



攀钢集团钒钛资源股份有限公司
Pangang Group Vanadium & Titanium Resources Co., Ltd.



2025 ESG REPORT

PANGANG GROUP VANADIUM & TITANIUM
RESOURCES CO., LTD.

About this Report

This report is the seventeenth Environmental, Social and Governance (ESG) report issued by Pangang Group Vanadium & Titanium Resources Co., Ltd. (hereinafter referred to as "the company" or "we") in the form of the annual report. The report discloses the concept, practice and performance of the company and its subsidiaries from January 1 to December 31, 2025, with some content extending beyond this period.

Preparation Basis

The Reference of ESG Indicators System for ESG Reports of Listed Companies Controlled by Central State-owned Enterprises issued by the State-owned Assets Supervision and Administration Commission of the State Council (SASAC)

Self-Regulatory Guidance No. 3 for Companies Listed on Shenzhen Stock Exchange—Preparation of Sustainability Report (2026 Revised Version) issued by the Shenzhen Stock Exchange

The Sustainability Reporting Standards (GRI Standards) issued by the Global Sustainability Standards Board (GSSB)

ISO 26000:2010-*Guidance on Social Responsibility* issued by International Organization for Standardization

The United Nations 2030 Sustainable Development Goals (SDGs)

Data Sources

The contents disclosed in the report are from the company's internal documents and statistical data. The financial data involved comply with the *Accounting Standards for Business Enterprises* and relevant accounting systems issued by the state, and are audited in accordance with the *China Internal Audit Standards*, which truly reflect the financial indicators and operating conditions of the enterprise. Unless otherwise specified in the report, it shall be presented in yuan.

Reliability Assurance

The company guarantees that the contents of this report are free from any false records, misleading statements or major omissions, and bears individual and joint liabilities for the authenticity, accuracy and completeness of the contents.

Report Acquisition

This report is available in both printed and electronic versions and can be accessed on the websites of Vanadium & Titanium (<http://www.pgvt.cn>) and CNINFO (<http://www.cninfo.com.cn>).

CONTENTS



About this Report / 01

Message from the Chairman / 04

About Us / 06

2025 Performance Highlights / 08

ESG Management / 10

Outlook for 2026 / 70

ESG Performance / 72

Contribution to the United Nations Sustainable Development Goals (SDGs) / 75

Content Index / 76

Feedback / 77



CONTENTS

01

Advancing with New Drivers to Build a Responsible Brand

Fostering New Quality Productive Forces	16
Delivering High-Quality Products	24
Serving Customers with Dedication	28
Supply Chain Management	31



02

Driving Green and Low-Carbon Transition to Co-build a Harmonious Ecology

Climate Change Response	36
Environmental Compliance Management	40
Efficient Energy Utilization	43
Clean and Green Operations	44



03

Upholding Compliance to Cement the Development Foundation

Corporate Governance	50
Honesty and Integrity	52
Compliance Operation	54



04

Adopting a People-Centered Approach for a Better Future

Employee Rights Protection	58
Building Growth Platforms	60
Occupational Health and Safety	62
Employee Care and Support	67
Comprehensive Rural Vitalization	68
A Better Community	69



Message from the Chairman



Ma Chaohui

Chairman of Pangang Group Vanadium & Titanium Resources Co., Ltd.

The year 2025 saw us deepen our commitment to Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and fully act on the guiding principles of the 20th CPC National Congress as well as the plenary sessions of the 20th CPC Central Committee. We keep firmly in mind the important instructions President Xi delivered during his inspection of Bensteel Group and remain focused on our core responsibilities and principal business. Advancing along a path of high-end, intelligent, and green development, we leverage technological innovation to drive industrial upgrading and strengthen our core competitiveness. At the same time, we embed social responsibility across all aspects of operations and management, contributing to both high-quality industry development and local economic and social progress.

Innovation remains the primary driver of our development. Focusing on strategic and forward-looking technologies, we invested 287 million yuan in R&D in 2025, generating a steady stream of results, including five provincial- or ministerial-level science and technology awards and 54 newly authorized patents. Over the past year, we have participated in the initiation and formulation of multiple national, industry, local, and group standards. Chongqing Titanium Industry passed both national and municipal reviews as a "little giant" of specialized and sophisticated SME, while Xichang Vanadium Products Technology was selected as a Liangshan Prefecture Expert Workstation. Recognition was also granted to the Wang Chao Model Worker Innovation Studio as a "Sichuan Provincial Model Worker and Craftsman Innovation Studio", and the Xue Ping Ferrovanadium Precipitation Master Skill Studio was named a Sichuan Provincial Master Skill Studio. Throughout the 14th Five-Year Plan period, our technological innovations have generated over one billion yuan in economic value, with more than 500 patent applications filed, over ten provincial- or ministerial-level awards obtained, and ten standards developed, providing strong momentum for upgrading core businesses and expanding into emerging fields.

Strategic guidance has accelerated the development of new quality productive forces. Our efforts to promote product premiumization, intelligent production lines, and green manufacturing have delivered solid progress. Stable and continuous operation has been achieved at the 60,000 tons/year chloride-process titanium dioxide production project based on the molten salt chlorination method. Breakthroughs in high-purity vanadium oxide were made using a "one-step" short-process approach, reducing manufacturing costs by 12.06% compared with 2024. Meanwhile, we have developed functional titanium dioxide products such as R-228 and CR-358, expanding applications into high-end inks and weather-resistant coatings. We have also developed battery-grade high-purity vanadium oxide, vanadium-based hydrogen storage alloys and other functional materials, guiding us into emerging sectors such as new energy. We steadily advance the digital and intelligent transformation, with 17 information systems for management developed, more than ten intelligent projects commissioned, and three demonstration production lines for deep integration of informatization and industrialization as well as intelligent manufacturing completed. Our automation across production lines has reached 79%.

Green and low-carbon development continues to shape our growth model. We implement energy-saving and carbon-reduction initiatives, and have completed the life cycle assessment data collection and modeling for all products. We also take the lead in developing relevant industry standards, filling a domestic gap in carbon footprint accounting for vanadium products. Furthermore, we expand renewable energy utilization through measures such as photovoltaic deployment and hydrogen blending. Excluding the impact of newly commissioned capacity, our total carbon emissions and energy consumption declined year-on-year by 2.7% and 4.7%, respectively. Our green production is advanced on all fronts, with full recycling of waste salt achieved in the 60,000 tons/year chloride-process titanium dioxide production project, supporting the sustainable development of the Panxi titanium resource industry. In 2025, we invested 174 million yuan in environmental protection, demonstrating our firm commitment to ecological responsibility.

Openness and cooperation expand our development space. Supported by strong product quality and refined services, we have strengthened our presence in both domestic and international markets, enhancing brand influence and customer satisfaction. We made a breakthrough in overseas exports of new vanadium-aluminum alloy products, and our ferrovanadium products have gained the award of "Tianfu Famous Brand". Our strategy of going global gains further momentum, with export ratios reaching 25% for vanadium products and 37% for titanium dioxide. Through ongoing improvements to our supply chain management system, we foster deeper partnerships and resource sharing, ensuring stable procurement quality and supply. In parallel, we participated in 62 industry exchanges in 2025, enabling us to share development opportunities through open cooperation.

Responsibility and commitment remain integral to our long-term vision. We uphold integrity and compliance as the foundation of corporate development, with continued emphasis on lawful operation and fair competition. Talent development has been strengthened through 1,120 training sessions attended by more than 27,000 participants, alongside the establishment of seven chief engineer teams. We have launched more than 100 mass innovation initiatives, including labor competitions, constructive proposals, innovation studio projects, and self-management activities, complemented by five technical skills competitions. We also work to improve workplace conditions, achieving zero safety incidents throughout the year. We actively fulfill our social responsibilities through the recruitment of 52 university graduates, the allocation of 10.36 million yuan in support funds for rural vitalization, and the implementation of 11 assistance projects. This demonstrates our commitment to giving back to society and meeting public expectations as a listed central state-owned enterprise in the new era.

The journey ahead may be long and arduous, but with sustained actions, we will eventually reach our destination and embrace a brighter future. Looking ahead to China's 15th Five-Year Plan period, we will accelerate the cultivation and expansion of new quality productive forces, advance the high-value utilization of vanadium and titanium resources, and elevate the value of the industrial chain—working together with all stakeholders to contribute to a new chapter in Chinese modernization.

About Us

Company profile

Established on March 27, 1993, Pangang Group Vanadium & Titanium Resources Co., Ltd. was listed on Shenzhen Stock Exchange on November 15, 1996 (Stock Code: 000629). Headquartered in Panzhihua City, Sichuan Province, the Company is the only listed company in the world specializing primarily in vanadium and titanium development. Based on its special advantages in resources and technology, the Company has explored a unique way of utilizing vanadium and titanium magnetite resources, and boasts industry-leading manufacturing capabilities, R&D capabilities and customer service capabilities.

Products

As a leading global supplier of vanadium products, a major supplier of titanium raw materials in China, and an important manufacturer of titanium slag and titanium dioxide via both the sulfate and chloride processes, the Company offers a comprehensive portfolio. Vanadium products primarily include vanadium pentoxide, high-vanadium ferroalloy, vanadium nitrogen alloy, vanadium-aluminum alloy, and vanadium electrolyte. Titanium products mainly include titanium dioxide and titanium slag.

Vanadium is a critical strategic metal with broad applications in steel metallurgy, energy storage, chemical engineering, and nonferrous metallurgy. In the steel industry, it serves as a microalloying element that refines grain structure and enhances strength, toughness, and wear resistance. As a result, it sees wide use in machinery manufacturing, automotive production, shipbuilding, railway tracks, and bridge construction. In energy storage, vanadium is the key material for all-vanadium redox flow batteries (VRFBs), which offer long cycle life, high intrinsic safety, fast response, and suitability for long-duration energy storage. These features have made VRFBs an important technology pathway in emerging power systems. In addition, vanadium functions as a catalyst in the chemical industry and as a colorant in glass and ceramics. At present, the Company's vanadium products primarily serve steel metallurgy, vanadium-based energy storage systems, titanium alloy manufacturing, chemical catalysts, and the glass industry.

Titanium dioxide is a high-performance white pigment with excellent opacity and tinting strength. It is widely used in coatings, plastics, paper, and inks. The Company's titanium dioxide products are mainly sold to these sectors, while titanium slag is primarily used in the production of titanium dioxide and is sold to downstream titanium sponge manufacturing enterprises.

In 2025

53,100 tons of vanadium products (equivalent to V_2O_5)

272,500 tons of titanium dioxide

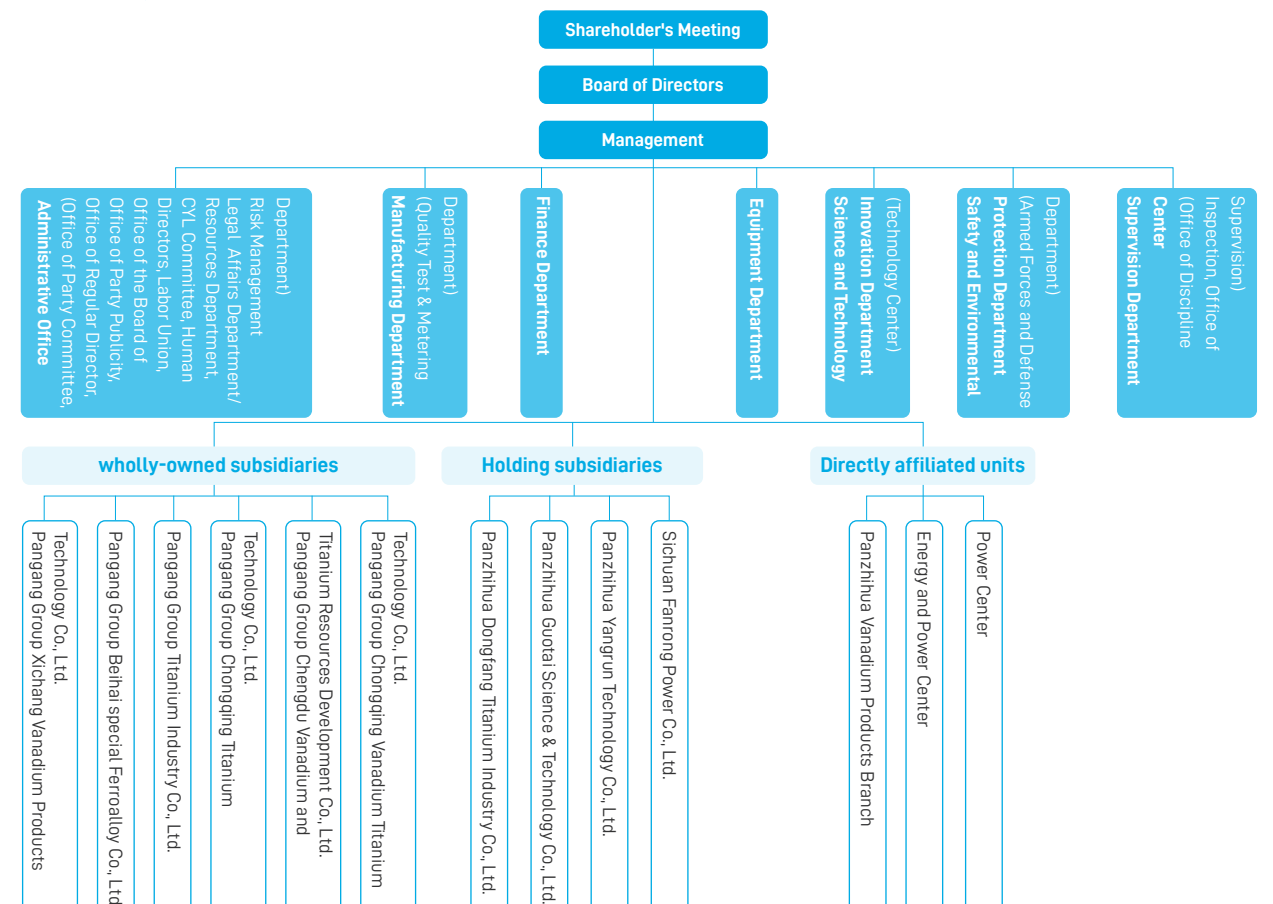
199,500 tons of titanium slag

2,504 cubic meters of electrolyte

Corporate Culture



Organizational Structure



2025 Highlights Performance

174 million yuan invested in environmental protection

Excluding the impact of new production capacity, carbon emissions decreased by **2.7%** year on year, and total energy consumption fell by **4.7%**

Full recycling of waste salt achieved in the 60,000 tons/year chloride-process titanium dioxide production project based on the molten salt chlorination method

Rooftop distributed photovoltaic system installed for 60,000 tons/year chloride-process titanium dioxide production project; after grid connection, daily power generation reached approximately **2,500** kWh

Panzhihua Vanadium Products Branch, Dongfang Titanium Industry, titanium smelting lines of Titanium Industry Company, and Chongqing Titanium Industry were recognized as **provincial-level environmentally trustworthy enterprises**

The low-temperature chlorination titanium dioxide production line of Titanium Industry Company, Guotai Science & Technology, and Panzhihua Yangrun Technology were recognized as **provincial-level environmentally compliant enterprises**

Environment



287 million yuan of R&D investment

54 patents granted

Wang Chao Model Worker Innovation Studio was selected as a **“Sichuan Provincial Model Worker and Craftsman Innovation Studio”**

Xue Ping Ferrovandium Precipitation Master Skill Studio was officially recognized as a **“Sichuan Provincial Master Skill Studio”**

Chongqing Titanium Industry passed the national review for **“little giant” of specialized and sophisticated SME**

Women hold **23.31%** of management roles

10.36 million yuan invested in gratuitous assistance funds for rural vitalization

3 "study inspiration classes" established in **3** primary and secondary schools in Panzhou

Cumulative procurement of agricultural products from assisted regions exceeded **3** million yuan

380 youth volunteers

Volunteer service activities benefited **240** people

Governance



1 female director appointed

0 business ethics violations

534 integrity and compliance training sessions conducted

Honors and Awards

2025 GoldenBee CSR China Honor Roll – ESG Competitiveness · Carbon Peak & Neutrality Pioneer Award

The first Silk Road Corporate Sustainability Forum – Silk Road ESG Benchmark Award

8th China IR Annual Award 2024-2025 – Best Leader Award

Sichuan Foundation for Disabled Persons – 2025 Caring Role Model



Rating Performance

CNI Index ESG Ratings: A

Sino-Securities Index ESG Ratings: BBB

CCXGF ESG Ratings: A

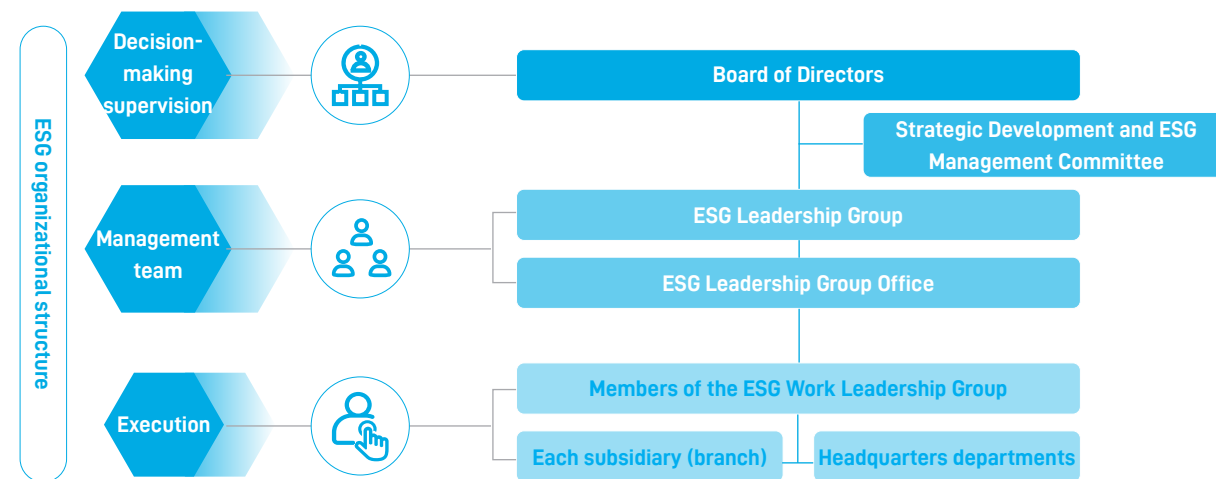
China Securities Index ESG Ratings: BBB

Wind ESG Ratings: BB

ESG Management

ESG Governance System

The Company attaches great significance to integrating ESG principles into its business management. We embed ESG factors across decision-making processes to ensure they are integral to strategic planning, operation management, and daily decision-making processes. To enhance the Board's effective and timely oversight of ESG matters, we have developed a three-tier ESG management structure covering ESG decision-making supervision, management team, and execution. This structure specifies ESG management responsibilities of each tier and position to coordinate ESG management efforts and enhance our sustainability capability.



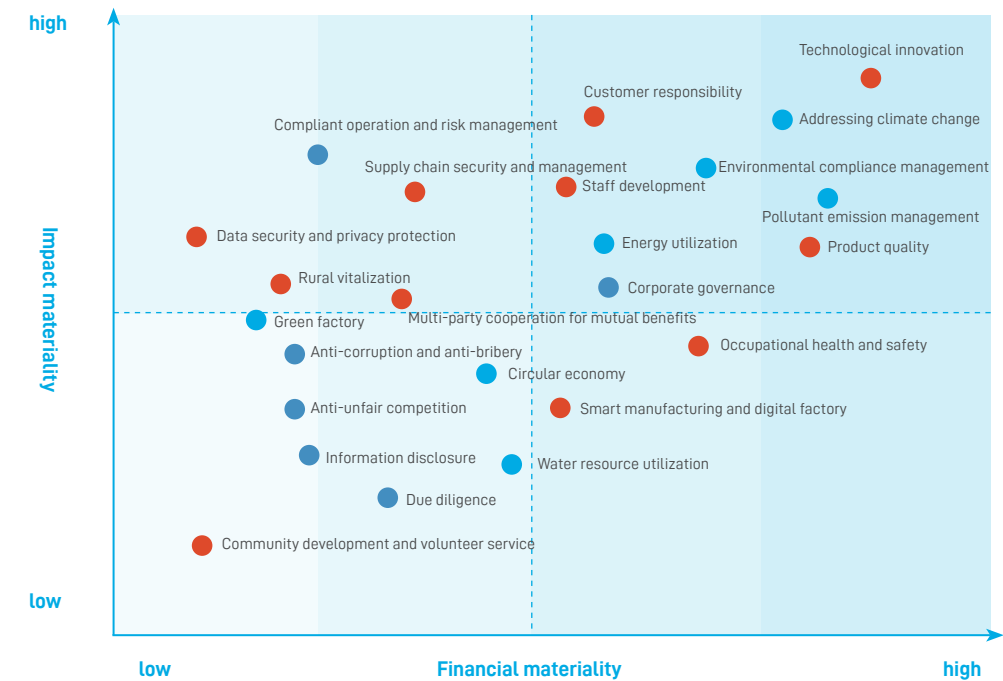
Double Materiality Assessment

To better understand stakeholder expectations and demands, and make our ESG report more professional, targeted, and material, we invite all stakeholders to assess environmental, social and governance topics with "impact materiality" and "financial materiality" through various channels, and make key disclosures.

Process of materiality assessment

- 01 Understand the Company's activities and business relationships**
 - Understand the Company's activities and business relationships
 - Understand external environment
 - Understand key affected stakeholders
- 02 Establish an ESG topic list**
 - Identify other potential material topics based on topics in the Shenzhen Stock Exchange's Guidelines, and that of peer companies.
 - Identify topic-related impacts, risks, and opportunities, and compile them into a database.

Double materiality matrix



Environmental(E)	Social(S)	Governance(G)
Environmental compliance management	Staff development	Supply chain security and management
Addressing climate change	Occupational health and safety	Multi-party cooperation for mutual benefits
Energy utilization	Customer responsibility	Rural vitalization
Pollutant emission management	Product quality	Community development and volunteer service
Water resource utilization	Technological innovation	
Circular economy	Smart manufacturing and digital factory	
Green factory	Data security and privacy protection	
		Corporate governance
		Due diligence
		Anti-corruption and anti-bribery
		Compliant operation and risk management
		Anti-unfair competition
		Information disclosure

- 03 Assess and prioritize material topics**
 - Assess impact materiality and financial materiality of topics
 - Consolidate assessment results into a double materiality matrix
- 04 Confirm material topics**
 - Confirm or adjust material topics based on management feedback
 - Highlight double materiality topics in the annual ESG report

Stakeholder Communication

The Company prioritizes stakeholder communication and engagement. Based on the Company's operations and impact scope of topics, we identify internal and external stakeholders that significantly influence our development. A regular communication mechanism with stakeholders has been established with ESG information disclosed through designated media, the Company's official website and WeChat official account, communicating our corporate values and ESG performance. While addressing stakeholder concerns, we also incorporate reasonable feedback from internal and external stakeholders to reach a consensus on sustainable development.

Stakeholders	Expectations and requirements	Communication mode
Government and regulatory agencies	Promoting employment	High-level meeting
	Ensuring legal compliance	Exchange meeting
	Contributing to local economic development	Information submission
		Full-time liaison organization of local enterprises
Shareholders and investors	Improving profitability	Shareholder's Meeting
	Increasing the return rate of investment projects	Information disclosure
	Improving quality and efficiency	Business performance assessment Investor communication
Employees	Compensation and benefit guarantee	Workers' Congress
	Career development	Seminar
	Humanistic concern	Online communication
	Occupational health and safety	Feasible proposal
	Communication and democratic management	Information disclosure
Customers	Honoring commitments	Daily contact
	High-quality green products	Exhibition
	Offering personalized services	Customer Conference
	Guaranteeing confidentiality of information	Regular visits
		Opinion solicitation

Stakeholders	Expectations and requirements	Communication mode
Environment	Tackling climate change	Environmental management
	Rational use of energy	Resource recycling and utilization
	Pollution prevention	Energy conservation and emission reduction
	Reducing waste discharge	Strengthen the construction of green factories
	Green factory construction	
Suppliers	Integrity	On-site visit
	Policy stability	Contract negotiation
	Open, fair and just principle	Regular visits
	Win-win cooperation	Tender meeting Soliciting opinions
Industry associations	Fair competition	Support community development
	Industry progress	Information openness and transparency
Communities, the public and media	Supporting community development	Contribution to community development
	Offering open and transparent information	Regular communication
		Media communication

Due Diligence Investigation

The Company has established an ESG due diligence mechanism. Through environmental and social impact assessments, supply chain reviews, third-party risk assessments, and internal compliance audits, we identify ESG risks from its operations, covering environmental compliance, production safety, product quality, employee rights, and business ethics. Results are regularly reported to the Board and relevant stakeholders, ensuring compliance in sustainable development and effective management.



01 Advancing with New Drivers to Build a Responsible Brand

Positioning technological innovation as the core driver of high-quality development, Pangang Vanadium & Titanium strengthens the quality foundation through continuous breakthroughs and intelligent transformation. By working closely with supply chain partners, we work to build a trusted and responsible brand image, delivering higher-quality products and more efficient services to customers.



Fostering New Quality Productive Forces

Guided by the goal of building a source of original technologies and establishing a third-generation technology system, the Company continues to refine the innovation framework, strengthen leadership in innovation, and stimulate technological vitality.

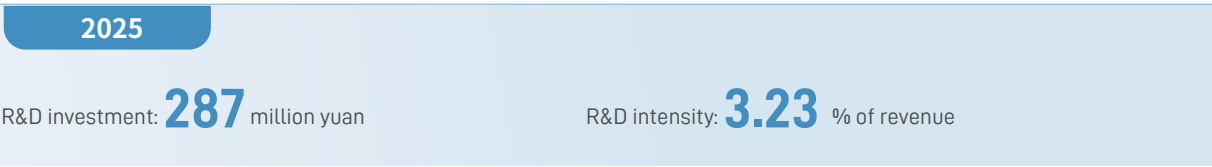
An innovation ecosystem

We continuously improve our innovation management system, fostering a robust innovation ecosystem through strategic and forward-looking technologies, key R&D projects, cutting-edge research platforms, and integration of innovation resources.

Strengthening the innovation system

To ensure the orderly and efficient implementation of R&D activities, the Company has established a series of management policies covering research project management, new product development, and IPR protection. These include the Administrative Measures for Research Projects and Intellectual Property Rights, the Process Management Measures, and the Administrative Measures for New Product Development, which together provide institutional support for full lifecycle management of technology projects.

The Company also strengthens support for innovation platforms. We operate two provincial-level platforms—the Sichuan Province Enterprise Technology Center and the Chongqing Enterprise Technology Center—as well as a Chongqing Innovation and Entrepreneurship Demonstration Team. Meanwhile, we advance the development of innovation studios to deepen technical research and cultivate highly skilled talent. By the end of 2025, we have established two provincial-level Model Worker and Craftsman Innovation Studios, one provincial-level Master Skill Studio, and one municipal-level Master Skill Studio.



Case

Xue Ping Ferrovanadium Precipitation Master Skill Studio receives provincial recognition

In 2025, the Xue Ping Ferrovanadium Precipitation Master Skill Studio was officially recognized as a "Sichuan Provincial Master Skill Studio". The development and standardization of two advanced operating methods across the Pangang Group were completed, along with the initiation of more than 20 innovation projects. More than 10 technical materials and papers were produced, including *Overview of Spherical Vanadium Precipitation and Vanadium Precipitation Process and Key Parameters*. The program also supported the training of 12 technicians and senior-level professionals, and has become a key platform for talent development and technological innovation in vanadium products in Panzhihua.



Case

Xichang Vanadium Products Technology selected as a Liangshan Prefecture Expert Workstation

The Liangshan Prefecture Expert Workstation is an enterprise-led platform oriented toward industrial development and innovation needs. The workstation leverages top-tier experts, including academicians as well as specialists from leading universities and research institutes, to provide intellectual support for independent innovation and industrial upgrading.

As a high-tech enterprise, a provincial technology center, and a recognized specialized and sophisticated SME, Xichang Vanadium Products Technology independently developed the "calcification roasting-acid leaching" process. This technology has resolved key industry-wide challenges and maintained leading performance in critical indicators such as vanadium pentoxide and ferrovandium yield. In 2025, supported by its strong R&D capabilities, Xichang Vanadium Products Technology was selected as a host entity for the eighth batch of Academician (Expert) Workstations in Liangshan Yi Autonomous Prefecture.



Case

Chongqing Titanium Industry passes national "little giant" review

Chongqing Titanium Industry focuses on technological and product upgrades in the sulfate-process titanium dioxide sector. By increasing R&D investment and strengthening technical breakthroughs, the Company produced high-quality titanium dioxide products widely recognized by the market. In 2025, Chongqing Titanium Industry successfully passed the national review for "little giant" enterprises specializing in niche sectors, as well as the Chongqing municipal review for specialized and sophisticated SMEs.

Breaking through technological bottlenecks

Focusing on forward-looking innovation and key core technologies, the Company has launched 35 technology projects, including 29 company-level projects and 6 government-supported projects. We advance major government-supported initiatives such as *Design and Kiloton-Scale Demonstration of a High-Purity V₂O₅ Production Line*, and *Preparation of High-Quality Ferrovandium for Vanadium-Based Hydrogen Storage Alloys and Its Industrial Application*, and have secured 2.858 million yuan in special government funding.

Indicators	2023	2024	2025
R&D investment (million yuan)	566	447	287
R&D investment as a percentage of primary business revenue (%)	3.94	3.39	3.23
Authorized patents	70	59	54
Number of invention patents	20	21	9
Number of proprietary technology applied	5	7	8
Important sci-tech awards (national, provincial and ministerial level)	5	3	5



- Research and Application of Efficient Recycling of Waste Acid from Sulfate-Process Titanium Dioxide Production* — Third Prize, Sichuan Provincial Science and Technology Progress Award
- Research and Application of High-Value Utilization of Complex Vanadium-Bearing Solid Waste* — Third Prize of Science and Technology Innovation Award by the China Industry-University-Research Institute Collaboration Association
- Research and Application of Key Technologies for Recycling Waste Acid from the Sulfate Process of Titanium Dioxide Production* — Third Prize, China Nonferrous Metals Industry Science and Technology Award
- Study on the Preparation of High-Quality Vanadium Intermediate Alloys and Their Application in High-Strength Aerospace Titanium Alloys* — Third Prize, China Nonferrous Metals Industry Science and Technology Award
- Study on Key Methods for Producing Sodium Carbonate from Sodium Sulfate* — Second Prize, China Association of Circular Economy

Strengthening collaborative innovation

The Company integrates internal and external R&D resources, including universities, research institutes, and leading experts, to enhance technological support for production lines. We advance process upgrades, new product development, and performance optimization of newly commissioned production lines. In 2025, we participated in the initiation and development of multiple national, industry, local, and group standards, and conducted 62 technical exchanges with institutions such as Northeastern University, Chongqing University, Dalian University of Technology, and Wanhua Chemical Group Co., Ltd. These collaborations have enabled on-site application of key achievements, including lead control in vanadium slag and vanadium control in crude titanium dioxide, contributing to a 2.61 percentage-point increase in roasting conversion efficiency.

We carried out research on short-process preparation technology for vanadium electrolyte from calcified vanadium solution in collaboration with Chongqing University. The prepared vanadium electrolyte samples met the Grade I requirements of the national standard (GB/T 37204-2018).

In collaboration with Sichuan University, we conducted research on hydrogen storage alloys prepared using high-quality vanadium alloys, successfully developing a series of vanadium alloy products for hydrogen storage applications and taking the lead in formulating the group standard *Vanadium Alloys for Hydrogen Storage*.

In collaboration with Pangang Group Research Institute and Northeastern University, the project *Key Technologies for Efficient Preparation of High-Quality Ferrovandium Alloys and Their Application* was evaluated by the Sichuan Society for Metals as reaching an internationally advanced level, with aluminum consumption control technology at a globally leading level.

A joint project with Pangang Group Research Institute, Chongqing University, and Northeastern University on *Research and Application of Multimodal Synergistic Mechanisms for Multi-Level Particle Size Regulation of Titanium Dioxide Base Materials* was rated internationally advanced by the Sichuan Society for Metals, with online hydrolysis seed control technology reaching a globally leading level.

Technology application

Guided by market demand, Pangang Vanadium & Titanium advances the large-scale and high-efficiency production of its competitive products. Through continuous technological innovation and process optimization, we have strengthened new product development and maintained industry-leading performance in key indicators.

Case

60,000 tons/year titanium dioxide production line applying molten salt chlorination achieves stable operation

Titanium resources in the Panxi Region contain relatively high levels of calcium and magnesium, which have long posed recognized technical barriers to producing chloride-process titanium dioxide. Pangang Vanadium & Titanium independently developed molten salt chlorination process technology and large-scale equipment tailored to these high-calcium, high-magnesium ores. This breakthrough enables the efficient utilization of low-grade titanium resources that were previously uneconomical to process. We established a fully proprietary industrial technology system covering molten salt chlorination of low-grade titanium slag to the production of high-quality chloride-process titanium dioxide.

We also achieved a stable, large-scale application of this process. In 2025, the project entered stable operation, with a cumulative product qualification rate exceeding 98%. All technical and economic indicators met design targets.

The successful development and stable operation of this technology creates a new pathway to enhance the overall value of Panxi vanadium-titanium magnetite resources. It is expected to significantly improve resource utilization efficiency while strengthening China's raw material supply capacity and global competitiveness in the high-end chloride-process titanium dioxide industry.

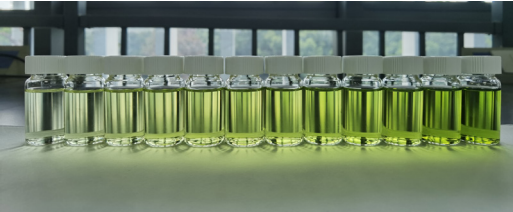


60,000 tons/year chloride-process titanium dioxide production project

Case

Overcoming challenges in high-purity V₂O₅ production and expanding non-steel applications

Traditional V₂O₅ production processes face challenges such as high concentrations of impurities—including silicon, aluminum, and chromium—in the leachate, which are difficult to remove. To address these issues, we adopted both "two-step" and "one-step" short-process methods to develop high-purity vanadium oxide products. These efforts resulted in a complete short-process technology system that effectively controls impurity enrichment, improves removal efficiency, significantly shortens production cycles, and enables real-time monitoring of certain impurity elements.



Color variations of vanadium solutions at different concentrations

In 2025, we completed on-site industrial trials for both processes. The two-step process met battery-grade standards, while the one-step short-process route achieved 99.5% purity, and manufacturing costs decreased by 12.06% compared to 2024.

Case

Developing high-quality titanium dioxide products to meet market demand

In response to market needs, the Company advanced the development of specialty titanium dioxide products, including CR-340, CR-356, and R-228.

1.CR-340 product development

CR-340 is a specialty chloride-process titanium dioxide product. It uses tailored inorganic and organic surface treatments to deliver excellent dispersibility, high opacity, superior whiteness, and strong gloss in plastic applications. In cast film processing, CR-340 demonstrates outstanding high-temperature resistance, anti-yellowing performance, and crack resistance. In 2025, the Company optimized fatty acid dosage and refined slurry recycling processes to advance the development of CR-340. These improvements addressed capacity constraints in slurry evaporation units, achieving a product qualification rate of 99.91%.

2.R-228 product development

R-228 is a newly developed sulfate-process titanium dioxide product designed for ink applications. It offers strong opacity, good dispersibility, and high gloss. Focusing on stabilizing product quality and improving application performance, the Company completed two rounds of industrial-scale trial production in 2025, producing 1,050 tons. The pigment qualification rate reached 100%, and key performance indicators—such as opacity and gloss—met high standards, receiving positive customer feedback.



Digital and intelligent factories

Pangang Vanadium & Titanium aligns its transformation with industry characteristics and operational needs. We integrate process reengineering with management transformation and embed initiatives in "automation, informatization, digitization, and intelligentization" ("four-initiatives" in short) across all aspects of production and operations. Furthermore, we have established a digital and intelligent system featuring horizontal integration in management and end-to-end vertical control in production, enabling the deep integration of smart manufacturing with high-quality industrial development.

As of the end of 2025:

17 management information systems developed and implemented

50+ sets of intelligent equipment deployed

The automation rate of production lines reached 79%

11 production lines upgraded under the "four initiatives" program

10+ intelligent projects completed and put into operation

63 "3D" (dirty, demanding, dangerous) positions eliminated

19 automated production lines established

Transformations of 2 plants completed under the "four initiatives" program

Case

Chongqing Titanium Industry builds a smart factory

Chongqing Titanium Industry applied bulk bag cutting and feeding technology to build an automated raw material feeding system, and developed an automated finished product warehouse applying intelligent transfer systems and high-bay storage. These upgrades eliminated five "3D" positions, improved working conditions, and enhanced both automation and intrinsic safety.

Case

Building a smart factory at Panzhihua Vanadium Products Branch

In 2025, Panzhihua Vanadium Products Branch completed Phase II construction of the vanadium oxide Line A. The project introduced automated unpacking, conveying, and feeding systems for sodium salts and precipitants. It upgraded process control to a DCS system and implemented intelligent transformation of instrumentation and actuators. Panzhihua Vanadium Products Branch also established automated liquid sampling and testing systems, as well as online equipment condition monitoring systems, enabling centralized process control and more stable operations. At the same time, the Company deployed plant-wide intelligent security systems, access management systems, and AI-based video recognition systems. These upgrades eliminated 16 "3D" positions from Phase I operations and significantly improved production efficiency.

Case

Building a benchmark smart manufacturing plant for the vanadium industry

At Xichang Vanadium Products Technology, Phase I of the smart factory program covered both vanadium oxide and ferrovandium processes. The project enabled automated feeding of precipitants, intelligent finished product storage, upgraded instrumentation, automated liquid sampling and testing, and online equipment monitoring, along with centralized plant-wide control. These enhancements stabilized product and process quality, supported organizational and management transformation, optimized on-site workforce allocation, and significantly improved the level of digital and intelligent manufacturing, establishing a benchmark production line for the vanadium industry.



Panoramic view of the central control room at Xichang Vanadium Products Technology

Ethics of technology

Pangang Vanadium & Titanium organizes training on the application of large language models such as Kimi and DeepSeek, exploring their use in office operations and production scenarios. The Company also conducts dedicated technological ethics training to guide employees in adhering to the principle of "technology for good" throughout the development and application of AI. These efforts have reinforced compliance with ethical standards and ensured that AI innovation aligns with social responsibility requirements.

IPR protection

Pangang Vanadium & Titanium strictly complies with applicable laws and regulations, including China's Patent Law, Trademark Law, and Copyright Law. The Company has established the Administrative Measures for Research Projects and Intellectual Property Rights, forming a comprehensive framework for IPR protection. This framework enhances the quality and efficiency of patent applications and enables systematic management of trademarks, software copyrights, and trade secrets. In addition, we regularly conduct IPR training to strengthen employees' awareness and understanding.

Delivering High-Quality Products

Adhering to the quality guideline of "continuous improvement, quality first, and customer satisfaction", Pangang Vanadium & Titanium positions quality as the foundation of brand development and upholds the principle that quality defines the Company's vitality. By advancing comprehensive quality management, we have strengthened our ability to deliver high-quality products and precisely meet diverse market needs, underpinned by our trusted benchmark brand.

Strict quality control

The Company improves its quality management system and strengthens product quality control, fostering a strong quality culture to deliver high-quality products to customers. In 2025, no major product-related safety or quality liability incidents occurred.

Improving the management system

The Company has established a tiered quality management structure with clear roles and responsibilities, spanning from the general manager to functional departments, subsidiaries (branches), and frontline operational sectors. We implement quality management systems in compliance with ISO 9001, AS 9100, and GJB 9001 standards, supported by a three-tier documentation framework comprising a quality manual, procedural documents, and operational guidelines, achieving full system coverage. In 2025, we revised key system documents, including the *Quality Manual* and the *Administrative Measures for Mass Quality Activities*, to better align with operational practices. Meanwhile, our QMS, AS, and GJB systems passed surveillance audits. The 60,000 tons/year chloride-process titanium dioxide production project obtained ISO 9001 certification for the first time and passed audits by several key customers.

Strengthening quality control

The Company has set clear quality objectives and incorporated performance against these targets into monthly evaluations across all levels and departments, tracking progress and driving continuous improvement through regular meetings. We have also issued the Administrative Measures for Process Control Points, establishing key control points across the full production processes for each production line to ensure process stability. In 2025, we focused on 25 key quality indicators, of which 19 improved year-on-year and 6 remained stable.

2025 highlights

For the vanadium-aluminum alloy production line, we systematically identified quality control risks related to impurity control, surface quality, and foreign material prevention. We implemented measures such as optimizing blending processes, increasing sampling points for alloy cakes, and upgrading crushing and conveying systems. These actions reduced the variation in total vanadium (TV) content between alloy cakes from 3.1% to 1.4%, reaching an advanced industry level in quality stability.

We established a rapid testing method for dry powder whiteness of titanium dioxide, enabling timely feedback on process quality variations and improving both premium-grade yield and overall qualification rates for molten salt chlorination titanium dioxide products.

Case

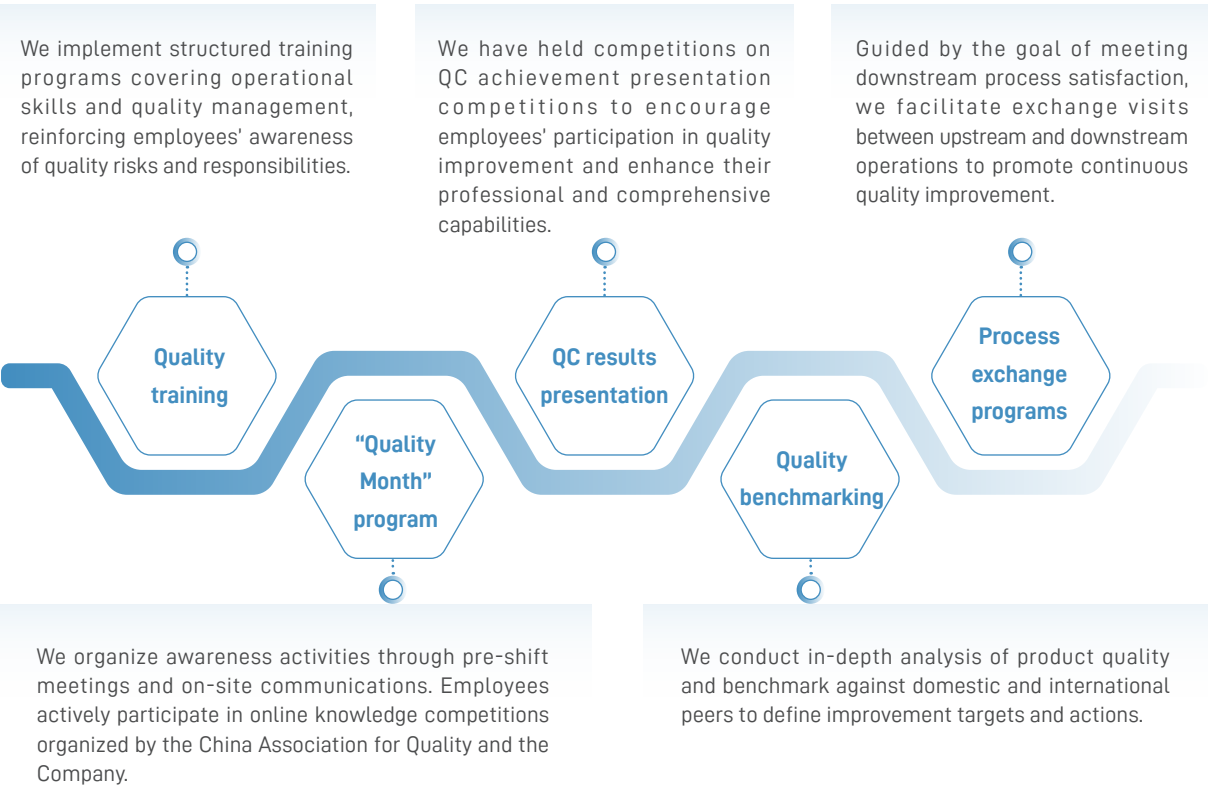
Improving output quality with AI models



In 2025, the Company explored process control models and AI-based large models. We developed and implemented applications such as automated combustion control for rotary kilns, hydrolysis temperature control, and chlorination furnace temperature control at Chongqing Titanium Industry, as well as one-click vanadium precipitation and leaching at Xichang Vanadium Products Technology. These applications enhanced process control capabilities and stabilized output quality across production lines.

Building a quality culture

The Company actively promotes the quality culture through training and diversified initiatives to strengthen employees' quality awareness.



2025 Competition on presenting QC achievements



Finished product quality inspection

Enhancement of brand influence

Pangang Vanadium & Titanium actively leverages leading industry exhibitions and international forums to promote its products and innovation achievements, enhancing brand recognition and reputation.

Case

Ferrovanadium product awarded “Tianfu Famous Brand”

“Tianfu Famous Brand” is a high-end regional public quality brand in Sichuan Province. It emphasizes innovation-driven development, advanced standards, superior quality, brand leadership, and social responsibility. The program adopts both self-declaration and quality certification mechanisms to recognize outstanding products and services. In 2025, the Company's ferrovanadium (FeV80) product received the “Tianfu Famous Brand” designation in recognition of its exceptional quality.

Certificate for “Tianfu Famous Brand” designation of ferrovanadium (FeV80)



Pangang Vanadium & Titanium at the 37th International Exhibition on Plastics and Rubber Industries (Chinaplas 2025)

Case

Participating in CHINA COAT 2025

At China International Coatings Show 2025 (CHINA COAT 2025), Pangang Vanadium & Titanium showcased a comprehensive product portfolio tailored to both general and specialized applications in the coatings industry. The displayed products meet with key performance requirements such as whiteness, opacity, dispersibility, and weather resistance, highlighting the Company's technical expertise and innovation in coating-grade titanium dioxide. The exhibition attracted strong attention from industry participants.

Case

2025 titanium dioxide distributor conference

On March 17, the Company hosted the titanium dioxide distributor conference under the theme "New Line, New Future", where we presented our strengths in resources, technology, R&D, and services. We also organized a site visit to the 60,000 tons/year chloride-process titanium dioxide production project, showcasing our production processes, supply assurance capabilities, and quality control systems. By doing so, participants gained a deeper understanding of the Company's commitment to providing customized vanadium-titanium material solutions and its full value-chain service capabilities, further strengthening confidence in future cooperation.

Serving Customers with Dedication

Upholding a customer-first philosophy, Pangang Vanadium & Titanium places customer experience at the center of its operations. We remain committed to delivering customized product solutions and high-quality, end-to-end services, continuously enhancing customer satisfaction and loyalty while building long-term, mutually beneficial partnerships.

Premium services

To advance both product and service specialization, the Company has launched a company-wide initiative in 2025 to improve quality and efficiency through marketing-driven coordination. We have established a cross-functional task force to strengthen collaboration among sales, R&D, and production, and introduced a rapid-response mechanism centered on customer needs. The task force engages directly with the market, gathers customer feedback, and translates demand signals and product improvement suggestions into actionable inputs for technical and production teams. Technical teams conduct targeted R&D, while production sectors implement corrective actions. This closed-loop "market-R&D-production" model drives product upgrades and continuous quality improvement, enhancing customer satisfaction and partnership value.

Case

Proactively promoting new chloride-process titanium dioxide products

With the sustained and stable operation of the 60,000 tons/year chloride-process titanium dioxide production project, we further enhanced our capacity to produce high-quality titanium dioxide products, providing strong support for improving customer satisfaction.

Sales teams conducted nationwide visits to promote new products, and multiple customers have completed application evaluations and provided initial positive feedback. All collected improvement suggestions were translated into process optimization measures, demonstrating our commitment to co-developing products with customers rather than simply selling products to them.

Case

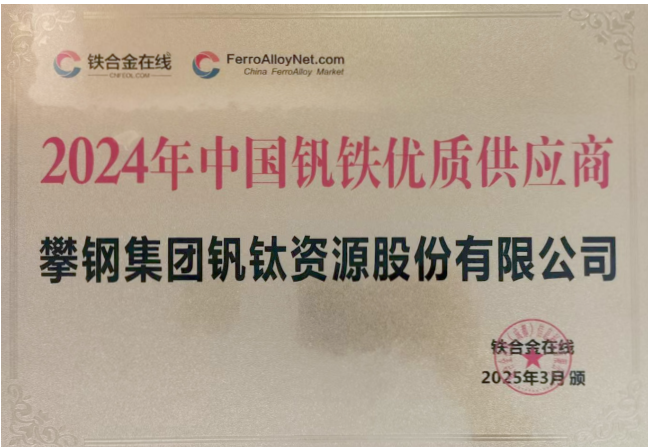
Serving overseas customers

Vanadium & Titanium Trade advanced the strategy of "going global" by engaging customers and distributors through on-site visits and virtual meetings. The Company integrated production, technology, and sales efforts to expand export scale. In 2025, exports accounted for 25.24% of vanadium products and 37.91% of titanium dioxide products.

For vanadium products, the Company maintained long-term partnerships with globally recognized steel producers and leveraged overseas warehouses located close to customers, with export volume accounting for approximately 50% of the industry's total exports. For titanium dioxide, Vanadium & Titanium Trade strengthened application-oriented research and leveraged differentiated advantages across production lines to meet the needs of diverse market segments.



The Company was awarded "2025 China High-Quality Vanadium Supplier" by My Steel China in November 2025



The Company was awarded "2024 China High-Quality Ferrovanadium Supplier" by China FerroAlloy Market in March 2025

Case

Fanrong Power completes customized production of vanadium electrolyte

In 2025, Fanrong Power successfully delivered a customized vanadium electrolyte order from Rongke Power, which involved two product types and four packaging specifications. In response to the diverse and customized requirements, Fanrong Power quickly established a dedicated task force to ensure production. Leveraging its short-process vanadium electrolyte technology, the Company optimized key steps, including raw material formulation, process control, and impurity filtration, completing delivery to a high standard.

About the vanadium electrolyte production line

All-vanadium redox flow batteries offer intrinsic safety, long electrolyte cycle life, decoupled power and capacity, and strong scalability. Pangang Vanadium & Titanium has jointly established a 2,000 m³/year vanadium electrolyte production line with Rongke Power, a leading domestic company in vanadium energy storage. The line has achieved stable, long-term operation with strong performance. From 2021 to 2025, we supplied more than 40,000 tonnes of vanadium products (equivalent to V₂O₅) to Rongke Power. Meanwhile, we are advancing preparatory work for larger-scale vanadium electrolyte production capacity.

Improvement of after-sales mechanisms

Pangang Vanadium & Titanium continuously improves its customer complaint management system, covering the full lifecycle from product purchase to application. For quality-related issues, we have established a rapid response mechanism to ensure timely handling and effective resolution of customer concerns. At the same time, we conduct in-depth analysis and systematic reviews of complaint causes, driving responsible sectors to implement corrective actions and forming a closed-loop management process that continuously enhances product quality and management standards.

The Company values customer feedback and maintains open communication channels, regularly inviting customers to complete *Customer Satisfaction Surveys* covering service quality, product performance, supply capability, pricing, and partnership experience. Based on survey feedback, we organize production, technical, logistics, and service teams to develop targeted improvement measures, ensuring effective resolution of issues and continuous enhancement of the customer experience.

Indicators	2023	2024	2025
Customer complaints received	19	38	38
Customer complaint resolution rate	100	100	100
Customer satisfaction with vanadium products(score)	94.01	94.44	94.26
Customer satisfaction with titanium dioxide(score)	81.31	84.80	86.48
Value of products sold or shipped that were subject to recall for safety or health reasons (10,000 yuan)	0	0	0
Proportion of products sold or shipped that were subject to recall for safety and health reasons	0	0	0

Customer privacy protection

The Company places strong emphasis on customer privacy, striving to ensure information security through comprehensive technical safeguards and management systems.

Cybersecurity management

The Company fully leverages information technology to enhance the integration and sharing of data across finance, production, sales, procurement, and logistics. We have strengthened controls over system development and maintenance, access and change management, data input and output, file storage, and network security. These measures form a comprehensive cybersecurity framework that balances management and technology, as well as security and efficiency, ensuring the safe and stable operation of information systems.

Protection of customer interests

The Company strictly implements internal policies, including the *Commercial Secrets Management Measures* and the *Measures for the Management of Personnel Involved in Commercial Secrets*, and the Confidentiality Management Measures. We reinforce confidentiality management, strengthen training and supervision of personnel handling sensitive information, clarify confidentiality obligations, and enhance information system protection. These actions safeguard customer information and prevent infringement of trade secrets, protecting the legitimate interests of both the Company and the customers.

Indicators	2023	2024	2025
Total confirmed complaints regarding infringement of customer privacy rights and loss of customer data	0	0	0
Total illegal and noncompliant incidents related to customer privacy	0	0	0
Total illegal and noncompliant incidents related to market promotion	0	0	0

Supply Chain Management

Pangang Vanadium & Titanium has committed itself to building an equal, transparent, and efficient supply chain management system. By optimizing our supply chain management system and deepening collaboration, we have improved the stability and competitiveness of our supply chain, providing robust support for the Company's production and operations.

Supplier compliance management

The Company works to establish a sound supplier management systems to optimize supplier admission, evaluation and exit mechanisms, providing strong support for greater supply chain resilience and stability. In 2025, the Company refined its procurement strategy, deepened centralized and collaborative procurement, and further streamlined its supplier structure. It had a total of 498 qualified suppliers, including 33 core suppliers.



Supplier lifecycle management process

Stringent admission: Guided by the principles of "strict supplier qualification, categorization and grading, optimal quantity, dynamic monitoring, quantitative evaluation, quality cultivation, and timely elimination," we define clear admission requirements and procedures to strictly control supplier entry.

- Suppliers must hold legal production and business qualifications, as well as general taxpayer eligibility.
- Suppliers must demonstrate corresponding quality assurance capabilities and ensure stable product quality. They are required to adhere to the Company's standards for quality, safety, and environmental protection, with a commitment to continuous improvement.
- Suppliers should maintain a commendable business reputation and performance, free from any records of illegal activities over the past 3 years.
- Suppliers are expected to align with the Company's objectives of gradually reducing overall costs, and their products should exhibit strong market competitiveness in terms of comprehensive cost-effectiveness.

Quantitative evaluation: Suppliers are subject to dynamic management, with annual evaluations and onsite reviews conducted regularly. Assessment factors include product quality, dependency on supplied goods, contract compliance, responsiveness, and after-sales service.

Quality cultivation: Supplier grades are determined based on annual evaluation results. Suppliers with excellent evaluations are recognized as high-quality and receive incentives such as increased procurement opportunities and preferential payment terms.

Timely Exit: Suppliers that fail to meet performance requirements may receive a warning and face corrective actions, exit, or blacklisting as punitive measures.

Indicators		2023	2024	2025
Total number of suppliers		571	865	498
By region	Southwest	264	399	230
	Central China	46	69	40
	North China	46	69	40
	South China	23	35	20
	East China	150	228	131
	Northwest	10	16	9
	Northeast	32	49	28
	Hong Kong, Macao, Taiwan, and overseas	0	0	0
By category	Core suppliers	27	30	33
	Non core suppliers	544	835	465
Supplier termination	Number of suppliers discontinued due to non-compliance	13	19	14
	Number of potential suppliers rejected due to non-compliance	0	0	0

Responsible supply chains

The Company places high importance on suppliers' ESG performance. Certifications for Environmental Management Systems, Occupational Health and Safety Management Systems, and Quality Management Systems are also included in the supplier admission and evaluation criteria to drive sustainable supply chain development.

Transparent procurement: We have signed integrity agreements with suppliers, and established a dedicated supervision mechanism to continuously monitor their integrity and compliance. All violations are handled in accordance with regulations, maintaining a fair and honest cooperation environment.



Green procurement: The Company actively responds to China's carbon peaking and carbon neutrality (dual carbon) goals, and is committed to promoting the green and low-carbon transformation of its supply chain. To this end, we continue to purchase energy-saving and eco-friendly products that have obtained China Environmental Labeling certification, low-carbon products certification, or other nationally recognized certifications, and strictly prohibits the purchase of "high pollution and high environmental risk" products. In project implementation, we require the use of eco-friendly construction techniques, energy-saving and eco-friendly equipment and materials.

Indicators		2023	2024	2025
Supplier's environmental and social risk management	Number of suppliers certified to ISO 9001 quality management systems	252	289	135
	Number of suppliers certified to ISO 14001 environmental management systems	128	147	70
	Number of suppliers certified to ISO 45001 occupational health and safety systems	119	130	63
Responsible procurement rate (%)		100	100	100
Proportion of localized procurement (%)		28.33	40.44	42.51

Supply chain cooperation

The Company actively promotes deep cooperation and resource sharing with its suppliers, effectively reducing procurement costs while ensuring quality and stability of the supply. In 2025, we endeavored to establish and develop the strategic supplier alliance, forging closer partnerships with core strategic suppliers such as Liangshan Mining, Panzhihua Gangcheng Group, Sichuan Coal Group, Chongqing Sibi Water Treatment Materials Co., Ltd. and Chongqing Chuanyi Automation Co., Ltd. The proportion of strategic suppliers reaches 6.6%.

Case

Launching a "Joint Innovation and Co-development " initiative with Chongqing Chuanyi



Pangang Vanadium & Titanium carried out a "Joint Innovation and Codevelopment" initiative with its strategic supplier, Chongqing Chuanyi. During this initiative, they developed a list for joint innovation and conducted training on topics such as intelligent instrument maintenance, fault diagnosis, and modern management. Together, they advanced the generalization and localized substitution of instrumentation, thoroughly reviewed material codes related to pressure transmitters, and developed an integrated plan that reduced the number of codes by 74.9% after cleanup. These efforts effectively promoted communication and collaboration between the two parties, supported key projects in achieving designed capacity and operational efficiency, and facilitated the sharing and application of new technologies and concepts.

Equal treatment of SMEs

Upholding the principles of honest, win-win cooperation and strictly complying with the "Regulation on Ensuring Payments to Small and Medium-Sized Enterprises", we treat all suppliers equally. The legitimate rights of small and medium-sized enterprises (SMEs) are highly valued, supported by a robust payment mechanism that ensures timely and full payments. During the reporting period, the Company made no overdue payments to SMEs, contributing to a better business environment through concrete actions and promoting the stability and sustainable development of the industrial chain.



02 Driving Green and Low-Carbon Transition to Co-build a Harmonious Ecology

Pangang Vanadium & Titanium fully studies and implements Xi Jinping Thought on Ecological Conservation. Aligning with China's carbon peaking and carbon neutrality goals, the Company advances green production throughout the entire process by synergizing green transition, energy conservation, carbon reduction, pollution control, and emission reduction. We remain steadfast in pursuing a low-carbon, high-quality development path, contributing to a beautiful China.



Climate Change Response

The Company continues to explore new models for low-carbon development, accelerate technological transformation for energy conservation and carbon reduction, and align industrial development with low-carbon transition. Through these concrete actions, we support climate action and fulfill our commitment to achieving carbon peaking and carbon neutrality (“dual carbon”).

Governance

The Company has formed a group for energy conservation and carbon reduction, staffed with dedicated personnel to coordinate carbon emission management. Furthermore, each subsidiary and branch (unit) has appointed full-time or part-time personnel. This organizational management system, characterized by “unified leadership, tiered management, and a combination of full-time and part-time personnel,” ensures that the “dual carbon” strategy can be effectively communicated and implemented at all levels.

Strategy

The Company has formulated and implemented the *2025 Special Work Plan for Energy Conservation and Carbon Reduction*. *Focusing on carbon reduction* initiatives in key areas and critical links, we adopt multiple measures to strengthen process control and performance assessment, thereby advancing the efficient and orderly implementation of all tasks.

Key initiatives for energy conservation and carbon reduction

- ✱ We set reduction targets on energy cost, total energy consumption, and total carbon emissions, along with special incentives. A total of 211 energy conservation and carbon reduction measures are identified.
- ✱ We implement energy-saving retrofit projects, including flash drying waste heat recovery at Chongqing Titanium Industry and the second continuous crystallization at Dongfang Titanium Industry, to reduce consumption of production energy.
- ✱ We expand the use of new energy, including advancing hydrogen for blending to reduce carbon emissions by 3,502 tons, promoting the 60,000 tons/year titanium dioxide production project based on the molten salt chlorination method, and rooftop distributed photovoltaic project with a daily power generation of approximately 2.5 MWh after grid connection.

The Company conducts carbon emission data accounting and annual report filing. We cooperated with third parties to complete the 2024 carbon emission verification for the power plants and Chongqing Titanium Industry under the national carbon market and under the local carbon market. Our compliance and settlement obligations are fulfilled on schedule, including 112,900 tons of allowance compliance under the national carbon market and 13,800 tons under the local carbon market.

To strengthen the leading role of industrial standards in the green and low-carbon field, we lead the development of the industry standard *Greenhouse gases – Qualification requirement and methods of carbon footprint of products – Vanadium products*, filling the gap in domestic carbon footprint accounting standards for vanadium products. This standard establishes a unified and standardized carbon footprint assessment methodology for the sector, promoting green and low-carbon transformation.

Case

Completing LCA data collection and modeling to deepen product carbon footprint accounting

Product carbon footprint management is a strategic task to enhance the resilience of the industrial and supply chains and to build a solid competitive edge in green trade. Since 2023, the Company has initiated the construction of a product life cycle assessment (LCA) system, issuing *the Plan for Advancing Product Life Cycle Assessment (LCA)* to strengthen the data foundation for carbon management. In 2024, we took the lead in developing footprint models and data collection for export products, such as ferrovanadium and titanium dioxide by sulfuric acid processes, achieving traceability and certification of carbon data for key products.

In 2025, the Company further conducted LCAs. All products, including V₂O₃, V₂O₅, vanadium nitrogen alloy, vanadium-aluminum alloy, vanadium electrolyte, titanium slag, and titanium dioxide by chlorination processes, completed LCA data collection and model construction, generating carbon footprint reports for ferrovanadium, titanium dioxide by both sulfuric acid and chlorination processes. We have comprehensively carried out product carbon footprint management, providing data support and compliance assurance for addressing climate change risks. Through these digital tools, we have reshaped the evaluation system for product green competitiveness, creating a new, scientific, and precise assessment paradigm.

Impact, risk, and opportunity management

In response to the challenges and opportunities posed by climate change, the Company conducts policy research and industry benchmarking to identify climate-related risks and opportunities associated with our operations. Through scientific assessment, we analyse their potential impacts, and integrate climate factors into our ESG management framework and the comprehensive risk management system, thereby enhancing our resilience to climate change and sustainable competitiveness.

Risk and opportunity

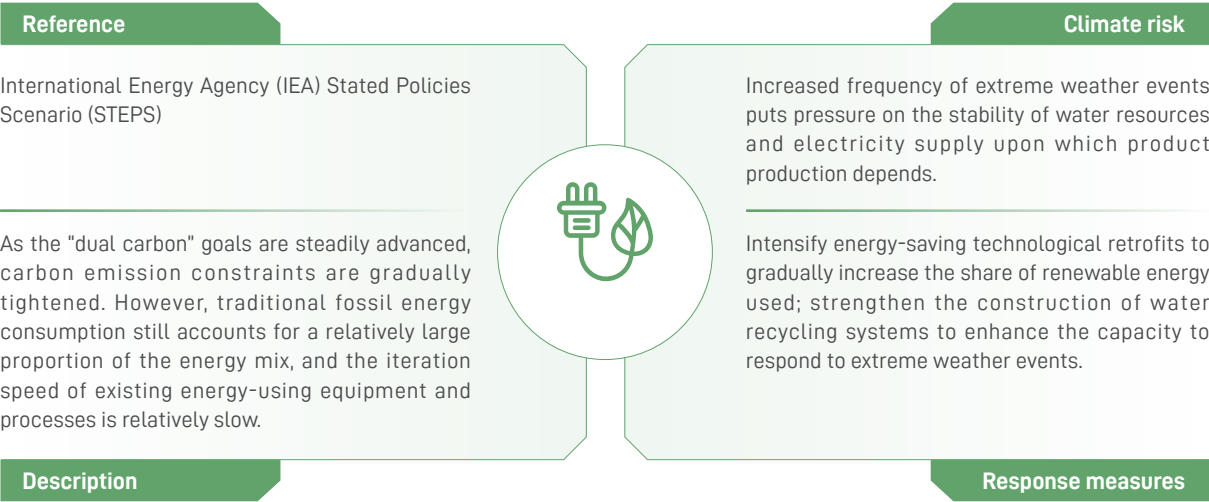
The Company pays great attention to climate policies and regulations, industry trends, and scientific research progress to better understand climate change trend. We assess its full-range impacts on market demand fluctuations, supply chain stability, and regulatory adjustments, to identify the links and fields that may be affected by climate change. Through assessment of the potential impacts, risks, and opportunities arising from climate change, we promote the adaptation of operation, management, technological innovation, and risk management to climate change.

Risk Type	Risk Driver	Time Horizon	Response Measures
Physical risk	Heavy rainfall and flash floods cause plant flooding, landslides, and subsidence, leading to production interruptions; High temperatures and droughts cause water supply cutoffs and unstable power supply.	Short- to medium-term	Develop flood control and prevention plans, upgrade drainage systems, and conduct regular assessments of flood prevention capacity of plant; Strengthen the construction of production water circulation systems and equip emergency storage reservoirs to enhance resilience against water cutoffs and droughts.

Risk Type	Risk Driver	Time Horizon	Response Measures
Policy and legal risk	As carbon emission controls are becoming stricter under the "dual carbon" policy, the vanadium and titanium sector is being included in the national carbon market, leading to higher compliance costs.	medium-term	Establish a product lifecycle carbon accounting and carbon inventory mechanism to accurately calculate allowance shortfalls, to assess carbon prices, and execute timely transactions; Dynamically track updates to the scope of the national carbon market, to continuously advance energy conservation and carbon reduction.
Market risk	Carbon tariff policies such as the EU CBAM may increase export costs and weaken the international competitiveness of products.	medium-term	Conduct carbon footprint accounting and certification for export products, thoroughly explore the potential for carbon reduction across the entire process, to reduce product carbon emission intensity, and mitigate carbon tariff risks; Continuously advance energy conservation and carbon reduction retrofits, such as introducing advanced processes and equipment for energy conservation and carbon reduction.

Scenario analysis

The Company conducts scenario analysis based on its understanding of potential climate risks and opportunities, and then incorporates the assessment results into its climate change strategy considerations, striving to enhance its capacity to address climate change.



Metrics and targets

The Company has scientifically charted its low-carbon development pathway and established medium- to long-term goals for its low-carbon transition, that is achieving carbon peak by 2030 and carbon neutrality by 2050.

In 2025, the Company's total greenhouse gas (GHG) emissions were 2.4655 million tons, with Scope 1 emissions of 1.6854 million tons and Scope 2 emissions of 780,100 tons. After excluding the impact of incremental emissions from new production lines, total carbon emissions decreased by 2.7% year-on-year.

Indicators	2023	2024	2025
GHG emissions per 10,000 yuan of output value (ton)	2.07	2.36	3.01
Total GHG emissions (10,000 tons)	210.83	209.32	246.55*
Scope 1 GHG emissions (10,000 tons)	137.04	137.35	168.54
Scope 2 GHG emissions (10,000 tons)	73.79	71.97	78.01

The increase in GHG emissions is primarily attributable to higher power generation and incremental emissions from new production lines.

Environmental Compliance Management

The Company strictly complies with *China's Environmental Protection Law* and relevant laws and regulations. Committed to the philosophy of green production and compliant operations, we integrate environmental compliance management into the entire process of production and operation. In 2025, the Company and all subsidiaries maintained full compliant production and operations and received no administrative penalties for environmental violations.

In 2025

Our total environmental protection investment reached **174** million yuan, of which **148** million yuan was primarily used for solid waste disposal, wastewater treatment, and environmental monitoring, and **26** million yuan was used for on-site environmental management.

Environmental risk management

The Company places great emphasis on environmental risk prevention and control. Guided by the principle of "prevention first, integrated prevention and control," we have improved our environmental emergency management system to effectively enhance our environmental risk response capacity. In 2025, the Company and subsidiaries, including Xichang Vanadium Products Technology, Beihai Ferroalloy, Chongqing Titanium Industry, and the low-temperature chlorination titanium dioxide production line of Titanium Industry Company, completed the revision and filing of the *Environmental Pollution Emergency Response Plan*, ensuring the plans are scientifically sound, practical, and enable quick and effective responses. Concurrently, we leverage market mechanisms to transfer environmental risks. By renewing environmental pollution liability insurance for the following entities: Panzhihua Vanadium Products Branch, Titanium Industry Company, Xichang Vanadium Products Technology, Beihai Ferroalloy, Guotai Science & Technology, Panzhihua Yangrun Technology, Fanrong Energy Storage, Dongfang Titanium Industry, and Chongqing Titanium Industry, we have achieved full insurance coverage for key environmental risk subsidiaries.

In 2025

49 emergency drills
for environmental incidents
conducted

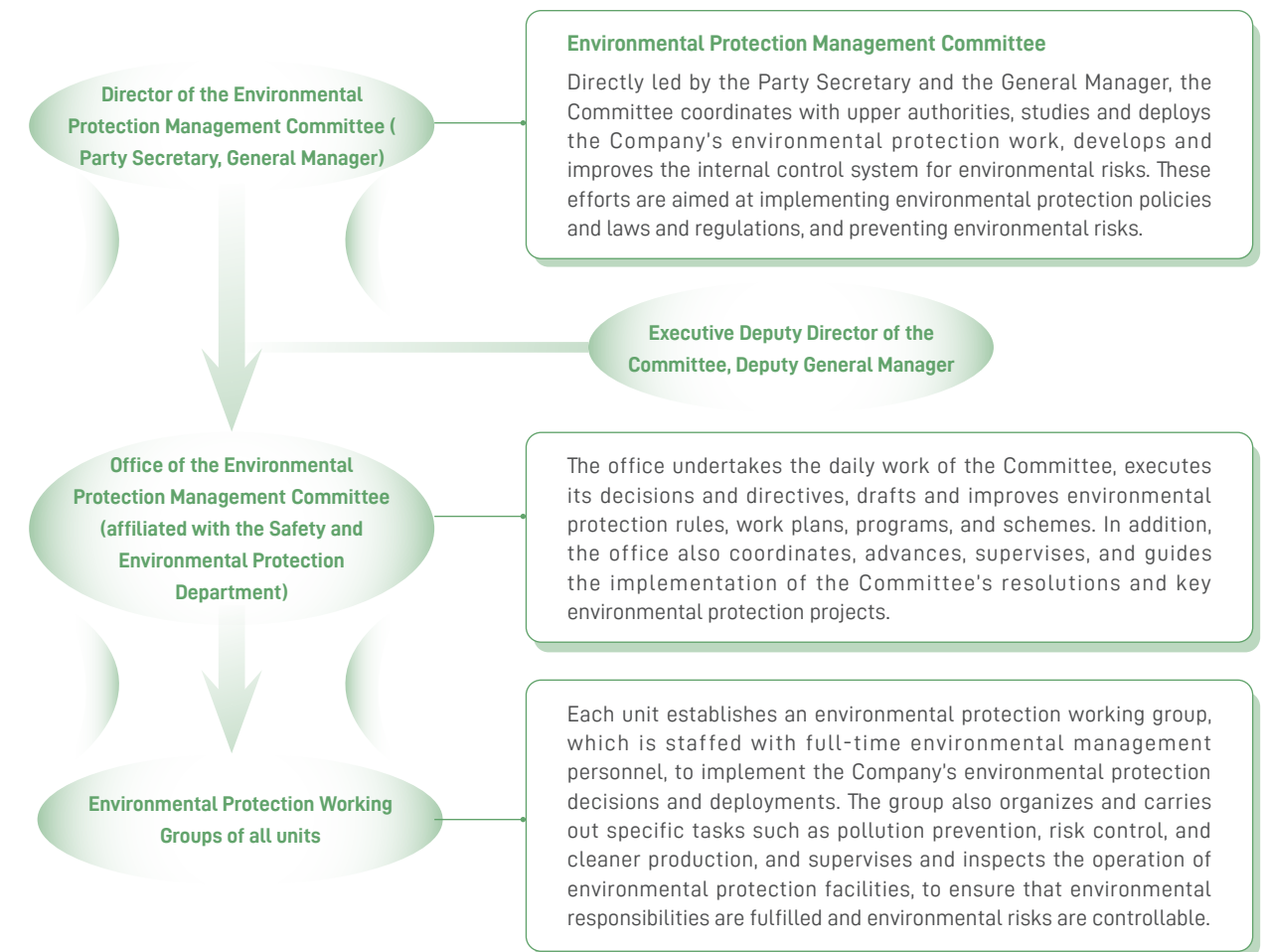


Emergency drills for environmental incidents

Environmental management system

The Company works to establish a long-term mechanism for environmental management, meticulously building a lean management network that links the Company, plants, and operation areas, thereby laying a solid framework for environmental management. The Company has advanced the ISO 14001 Environmental Management Systems audit and certification process, conducting both internal self-assessments and external oversights and evaluations. Pangang Vanadium & Titanium, Panzhihua Vanadium Products Branch, Titanium Industry Company, Beihai Ferroalloy, Chongqing Titanium Industry, Xichang Vanadium Products Technology, and Chongqing Vanadium Titanium Technology have all passed ISO 14001 certification and secured credentials, achieving full certification coverage for core production units. To ensure the implementation of environmental management work, we set annual environmental targets, such as major pollutant emissions, and closely link them to managers' performance. Through standardized management and supervisory assessments, we ensure the effective execution of environmental management efforts, continuously enhancing environmental governance capabilities.

Environmental protection management structure of Pangang Vanadium & Titanium



Environmental management of project construction

Adhering strictly to the "three simultaneities" environmental management requirements for project construction, the Company takes environmental protection as a crucial basis for project development. We strengthen closed-loop management throughout the entire process, encompassing pre-construction access control, mid-construction tracking and supervision, and post-construction acceptance and evaluation, to ensure that project construction and ecological protection advance in coordination. In 2025, we completed on schedule the environmental impact assessments and completion acceptance checks for new, modified, and expansion projects, including the Dongfang Titanium Industry substation. Through standardized environmental management, we provide a solid foundation for the legal and compliant operation of these projects.

Environmental credit evaluation

In 2025, we organized our subsidiaries to participate in the 2024 environmental credit evaluation, leveraging credit building to drive the upgrading of environmental management. Among the entities assessed, four were honored as "provincial environmentally trustworthy enterprises," including Panzhihua Vanadium Products Branch, Dongfang Titanium Industry, the titanium smelting production line of Titanium Industry Company, and Chongqing Titanium Industry, and Xichang Vanadium Products Technology was honored as "municipal environmentally trustworthy enterprise." In addition, three subsidiaries, the low-temperature chlorination titanium dioxide production line of Titanium Industry Company, Guotai Science & Technology, and Panzhihua Yangrun Technology, received the rating of "provincial environmentally compliant enterprises."

Environmental awareness campaigns

The Company carries out the environmental awareness campaigns, conducting targeted training by level and category to continuously enhance all employees' awareness of environmental laws and regulations and their risk prevention capabilities. Besides, we invite internal and external experts to organize specialized training programs. Each unit also conducts specialized training programs focusing on environmental management positions and important positions, to achieve full training coverage for personnel in key positions.

In 2025

We conducted **1** specialized training on solid waste and **1** specialized training on environmental laws and regulations, involving **168** participants.

The subordinate units organized **23** specialized training sessions.



Environmental charity events

On June 4, 2025, as a corporate representative, the Company organized local subsidiaries in Panzhihua to actively participate in the "Beautiful China, We Lead the Way; Postal Service Goes on Campus Green" publicity event in Panzhihua City. Through various forms such as on-site presentations, interactive experiences, and material distribution, we promoted environmental protection knowledge to the public, especially young people, guiding them to practice environmental concepts in their daily lives.

Environmental information disclosure

All subsidiaries strictly implement the relevant provisions of the *Measures for the Administration of the Law-based Disclosure of Environmental Information by Enterprises* issued by the Ministry of Ecology and Environment. We disclose information on environmental management updates, environmental monitoring data, pollutant emissions, the operation of environmental protection facilities, and the management of emergency response plans for unexpected environmental incidents via the "Enterprise Environmental Information Disclosure System". Through transparent and standardized information disclosure, we proactively accept public supervision. Concurrently, the Company strives to establish a mechanism that combines mandatory disclosure with voluntary disclosure of environmental information, thus improving environmental management, enhancing stakeholder trust, and strengthening the credibility of our environmental governance.

Efficient Energy Utilization

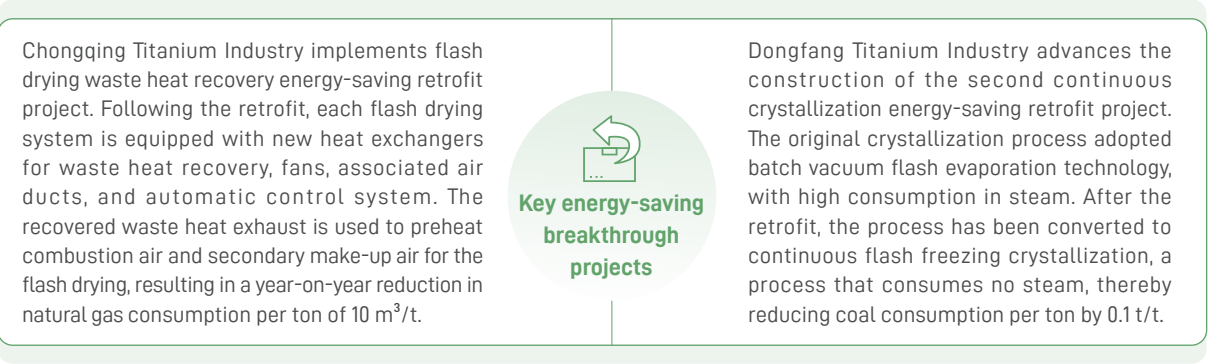
The Company comprehensively advances energy conservation and emission reduction efforts, including developing and improving an energy management system, optimizing energy mix and phasing out high-energy-consumption facilities and equipment, to drive down comprehensive energy consumption.

Energy governance mechanism

The Company has established an energy conservation and carbon reduction group to coordinate and advance relevant tasks. We have also updated and improved the *Energy Management Measures*, the *Energy Management Manual*, and other related policies, conducted internal audits of the GB/T 23331-2020 energy management system, and formulated the *2025 Special Work Plan for Energy Conservation and Carbon Reduction*, thereby promoting energy conservation and emission reduction.

Energy-saving breakthrough projects

The Company proactively implements energy-saving breakthrough projects. Through multi-dimensional measures such as technological innovation, process optimization, and equipment upgrades, we achieved significant reductions in energy consumption and carbon emission intensity, and continuous improvement in resource utilization.



Impact, risk, and opportunity management

Based on our operation and management, and the existing energy management system, we systematically identify, scientifically assesses, and dynamically monitors the impacts, risks, and opportunities arising from energy utilization, to improve the level of refined energy management.

Risk Type	Description	Time Horizon	Response Measures
Physical risk	Given the high proportion of hydropower in Panxi region, extreme drought can lead to insufficient hydropower output, resulting in higher electricity prices and increased costs.	Short- to medium-term	Optimize energy mix, increase the recovery and reuse of waste heat and surplus energy, and introduce advanced energy-saving technologies to reduce energy costs.
Policy and legal risk	As policies and markets continue to raise demand for low-carbon products, a high proportion of traditional fossil energy in the Company's energy mix would lead to higher costs for carbon emission and weaken the green competitiveness of our products.	Medium- to long-term	Expand green power procurement and further optimize energy mix by using hydrogen, distributed photovoltaics, and other means to reduce carbon emissions from production processes.

Metrics and targets

Taking industry trends and the Company's reality into account, we have set energy management targets. By the end of the 15th Five-Year Plan (2026-2030) period, the Company plans to reduce the comprehensive energy consumption of its major products compared to 2025 levels as follows: V₂O₅ by 6%, titanium dioxide by sulfuric acid processes by 5%, and titanium dioxide by chlorination processes by 6%. In 2025, our energy consumption continued to decline. Compared to 2024, the comprehensive energy consumption per unit of V₂O₅ decreased by 1.84%, and titanium dioxide by 2.32%. After excluding the impact of incremental emissions from new production lines, the figure declined by 4.7% year-on-year.

Indicators	2023	2024	2025
Comprehensive energy consumption of vanadium oxide (kgce/t.V ₂ O ₅)	3,387	3,319	3,258
Fresh water consumption of vanadium oxide (t/t.V ₂ O ₅)	16.20	15.46	14.02
Comprehensive energy consumption of titanium dioxide (kgce/t)	1,006	950	928
Comprehensive energy consumption of high-titanium slag (kgce/t)	462	451	494

Clean and Green Operations

To integrate environmental protection into all links of production and operations, we explore the development of a circular economy, reduce pollutant emissions, promote efficient water resource utilization, to advance the green transformation of manufacturing, thereby creating a green and sustainable future.

Circular economy

The Company proactively engages in the development of a circular economy, including strengthening research into and application of resource recycling technologies, extensively conducting industry-university-research-application collaborations, to explore new models and pathways for resource recycling in the industry.

Case

Full recycling and utilization of waste salt from the 60,000 tons/year titanium dioxide production project based on the molten salt chlorination method

Production technique of titanium dioxide production project based on the molten salt chlorination method will generate solid waste such as waste molten salt. Due to technological limitations in chlorination environmental protection, countries around the world have traditionally crushed the solid waste, then mixed it with lime, and finally sent it to landfills. When the titanium resources in Panxi region were applied to large-scale molten salt chlorination method, the large volume of waste salt—whose main components include NaCl, FeCl₂, MnCl₂, MgCl₂, and CaCl₂—made landfill disposal problematic. This approach not only wasted resources such as NaCl, iron, and manganese, but also posed contamination of water, soil, and groundwater. This method would also lower capacity of dedicated landfill.

After years of research, Pangang Vanadium & Titanium, in collaboration with the Panzhihua Iron and Steel Research Institute (PISI), developed a large-scale, low-cost, resource utilization technology for waste salt produced as a byproduct of molten salt chlorination. In 2025, the waste salt recycling and utilization production line has integrated this technology into the 60,000 tons/year titanium dioxide production project, achieving full recycling and utilization of waste salt. This breakthrough solved a longstanding industry challenge and emerged as a benchmark for the production line of green and low-carbon operations.

Pollutant emissions

The Company strictly implements the emission requirements of pollutant discharge permits. In accordance with the 2025 *Environmental Protection Work Task List*, we have intensified pollution control efforts for waste gas, wastewater, and solid waste, strengthened environmental supervision and management, achieving the targets of zero environmental pollution incidents, zero nuclear and radiation accidents, and zero environmental administrative penalties.

All subsidiaries strictly comply with the requirements of the *Regulation on Management of Pollutant Discharge Permits*, ensuring that pollutant discharge permits are obtained for all applicable entities and that full-coverage management is achieved. All pollutant emissions are kept within the limits set by the Company and the discharge permits, thereby effectively consolidating the achievements of pollution control. In 2025, we continued to strengthen post-permit implementation, submitting discharge permit implementation reports on schedule and in a standardized manner, ensuring that discharge activities remain legal and compliant and that environmental information is transparent and truthful. TThrough these institutionalized and refined environmental management measures, we can promote green development of enterprises continuously.

Waste gas management

The Company strictly complies with *China's Atmospheric Pollution Prevention and Control Law* and relevant air emission standards. On the basis of continuously consolidating existing waste gas treatment results and ensuring compliant emissions, the Company vigorously advances in-depth waste gas treatment.



Indicators	2023	2024	2025
Sulfur dioxide (ton)	351.06	273.13	254.69
Nitrogen oxides (ton)	296	489.68	423.72
Particulate matter (ton)	203.27	227.73	175.73

Wastewater management

The Company fully implements General Secretary Xi Jinping's important expositions on promoting the development of the Yangtze River Economic Belt. We have established a zero wastewater discharge leading group and formulated the *Preliminary Plan for Zero Wastewater Discharge from Titanium Product Production*, with higher standards and stricter requirements. Through measures such as source control, direct reuse, and reuse after treatment, the Company plans to reduce water consumption from source and wastewater discharge.

Indicators	2023	2024	2025
Ammonia nitrogen (ton)	3.79	4.62	4.52
Chemical oxygen demand (ton)	55.37	67.11	69.82



Solid waste management

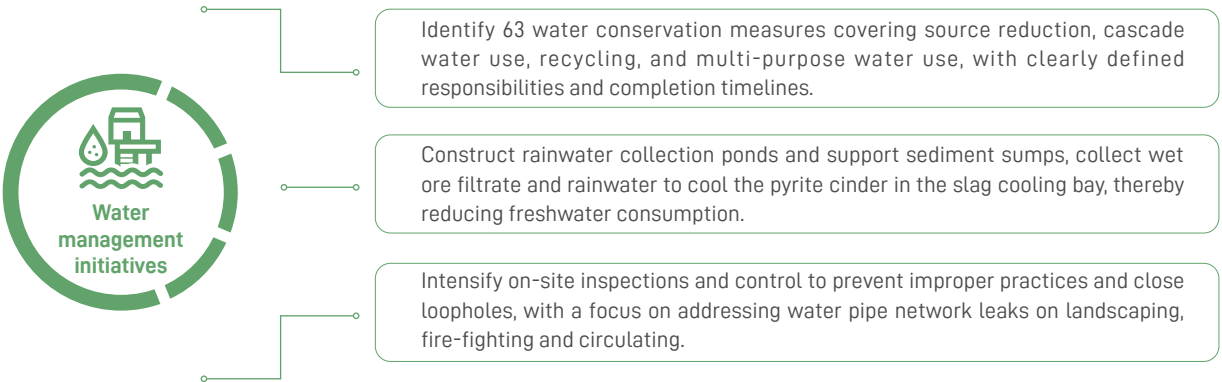
The Company strictly complies with *China's Law on the Prevention and Control of Environmental Pollution by Solid Wastes* and other relevant laws and regulations. The Company explores the resource utilization of waste acid from titanium dioxide by sulfuric acid processes, and collaborates with external enterprises to conduct purification experiments on waste acid, titanium liquor, and wastewater, thereby providing technical support for Dongfang Titanium Industry to reduce the generation of titanium gypsum at the source. In 2025, we generated a total of 2.3638 million tons of general solid waste, of which 1.1508 million tons were comprehensively utilized and 1.263 million tons were disposed of in compliance with regulations. The Company generated 690.79 tons of hazardous waste, of which 570.48 tons were comprehensively utilized and 95.42 tons were disposed of in compliance with regulations.

Indicators	2023	2024	2025
General industrial solid waste (10,000 tons)	185.85	243	236.38
Hazardous waste (ton)	159.68	101.23	690.79

In 2025, Panzhihua Yangrun Technology operated gas generators, producing 495.5 tons of medium-temperature coal tar.

Water management

The Company establishes a water conservation working group to coordinate and plan water resource management. We routinely monitor the water consumption per unit of each product, set targets for water consumption per ton of product, and take these targets as indicators in our production and operations white paper for priority management, thereby better driving water resource management.



Green manufacturing

In response to the national carbon peaking and carbon neutrality strategy, the Company proactively responds to the Ministry of Industry and Information Technology's call for green factory construction. Upholding the philosophy of green development and harmonious coexistence, we actively advance the construction of green factory, focusing on efficient resource utilization, low-carbon energy transition, and cleaner production enhancement. Since 2021, our subsidiaries, including Xichang Vanadium Products Technology, Panzhihua Vanadium Products Branch, Titanium Industry Company, Dongfang Titanium Industry, Guotai Science & Technology, and Chongqing Titanium Industry, have been recognized as provincial green factories, marking significant achievements in our green manufacturing system and establishing a benchmark for the industry's green and low-carbon transformation.



03 Upholding Compliance to Cement the Development Foundation

Guided by the governance principles of "stability, standardization, professionalism, and high efficiency", Pangang Vanadium & Titanium continuously refines its governance system to strengthen information disclosure and risk compliance management, while upholding business ethics, laying a solid foundation for stable operation and sustainable development.



Corporate Governance

In accordance with laws, regulations, including China's *Company Law*, *Securities Law*, *Code of Corporate Governance for Listed Companies*, *the Notice by the Shenzhen Stock Exchange of Issuance of the Stock Listing Rules of the Shenzhen Stock Exchange*, and the *Self-Regulatory Guidelines No. 1 for Companies Listed on Shenzhen Stock Exchange - Standardized Operation for Companies Listed on Main Board Market*, and the *Articles of Association*, a three-tiered primary governance structure consisting of shareholders, the Board of Directors, and the management is established. Each governance level fulfills its roles under the Company's *Articles of Association* and its own rules of procedure, ensuring well-defined responsibilities and effective checks and balances.

Corporate Governance

Pangang Vanadium & Titanium upholds the statutory status of Party organizations within its corporate governance structure. We work to establish an organizational structure where the Party Committee provides unified leadership, the Board and the management perform their respective functions, and hierarchical, category-based management applies across departments, subsidiaries, and branches. In 2025, we completed the Board transition and the reform of the Board of Supervisors as planned, further improving the corporate governance.

The Board of Directors has set four special committees: the Strategic Development and ESG Management Committee, the Audit and Risk Committee, the Nomination Committee, and the Remuneration and Assessment Committee. Each committee operates strictly under its own rules of procedure.

In 2025

10 Board meetings convened, with **55** resolutions approved after deliberations

4 Shareholders' Meetings convened, with **18** resolutions approved after deliberations

14 specialized committee meetings convened, with **25** resolutions approved after deliberations

Board diversity and independence

The Company adheres to a diversified policy for the Board, considering factors such as industry experience, technical expertise, employment history in selecting directors to build a more professional and diverse board that promotes its steady development. In 2025, we appointed a new female director. We continue to optimize the board structure, standardize board selection procedures, and ensure the independence of independent directors by conducting independence reviews of candidates and actively supporting them in their duties. As of the end of the reporting period, the Board comprised nine members, including five external directors, three independent directors, and one female director (independent directors accounting for 33%).

Senior management compensation and social responsibilities

According to the *Proposal on Determining Remuneration for Independent Directors(2023-2025)*, and the *Comprehensive Performance Evaluation and Remuneration Management Methods for Management and Key Management Personnel of Pangang Vanadium & Titanium*, together with the base salary adjustments in September 2025 and the pre-evaluation of annual operation performance, we disbursed director allowances and senior management compensations for 2025. The performance-based pay of senior management is related to ESG topics such as safe production and operation, environmental protection, and pollution management, integrity, and compliant operation.*

* For more details, please refer to the Company's annual report.

Title	Name	Gender	Committee positions	专业经验背景		
				Industry experience	Risk management	Financial management
Chairman Director	Ma Chaohui	Male	Strategic Development and ESG Management Committee, Nomination Committee	√	√	√
Director	Wang Shaodong	Male		√	√	
Director	Xie Zhengmin	Male		√	√	√
Director	Zhu Bo	Male	Strategic Development and ESG Management Committee, Audit and Risk Committee, Remuneration and Assessment Committee		√	√
Employee director	Yang Dong	Male		√	√	
Director	Qu Shaoyong	Male			√	√
Independent director	Fang Hong	Female	Audit and Risk Committee, Remuneration and Assessment Committee		√	√
Independent director	Du Yifei	Male	Strategic Development and ESG Management Committee, Nomination Committee, Remuneration and Assessment Committee		√	√
Independent director	Deng Bofu	Male	Audit and Risk Committee, Nomination Committee		√	√

Investor relationship management

The Company attaches high importance to investor relationship management, and continuously optimizes the investor communication mechanism. We answer investors' questions by promptly responding to inquiries on the Easy IR platform and answering calls, ensuring smooth daily communication. We strengthen communication with investors, and participate in various capital market activities. By holding performance briefings and attending institutional strategy sessions, we actively interact with investors, respond to market concerns, continuously convey the Company's value and sustain investors' long-term focus.

In 2025

600+ investor calls answered

79 inquiries responded to on Easy IR platform, with **100**% response rate

On-site investor visits were hosted, with **12** communication records issued

Honesty and Integrity

Anti-corruption and anti-bribery

Pangang Vanadium & Titanium has always upheld integrity as the cornerstone of its business. By establishing the anti-corruption mechanism and compliance education system, we strengthen employees' sense of integrity and self-discipline, ensuring cleanliness and uprightness within the Company. We thoroughly study and implement the spirit of Central Party Leadership's Eight-point Decision on Improving Conduct through a four-pronged mechanism of self-check, public feedback, superior guidance, and mutual assistance. Problem lists have been developed across multiple areas, covering the Party Committee leadership at two levels, Party branches, and Party members and cadres, creating a comprehensive system for identifying and addressing issues.

We integrate anti-corruption efforts by establishing an anti-corruption coordination team and improving the coordination mechanism. This move integrates the full chain of activities — from issue screening and case investigation to the application of results — to strengthen joint efforts to tackle both misconduct and corruption.



Whistleblowing channels of Pangang Vanadium & Titanium Commission for Discipline Inspection
Tel: 0812-3396600

We issue the *Notification on Deepening the Co-development of a "Cordial and Clean" Relationship to Protect the Legitimate Rights and Interests of Partners*, and send integrity reminder letters to stakeholders before holidays to strengthen their integrity awareness. For high-volume customers, when signing the business contract, we will sign a Clean Cooperation Agreement that specifies responsibilities, duties, prohibited conduct, and penalties to root out unethical behavior. We also disclose whistleblowing hotline and email for partner oversight, and guarantee strict confidentiality for both reports and whistleblowers to reinforce our integrity defense.



First Class of the Year: Honesty and Integrity

Establishing a risk prevention and control system

The Company adheres to the prevention-first approach with early deployment of controls. Focusing on key positions and areas such as human resources, property, materials, approvals, procurement, sales, engineering, we conduct comprehensive integrity risk investigations across subsidiaries, identifying high, medium, and low risks. Targeted prevention measures are then developed to build a dynamic, long-term mechanism that addresses both root causes and symptoms.

Strengthening integrity education

We launch discipline education through innovative and tiered education methods. By watching warning videos, circulating typical internal cases, and inviting the Party Secretary to deliver integrity lectures, we embed Party discipline learning into daily practice. Newly promoted cadres and new Party members receive "First Lesson Upon Promotion" and "First Lesson Upon Party Admission". Employees in key sensitive roles visit the Panzhihua Detention Center. These efforts aim to strengthen integrity awareness at critical posts and junctures.

Case

Building platforms for integrity culture and conducting integrity education.



Chongqing Titanium Industry has built the "Integrity Culture Park" to expand integrity education channels. Seven Party branches under Chongqing Titanium Industry Party Committee organized over 110 Party members and employees in key sensitive positions to receive integrity education in the Integrity Culture Park, strengthening their anti-corruption stance.



Indicators	2023	2024	2025
Incidents of business ethics violations occurred	0	0	0
Integrity education (session)	463	535	534

Fair competition

In strict accordance with laws and regulations including China's *Anti-Monopoly Law* and *Anti-Unfair Competition Law*, Pangang Vanadium & Titanium has zero tolerance for unfair competition, including trade secret infringement, false advertising, illegal disclosure, and monopolistic practices. No major anti-monopoly or fair competition violations occurred in the Company during the reporting period.

Indicators	2023	2024	2025
Litigation or major administrative penalties resulting from unfair competition practices during the reporting period	0	0	0
Monetary value of litigation or major administrative penalties resulting from unfair competition practices during the reporting period (10,000 yuan)	0	0	0

Compliance Operation

Pangang Vanadium & Titanium continues to enhance the value-creating function of legal and compliance management, prevents and mitigates major risks, and fully leverages the rule of law to strengthen the foundation, stabilize expectations, and deliver long-term benefits, so as to support its high-quality and sustainable development.

Compliance management

Improving compliance management system

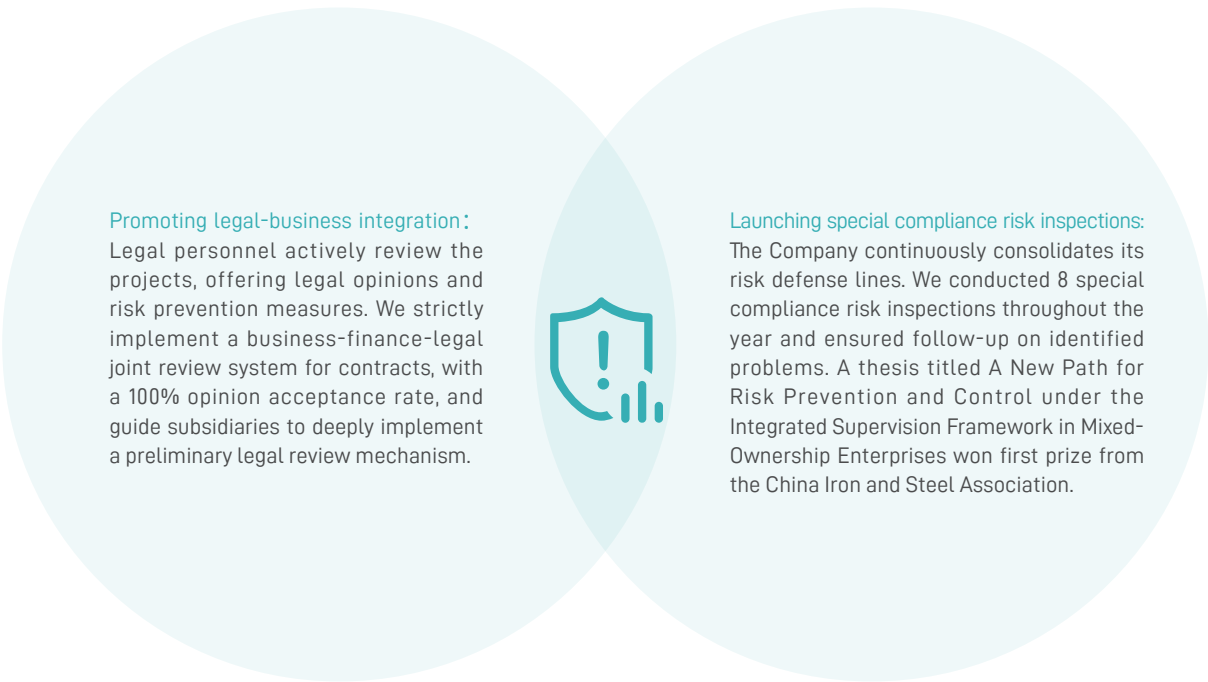
In line with the latest laws, regulations and supervisory requirements, as well as the Company's realities and reform needs, we regularly formulate and dynamically implement the annual plan for establishing, revising and abolishing rules. The plan optimizes our overall framework of systems that reaches all levels and functions. We complete centralized filing and review of corporate-level rules and regulations, and conduct regular compliance reviews to ensure alignment between subordinate and superior management mechanisms.

In 2025, we further strengthened the standardized, systematic, and scientific foundation of our rules and regulations. A total of 46 systems were formulated (revised) and 11 were abolished. The gradual improvement of these rules and systems provides strong support for the Company's operations, reform, and development.

Enhancing legal compliance training

Using media platforms like internal publications and WeChat official accounts, law lectures, legal consultations, and knowledge contests, we popularize the knowledge of the Constitution, rule of law and compliance among the employees, strengthen their awareness of law and compliance, and improve their legal and compliance literacy. These efforts foster a culture where employees understand that the law protects them, compliance benefits them, and compliance should be valued and practiced by everyone. In 2025, 268 employees received compliance training.

Risk control



In 2025

The business-finance-legal affair joint review system for contracts was strictly implemented, with a **100%** acceptance rate of all opinions.

8 special compliance risk inspections held





04

Adopting a People-Centered Approach for a Better Future

Pangang Vanadium & Titanium has consistently shared the outcomes of its development with society. Firmly fulfilling our social responsibilities, we advance in step with employees and resonate with broader societal needs. Together, these efforts shape a vision for high-quality corporate development and inject sustained momentum into social harmony.



Employee Rights Protection

Guided by a people-centered philosophy, the Company strictly complies with national labor laws and continuously improves the labor management framework. By establishing standardized, fair, mutually beneficial, and stable labor relations, we strive to ensure full respect for and protection of employees' lawful rights and interests, fostering a harmonious and stable workplace.

Equal employment

The Company adheres to a "zero-discrimination" employment policy. We prohibit discrimination based on race, religion, gender, age, marital status, or disability, and strictly ban child labor and forced labor. These measures safeguard fundamental human rights and professional dignity. In 2025, we further strengthened compliance in employment practices. No incidents related to discrimination, harassment, child labor, forced labor, or human trafficking occurred, demonstrating our zero-tolerance stance toward unfair practices.

In 2025

3182 active employees

155 employees from ethnic minorities

96 jobs created

96 employment opportunities facilitated

52 fresh graduates employed

94 internal transfers and internal job applicants

23.31% female employees held management positions

Employee turnover rate: 0.35%



Compensation and benefits

Based on policies such as the *Notice on Ensuring Minimum Income Guarantees* and the *Remuneration Management Measures*, the Company has introduced the *2025 Performance and Compensation Evaluation Measures* and the *Notice on Implementing Employee Capability Enhancement Incentives*. Through the continuous optimization of a diversified compensation system, full provision of statutory benefits, and expansion of employee care programs, we work to build a people-oriented compensation and benefits framework that fully recognizes employees' contributions.

In 2025, spot bonuses were granted to management, technical, and operational staff who achieved professional title or skill level advancement. Total rewards for capability improvement reached 499,000 yuan.

In 2025

100% social insurance coverage rate

100% retention rate of female employees on parental leave

Democratic management

The Workers' Congress serves as the primary mechanism for democratic management and the key platform for employees to exercise their rights. The Company has established and implemented a democratic management system centered on the Workers' Congress in accordance with the law. This framework ensures employees' rights to information, participation, expression, and supervision. At the same time, we continue to explore new approaches and expand participation channels, building a multi-level and comprehensive democratic management system.

In 2025

Employee satisfaction score: 100

Coverage rate of collective agreements: 100%

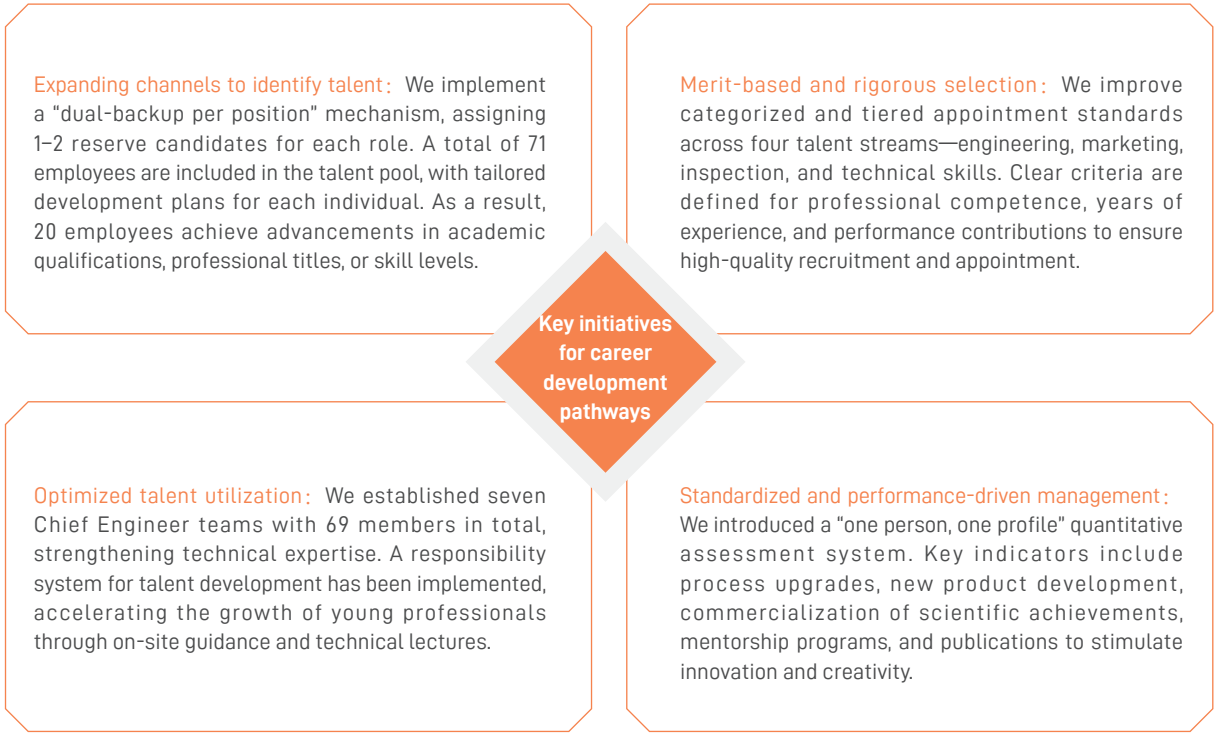


Building Growth Platforms

The Company has advanced talent-driven strategies by establishing a talent development framework and diversified career pathways. We emphasize both professional capabilities and overall competence, providing employees with full-cycle development opportunities. These efforts together cultivate a well-structured, highly skilled, innovative, and dynamic workforce.

Career development

With an open, transparent, and well-structured career development system, we continuously improve mechanisms for talent evaluation, selection, development, and deployment, while fostering fair competition and merit-based selection. Through tiered and targeted development approaches, we optimize employee growth pathways and stimulate workforce initiative and engagement.



Employee training

Based on the principles of "centralized coordination, division of responsibilities, tiered management, and collaborative implementation", the Company has built a structured training system where functional departments take the lead, while subsidiaries implement programs at different levels, forming a coordinated and clearly defined training framework. Aligned with strategic development needs, annual training plans are developed at multiple levels. Talent reviews provide a clear understanding of workforce capabilities, while competency assessments enable precise profiling. We advance both leadership pipeline development and skill enhancement, addressing the diverse needs of different employee groups and positions. These efforts help to improve the relevance and effectiveness of training and support sustainable corporate development.



Enhancing the development of management and technical talents, and the professional competence and performance capabilities of the management teams

- ★ We conduct training programs on listed company governance, contract management, financial competency enhancement, AI-enabled office efficiency, and chemical equipment integrity management, with a total of 407 participants.
- ★ We select outstanding young management and technical personnel to participate in external programs, including organizational training by the Organization Department of the Central Committee of the CPC, youth leadership programs, "Qingma Academy", and training for young scientific talents, totaling 126 participant instances.
- ★ We promoted the elimination of unqualified personnel in key positions by organizing professional title evaluation exams. A total of 153 eligible employees participated, with 81 passing, resulting in a 52.9% pass rate.

Strengthen the cultivation of the skilled personnel team, and build a skilled craftsmanship team that ensures the efficient operation of the production lines

- ★ We organize technical competitions for equipment inspectors, professional training for system personnel, and courses on inspection and maintenance of chemical instrumentation, benefiting over 180 participants and strengthening the technical workforce foundation.
- ★ We select highly skilled personnel at technician level 3 and above to attend advanced technical lectures and craftsman training programs. These initiatives have enhanced innovation capabilities and problem-solving skills, with 503 participant instances.
- ★ We improve the overall skill level of operational staff and expand the pool of highly skilled workers. A total of 576 applications for skill level advancement were submitted during the year, representing a 90.1% increase year on year.

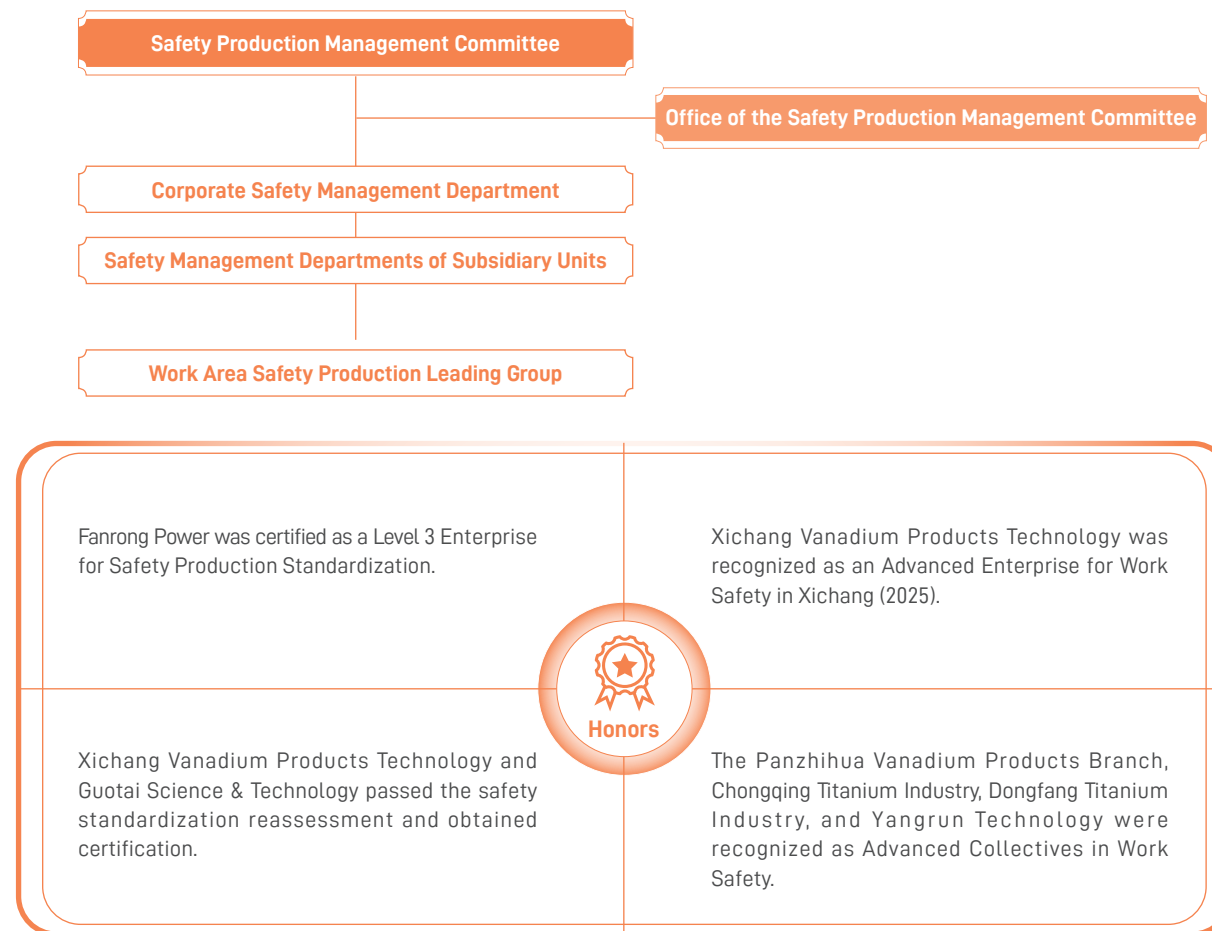
Occupational Health and Safety

The Company has fully implemented the important directives of President Xi Jinping on workplace safety. We have improved our safety management system and emergency response mechanisms, and conduct routine inspections and remediation of safety hazards. By advancing the operation of our occupational health and safety management system, we have enhanced intrinsic safety and supported high-quality development with a high level of safety assurance.

Safety management system

The Company continuously improves the safety management framework by revising policies such as the *Administrative Measures for Anti-Violation*, *Administrative Measures for Occupational Health*, *Administrative Measures for Safe Special Operations*, and *Detailed Rules for Safety Supervision of Migrant and Temporary Workers*. We also reinforce the accountability in work safety, and have established a grid-based safety management system. Responsibilities extend to teams and individual positions, enabling full coverage across all employees, processes, and operations.

Organizational structure of work safety management



Key initiatives to strengthen the safety management system

We have issued the *Notice on Further Advancing Grid-Based Work Safety Management*, reinforcing management checklists and accountability for safety responsibilities.

We strengthen the identification and mitigation of major fire hazards by organizing comprehensive inspections across all bodies in line with relevant regulations, and invite experts to deliver training on the *Criteria for Identifying Major Fire Hazards*, with a total of 130 participants.

We have released the *Program for Developing Standardized Safety Teams*. A total of 15 team leaders received training, leading to the establishment of seven Level 1, four Level 2, and one Level 3 standardized teams in 2025.

Safety compliance training: We delivered training and assessments on safety knowledge and management capabilities (145 participants); completed special equipment operation training (621 participants); developed internal trainers for hazardous chemicals operations; provided refresher training for four safety instructors; and supported continuing education for nine certified safety engineers.

Routine safety training: We conduct ongoing training and testing for frontline employees to strengthen risk identification and prevention capabilities. A total of 22,000 participant instances passed assessments throughout the year; 2,864 employees completed annual safety training and exams.

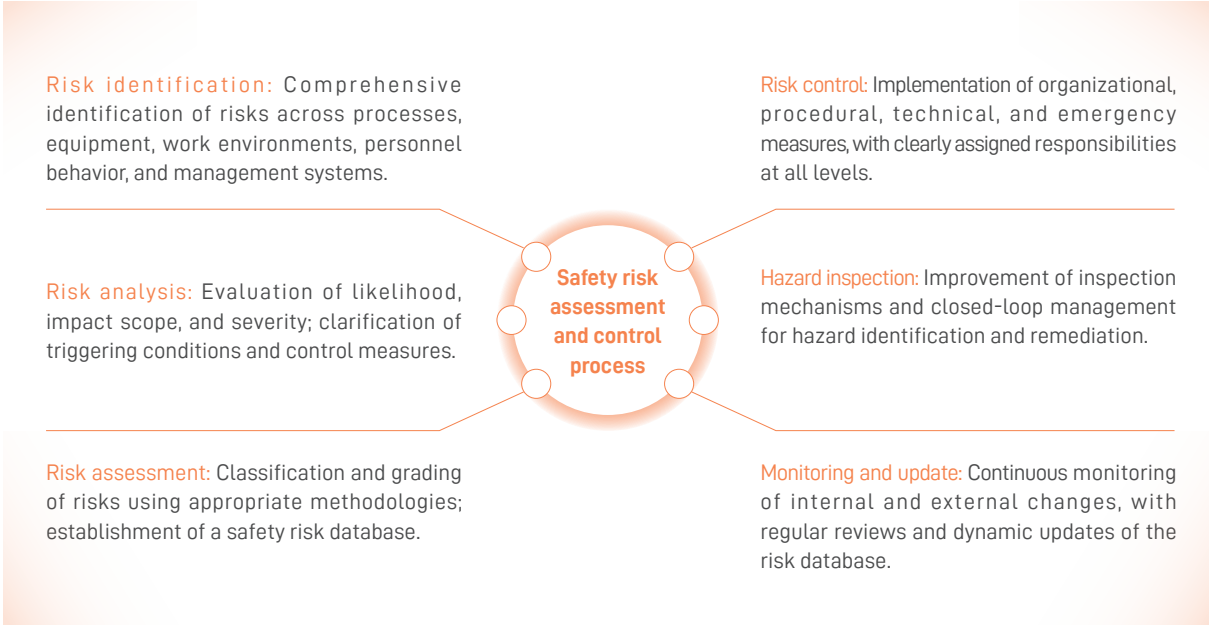
Specialized safety training: We organized online training and assessments on the *Guidelines for Process Safety Management in the Chemical Industry* for 272 safety management personnel; conducted safety management capability training for 358 managers and team leaders, further enhancing safety governance capacity.



Enhancing workforce-wide safety awareness

Safety risk control

The Company carries out the three-year action plan for strengthening workplace safety, focusing on major risk prevention and intrinsic safety improvement. We implement targeted initiatives such as the "100-Day Safety Campaign" and "Thunderous Actions". These efforts address key challenges, strengthen fundamental safety management, and promote a shift from reactive control to proactive prevention. In 2025, the Company recorded zero workplace accidents and achieved a 100% rectification rate for major hazards within required timelines, reinforcing a solid safety foundation for high-quality development.



Special safety inspection initiatives

Third-party safety technical diagnostics: Panzhihua Vanadium Products Branch, Titanium Industry Company, Chongqing Titanium Industry, and Dongfang Titanium Industry engaged the China Chemical Safety Association and the Sichuan Hazardous Chemicals Association to carry out third-party safety technical diagnostics. All identified issues were fully rectified.

Internal safety support diagnostics: Experts were organized to conduct safety inspections and support diagnostics at Panzhihua Vanadium Products Branch, Titanium Industry Company, Chongqing Titanium Industry, Yangrun Technology, the Quality Testing & Metering Department, and the Energy and Power Center, with identified issues promptly addressed and rectified.

Safety supervision and joint inspections: The *Notice on Implementing Dedicated Safety Supervision* was issued. Dedicated inspection teams across all branches carried out joint supervision and inspections, ensuring thorough identification and rectification of issues. These efforts effectively reinforced the implementation of the principle of "three responsibilities for safety".

The Company strengthens digital safety management systems. In coordination with the Group, we have established an emergency monitoring and early warning platform to enable real-time monitoring of major hazard sources and risk points at the Titanium Industry Company. Chongqing Titanium Industry integrates personnel positioning and safety management systems with government platforms, further enhancing safety oversight.

Case

Specialized training to enhance safety performance

In 2025, the Company invited experts from the Panzhihua Fire Safety Technology Center and the Sichuan Hazardous Chemicals Association to deliver training on fire safety and the identification of major fire hazards. A total of 176 employees participated, improving their awareness and hazard identification capabilities.

Case

Enhancing systematic anti-violation management to support high-quality development

Pangang Vanadium & Titanium took anti-violation management as a key entry point to shift safety governance toward prevention. In 2025, the Company reviewed violations from the past two years and focused on high-risk areas such as construction, maintenance, special operations, and contractor management. *The Administrative Measures for Anti-Violation* were revised to establish a framework featuring checklist-based management, joint accountability assessment, and accountability tracing. A detailed list of 72 types of violations was developed for precise identification and categorized control. An innovative joint accountability mechanism was introduced, holding both responsible parties and relevant stakeholders accountable for serious violations. At the same time, a linkage mechanism between violation reporting and performance evaluation created a strong deterrent effect — "address one case, warn a group, and improve across the board" — effectively strengthening the safety defense line.

Metrics and targets

The Company places strong emphasis on workforce safety management and continues to increase investment in safety, and is committed to creating a safe working environment through steadily improving safety performance indicators.

In 2025

56.39 million yuan of work safety cost

100% safety training coverage

12,470 participants of safety and environmental protection education and training

171 safety and fire emergency drill sessions

Occupational health management

In strict compliance with applicable laws and regulations, the Company has strengthened the occupational health management system. We implement annual occupational health surveillance and general health examination programs, conduct regular monitoring of occupational hazard factors, and advance occupational disease prevention. Health awareness campaigns and employee health monitoring have been carried out on an ongoing basis. In 2025, internal audits of the occupational health and safety management system were completed for multiple branches, including Panzhihua Vanadium Products Branch, Titanium Industry Company, Energy and Power Center, Quality Testing & Metering Department, and Vanadium & Titanium Trade. The whole system operated effectively overall.

Key occupational health management measures

- ★ We continue to monitor occupational hazard factors, including 3,473 testing points, with a compliance rate of 99.91%.
- ★ We conducted occupational health surveillance for 2,332 employees and general health check-ups for 1,117 employees, with no occupational disease cases identified.
- ★ We delivered occupational health training to 443 employees and first-aid training for workplace injuries to 359 employees.

Emergency management system

To strengthen our emergency response capabilities, we have revised and filed the *Emergency Response Plan for Production Safety Accidents*, and established a three-tier emergency response framework covering the Company, the subsidiaries, and operational sectors (workshops). Each level assumes command responsibility for emergency response within the scope. In addition, we organize comprehensive emergency drills simulating various production safety accident scenarios. These efforts continuously enhance overall emergency response capability and reinforce safeguards for stable operations.

In 2025

We conducted **14** fire emergency rescue and evacuation drills, with **241** participants.



Employee Care and Support

To improve its employee care system, the Company organizes employee outreach activities, supports employees in need, and promotes a variety of cultural and sports programs. These efforts foster a harmonious, comfortable, and supportive working environment.



We visit and support employees during hospitalization, marriage, childbirth, and retirement; continue to provide mutual aid insurance and actively process claims.

We have launched "Health Outreach to the Grassroots" initiatives, inviting experts to deliver health lectures and psychological counseling training.

Key employee care initiatives

We organize seasonal care programs, including summer heat relief for employees in high-temperature and demanding positions, support for families of students admitted to college, and birthday benefits.

We enrich employees' leisure activities by organizing air volleyball, badminton, table tennis, International Women's Day celebrations, and Children's Day family events, promoting engagement and workplace harmony.

We provide holiday assistance to employees in need, single mothers, and frontline staff, distributing approximately 1.6 million yuan in financial aid and in-kind support.

Comprehensive Rural Vitalization

The Company thoroughly implements the guiding principles of rural development and aligns its efforts with the five pillars of rural vitalization. Centered on a dedicated leadership group, we adopt a systematic, targeted, and innovative approach to assistance, while increasing investment to support high-quality agricultural development, livable rural communities, and improved livelihoods.

In 2025

10.36 million yuan invested in gratuitous assistance funds

11 assistance projects implemented

Industrial development

With a strong sense of responsibility and strategic vision, Pangang Vanadium & Titanium has invested 1.2 million yuan in upgrading agricultural and tourism infrastructure in Panzhou, supporting integrated rural industry development. The Company advances the full industry chain development of prickly pear products, supporting the Ciliwang Company in achieving annual sales of 165 million yuan, up 5% year on year. In addition, we adopt an innovative "assistance funds + co-investment" model to build six high-standard livestock pens, moving beyond traditional one-off support. This initiative is expected to increase farmers' income by approximately 800,000 yuan.



Household livestock farming project



Wumeng grassland agri-tourism project

Cultural flourishing

The Company supports regional education by investing 400,000 yuan to establish three "study inspiration classes" in three primary and secondary schools in Panzhou. These programs provide learning and living support for students from disadvantaged families and encourage academic excellence through peer motivation. As a result, Jiupu Primary School ranks second in Liupanshui in unified examinations. We also organize recognition and support activities for newly enrolled graduates and host summer camps on vocational education at Jiupu Primary School in delivering comprehensive support.



Donation event at Jiupu Primary School

Ecological improvement

To support rural ecological improvement, the Company has invested 3.3 million yuan in water infrastructure projects in Gouchangba Village, Putian Township. Here, we have completed river channel dredging over 1.2 km of the Maga River, constructed 1.5 km of embankments, and installed pedestrian cover slabs across the river, effectively eliminating safety risks along the waterway. Irrigation systems are also improved for over 520 mu of farmland and more than 70 mu of vegetable greenhouses, strengthening the ecological foundation for agricultural production.



Water infrastructure project in Gouchangba Village, Putian Township

Consumption-driven assistance

The Company has established a procurement-sales linkage mechanism under the model of "support through purchasing", expanding sales channels for agricultural products through direct procurement while helping stabilize market prices. Cumulative procurement of over 3 million yuan in specialty agricultural products from assisted regions has increased incomes for farmers and village collectives, while supporting local industry and integrating consumption-driven assistance with development.



Prickly pear products



Consumption assistance supplies

A Better Community

We promote the culture of public welfare and fulfill responsibilities as a state-owned enterprise by organizing donations, volunteer initiatives, and community services, putting our commitment to serving the public into practice and contributing to society.



Chongqing Titanium Industry employees volunteering in community drainage cleaning

In 2025

380 young volunteers

9 young volunteer teams

12 volunteer activities

240 participants of volunteer activities



Outlook for 2026

Looking ahead to 2026, we will further advance our commitment to sustainable development, with the goal of building a world-class enterprise in vanadium and titanium new materials. We will take a systematic approach to implementing our ESG strategy, enhance our contributions across economic, social, and environmental sectors, and deliver high-quality development through solid execution and strong accountability.

Strengthening the foundation for development. We will improve the modern corporate governance system with Chinese characteristics, reinforce the role of the Board, and optimize the ESG governance framework with ESG principles better integrated into our strategic decision-making and daily operations. We will also enhance the compliance management system, strengthen risk prevention and business ethics, and improve the quality and transparency of information disclosure to build a well-governed and efficient listed company.

Enhancing brand strength. Being customer-oriented, we will uphold service standards defined by high quality, professionalism, engagement, and efficiency, and continue advancing our quality-driven development strategy. We will improve quality management across the entire industrial chain and strengthen digital monitoring and traceability. Through the adoption of Six Sigma and lean management practices, we will enhance product consistency and reliability and reinforce our position as a global quality benchmark in the vanadium and titanium industry.

Accelerating low-carbon development. We will actively advance the "dual carbon" strategy and implement the Special Plan for Low-Carbon Development, while pushing forward green process upgrades, including the 60,000 tons/year chloride-process titanium dioxide production project. We will expand the application of cleaner production technologies and develop a circular economy industrial chain. At the same time, we will promote the coordinated advancement of intelligent transformation and energy conservation, support the creation of more national-level green factories, and drive continuous reductions in energy consumption and carbon intensity per unit of product.

Fulfilling our responsibilities with a strong sense of mission. Guided by the principle that "talent is the primary resource", we will improve career development pathways and incentive mechanisms to build a highly skilled workforce. We will advance industrial support initiatives and rural vitalization, while expanding community engagement. Through active participation in public welfare and charitable activities, we will continue to give back to society and demonstrate the responsibility of a state-owned enterprise.

ESG Performance

Category	Key Indicators	Unit	2023	2024	2025
Economics	Revenue	100 million yuan	143.80	132.09	88.90
	Total assets	100 million yuan	153.34	148.42	145.10
	Net profit attributable to shareholders of listed companies	100 million yuan	10.58	2.85	-0.93
	Taxes paid	100 million yuan	4.98	2.92	1.97
	Owner's equity	100 million yuan	125.37	128.62	126.10
	Debt-to-asset ratio	%	18.24	13.34	13.10
	R&D investment	100 million yuan	5.66	4.47	2.87
	Authorized patents	project	70	59	54
	Number of invention patents	project	20	21	9
	Number of proprietary technology applied	project	5	7	8
	Important sci-tech awards (national, provincial & ministerial level)	project	5	3	5
	Legal review rate of major decisions	%	100	100	100
	Legal review rate of important systems	%	100	100	100
	Legal review rate of major contracts	%	100	100	100
Environment	Environmental pollution incidents in all types	event	0	0	0
	Investment in environmental protection	100 million yuan	1.197	3.01	1.74
	Total GHG emissions	10,000 tons	210.83	209.32	246.55
	GHG emissions per 10,000 yuan of output value	Ton	2.07	2.36	3.01
	Chemical oxygen demand	Ton	55.37	67.11	69.82
	Total emissions of ammonia nitrogen	Ton	3.79	4.62	4.52

Category	Key Indicators	Unit	2023	2024	2025
Environment	Sulfur dioxide	ton	351.06	273.13	254.69
	Nitrogen oxides	ton	296	489.68	423.72
	Particulate matter (PM)	ton	203.27	227.73	175.73
	Comprehensive energy consumption	ton	494,067	472,760	664,972
	Energy consumption per 10, 000 yuan of output value	tce/10,000 yuan	0.49	0.55	0.813
	Annual fresh water consumption	million m³	17.30	16.02	20.71
	New water consumed by V ₂ O ₅	t/t	16.20	15.46	14.02
	New water consumed by TiO ₂	t/t	60.79	62.30	62.90
	New water consumed by FeV	t/t	2.54	2.24	2.02
	Utilization rate of solid waste	%	66.38	51.15	48.68
	Gas recovery volume	100 million m³	0.47	0.55	0.51
	Circulating water utilization rate	%	94.08	94.31	93.88
Staff	Labor contract signing rate	%	100	100	100
	Number of in-service staff	person	3,310	3,271	3,182
	Employee turnover rate	%	0.72	0.42	0.35
	Number of training participants	times	20,170	>20,000	27,000
	Training expenses	10,000 yuan	317.28	401.9	325.215
	Occupational health monitoring and physical examination	person	2,705	2,714	2,332
	Medical and health file coverage	%	100	100	100
	Relief money (subsidies, assistance, student grant)	10,000 yuan	19.07	21.47	21.50

Category	Key Indicators	Unit	2023	2024	2025
Security	General and serious accidents	event	0	0	0
	Participants of safety and environmental protection education and training	times	11,023	11,000	12,470
	Safety training coverage	%	100	100	100
	Work safety cost	10,000 yuan	6,835	6,732	5,639
	Safety, fire emergency drills	session	192	164	171
Supplier	Total number of suppliers	supplier	571	865	498
	Number of suppliers who have passed the ISO 9001 quality management system	supplier	252	289	135
	Number of suppliers who have passed the ISO 14001 environmental management system	supplier	128	147	70
	Number of suppliers who have passed ISO 45001 occupational health and safety system	supplier	119	130	63
	Responsible procurement rate	%	100	100	100
	Localized procurement proportion	%	28.33	40.44	42.51
Society	Fund for rural vitalization	10,000 yuan	1,221	1,221	1,036
	Number of rural vitalization projects	individual	14	14	11
	Number of young volunteers	person	340	375	380
	Number of young volunteer teams	individual	9	9	9
	Participants of volunteer activities	times	240	270	240
	Number of volunteer activities	times	20	20	12
Administer	Board meeting	times	7	7	10
	Members of the Board of Directors	person	9	9	9
	Proportion of independent directors	%	33.33	33.33	33.33
Party Building	Number of Party committees	individual	6	6	6
	Number of general Party branches	individual	3	4	4
	Number of Party branches	individual	48	51	50
	Number of Party members	person	1,451	1,424	1,388
	Conduct integrity education	times	463	535	534

Contribution to the United Nations Sustainable Development Goals (SDGs)

1 No Poverty	Conduct paired assistance Actively engage in public welfare activities
2 Zero Hunger	Promote the development of a modern rural industrial system in the Panzhou, Guizhou Province.
3 Good Health and Well-being	Build a safety management system Ensure employee occupational health and safety
4 Quality Education	Implement talent cultivation projects Conduct technical skills training and skill level recognition Implement educational assistance
5 Gender Equality	Board diversity Uphold equal employment and prohibit gender discrimination Enhance women's well-being
6 Clean Water and Sanitation	Enhance the management of water usage and wastewater discharge to minimize the environmental impact of effluents
7 Affordable and Clean Energy	Strengthen energy conservation and consumption reduction to improve energy efficiency Expand into the new energy sector and promote the application and development of vanadium in energy storage
8 Decent Work and Economic Growth	Respect and protect the legitimate rights of employees Provide opportunities for career development and training Make social insurance payment in full and on time Care for employees
9 Industry, Innovation and Infrastructure	Strengthen independent innovation capability Intellectual property management Promote industry structure adjustment and upgrade
10 Reduced Inequalities	Adhere to gender equality, and care for employees from minorities, disabled people, and other minority groups
11 Sustainable Cities and Communities	Improve community living environment Protect ecological environment
12 Responsible Consumption and Production	Increase water use efficiency Realize standardized treatment of wastewater, waste gas, and solid waste Implement green office practices
13 Climate Action	Develop carbon emission management system Carry out special initiatives for energy conservation and carbon reduction Complete carbon allowance compliance Product carbon footprints management Plan for clean energy development Promote low-carbon and environmental protection concepts
14 Life Below Water	Strengthen water resource management and reduce wastewater discharge
15 Life on Land	Protect ecological environment Improve factory environment
16 Peace, Justice and Strong Institutions	Improve Party conduct and build clean government Adhere to law-based corporate governance and compliant operations
17 Partnerships for the Goals	Deepen industry exchange and cooperation Strengthen supplier training and build a responsible supply chain

Content Index

Title	GRI Benchmarking
About this Report	2-2/2-3/2-4
Message from the Chairman	2-11/2-22/201-1
About Us	2-1/2-6/2-9
ESG Management	2-9/2-14/2-26/2-29/3-1/3-2
Advancing with New Drivers to Build a Responsible Brand	3-3/203-2/204-1/414-1/418-1
Driving Green and Low-Carbon Transition to Co-build a Harmonious Ecology	302-1/302-3/302-4/303-1/303-2/303-4/305-1/305-2/305-4/306-1/306-2/306-3/306-5/
Upholding Compliance to Cement the Development Foundation	2-27/3-3/205-2/205-3/207-2/405-1
Adopting a People-Centered Approach for a Better Future	402-1/401-2/403-1/403-2/403-3/403-5/403-6/404-1/404-2/404-3/203-1/203-3/413-1/
Outlook for 2026	2-22
ESG performance	3-3
Content Index	-
Feedback	2-29

Feedback

Dear Reader:

Thank you very much for taking the time to read this report. To continuously improve the report preparation process, we would like to listen to your opinions and suggestions. Please feel free to share your thoughts.This will serve as an important basis for us to enhance the quality of the report and improve our accountability capabilities.

Selective question: (Please mark "√/" in the corresponding position)

1.Your overall evaluation of this report.

☐ very good ☐ good ☐ general ☐ poor ☐ bad

2.Do you think this report can accurately reflect the significant impact of the company on the local economy, society and environment?

☐ very good ☐ good ☐ general ☐ poor ☐ bad

3.How do you rate the quality of the social responsibility information disclosed in this report?

☐ very good ☐ good ☐ general ☐ poor ☐ bad

4.What do you think of the layout design of this report?

☐ very good ☐ good ☐ general ☐ poor ☐ bad

5.How do you think the readability of this report is?

☐ very good ☐ good ☐ general ☐ poor ☐ bad

Open-ended question:

1.What suggestions do you have regarding the company's social responsibility initiatives?

2.What do you think are the shortcomings of this report?

3.What other social responsibility information do you think should be disclosed in this report?

Address: _____

Company website : _____

Telephone number: _____

Email address : _____