
Safety training hours	hour	/	196	120.5
Safety emergency drills organized	session	246	54	53
Work safety accidents	/	2	2	3
Work-related fatalities	/	1	0	0
Days lost due to work-related injuries	day	6,025	540	115
Number of newly added occupational diseases	/	3	1	2
Relief funds distributed	CNY million	0.77	2.21	1.02
Consumption-driven assistance	CNY million	3.52	4.92	9.70
Volunteers	/	611	1,016	1,302
Engagements in voluntary services	/	1,390	1,221	1,561
Volunteer service hours	hour	7,227.15	7,111.79	6,832

Economy				
Indicator	Unit	2022	2023	2024
GHG emissions (Scope 1)	10,000 tCO ₂ e	2,154	2,160.1	2,114.51
GHG emissions (Scope 2)	10,000 tCO ₂ e	6.1	20.0	0
GHG emission intensity (Scope 1+Scope 2)	tCO ₂ e / ton of crude steel	1.78	1.77	1.78
GHG emission reduction (Scope 1)	million tons	/	/	0.16
GHG emission reduction (Scope 2)	million tons	/	/	0.01
Investment in environmental protection projects	CNY million	543	397	455
Environmental protection training hours	hour	/	/	78
Participants of environmental protection training	/	/	/	670
Environmental protection penalty	/	0	0	0
Energy consumption	10,000 tons of standard coal	633.94	641.46	690.77
Comprehensive energy consumption per ton of steel	kg of standard coal/ton	522.37	522.02	525.01
Energy consumption per CNY 10,000 of output value	tce/ ten thousand yuan	/	0.79	0.83
Clean energy use	GWh	541.74	235.47	274.07
Recycling volume of scrap steel	10,000 tons	113	118	117
Fresh water usage	million tons	21.92	22.17	16.79
Fresh water usage per ton of steel	Ton of water/ton of steel	1.81	1.8	1.39
Urban sewage and reclaimed water treated	million m ³	15.27	26.68	24.93
Water reuse rate	%	98.71	98.71	99.02
Exhaust emissions	million m ³	292,431.91	296,175.96	288,485.89
Sulfur dioxide emissions	ton	615.81	621.55	628.87
Nitrogen oxide emissions	ton	2,864.12	2,901.26	2,819.97

Indicator	Unit	2022	2023	2024
Particulate matter emissions	ton	1,952.03	1,976.54	1,959
Volatile organic compound emissions	ton	1,466.49	1,480.83	1,482.88
Atmospheric depositions in the plant area	tons/km ² /month	5.81	5.80	5.79
Chemical oxygen demand (COD) emissions	ton	/	60.36	56.22
Ammonia nitrogen emissions	ton	1.94	1.72	1.33
Wastewater discharged	million m ³	7.15	6.89	6.31
Wastewater discharged per ton of steel	Ton of water/ton of steel	0.59	0.56	0.52
Reuse rate of wastewater per ton of steel	%	91.84	91.80	99.02
General waste generated	million tons	8.08	8.29	7.17
General waste utilized	million tons	7.94	8.25	7.13
Comprehensive utilization rate of general industrial solid waste	%	98.35	99.5	99.53
Return-to-production utilization rate of general industrial solid waste	%	25.7	24.47	24.24
Hazardous waste generated	million tons	0.57	0.65	0.69
Safe disposal rate of hazardous waste	%	100	100	100
Emissions trading proceeds	CNY million	/	/	1.67
Investment in greening activities	CNY million	89.05	36.52	34.17
Green products owned	/	/	/	15
Steel product EPDs	/	/	3	9
Clean transport ratio	%	/	over 85	80.2

ESG Indicator Index

Report Chapter		GRI Standards	Self-Regulatory Guidelines No.17 for Companies Listed on Shenzhen Stock Exchange—Sustainability Report (For Trial Implementation)
About This Report		2-2/2-3/2-4	Article 4, Article 6
Message from the Chairman		2-22	
About Us		2-1/2-6/201-1	
Key Figures of 2024			
Sustainability Management		2-12/2-14/2-16/2-19/2-20/2-26/2-27/2-28/2-29/3-1/3-2/3-3	Article 5, Article 7, Article 9, Article 10, Article 11, Article 12, Article 13, Article 14, Article 16, Article 18, Article 53
Honors			
CSR Spotlights	Spotlight 1 : Ultra-thin Steel—Fostering the Ultimate Excellence of Stainless Steel via Technological Innovation		Article 42
	Spotlight 2: Green Transition—Nurturing New Momentum for Green Steel Development		Article 20, Article 23, Article 27, Article 28
	Spotlight 3: Industrial Synergy—Building a High-Quality Specialty Steel Industry Ecosystem		
Building a Solid Foundation and Fostering Growth Drivers	Strengthening the Leading Role of Party Building	205-2	
	Improving Corporate Governance	2-9/2-10/2-11	Article 12, Article 51, Article 52, Article 53
	Following Business Ethics and Compliance Requirements	205-1/205-2/205-3/206-1	Article 54, Article 55, Article 56
Pursuing Excellence and Nurturing New Quality Productive Forces	Upgrading Innovation Management	102-15	Article 11, Article 19, Article 41
	Seeking Innovation-driven Development	203-2	Article 42
	Achieving Excellent Quality	201-1	Article 47
	Supporting Industrial Upgrading	203-1/203-2	
Building a Beautiful China Through Green and Low-Carbon Development	Strengthening Environmental Management	305-7/307-1	Article 11, Article 33
	Implementing Green Production	101-4/101-4/101-7/101-8/203-1/301-1/301-2/301-3/302-1/302-3/302-4/302-5/303-1/303-2/303-3/303-4/303-5/304-2/305-7/306-1/306-2/306-3/306-4/306-5	Article 20, Article 28, Article 29, Article 30, Article 31, Article 32, Article 34, Article 35, Article 36, Article 37
	Making Green a Defining Feature	301-3	Article 20
	Tackling Climate Change	201-2/305-1/305-2/305-4/305-5	Article 10, Article 11, Article 13, Article 14, Article 15, Article 17, Article 18, Article 19, Article 20, Article 21, Article 22, Article 23, Article 24, Article 26, Article 27
Striving for Win-Win Progress Toward Social Harmony	Upgrading Quality Services	416-1/417-1/418-1	Article 44, Article 47, Article 48
	Building a Responsible Supply Chain	103-3/204-1/308-1/414-1/414-2	Article 45
	Fulfilling Employees' Value	2-7/2-8/2-30//401-1/401-2/401-3/403-1/403-2/403-3/403-4/403-5/403-6/403-7/403-9/403-10/404-1/404-2/405-1/406-1/408-1/409-1	Article 49, Article 50
	Contributing to Social Harmony	413-1/415-1	Article 38, Article 39, Article 40
Outlook in 2025		2-22	
Key Performance Table			
ESG Indicator Index			Article 54
Third-party Rating			
Feedback			

Third-party Rating



Rating Report of 2024 Sustainability/ESG Report of Shanxi Taigang Stainless Steel Co., Ltd.

Upon the request of Shanxi Taigang Stainless Steel Co., Ltd., the Chinese Expert Committee on CSR Report Rating invited experts to form a Rating Team and rated the 2024 Sustainability/ESG Report of Shanxi Taigang Stainless Steel Co., Ltd. (hereafter referred to as "the Report").

I. Rating Criteria

The Guidelines on Sustainability Reporting for Chinese Enterprises (CASS-ESG 6.0) issued by the China Enterprise Reform and Development Society and the CSR Cloud Research Institute, and the Rating Standards for the Sustainability Report of Chinese Enterprises (2025) issued by the Chinese Expert Committee on CSR Report Rating.

II. Rating Process

- 1. The Rating Team reviewed and confirmed the Confirmation Letter on Materials for the Process Evaluation of the Sustainability Report of the Company and related supporting materials submitted by the Preparation Team of the Report;
- 2. The Rating Team evaluated the compilation process and the disclosed information of the Report and drafted the Rating Report;
- 3. The Vice Chairman of the Chinese Expert Committee on CSR Report Rating and the leader and the expert of the Rating Team cosigned the Rating Report.

III. Rating Results

Process (★★★★★)

The Corporate Culture Department of the Company was responsible for the overall preparation of the Report, coordinating all departments to provide materials as required, and submitted the Report prepared to the Sustainability Working Committee and the Board of Directors for final approval and giving the final review opinions. The Report was positioned as an important tool to meet the requirements for compliance management disclosures, improve sustainability management level, disseminate corporate sustainable brand image, disclose corporate responsibility fulfillment information, and respond to capital market demands, with clear functional and value positioning. According to the latest sustainability information disclosure standards at home and abroad, the method for analyzing the double materiality of ESG issues was upgraded by integrating financial materiality analysis on the basis of impact materiality assessment, so as to identify and disclose key issues. The ESG indicator system was continuously improved in a scientific and standardized manner to reflect the actual situation of the enterprise. The Report was published through the Company's official website, Shenzhen Stock Exchange and other platforms, and presented in an H5 version with a single image to summarize the key points. Therefore, the Report has excellent process performance.

Materiality (★★★★★)

The Report systematically disclosed the key issues in the industry, such as addressing climate change, pollutant discharge, waste treatment, energy and resources conservation, R&D and application of environmental protection products or technologies, biodiversity and land use, sustainable supply chain, construction of intelligent plants, safety and quality of products and services, occupational health and work safety, sustainable governance mechanism, anti-commercial bribery and anti-corruption, which are fully described in detail. Therefore, the Report has excellent materiality performance.

Completeness (★★★★☆)

The main body of the Report systematically discloses 89.51% of the core indicators of the industry in the sections of "Consolidating the foundation to accumulate development momentum", "Casting high-quality products to cultivate new quality productive force", "Upholding green and low-carbon initiative to build a beautiful China", and "Achieving mutual benefits to co-build a harmonious society". Therefore, the Report has leading completeness performance.

Balance (★★★★☆)

The Report discloses many negative data, such as the "number of environmental punishment events", "number of work safety accidents" and "number of work-related deaths", and briefly described the relevant situations, such as "no punishments by domestic or foreign market supervision or administration institutions due to unfair competition", and "no major environmental emergencies or environmental violations". Therefore, the Report has leading balance performance.

Comparability (★★★★★)

The Report discloses the comparative data for 83 key indicators for three consecutive years, including the "energy consumption", "comprehensive energy consumption per ton of steel", "labor contract signing rate", "proportion of R&D personnel", "steel production" and "total profit", and provides horizontal comparisons, such as the "ESG Pioneer Index Top 100 Central SOEs" for horizontal comparison. Therefore, the Report has excellent comparability performance.

Readability (★★★★★)

The Report has a clear framework and complete structure, with four major chapters detailing the Company's CSR concepts and achievements in the environmental, social and governance domains, demonstrating the Company's sense of responsibility. The cover features the Company's distinctive logo to enhance the recognition of the Report. The cross-page of each chapter is designed with real-life images and narrative introductions that match the topic discussed in the chapter, enabling readers to quickly learn about the key points of the chapter, and enhancing the communicability of the Report. Therefore, the Report has excellent readability performance.

Innovation (★★★★★)

Three major CSR topics: "Cicadas wing like steel, Technological innovation shaping the ultimate beauty of stainless steel", "Directing to green development, Creating new driving forces for green development of steel industry", and "Connecting chains into clusters, Creating a high-quality industry chain ecosystem for special steel materials", are set out to summarize and showcase the great achievements of the Company in fulfilling its corporate responsibilities from scientific and technological innovation, green development and ecosystem building, respond to the expectations of stakeholders and demonstrate the Company's sense of responsibility. The annual key performance data are summarized in the "numbers in 2024" to enhance the credibility of the contents, and the Company's achievements in fulfilling its corporate responsibilities are presented in the form of stakeholder's testimony to enhance the communicability of the Report. Therefore, the Report has excellent innovation performance.

Overall Rating (★★★★★)

Upon evaluation by the Rating Team, the 2024 Sustainability/ESG Report of Shanxi Taigang Stainless Steel Co., Ltd. is rated as a five-star and excellent sustainability report.



The Sustainability/ESG Report of Shanxi Taigang Stainless Steel Co., Ltd. is rated as a five-star report for the 9th consecutive year

IV. Suggestions for Improvement

Negative information and corresponding prevention and response measures should be disclosed adequately to improve the balance of the report.

黄群慧

Vice Chairman of the Chinese Expert Committee on CSR Report Rating

钟宏武

Leader of the Rating Team

陈宏辉

Expert of the Rating Tea



Scan the QR code to view the enterprise's rating file

Date issued: April 11, 2025

Feedback

Dear readers,

Thank you for taking the time to read our sustainability (ESG) report amidst your busy schedule. We remain committed to delivering comprehensive and meaningful information to enhance public understanding of our sustainability (ESG) management capabilities. We sincerely invite you to share any feedback and suggestions on this report - your insights will help us continuously improve our reporting process and enhance the effectiveness and transparency of our sustainability (ESG) management. Thank you for your continued interest and support. We look forward to working together with you towards a better future!

1. Please select the stakeholder group that best represents you

- ☐ Government ☐ Regulators ☐ Shareholders ☐ Customers ☐ Suppliers ☐ Employees
☐ Partners ☐ Peers ☐ Communities ☐ Media ☐ Others

2. Overall, how would you evaluate our report?

- ☐ Very good ☐ Good ☐ General ☐ Poor ☐ Very poor

3. What do you think of the clarity, accuracy, and completeness of the information, data, and indicators disclosed in the report?

- ☐ Very good ☐ Good ☐ General ☐ Poor ☐ Very poor

4. Do you think the content arrangement and layout design of the report are read friendly?

- ☐ Very good ☐ Good ☐ General ☐ Poor ☐ Very poor

5. Which topics have caught your attention the most? (3 options)

- ☐ Environmental compliance ☐ Resources utilization ☐ Circular economy ☐ Climate response
☐ Green products ☐ Technological innovation ☐ Product quality and safety ☐ Customer service
☐ Supply chain security ☐ Promotion of industrial development ☐ Employee development ☐ Corporate governance

6. What other opinions or suggestions do you have regarding the sustainability (ESG) report or our work performance?



Shanxi Taigang Stainless Steel Co., Ltd.



Scan and log
in the STSS website