



2017

ANSTEEL GROUP CORPORATION LIMITED
Sustainability Report

About the Report

Dear readers,

Welcome to read the Eleventh *Ansteel Group Corporation Limited Sustainability Report*. Based on feedback information and suggestions from various channels, the report elaborates on social responsibility practices of Ansteel Group in business operation, products and services, environmental protection, staff support and community development.



> Reporting Period

The report discloses information dated between January 1, 2017 and December 31, 2017. Part of the report may refer to previous years as needed.

> Report Boundary

With Ansteel Group Corporation Limited (hereinafter referred to as Ansteel Group, Ansteel, or the group) as the main body, the report covers Anshan Iron & Steel Group Co., Ltd. (hereinafter referred to as Anshan Iron and Steel) and Pansteel Group Co., Ltd. (hereinafter referred to as Pansteel) as well as their non-steel industry sectors and directly affiliated entities.

> Release Cycle

This report is released annually.

> Reference Standards

GB/T 36001-2015, *Guidance on Social Responsibility Reporting* issued by Standardization Administration of the General Administration of Quality Supervision, Inspection and Quarantine

Guidelines for the State-owned Enterprises Directly under the Central Government on Fulfilling Corporate Social Responsibilities issued by State-owned Assets Supervision and Administration Commission of the State Council (SASAC)

Sustainability Reporting Guidelines (G4) issued by Global Reporting Initiative (GRI)

ISO 26000: 2010, *Guidance on Social Responsibility* issued by International Organization for Standardization (ISO)

Guidelines for Fulfilling Social Responsibility by Chinese Industrial Enterprises and Industrial Associations (GSRI-CHINA 2.0) issued by China Federation of Industrial Economics (CFIE)

China Corporate Social Responsibility Reporting Guidelines (CASS-CSR 3.0) issued by Chinese Academy of Social Sciences (CASS)

> Report Guarantee

The financial data included in the report conform to *Accounting Standards for Enterprises* and relevant accounting systems issued by the authority, and have been audited in accordance with *Internal Audit Standards of China*, thus releasing actual financial indicators and operational conditions of Ansteel Group. All the sums of money in the report are in the unit of CNY unless otherwise stipulated. The report has been internally audited, which ensures its authenticity, accuracy and completeness.

> Access to the Report

The report is issued in printed and electronic versions in both Chinese and English. For the electronic version, please visit Ansteel Group's official website <http://en.ansteel.cn/>

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Greetings from Ansteel Group



2017 was a year of historic significance to Ansteel Group. Throughout the year, In the face of complicated and tough market environment, Ansteel Group studied and advocated the socialism with Chinese characteristics for a new era proposed by General Secretary of CPC Central Committee Xi Jinping and the guiding principles of the 19th National Congress of the Communist Party of China (CPC) (the 19th CPC National Congress). Moreover, Ansteel Group comprehensively implemented the requirements of “three promotions” proposed by General Secretary of CPC Central Committee Xi Jinping, upheld the underlying principle of pursuing progress while ensuring stability, and fulfilled social responsibilities of central state-owned enterprises(SOEs). In particular, Ansteel Group comprehensively adjusted industrial layout, deepened corporate reform, accelerated innovative development, implemented energy conservation and emission reduction, and enhanced Party building, making significant breakthroughs in production and operation, realized RMB 1.5 billion of profits, and rejuvenated the “old enterprise”. In 2017, Ansteel ranked 55th on the list of China’s 500 Most Valuable Brands, and its brand value rose to RMB 57.055 billion. Ansteel made new contributions to the sustainable development of the economic society.

Comprehensively adjusted industrial layout. Through implementing the requirement of the CPC Central Committee and the State Council concerning the supply-side structural reform, we focused on accelerating the adjustment of industrial structures. We proposed the target of “631” industrial structure adjustment and determined the thought on industrial structure adjustment, i.e. stably developing iron and steel industry, prioritizing the development of non-steel industries, and coordinating the development of resource industry. Ansteel saw quality and efficiency in steel industry and significant growth in profitability; Ansteel also achieved rapid development in non-steel industries and developed various businesses as its new economic growth points, such as modern finance, modern logistics, energy conservation and environmental protection, new energy, new materials, medical care and healthcare, modern city services and industrial chain trade; besides, Ansteel promoted the transformation of resource industry from production mode to operation mode, the transformation from product output to technical output and management output, and the transformation from mono-resource production to multi-resource exploitation, constantly improving the core competitiveness of resource industry.

Comprehensively deepened corporate reform. Upholding problem-orientation and market reform direction, we promoted the implementation of 323 reform tasks among 72 projects in 13 aspects, stimulating the new vitality of endogenous development. We further improved corporate governance structure and completed corporate reform within Ansteel Group and all its wholly-owned subsidiaries; we promoted the establishment of Board of Directors in subsidiaries to exercise the authority of Board of Directors and establish the Office of Regular Directors and Supervisors. We hired regular external directors and supervisors, and set up the assessment mechanism linked to operational performance. We further consolidated the position of market entities, improved the differentiated management and control system, deepened reforms to delegate power, streamline administration and optimize government services, comprehensively propelled contractual management and optimized market operation mechanism; we prioritized governance of loss-making enterprises and completed the task of “eliminating zombie enterprises and helping disadvantaged enterprises” required by the SASAC. Moreover, we further deepened the reform of three systems. Particularly, we promoted reform of the cadres and employees appointment system and established the market-oriented

selection and appointment mechanism; we promoted optimization and reform of human resources system, promoted four-dimensional post management, and propelled the transformation from “identity management” to “post management”; we promoted remuneration distribution system reform to implement classified management of annual salary budget of ordinary employees, management personnel and proprietors, and link their remuneration to operating benefits, achieving more effects of incentives.

Comprehensively accelerated innovative development.

Innovation is the primary driving force for development. With the goal of becoming “a leading high-end manufacturer and the pillar of a great power”, Ansteel Group promoted high quality development with innovation, continuously enhanced investment in technological research and development, established the stable and targeted R&D investment mechanism, accelerated the research and development of core technology of predominant products, and built up brand products such as railway steel, automotive steel, marine steel, bridge steel, vanadium and titanium products, and metals for military use. We comprehensively promoted the market reform of scientific research and design organizations, preliminarily set up the innovation mechanism in which scientific research institutes are full of vitality, R&D teams have enthusiasm, enterprises gain operating benefits, and individuals get benefits. We promoted innovation by full participation of the staff. In 2017, the number of Ansteel’s staff innovation studios increased to 177, among which Lichao Innovation Studio won the honor of “National Demonstration Labor Model and Craftsman Innovation Studio”. With new innovation results continuously increasing, Ansteel was the exclusive supplier of super strength marine steel for “Blue Whale I (self-propelled drilling rig)”, launched the debut of 600 Mpa high performance 18 MND5 steel plates and successfully applied them to key equipment of nuclear island of Ningde Project of “Hualong One (Nuclear Reactor Laboratory)”; we also applied high-end bridge steel to domestic and overseas bridge projects such as the Hutong Yangtze River Bridge - the world’s longest cable-stayed bridge connecting Shanghai and Nantong. We developed high-end steel for bogie use and applied it into CEMU, realizing intersection and reconnection operation at 420 km/h for the first time.

Comprehensively implemented energy conservation and emission reduction.

We uphold the concept of green development and aim to build a resource-saving, environment-friendly enterprise. We pursue “implementing energy conservation to reduce production cost, and enhancing environmental management to promote compliant production and legal operation” as our main task to propel the ecological progress. We enhanced our efforts in energy conservation and emission reduction, implemented 92 projects and continuously improved our capabilities of energy conservation and emission reduction as well as pollution treatment. More than 40 projects of Ansteel Group were completed in 2017, effectively enhancing the capability of energy conservation and emission reduction of production equipment. Taking the inspection organized by the Environmental Protection Supervision Work Group of the Central Committee as an opportunity, we conducted special self-inspection and self-check activity on environmental protection work. Our subsidiaries saw considerable increase in capabilities of pollution prevention and environmental protection management, and realized zero occurrence of major environmental pollution accidents. Pansteel Group Xichang Steel & Vanadium Co., Ltd. won the honor of “Environmental-friendly Enterprise for Cleaner Production in China’s Steel Industry”. Angang Steel Company Limited Bayuquan Steel

Subsidiary was included in the first batch of “Green Factory” certified by the Ministry of Industry and Information Technology.

Comprehensively enhanced Party building. We upheld Party leadership and consolidated the “root” and “soul” of Ansteel – Party building. We deeply implemented the spirit of National SOEs Party Building Conference, assumed the main responsibility of Party building, promoted the integration of Party building and production & operation, and propelled the sustainable and healthy development of enterprises. We elevated political standing, deeply studied and implemented the socialism with Chinese characteristics for a new era proposed by President Xi Jinping and the spirit of the 19th CPC National Congress, and endeavored to understand them and put them into practice. We stressed political standards, implemented the “five-dimensional” employment standards, and appointed responsible persons with exceptional operating performance. We enhanced supervision and management of cadres, and implemented warning, persuasion and admonition among cadres at and above the level of deputy director. We valued the cultivation of young cadres and formulated the cultivation and selection plan for outstanding young cadres. We enhanced political functions, conducted the activity of “Party branch building at grassroots level”, made surveys and supervision of Party branch building, and enhanced trainings of Party branch secretaries. We also held work promotion conferences to comprehensively improve grassroots Party branch building. We upheld political stance, comprehensively fulfilled the main responsibility of building Party style against corruption, implemented the building of clean governance map, fight against the working style of formalism, bureaucratism, hedonism, and extravagance, and continued to fight against corruption, providing solid support for corporate reform and development. We wholeheartedly encouraged the staff to promote corporate development, conducted the service activity themed “Practicing the concept of sharing and caring for frontline employees”, and improved allowances for employees on night shift and work group leaders as well as hygiene and health care expenditure standards for female employees. Moreover, we renovated staff operation room and duty room, maintained and renewed staff activity room and bathroom. Besides, Ansteel Talent Apartments were put into use to enable the staff to share the results of reform and development.

In a new era, Ansteel has new missions. From a new starting point, Ansteel will initiate a new journey. 2018 is the first year of Ansteel Group to launch the new journey of rejuvenation and development and also the 70th anniversary of the founding of Ansteel. Guided by the Thought on Socialism with Chinese Characteristics for a New Era proposed by President Xi Jinping, we will deeply implement the spirit of the 19th CPC National Congress, uphold the principles of quality first and benefits upmost, adhere to the development idea in which the people are first, and conscientiously practice new development concepts. We will seize opportunities, deepen corporate reform and innovation, comprehensively promote green development, and enhance and improve Party building. With efforts, we strive to realize the production and operation goals of the year, promote higher-level and higher quality development of Ansteel, and make new contributions to a moderately prosperous society in all aspects.

Yao Lin, Secretary of CPC, Chairman of the Board

This is Ansteel Group

Steel production capacity

39 million tons

Products steel grades over

3,000

Products specifications over

60,000

Products sold to over

60 countries and regions

Domestic and overseas customers and cooperation partners over

500



Producing Better Material, Creating More Wonderful Life—Company Profile

Ansteel Group Corporation Limited

Ansteel Group Corporation Limited was restructured from Anshan Iron and Steel Group Company and Panzhihua Iron and Steel Company Limited in May 2010. Headquartered in Anshan, Liaoning Province, Ansteel Group is a state-owned enterprise administered by the SASAC. In December 2017, approved by the SASAC, Ansteel Group Corporation was restructured into Ansteel Group Corporation Limited.

Anshan Iron and Steel Group Co., Ltd.

Established in 1948, Anshan Iron and Steel Group Co., Ltd. was the first large-scale iron and steel integrated enterprise and the earliest steel production facility established after the foundation of the People's Republic of China. Therefore, it was known as the "Eldest Son of the Steel Industry of the Republic" and the "cradle of China's steel industry". Anshan Iron and Steel Group Co., Ltd. has been restructured from Anshan Iron and Steel Group Company.

Pansteel Group Co., Ltd.

Pansteel is the world's largest vanadium producer, China's largest production facility for titanium raw materials, with the full industrial chain. It is the national largest, global leading heavy railway production base and an important production base for automotive steel, home appliance steel and special military steel.

Ansteel Group has formed a cross-regional, multi-base and internationalized operation layout, and becomes a steel enterprise with the greatest resource advantage in China.

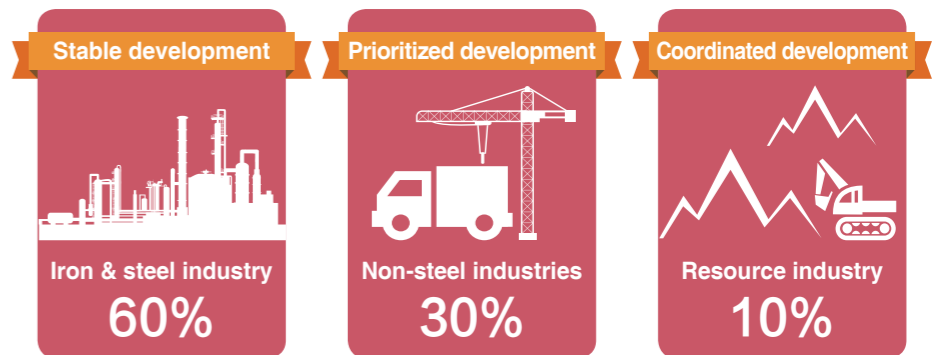
- We have seven high-end steel production bases of special steel in northeast, southwest, southeast and southern China. We have rich iron ore resources in Liaoning and Sichuan, China and in Carrara, Australia. Ansteel is an iron & steel enterprise in China with the biggest resource advantage.
- We have a whole set of advanced iron & steel production equipment covering mining exploitation, sintering, iron-making, steel rolling as well as coking, fire resistance, driving force and transport, etc. We have capabilities of mine, steel completed production technology and management ability output.
- Our products have been widely applied in dozens of industries, including railway, construction, automobile, machinery, shipbuilding, household electrical appliances, container, petroleum & petrochemical and aerospace engineering. Among them, the series of steel products such as automotive steel, railway steel, home appliance steel, nuclear steel, ship and marine engineering steel, container steel, electric steel, petroleum and petrochemical steel, steel for high-end products and special steel occupy a leading position in China.
- We have steel production capacity of 39 million tons. We can produce 3,000 marks and more than 60,000 specifications of steel and vanadium titanium products with high technology and high added-value. We have a complete steel product portfolio covering hot rolling plates, cold rolling plates, galvanized plates, color coated plates, cold rolling silicon steel, heavy rails, seamless steel pipelines, steel bars, steel wires, steel ropes, stainless steel. We also have a series of vanadium products including vanadium nitrogen alloy, vanadium trioxide and high vanadium ferroalloy, and a series of titanium products including high titanium bearing slag, titanium dioxide, sponge titanium, and other titanium products.
- We have a broad marketing and services network system across the nation and the world. While meeting demands of domestic markets, we sell products to more than 60 countries and regions across the world and have 26 overseas companies and organizations as well as over 500 domestic and overseas customers and cooperation partners. The annual import and export volume exceed USD five billion.

Industrial Layout of Ansteel

On March 7, 2017, General Secretary of CPC Central Committee Xi Jinping, expressed his anticipation for Ansteel's "nirvana and rebirth" during the deliberation of Liaoning Delegation on the 5th session of the 12th National People's Congress (NPC). According to General Secretary Xi, structural adjustment should be promoted and economic transformation and industrial upgrading should be accelerated. With a comprehensive analysis of the trends of global economy, and future development of iron & steel industry and successful experience of advanced enterprises, Ansteel Group, taking into account the reality and its actual situation, pursued deepening supply-side structural reform as the main task, optimized and adjusted its industrial structure, and proposed the "631" industrial development layout.

The "631" industrial development layout refers to that by 2020, the revenues from iron & steel industry, non-steel industries, resource industry (mining, vanadium titanium) will respectively account for 60%, 30% and 10% or so respectively. At the same time, the industrial revenues of Ansteel Group will increase over RMB 100 billion compared with that in 2016.

To this end, Ansteel Group determined the thinking of industrial structure adjustment which advocates stable development of iron & steel industry, prioritized development of non-steel industry, and coordinated development of resource industry, to accelerate the transformation from "mono steel industry" to diversified industrial development, and promote the transformation and upgrading of the group.



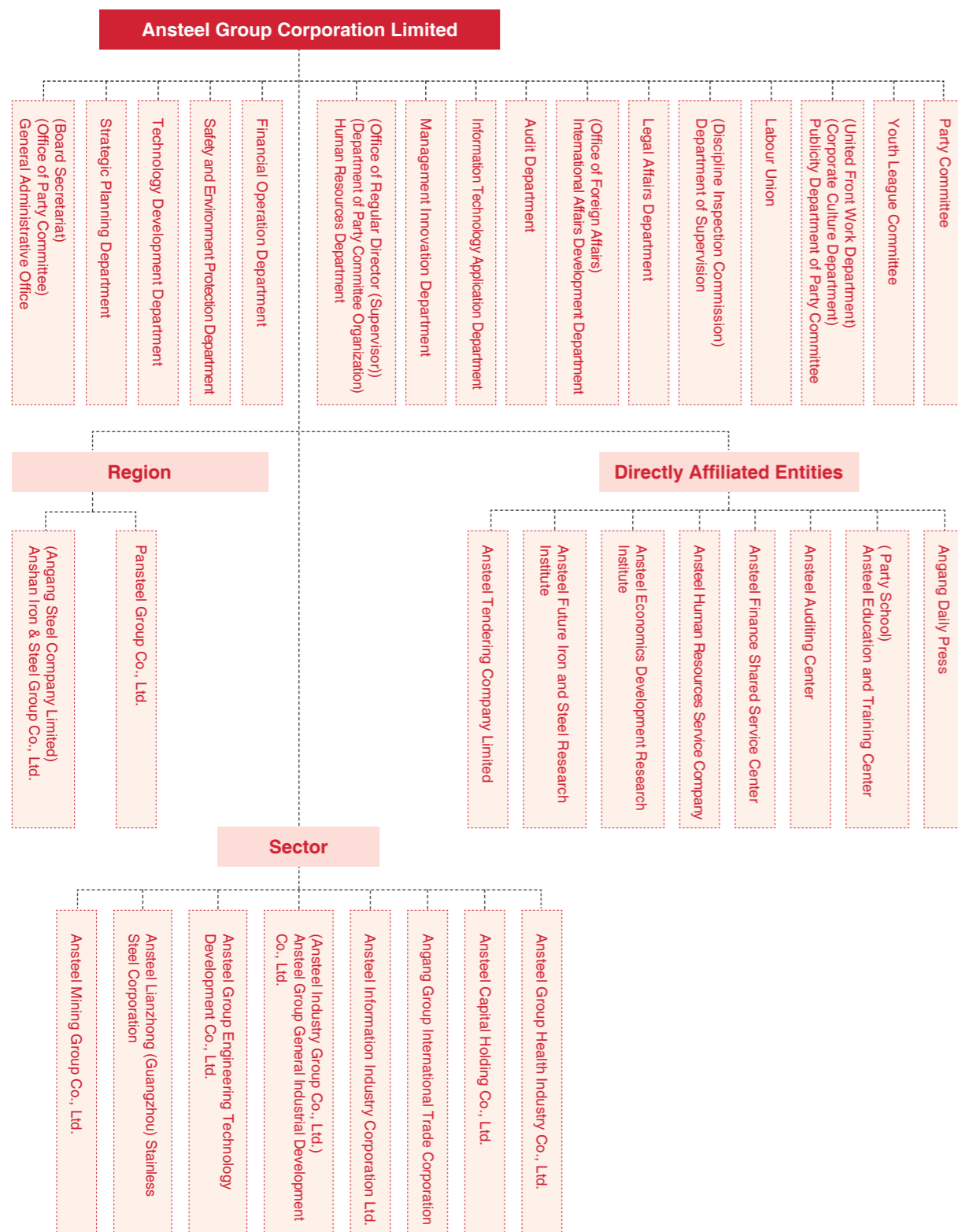
The "631" industrial development layout

Unforgettable 2017

In 2017, Ansteel Group experienced a historic change and entered the forefront of the efficiency gains of state-owned enterprises administered by the SASAC.



Organizational Structure



Corporate Governance

Ansteel Group takes regulating the Board of Directors as the key to improving corporate governance structure, insists the principle that company system reform is the premise, the building of the Board of Directors is the key, and scientific and effective decision-making mechanism is the priority, and accelerates the building and improvement of corporate governance structures of all levels.

● **Comprehensively completing company system reform.**

In December 2017, Ansteel Group Corporation was reformed to a state-owned enterprise from an enterprise with the participatory model and changed its name as Ansteel Group Corporation Limited. By the end of 2017, 27 enterprises under Ansteel with the participatory model completed corporate system reform.

● **Overall requirement of Party building Included into the Articles of Association.**

Ansteel Group specifies the rights, responsibilities and work style of Party organizations in links of decision-making, implementation and supervision of enterprises. Ansteel Group has completed the revision of the Articles of Association and won the approval of the SASAC. Ten affiliated companies and 100 subsidiaries of Ansteel amended the Articles of Association. Secretaries of the Party Commission and presidents from wholly-owned subsidiaries with corporate legal person status shouldered 100% of responsibilities to ensure the effective role of Party organization in decision-making level, execution level and supervision level.

● **Promoting the building of the Board of Directors.**

We assigned the use of authority to the Board of Directors, built and improved the effective, well-balanced corporate governance structure so as to improve governance capability; we set up the full-time director (supervisor) office, hired full-time external

directors and supervisors, and built up the assessment mechanism linked to operational performance, to enhance the efficiency and effects of directors and supervisors' duty fulfillment.

● **Regulating corporate governance operation rules.**

We specified the rights and duties of the governance body, sorted out the authority of decision-making between investors and subsidiaries, and between the Board of Directors and managers, and built up the work relationship and business processes among all governance bodies; we built up and improved the decision-making system of "Three Importances and One Greatness", risk assessment and compliance review mechanism of major issues to establish the governance mechanism featuring scientific and highly efficient operation and coordination, and effective balancing.

In 2017, we held 11 meetings of the Board of Directors, reviewed 44 proposals, and listened to 18 reports; we held 9 meetings of the special committees of the Board of Directors, reviewed 13 proposals, and listened to 4 reports; we held 32 (expanding) meetings of the standing committee of the Party, and reviewed 201 proposals; we held 4 meetings of General Managers and reviewed 10 proposals. Moreover, the office of the Board of Directors issued 4 sessions of *Notification of Decisions Made by the Board of Directors*, implemented 57 decisions, and sent 52 sessions of *Information of Ansteel Board of Directors*.

Board of Directors and Special Committees (Up to December 31, 2017)

Board of Directors	▶ Tang Fuping, Yao Lin, Yin Li, Na Xizhi, Yang Haibin, Dai Deming, Diao Qinyi
Strategy and Risk Management Committee	▶ Tang Fuping, Yao Lin, Na Xizhi, Yang Haibin, Diao Qinyi
Nomination Committee	▶ Tang Fuping, Yang Haibin, Diao Qinyi
Remuneration and Evaluation Committee	▶ Na Xizhi, Yang Haibin, Dai Deming, Diao Qinyi
Audit Committee	▶ Dai Deming, Na Xizhi, Yang Haibin, Diao Qinyi

Responsible Ansteel

CSR Culture

State-owned enterprises are the pioneers and backbone of economic development in China. As a state-owned enterprise, Ansteel Group has not only made great contributions to national economy, but created impressive spiritual wealth.

Establishing and releasing the culture system of Ansteel Group

In 2017, we implemented the strategy of building a country with a strong socialist culture, established and released the culture system of Ansteel Group, and formulated *Culture Charter of Ansteel Group*, which embodies the vision, mission, core values, cultural inheritance, management philosophies, staff behavioral and corporate image of Ansteel Group. We completed the upgrading of *Ansteel Group Visual Identification System*, formulated and released *Guidelines on Building Ansteel Corporate Culture*. The release of Ansteel Group culture system declares high expectations for the future of Ansteel Group, specifies the solemn mission of Ansteel Group, and determines the core values, cultural inheritance, management philosophies and behavioral rules that have long been observed by Ansteel staff. These efforts are of vital importance as a milestone for Ansteel Group to further reach consensus, enhance cultural confidence and achieve rejuvenation.



Vision: To be an iron and steel group corporation with the most international influence

Mission: Producing better materials, creating wonderful life

Core values: Innovation, Practicality, Striving, Devotion

Cultural inheritance: The spirit of “Ansteel Constitution”, the glorious tradition of Ansteel Group

Management philosophy: Staff first, market orientation, continuous reform, legal compliance, refinedness and rigidity, highly efficient execution

Behavioral rules: Compliance, Devotion, Goodness, Civilization

Corporate image: A leading, global renowned brand

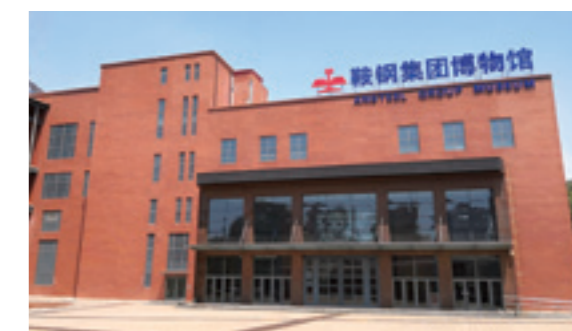
Research on “Ansteel Constitution”

Ansteel Group continuously conducted research on the spirit of “Ansteel Constitution”. We set up a leading group and a work group on research of “Ansteel Constitution” and worked on data collection and research of historical documents of “Ansteel Constitution” in several phases. We

promoted the spirit of “Ansteel Constitution” and introduced the spirit on the 2nd (Beijing) Summit Forum on “Unswerving upholding independent and autonomous development, SOEs serve as the backbone of China”.

Upgrading Ansteel Exhibition Hall

In 2017, Ansteel Exhibition Hall was officially renamed “Ansteel Museum” and included into the development, management, appraisal and assessment sequence of national museums, which was eligible to apply for the state-level museum. In March 2017, Ansteel Museum became a member of the first batch of theoretical education and practice bases of Marxism for Northeastern University; in December 2017, Ansteel Museum became a member of the first batch of “national education and practice bases for primary and middle school students”.



Conducting feature culture activities

For 69 years since its founding, Ansteel has cultivated more than 9,800 models in terms of labor and cultural progress, including 124 National Labor Models, such as Meng Tai, Wang Chonglun, Lei Feng, Guo Mingyi and Li Chao. Ansteel Group proactively cultivates and practices socialist core values to unite power and promote the implementation of socialist core values. We wholeheartedly rely on our 120,000 employees, carry forward the spirits of labor models, and Show the good style of Ansteel cadres and employees in a new era.

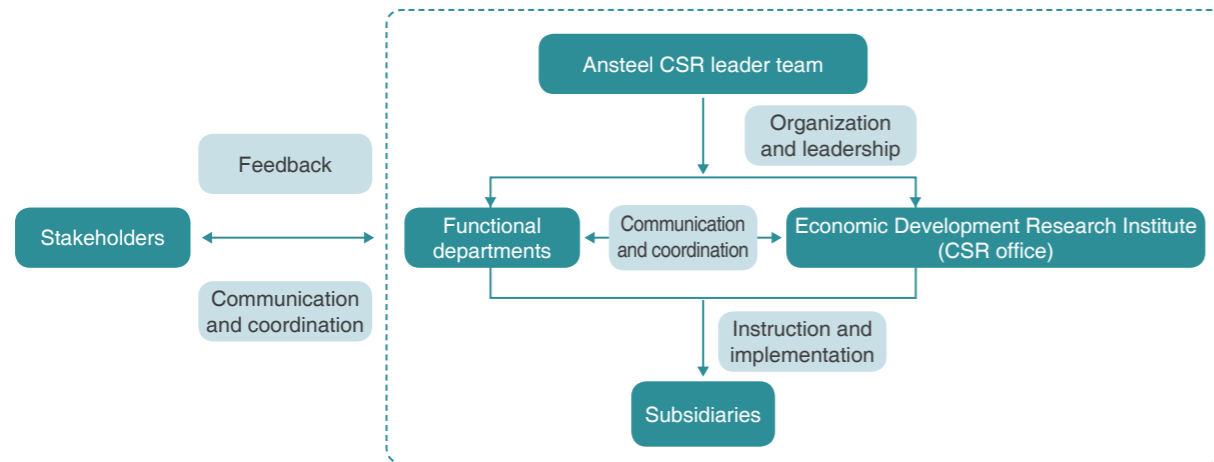
Models” in different destinations. We held 6 meetings to share their glorious experiences and enhanced the recommendation of “Ansteel Models” in the 1st session. Sun Lidong won the nomination award of the 5th National Moral Model; Jiang Jing and Sun Baojiang won the honor of “Chinese Good Man” in July and October 2017.

We continuously exploit and disseminate the spirit of Ansteel. We held the special exhibition themed “Caring and memorizing” and invited children and relatives of the founding leaders of China to visit Ansteel to expand the influence of Ansteel and motivate Ansteel cadres and employees to strive forward.

Award	Winner	Awarding Institution	Awarding Date
“Study on Energy Efficiency Optimization and Integration Technology of Ironmaking-Steelmaking Section System” won the honorary certificate of “Excellent Innovation” in the first awarding ceremony for returned overseas Chinese and the family members of overseas Chinese as well as overseas Chinese students by Overseas Chinese Federation of Central SOE Enterprises	Ansteel Group	Overseas Chinese Federation of Central SOE Enterprises	January, 2017
“The Thermal Energy Saving Team” won the honorary certificate of “Outstanding Innovation Team Award” in the first awarding ceremony for returned overseas Chinese and the family members of overseas Chinese as well as overseas Chinese students by Overseas Chinese Federation of Central SOE Enterprises	Ansteel Group	Overseas Chinese Federation of Central SOE Enterprises	January, 2017
Advanced Group of Liaoning Province	Ansteel Group Chaoyang Iron & Steel Co., Ltd.	Provincial Party committee of Liaoning Province, the People’s Government of Liaoning Province	April, 2017
Top 10 Excellent Steel Enterprises in China in 2017	Ansteel Group	China Metallurgical News	May, 2017
China’s 500 Most Valuable Brand	Ansteel Group	World Brand Lab	June, 2017
Donation Certificate of RMB 585,400 in the activity of building “warm home” for poor households in Jianchang County	Guo Mingyi Team of Ansteel	The Spiritual Civilization Development Steering Commission of Huludao	August, 2017
2016 Advanced Unit on Financial Accounting Statement of State-Owned Enterprise, The Work Advanced Unit on Monthly Letter of State-Owned Enterprise Economic Benefit	Ansteel Group	The Ministry of Finance	October 2017
Top 100 Enterprises in China	Angang Steel Company Limited	China Business Top 100 (CBT 100) Forum	November 2017
Certificate of Overall Grading for Steel & Iron Enterprises	Angang Steel Company Limited	Beijing Custeel E-commerce Co., Ltd.	December, 2017

CSR Governance

Ansteel Group has established and improved the social responsibility organization system, to specify management principles and organizational institutions of social responsibility work as well as content and division of labor of social responsibility management, and has formulated a social responsibility management system with complete structure and highly efficient operation, so as to realize scientific, systematic and standardized social responsibility management.



CSR Communication and Dissemination

In 2017, we enhanced social responsibility dissemination and communication. Through various media, platforms such as *Ansteel Daily*, Ansteel Information, Ansteel website, Ansteel Weibo, Ansteel WeChat account – Cradle Ansteel, Ansteel Museum and online museum, as well as meetings organized by the government, universities, colleges and industrial associations, we disseminated the culture system and outstanding CSR management practices of Ansteel Group to government officials, experts and the general public, building up a good responsible corporate image at home and abroad.

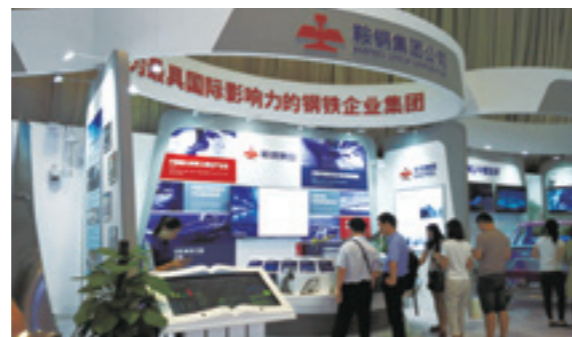
In December 2017, on the International Conference on CSR Reporting in China, *Ansteel Group Sustainability Report 2016* won the GoldenBee Excellent CSR Report 2017 · Leading Enterprise.



Representatives from Ansteel Group participate in the consultation symposium with 13 academicians from Chinese Academy of Engineering to "make diagnosis and prescription" for Ansteel Group

On the 14th World Brands Assembly hosted by World Brand Lab in 2017, Ansteel ranked 55th on the list of China's 500 Most Valuable Brand for its brand "Ansteel" worth RMB 57.055 billion, a place higher with increase of RMB 12.337 billion in brand value compared with that of the year 2016. Ansteel ranked the 1st among iron and steel enterprises in terms of brand value.

We organized to participate in the 17th China International Metallurgical Industry Expo, the 20th China International Fair for Investment & Trading in Chongqing, and the 22nd Russia International Metallurgical Industry Expo. Ansteel won the Best Organization Award by the 17th China International Metallurgical Industry Expo. Moreover, we successfully organized to participate in the Innovation Achievements Expo for Central SOEs and were praised by the SASAC for Ansteel's outstanding performance.



Ansteel Group manifested a new image of central SOE with innovation vitality and was praised by the SASAC of the State Council on the Innovation Achievements Expo of Central SOEs

Stakeholder Engagement

Stakeholders	Expectations and Requirements	Means of Communication	Our Response
Governments	<ul style="list-style-type: none"> Promote employment Pay taxes according to law Compliance management Promote local economic development 	<ul style="list-style-type: none"> High level meetings Meet of exchange Information submission Attend meetings Consultation and full-time Liaison organization between the corporation and the local government 	<ul style="list-style-type: none"> Provide jobs Pay taxes Operate according to laws and regulations Promote the development of local related industries Improve local infrastructure
SASAC, Shareholders	<ul style="list-style-type: none"> Maintain and increase the value of assets Improve the profitability of the enterprise Improve the rate of return of investment projects Safe production 	<ul style="list-style-type: none"> Special report Information submission Shareholders' Meeting Management performance assessment Company announcement 	<ul style="list-style-type: none"> Deepen reform Reduce costs and increase profits Informatization construction Improve technological innovation capability Protect shareholders' equity Strengthen safe production management
Employees	<ul style="list-style-type: none"> Salary and welfare guarantee Democratic management Common development Humanistic care Occupational health 	<ul style="list-style-type: none"> Workers' congress Disclosure of corporate affairs Complaint mailbox Rationalization proposal Symposium Communication through the internet 	<ul style="list-style-type: none"> Provide competitive salaries Establish career development path Offer training and education Care for the employees Provide protective instrument and infrastructure
Customers	<ul style="list-style-type: none"> Abide by commitments Provide good-quality products and services at a reasonable price Improve capability for customized services Open communication channels 	<ul style="list-style-type: none"> Daily contact with sales representatives Exhibition Client meeting Regular visits Opinion solicitation 	<ul style="list-style-type: none"> Pay attention to customer needs Improve the quality of products and services Provide high-quality customized services
Environment	<ul style="list-style-type: none"> Save energy and reduce emissions Conserve resources Cope with climate change Protect ecological environment 	<ul style="list-style-type: none"> Manage environment Make rational use of resources Implement energy-saving and emission-reduction Strengthen ecological construction 	<ul style="list-style-type: none"> Conduct energy and water resources management Make rational use of solid wastes, surplus heat and clean energies Build ecological mines Plant trees and vegetation in the enterprise Practice green office
Suppliers	<ul style="list-style-type: none"> Fair & equitable Honest & faithful Information confidentiality Policy stability Mutual benefit and win-win 	<ul style="list-style-type: none"> Site visit Contract negotiation Regular visits Tendering conference Opinion solicitation 	<ul style="list-style-type: none"> Conduct sunshine procurement Consultation on the basis of equality Abide by contracts Disclose procurement information Conduct compliance procurement
Associations	<ul style="list-style-type: none"> Fair competition Industry development and progress 	<ul style="list-style-type: none"> Join in associations and take on duties Participate in activities organized by the associations 	<ul style="list-style-type: none"> Participate in activities such as standard setting and industry research
Community, Media and the Public	<ul style="list-style-type: none"> Improve community environment Respect community culture Support public welfare undertakings Disclose corporate information in an open, transparent and timely fashion 	<ul style="list-style-type: none"> Joint community building Joint project development Regular exchanges Convene community communication meeting Press release Media communication 	<ul style="list-style-type: none"> Participate in community building Support culture and education Undertake volunteer action Disclose information



Responsibility Topic

Building Ansteel to be the Pillar of a Great Power

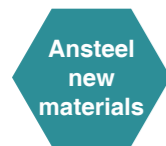
The report delivered on the 19th CPC National Congress emphasizes to develop advanced manufacturing and work faster to build China into a manufacturer of quality. From the launch of Long March 7 to deep-sea manned submersible, from China High-speed Railway Train Fuxing to Blue Whale I Rig that breaks the world record, we can see the application of Ansteel products. Our products are widely used in major domestic and overseas engineering projects such as West-East natural gas transmission project, Qinghai-Tibet Railway, the Three Gorges Projects, Hong Kong-Zhuhai-Macao Bridge Project, Beijing National Stadium (Bird Nest) and homegrown aircraft carriers. On the international arena,

Ansteel has established long-term strategic cooperation with world-level enterprises such as Thyssenkrupp, Vesuvius and General Electric Company; Ansteel has also been a global supplier for international renowned enterprises such as Volkswagen, BMW, General Motors and STX.

In a new era, Ansteel Group upheld the mission of "producing better material, creating more wonderful life" and devoted itself to supplying more ecological iron and steel, vanadium titanium and other new materials with higher technology and higher quality, continuously meeting and guiding the people's aspirations for a better life.

Improving National Strength

Large enterprises should shoulder their responsibilities of making greater contributions. Ansteel Group implements the five projects specified in *Made in China 2025*, puts the interests of the Party and the country first, and manufactures quality materials to build itself into the pillar of a great power. Ansteel displays its advantage of manufacturing products of military use, promotes national and social development, and facilitates the realization of the dream of a century.



From Shenzhou I to Shenzhou XI, Ansteel products were applied to facilitate every takeoff of Shenzhou spaceships. Ansteel was praised and awarded by aerospace departments and State Administration of Science, Technology and Industry for National Defense for its timely and successful completion of supporting tasks of aerospace engineering projects. With constant innovation, Ansteel Group has developed several new materials for the new generation of launch vehicle engines, laying a solid foundation for the success of the first takeoff of Long March 7.



In 2017, China's first homegrown aircraft carrier was officially launched, and the first independently developed 10,000 tons level Type 055 destroyer was launched. As the earliest iron and steel enterprise to develop and produce shipbuilding steel in China, Ansteel Group has long provided shipbuilding steel products for Chinese Navy. Ansteel is the steel enterprise with the strongest R&D and production capacity of China's shipbuilding steel, the most comprehensive coverage of varieties and specifications, the largest the biggest number of national key types of shipbuilding steel, and the largest market share. It has made outstanding contributions to the glorious cause of Chinese navy.

Ansteel Group has the 5.5-meter ultra-wide rolling mill, the king of rolling mills in the world. It has provided high-quality steel for the building of home-made aircraft carriers, submarines and heavy armored vehicles.



The first homegrown aircraft carrier using Angang deck steel



Ansteel marine steel

The TMCP form Grade F super strength marine steel developed by Ansteel Group is kind of special steel for all-weather operation. It can bear low temperature of minus 60 centigrade and Grade 15 hurricane. The most advanced semi-submersible drilling platform Blue Whale I, which was manufactured by the special marine steel, was delivered in February 2017. In May 2017, Blue Whale I successfully exploited Natural Gas Hydrate (NGH, or Gas Hydrate) resources at South China Sea. Ansteel Group is the only steel enterprise in China that is qualified and able to supply products for the global leading drilling platform, facilitating the exploitation of marine resources and guaranteeing national energy safety.



Blue Whale I using the TMCP form Grade F super strength marine steel of Ansteel

Ansteel nuclear power steel

In order to promote localization of nuclear power, Ansteel Group accelerated the research and development of steel for nuclear power use, involving different nuclear power technology areas such as CPR1000, AP1000, CAP1400, Hualong One and EPR. Ansteel Group has formed the nuclear power steel portfolio of four products, which maintain the advantage of exclusive production and import substitution. In 2017, Ansteel Group began to produce the two-phase stainless steel plates S32101 for nuclear power projects of Haiyang 4 and Lufeng 2, and successfully developed and supplied the widest specification steel plates SA-516Gr. 70 for nuclear power, and will be applied in Karachi Unit 2 and Unit 3 in Pakistan, the 3rd generation of nuclear power units exported overseas.



Steel plate SA-738Gr.B produced by Ansteel Group for Haiyang Nuclear Power Project phase 1

Caring for People's Livelihood

The improvement of national strength creates a favorable environment for the country to flourish and people to live in peace. As a result, people begin to have higher expectations for a better life. Engineering projects for livelihood guarantee are endowed with more anticipations and broader connotations. From large projects such as oil transmission pipelines, giant oil tankers, and cross-sea bridges, to small projects such as urban trolleys, subways, family cars, to elevators, home appliance and tableware, Ansteel Group have been improving people's sense of happiness with projects by enhancing livelihood guarantee, improving public service, and improving traffic network and environmental protection.

Ansteel rail steel

Ansteel Group is the largest rail steel manufacturer in China and has made great contributions to the rapid development of rail transport in China. By the end of 2017, the total operating mileage of high-speed railways in China reached 25,000 km, accounting for 66.3% of the total in the world. High-speed railways are a shining business card for China and Ansteel adds glamor to it. Ansteel steel rails connect the world. Ansteel rail steel accounts for over 70% of the applied rail steel in completed high-speed railways in China. In 2017, Ansteel Group produced 1.9 million tons of heavy rails, the total length of which reaching more than 31,000 km. The sales scope of Ansteel steel rails covers the whole country and even many countries and areas overseas. Ansteel heavy steel rails also make a global record of building the 30,000-ton train.



Ansteel steel rails connect the world



Ansteel bogie steel

In June 2017, the 350-km/h China High-speed Railway Train Fuxing, which has independent intellectual property, was launched in two directions. The bogie steel developed by Ansteel Group was applied in China High-speed Railway Trains, breaking the situation of overseas monopoly. As one of the core parts of high-speed railway trains, bogies play the system roles of bearing, vibration reduction, orientation, traction and braking, which decide the operation speed, safety and quality of high-speed railway trains. Ansteel Group has successively developed bogie steel for 30-ton Axle Load Heavy-haul Electric Locomotives and high-speed railway trains with different speeds ranging from 160 km/h to 350 km/h.



The bogie steel developed by Ansteel Group is applied in China High-speed Railway Trains

Ansteel pipeline steel

Ansteel Group is the seamless pipeline producer with the broadest range of products. The high-grade pipeline steel of Ansteel occupies a leading role in domestic market. Ansteel pipeline steel is widely used in national key projects such as West-East natural gas transmission project, Shaanxi-Beijing natural gas transmission project, Sichuan-East natural gas transmission project, and China-Russia crude oil transmission pipeline project (Line 1 and Line 2). Ansteel takes the lead to realize the localized application of pipeline steel with the highest application level and the biggest width and resistance to large deformation. The 2,500-ton pipeline steel with resistance to large deformation X80M, which is 1,219 mm in diameter, is developed by Ansteel Group and has been delivered to users, facilitating an important line of West-East natural gas transmission project. The four lines of Shaanxi-Beijing natural gas transmission project crosses an earthquake zone, which proposes higher requirements for pipeline steel applied in the project. Ansteel is also eligible to supply its self-developed X80 ultra-wide and-thick pipeline steel for the east line of China-Russia crude oil transmission pipeline project, making a breakthrough in extreme sizes and speculations in high strength pipeline steel and building up a lifeline of natural gas supply for local residents along the line.

From land to the seafloor, in spite of complicated environment under the sea, high pressure and large impacts on pipeline exerted by waves, Ansteel developed the large-caliber oil transmission pipeline steel plates, whose widest section reaches 3,724 mm. This kind of pipeline steel plates have been the widest product among all products used in submarine pipeline projects in Asia so far. In June 2017, Ansteel pipeline steel was used in Jiaolong submarine to South China Sea, making the launch of submarine oil transmission pipeline with the biggest pipeline diameter in Asia a success (the 300,000-ton SPM submarine oil transmission pipeline at Maoming Sinopec Port is about 15.49 km long and can load more than seventy 300,000-ton oil tankers annually). Ansteel Group has successively supplied for top three largest petroleum companies in China and becomes the most reliable partner for domestic petrochemical enterprises, supporting the national strategy of clean energy development and speeding up the localization of LNG storage materials.



Ansteel pipeline steel is used in submarine oil transmission pipeline with the biggest pipeline diameter in Asia

Ansteel bridge steel

In 2017, the main bridge of Hong Kong-Zhuhai-Macao Bridge Project was officially put into use. The bridge has the global longest steel structure, the bridge part of which weighs 420,000 tons. It is of vital importance to guarantee the safety of bridge. Ansteel considerably improved the impact tenacity of steel plates and provided 170,000 tons of bridge steel for the engineering project, setting up the "main bridge" section of the project.

The highest-level bridge requires the steel plates with the highest strength. The high-end bridge steel developed by Ansteel Group has also been applied in major domestic and overseas bridge projects such as the Hutong Yangtze River Bridge and China-Maldives Friendship Bridge. In order to support the construction of Hutong Yangtze River Bridge, which breaks several world records, Ansteel Group takes the lead to develop the new generation of bridge steel Q500qE, becoming the only iron & steel enterprise that can supply the whole range of steel products for Hutong Yangtze River Bridge. In 2017, Ansteel Group successively won the bids of Qingshan Yangtze River Highway Bridge and Wufeng Mount Super Bridge to supply bridge steel.



The longest arch bridge in the world-Chaotianmen Yangtze River Bridge in Chongqing (Ansteel Group high-performance bridge steel Q420qD)

Ansteel steel for hydropower

Ansteel Group is the leading producer of high grade hydropower steel and can manufacture and deliver the whole range of steel products for hydropower. Earlier during the construction period of the Three Gorges Projects, Ansteel successfully developed and supplied the 600MPa hydropower steel. Ansteel is the exclusive supplier of 800MPa hydropower steel for Baihetan Hydropower Station, the second largest hydropower station in China. For the first time, Ansteel supplied mass delivery of hydropower steel of such grade and accelerated the localized production of hydropower steel. In 2017, Ansteel consecutively won the bids of three hydropower stations, such as Hebei Fengning pumped-storage hydroelectric power station – the world's largest hydropower station of such kind, realizing the full application coverage of hydropower steel products.



Ansteel Group realized the full application coverage of hydropower steel products

Ansteel automotive steel

As the earliest iron & steel enterprise that produces automotive steel, Ansteel Group has a large range of automotive steel products covering more than 400 key automotive parts. Ansteel has completed the certification and mass delivery of automotive steel for a great many automotive manufacturers such as Volkswagen, General Motors, Honda, Chrysler and domestic automotive brands. Ansteel is one of a few iron & steel enterprises in China to produce the whole range of automotive steel plates and organized the compilation of national standards for the 3rd generation of automotive steel. Ansteel has established joint laboratories of automotive steel and the early cooperation mechanism of independent brand automotive types with First Automotive Works (FAW) and GAC Group. Besides, Ansteel has cooperated with several independent brands and joint venture brands of new energy automotive factories. Ansteel is capable of delivering finished new energy automobile.



Ansteel automotive steel

Ansteel boatboard steel

In 2017, Ansteel Group exclusively won the bid of the world's ultra-large ore carrier project to supply Ansteel boatboard steel, manifesting China power in global shipping industry. In 2014, Ansteel boatboard steel supported the design and building of the first ice-breaking ship in China; in 2016, Ansteel crack arrest steel plates with ultra-width and-thickness were used in the building of 20,000 home-made ultra-large container ships for the first time, making great contributions to promoting Chinese ship building industry to higher-end manufacturing and improvement of shipping efficiency.

Ansteel steel for home appliance

Ansteel Group has long been dedicated to the research and development of steel for home appliance. Ansteel steel products for home appliance use are characterized by high quality surface, good comprehensive mechanical property, strong adhesive force of zinc layer, high precision of thickness and excellent surface protection. Ansteel has maintained good, long-term strategic cooperation relationship with leading home appliance enterprises such as Gree, Midea, Haier, Changhong and TCL as well as joint venture home appliance enterprises such as Hitachi and Panasonic. Ansteel has long been dedicated to the development of home appliance steel. We develop valuable steel brands, seize market opportunities, and continuously improve product quality and service level, winning a good reputation in domestic market of home appliance.

Supporting the Construction of the Belt and Road

Ansteel Group takes the initiative to devote itself to the construction of the Belt and Road. For five years, Ansteel supplied more than two million tons of steel products for major engineering projects in countries and regions along the Belt and Road, covering fields such as energy, bridges and railways, providing strong support for the establishment of a friendship bridge between China and the world.

In May 2017, Ansteel Group successfully won the bid of the aid project contract of China-Maldives Friendship Bridge. The large infrastructure project was confirmed as an aid project for Maldives by presidents of China and Maldives during the state visit to Maldives by President Xi Jinping in September 2014. The engagement of Ansteel Group accelerated the construction of the first steel structure bridge in Maldives.

In Russia, Ansteel boatboard steel was supplied to the first Arc7 polar region condensation oil tanker in the world. The tanker has two-phase ice-breaking capability and can travel and supply condensation oil all the year round when no ice-breaking ship guides the trip. After completion, the oil tanker will serve Yamal LNG project at Arctic Ocean in the most northern end of the Earth, which is the largest LNG project in the world.

In Pakistan, the orange line of Pakistan urban rail transport project, for which Ansteel Group is the exclusive supplier, is under construction. After completion, the project will effectively improve local infrastructure, promote local economy, and achieve mutual benefits.

In Sri Lanka, the new product developed by Ansteel Group, i.e. the 550 MPa, 40mm-thick SA-537M CL.2 container steel plate, passed through certification by supervisor companies once in the first batch. Ansteel Group exclusively applied

the new product in Phase I sphere container project of LPG receiving station in Hambantota, Sri Lanka.

In Kenya, Mombasa-Nairobi Railway was successively put into operation, which is the first modernized railway in Africa that adopts Chinese standards and technology and is built with Chinese equipment. The "centennial railway" has been expected by Kenyans for a hundred years. Ansteel steel rails again built up a friendship railway.

In Mozambique, Ansteel bridge steel supports the Maputo-Catembe Strait Bridge in Mozambique, becoming the witness of China-Mozambique friendship.

In Spain, Ansteel provided technical support for No. 2 color coated line of Coated Solution, which was officially put into operation. Soraya Saenz de Santamaria, Vice Premier of Spain, together with Minister of Ministry of Industry of Spain, Mayor of Santander City, came to the inauguration and ribbon-cutting ceremony and witnessed the crucial moment.

In India, Ansteel steel structure led a high-end path. The high-end special steel structure product, which was a new product of Ansteel Group, successively passed through the rigid inspection by the owner. Since then, Ansteel steel structure products occupied a place in international high-end steel structure market.



Railway steel of Ansteel used for Mombasa-Nairobi Railway



Ansteel steel plate ADB610D used for hydropower in Ecuador

Culture Guides “the Root and the Soul”

On July 7, 2009, President Xi Jinping visited Ansteel and asked Party Committees at all levels to enhance and improve Party building and wholeheartedly implement the principle of relying on the working class. On March 7, 2017, President Xi Jinping proposed “Three Advances” and expressed his anticipation for Ansteel’s “nirvana and rebirth” during the deliberation of Liaoning Delegation on the 5th session of the 12th National People’s Congress.

Upholding Party leadership and consolidating Party building is a glorious tradition and advantage of Ansteel and the “root” and “soul” of Ansteel. Ansteel Party Committee unwaveringly upholds Party leadership, consolidates Party building, and closely aligns itself with the Central Committee led by President Xi Jinping. With high senses of political responsibility and historical mission, we upheld “Two Consistencies”, made efforts in top design and decision-making control, grasped the development direction and the whole picture and implemented relevant decisions to ensure the right path of corporate development.



Learning from the Guide Principles of the 19th CPC National Congress

In October 2017, the 19th CPC National Congress was successfully held, which is of unprecedented importance as a milestone in the development process of the Party and the country. According to the report delivered on the 19th CPC National Congress, as the socialism with Chinese characteristics has entered a new era, the principal contradiction facing Chinese society has evolved; what we now face is the contradiction between unbalanced and inadequate development and the people’s ever-growing needs for a better life. These political arguments have made comprehensive arrangements to promote the great cause of socialism with Chinese characteristics and the great new project of Party building.

Ansteel Party Committee has made considerable efforts in practicing the principle of “understanding, grasping and implementing”. Ansteel Party Committee conducted series of practice activities with themes such as “Celebrating the 19th CPC National Congress, being a qualified Party member” and “Celebrating the 19th CPC National Congress, presenting gifts

to the 19th CPC National Congress”, encouraged the staff to remain true to their original aspiration and keep their mission firmly in mind, and guided Ansteel employees to march forward in spite of difficulties. Ansteel Party Committee also organized trainings in rotation for leading cadres such as secretaries of Party Committees at all levels, secretaries of Discipline Committee, cadres above director level, heads of publicity departments, and secretaries of frontline Party Committee branches to disseminate the guide principles of the 19th CPC National Congress in classrooms, textbooks and people’s minds. Besides, Ansteel Party Committee distributed learning materials such as *100 Questions to the Report Delivered to the 19th National Congress and the Questions and Answers to the Amendment of the Party Constitution of the 19th CPC National Congress* to leading cadres above deputy level, other learning materials such as the report delivered on the 19th CPC National Congress and the new Party Constitution to 54,000 Party members to guide all Party cadres to learn from the original learning materials of the Party and think while taking into account the reality of the enterprise and the position.

Fulfilling the Main Responsibility of Party Building

Ansteel Group Party Committee endeavored to build “Four Systems” to fulfill the responsibility of Party building.

Build the accountability system of Party building work

Ansteel Group Party Committee formulated *Ansteel Group’s Regulations on Implementation of Party Building Accountability System*, specified “Five Responsibilities” and formed the Party building accountability mechanism featuring clear division of responsibilities and orderly operation. Ansteel Party Committee regularly held the meeting of the leading group on Party building and researched on enhancing Party building. Moreover, Ansteel Party Committee was in charge of work on frontline Party building projects. At frontline Party committees, Party Committee secretaries are responsible for organizing Party member cadres to report on Party building work and organizing relevant appraisal work. Pilot appraisal of Party Committee branch secretaries is conducted in 13 frontline Party Committees.

Build the appraisal system of Party building work

Ansteel Party Committee amended and released *Ansteel Group’s Regulations on Appraisal and Assessment of Party Building in 2017*, implemented the integrated assessment of Party building work and administrative work, and specified 62 appraisal indexes of daily work of 27 kinds in 6 aspects. Ansteel Party Committee implemented seasonal, half-year and annual appraisals, and insisted that the assessment result should be linked to the salary, promotion, and model awards.

Build the institutional system of Party building

Ansteel Party Committee issued five systems including *Ansteel Group’s Regulations on Work of Party Committee*; frontline Party Committees issued four systems such as *Implementing Opinions of Ansteel Group on Further Enhancing Frontline Party Building Work*; frontline Party Committee branches issued the *Detailed Working Rules of Ansteel Group for Party Building*.

Build the information system of “the internet + Party building”

The information management network of Party building at Ansteel Group was established and realized two functions, i.e. demonstration, which is the basic function, and authoritative management, covering all frontline Party organizations of Ansteel Group.

Regularizing and Institutionalizing the Requirement for all Party Members to Have a Solid Understanding of the Party Constitution, Party Regulations, and Related Major Policy Addresses and to Meet Party Standards

Ansteel Party Committee has regularized and institutionalized the requirement for all Party members to have a solid understanding of the Party Constitution, Party regulations, and related major policy addresses and to meet Party standards. Guided by the Thought on Socialism with Chinese Characteristics for a New Era proposed by President Xi Jinping, Ansteel Party Committee comprehensively implemented the general requirements for Party building in the new era, continuously deepened the understanding, implementation, rectification and demonstration of Party building, and focused on oversight over the “key few”, routine work, follow-up work as well as guidance & management of Party members, and guided Party

organizations at all levels and all Party members to further improve their performance according to the “Four Consciousness”(they maintain political integrity, think in terms of the big picture, follow the leadership core, and keep in alignment with the central Party leadership) and “Four Confidence” (they have full confidence in the path, theory, system, and culture of the socialism with Chinese characteristics). A tide of “achieving four qualifications and six vanguards” has emerged at Ansteel Group, providing solid political support and organizational guarantee for ending the five-year deficit history of Ansteel and practicing the requirement of “nirvana and rebirth” of Ansteel proposed by President Xi Jinping.

Building up an Upright, Responsible Cadre Team

Ansteel Group enhanced the ideological and theoretical education of the cadre team, stressed the study of the Thought on Socialism with Chinese Characteristics for a New Era proposed by President Xi Jinping, and enhanced study on Party Constitution and Party regulations. As a result, Party cadres performed better according to the “Four Consciousness”. In selecting and appointing cadres, Ansteel Group gave priority to political standards, capabilities and professionalism, appointed cadres who have right political stance,

outstanding performance and responsibility fulfillment, young cadres and cadres who are strict with themselves. We implemented the “121” cadre cultivation program (i.e. cultivate 100 cadres in short term, 200 cadres in middle term, and 100 post-80s cadres and post-90s cadres in long term), enhanced cultivation and selection of young cadres, and strived to realize the goal that by 2020, cadres under 50 years old from regional companies and those under 45 years old from key sectors of subsidiaries will account for one fourth.

Promoting Upright Party Style and Fighting against Corruption

Ansteel Group continuously deepens the rectification work and shoulders the main responsibility for governance over the Party. We rectified all the problems according to the feedback of the Central Committee during their inspection, conducted self-inspection, and formulated rectification plans. We enhanced internal supervision and inspection work and nominated Secretary and Vice Secretary of Discipline Committee to be inspected and report on their responsibility fulfillment and anti-corruption work. Corruption cases were largely investigated among the superior leaders of Discipline

Committee and the accountability interview system was formulated. We conducted four rounds of inspection and realized full coverage and reflection. Through inspection, 278 problems were detected and 31 cadres were caught and punished for their violations. We conducted irregular inspection to promote the act of strengthening Party discipline at the grassroots level. We maintained a high profile of fighting against corruption, handled 631 letters and complaints, investigated 158 cases, and punished 168 cadres according to political discipline, retrieving economic losses of RMB 94 million.



Self Transcendence

Building the Foundation of National Strength

The manufacturing industry is the foundation of a country's development and prosperity. As China transforms from "a country of manufacturing big in size" to "a country of manufacturing big in power", Ansteel Group acted on the spirit of the series of important speeches delivered by President Xi Jinping, deepened the supply-side structural reform, corporate internal reform and innovation-driven development, performed well in the battle of streamlining and turning losses into gains. We developed world-class premium steel, vanadium titanium and equipment technology output bases and devoted ourselves to becoming a steel and iron conglomerate with the most international influence and building the foundation of national strength.

Operating Revenue
RMB 187.835 billion

Gross Profits
RMB 1.520 billion

Increasing a profit on a year-on-year base
RMB 11 billion

Crude Steel Production
35.757 million tons

Won the second prize of National Science and Technology Progress Award
1 prize

Won metallurgical science and technology awards
6 awards

1 invention patent
Won the 19th China Outstanding Patent Award

The steady run rate of the information system reached more than 99%

Ranking top
among central SOEs in terms of efficiency increase





Adjusting industrial structure

President Xi Jinping proposed that we must focus on the optimization of the supply-side structural reform, make efforts from the production end, and improve quality and efficiency of the supply system. In 2017, guided by the “631” industrial structure adjustment plan, Ansteel Group pursued development driven by innovation, enhanced product and technology innovation, stably developed the steel and iron industry, prioritized the development of non-steel industries, coordinated the development of resource industry and established a powerful industrial cluster. These efforts contributed to a stronger and better enterprise, improved the “resilience” of corporate strategies responding to market changes, and enhanced the capability of resisting market risks. Ansteel adjusted its sales strategy and maintained the “camp” position of core sales areas, ensuring the stable increase of sales in core areas; moreover, Ansteel adjusted product portfolio, produced a differentiated, specialized and professional premium product portfolio, and gave play to its market competitiveness of advantageous products, so as to create new supply, meet new demands and create new development momentum.

Expanding the steel and iron industry

Ansteel Group made more adjustment of the main business sector – steel and iron industry, and transformed to the focus of regional development and value-added development from the priority of investment and expansion. Ansteel continuously improved its core competitiveness by adjusting product portfolio, improving quality and enhancing efficiency, made more efforts in developing new products and new technologies of Anshan Iron and Steel and Pansteel, and strengthened the building of quality management system so as to achieve rejuvenation in the industry. We improved market domination and market share of Ansteel in northeast and southwest regions.

In 2017, Ansteel Group had 213 technical renovation projects. The 3.8 m-wide medium and heavy plate project of Anshan Iron and Steel Co., Ltd. Bayuquan Steel Subsidiary was put into production on schedule; the E1R1 roughing mill and sizing presser renovation project of Pansteel Group Xichang Steel & Vanadium Co., Ltd. and the color coated line construction project of Pansteel Vanadium Co., Ltd. achieved the expectations. The profit of the steel and iron industry rose by RMB 6.911 billion on a year-on-year base.



Case Pansteel enhances efforts in developing new products

Taking the opportunity of “civil-military integration”, Pansteel produced approximately 10,000 tons of new military products annually, ranking 3rd in terms of production and sales in the industry. Pansteel high-temperature alloy for aerospace was used in WS15 and WZ10 helicopter engines; Pansteel continued to enhance the development of new vanadium titanium products; the vanadium aluminum alloy for aerospace use formed bulk supply capability; Pansteel is the second enterprise in China to develop DP1180 high-strength automotive steel, winning recognition from Volvo and Ford, etc.; Pansteel also supplied D2 mould steel to Apple Inc. to manufacture the new generation of cell phone casing.

In 2017, Pansteel manufactured 3.4275 million tons of new products, making the sales of leading products account for 41.1%.

Fostering non-steel industries

With the development of new industries and new business modes, non-steel industries have gained much growth room and momentum for development. Ansteel Group actively adapted itself to the development trend of integration of manufacturing industry and service industry. According to the thought that “non-steel sector of Ansteel achieves growth in the market to repay the society and Ansteel Group”, Ansteel Group

substantially develops the production service industry, speeds up the development of newly emerging industries, including finance, smart manufacturing, e-commerce, logistics, new energy, new materials, energy conservation and environmental protection, medical care & healthcare, and modern city service, etc., and builds up new profit growth points. In 2017, non-steel industries realized profit growth by RMB 936 million.



Through integrated innovation, independent innovation and re-innovation after introduction, Ansteel developed a batch of patents and proprietary technologies with a promising market prospect such as tower desulfurization & decyanation (spray dry absorption, SDA) and coke oven smoke desulfurization & denitrification. Ansteel’s iron and steel metallurgical technology and process control software, including blast furnace, converter, continuous steel casting, hot rolling and wire rod rolling mill, reached domestic and global leading level.

In 2017, the sales revenue of engineering technology sector reached RMB **8.409** billion, with the profit of RMB **49.83** million.



Ansteel has businesses covering metallurgical engineering and machinery, metallurgical powder, metallurgical materials, production service, iron oxide powder, comprehensive utilization, metal products, dairy industry, early childhood education, transportation, metallurgical renewable resource development, iron material recycling and processing, urban services, trade, planting and breeding, hotels, tourism and leisure, water treatment, roll chrome plating, architectural design, etc.

The sales revenue reached RMB **2.56** billion, with the profit of RMB **145.75** million.



Information

Projects such as the informatization construction project of Ansteel Finance Sharing Center and the ERP application system maintenance project of Anshan Iron and Steel were implemented to accelerate management informatization. Through the offline "Dahai" and online "Jwell" platforms, Pansteel Jwell IoT established a leading comprehensive service ecosystem for whole industry chains of bulk commodities in China, with a specialized logistics park complex, an internet platform for steel & vanadium titanium industry, a car-free logistics service platform, and a recycling material disposal platform, etc.

The transaction volume was 50 million tons, with the GMV transaction volume of RMB 150 billion.



International trade

Angang Group International Trade Corporation innovated in the business modes such as futures-cash combination of raw materials, steel buyout operation and steel social trade, achieving a profit of RMB 400 million, a year-on-year increase of 20.85%.



Financial business

Ansteel Capital Holding Co., Ltd. obtained four business licenses for fund management, financial leasing, commercial factoring and futures, the Financial Company strengthened financial services and value creation. The financial business sector realized a profit of RMB 1.26 billion, a year-on-year increase of 5.44%.



Chemical engineering

We made full use of abundant resources of coal chemical raw materials to build a first-class coal chemical enterprise in China.



Health

the original "Ansteel Group (Anshan) Medical Health Industry Co., Ltd." was renamed "Ansteel Group (Anshan) Health Industry Co., Ltd." to form a health industry company.

In 2017, the company realized a profit of RMB 16 million, a year-on-year increase of 185.71%.



logistics

Ansteel Transport Co., Ltd. accelerated the transformation and upgrading of the industry, boldly innovated in the business operation mode, and strived to explore and cultivate diversified channels to make profits. In August 2016, the company established Delin Land Port Company. In 2017, Delin Land Port Company successfully built an integrated, win-win and ecological steel service ecosystem covering steel and non-steel sales, logistics, warehousing, processing and distribution, financial services, big data, information, technology and industry services.

In 2017, the sales revenue of logistics sector was RMB 2.091 billion.



Case

Anshan Iron and Steel successfully issues "Bond Connect", the first short-term financing bill in steel industry

To expand financing channels and guarantee the source of funds, Anshan Iron and Steel issued "Bond Connect", the first short-term financing bill in steel industry. This is China's first bond connect product in steel industry and in northeast China.

Since financial resources were tight in financial market and the steel industry was not fully recovered, the final interest rate of the issued short-term financing bill was 30 BP lower than the average interest rate of the same type of AAA enterprises during the same period (the annual financial cost was reduced by RMB 3 million). As the first bond connect product in China's steel industry, Anshan Iron and Steel's short-term financing bill (Bond Connect) has been quite popular among domestic and foreign investors, and the issuance has been a complete success.

Coordinating resource industry

The resource industry has a strong correlation with the steel industry. Ansteel Group drew on its advantages of rich iron ore resources and vanadium titanium resources to promote the transformation of mining industry from production mode to business model, from product output to technology output and management output, from production of a single resource to exploitation of multiple resources. With such efforts, the capability to respond to market changes and cost competitiveness were enhanced.

Ansteel Mining Company Limited (Ansteel Mining) has focused on improving its resource support capability, vigorously promoted reform and innovation, and initially formed an

industrialized development pattern, and its competitiveness was significantly improved. As mine construction projects were successively completed and put into production, the mine service life was extended while the mine production capacity was renewed and increased. By the end of 2017, the iron ore production capacity of Ansteel Mining reached 59 million tons, and concentrate production reached 20.06 million tons. The capacity for sustainable development was improved significantly. Ansteel Mining had total assets of RMB 65.05 billion. The company also accelerated the development of vanadium and titanium industry and expanded market space, increasing a profit of RMB 646 million on a year-on-year base.





Comprehensively deepening reform

We unwaveringly deepen the reform of state-owned enterprises so as to become stronger and better. Ansteel Group implements differentiated management and control, market-oriented operation and contractual management to see that the main position of the enterprise market is effectively implemented. We also have formed an enterprise management system and operating mechanism that meet the requirements of market competition. In 2017, we promoted the implementation of 323 reform tasks of 72 projects in 13 aspects, propelled quality revolution, efficiency revolution, and power revolution, and improved total factor productivity. As a result, we ended the loss situation for five consecutive years, and achieved substantial profit growth year on year, realizing a great leap from “survival” to “development”.



Deepening differentiated management and control

Ansteel Group took into account the characteristics of multi-industry groups and the needs of cross-regional, multi-base and internationalized operation development, and regarded differentiated management and control as the guidance for the implementation of the Group’s management and control system, to further standardize corporate governance, and deepen the construction of differentiated management and control system under the strategic management and control

mode. We also improved the classification system of member companies, implemented classified management, assessment, authorization and supervision, and established and improved state-owned capital investment operation and supervision system, to comprehensively enhance corporate control, influence, competitiveness, leadership and risk resistance. We strive to build a steel conglomerate full of vitality, great development potential, healthy and sustainable development.

Implementing contractual management

Ansteel Group implemented contractual management for operators of the subsidiaries during their term, and established a contractual management system featuring annual assessment of operation management in subsidiaries from 2018 to 2020; by the end of 2017, the contractual contract has been signed. We grasped the two key links of “identity marketization and management contractualization”, and established a contractual system with “Two Letters and Three Regulations” as the core,

to more effectively implement the main position of the market and the responsibility of production and operation so as to promote the revolution and innovation of the Group’s operation management. These actions would promote subsidiaries at all levels to become independent market entities of “self-employment, self-financing, self-sustaining for the risk, self-discipline and self-development”, and realize the revolution in development quality, efficiency and momentum.

“Two Agreements and Three Regulations” refers to the *Employment Agreement, Agreement of Responsibility for Annual Performance Appraisal, Regulations on Strategic Performance and Remuneration Assessment, Regulations on Performance Appraisal and Remuneration Management for Responsible Persons of Subsidiaries, and Regulations on Market-based Selection of Operation Management of Subsidiaries.*

Disposing zombie enterprises and helping disadvantaged enterprises

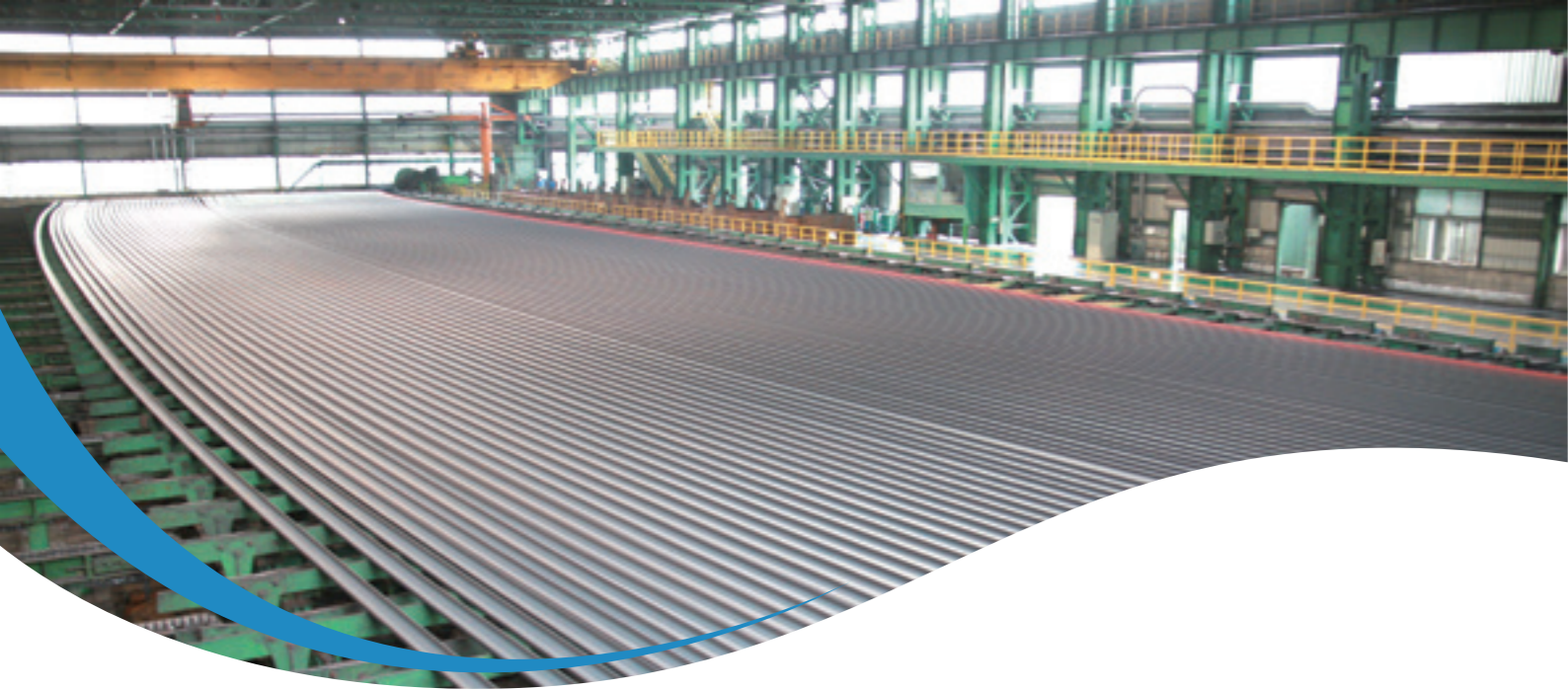
Endure the pain and you can rebirth. Ansteel Group stepped up its efforts to “eliminate zombie enterprises and help disadvantaged enterprises” and paid close attention to the management of loss-making enterprises. In 2017, the number of loss-making enterprises under Ansteel Group was reduced to 48 from 102 last year, reducing its proportion to 21.92% from 44.35%. The 27 “zombie enterprises” and “disadvantaged enterprises” supervised by the SASAC reduced their losses by RMB 4.545 billion in 2017 compared

with that of 2015, completing the phased task of “eliminating zombie enterprises and helping disadvantaged enterprises” required by the SASAC. Casting Steel Company, Xichang Steel & Vanadium Co., Ltd., Pansteel Jiangyou Changcheng Special Steel Co., Ltd. (Pansteel Changcheng Special Steel) and many other loss-making enterprises turned losses into profits in 2017. We promoted the “streamlining” work and completed the “streamlining” task in 33 corporate entities under Ansteel Group.

Deepening reform of three systems

In 2017, Ansteel Group promoted the reform of the cadre human resources system, established a market-based selection and appointment mechanism, and signed annual and term business performance assessment contracts at different levels. We promoted the optimization of human resources and implemented the four-dimensional comprehensive post management of “post sequence, post level, post rank, post salary scale” to promote the transformation from “identity management” to “post management”. We built an integrated performance appraisal system of “strategy, budget, assessment, remuneration and position”. We adhere to the close correlation between employees and management personnel’s remuneration and enterprise efficiency and labor efficiency, and develop differentiated ratios of basic salary and performance-based remuneration, to stimulate the enthusiasm and creativity of the cadres and employees to promote the transformation and upgrading of enterprises.





Promoting management innovation

Ansteel Group adheres to the implementation of innovation-driven development strategy, benchmarks advanced corporate management mode, and simultaneously perfects the management system while deepening reform. Through implementing effective systems and consolidating reform and innovation results, we effectively controlled risks and guaranteed the healthy, orderly development of new businesses.

Improving the institutional system

Adhering to the goal of “streamlining, pragmatic management, standardization and efficiency, supervision in place”, we act in accordance with the requirements for the construction of differentiated management and control systems under the strategic management and control model, and organize all departments of the Group to formulate (amend) relevant rules and regulations on schedule and guide subsidiaries to formulate, amend and abolish relevant rules and regulations. Through improving the Group’s regulations and systems, we have effectively taken measures to deepen reform and promote management innovation and consolidated the results of reform and innovation. In Group Headquarters and institutions at all levels, we conduct activities to study rules and regulations and develop various ways to do learning, promoting and post training. We set up question database of rules and regulations, hold knowledge competitions and online question answering through mobile phone, and ensure the fulfillment of post responsibilities to constantly improve the duty fulfillment and policy control level of Ansteel employees.



Enhancing risk management and control

Ansteel Group establishes a major risk monitoring and early warning mechanism, improves the major risk management strategy, and clarifies the main responsibilities. We identified eight major risks, and formulated risk management

strategies, solutions and 27 monitoring and early warning indicators to achieve full control of major risks in 2017. No major risk incidents occurred in 2017.



We conducted the follow-up assessment of internal control risks within each subsidiary. We provided follow-up inspection and guidance for weak links including “risk assessment and compliance review, risk monitoring and early warning, dynamic risk research and review for major projects”, and promoted subsidiaries to improve risk management system and risk management & control capability.



We effectively operated the “5+X” risk assessment and compliance joint review mechanism, formulated the *Comprehensive Management Report of Ansteel Group in 2017*. We analyzed and identified potential risk factors and supplemented project risk prevention and control measures to achieve effective control over risk and compliance of major issues in 18 projects including Pansteel industrialization demonstration project of blast furnace slag titanium recovery, the joint venture project of Ansteel Mining and Liaoning Xin’an Holding, and the new needle-shaped coke project of the Chemical Industry Department.



We conducted legal investigations on international business operations, overseas corporate governance and daily operations, anti-monopoly, anti-dumping, etc., and formulated disposal plans for major legal risks such as changes of overseas policies and regulations, cases, investment projects and business operations. We organized legal due diligence investigations and contract negotiations to prevent major legal risks overseas. We continuously carried out risk assessment and compliance review of major issues and comprehensively improved capabilities of scientific decision-making and risk prevention.

Strengthening results management

In 2017, Ansteel Group organized subsidiaries to discuss topic selection, implementation and summarization of key issues and difficulties in enterprise management. By the way of “preliminary evaluation by subsidiaries and final appraisal by Ansteel Group”, 35 company-level achievements were rewarded, including 2 special prizes, 3

first prizes, 5 second prizes and 25 third prizes. We actively organized the application of state-level and industry-level association management innovation achievements and achieved the best results in terms of quality and quantity of award-winning achievements in previous years, ranking top among metallurgical enterprises in China.



Employees’ Diversion and Resettlement Management in the Industrial Structure Adjustment of the Old Third-Line State-Owned Enterprises of Pansteel won the first prize of the 24th National Enterprise Management Modernization Innovation Achievements.

Three achievements including *Internal Market-based Selection, Employment and Contractual Management of Steel Enterprises of Ansteel Group Chaoyang Iron & Steel Co., Ltd.* won the second prize.

Ten achievements such as the *Establishment and Implementation of Safety Management Mode for Large Steel Enterprises of Anshan Iron and Steel* won the Metallurgical Enterprise Management Modernization Innovation Achievement Award, including **3** first prizes, **3** second prizes and **4** third prizes.





Propelling technological progress

Science and technology is the foundation of strength while innovation is the soul of progress. With the goal of “becoming a leader of high-end products”, Ansteel Group strives to become the pioneer of innovation-driven development, accelerate the cultivation of technological talents with strong innovation spirit and innovative capability, and grasp the direction of technological innovation. At the same time, we continuously improve the innovation system, and optimize innovation factors to enhance the core competitiveness of enterprises.

Motivating driving force for innovation

“To implement the innovation-driven development strategy, the most fundamental task is to enhance the capability of independent innovation; the most urgent task is to break down institution and mechanism obstacles and maximize the potential of technology as the primary productive force.” Ansteel Group always puts technological innovation in the core place of enterprise development, deepens the reform of scientific research system and mechanism, and stimulates new momentum of innovative development.



Improving the mechanism of technological innovation

We revised and improved the technology management system, promoted the implementation of project contract system and benefit sharing system for all subsidiaries and R&D institutions, and actively used the technological achievements transformation fund. Moreover, we further improved the operational capacity of scientific research and engineering institutions, and mobilized the innovative initiative of technological personnel, and accelerated the promotion of technological achievements to speed up the output and industrial transformation of technological results.

Increasing investment in technology innovation

We established a stable and precise investment mechanism for R&D expenditure, ensured funding for scientific research projects, key laboratories and pilot line construction of Ansteel; we produced first-class products such as marine steel, automotive steel, bridge steel, railway steel, vanadium and titanium products, and military metal materials, and set up research and development funds.

Encouraging all employees to innovate

Through staff innovation studios, promotion of advanced operation methods, development of skill competitions, real-name system of “Receiving Advice Online” and “Youth Innovation Elevating Activities”, etc., we guided, encouraged and motivated all employees to make innovation. By the end of 2017, Ansteel Group had 177 staff innovation studios, completed 242 projects and achieved nearly RMB 40 million of profits.

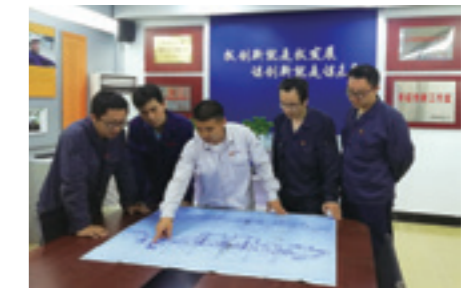
Building an innovation team

Ansteel Group formulated medium and long-term incentives for key talents and explored various forms such as part-time projects, technical alliance and laboratory cooperation to attract targeted experienced and high-end technological talents.



Li Chao Innovation Studio wins the title of “National Labor Model and Craftsman Talent Innovation Studio”

Situated close to the production site, Li Chao Innovation Studio solved the precision problem of various equipment functionalities that restricted equipment operation and indicators through technological innovation, creating a favorable atmosphere for all employees to innovate. For the past three years, the innovation studio has completed 526 innovation projects at the factory level, filed 15 patent applications and 15 proprietary technologies, which greatly improved the finished product rate of cold rolled products and stabilized product quality. Multiple projects won gold and silver awards on international and national invention exhibitions, accumulatively making profits of RMB 50.845 million. In 2017, Li Chao Innovation Studio won the title of “National Labor Model and Craftsman Talent Innovation Studio”.



IPR management

Ansteel Group attaches great importance to the creation, application, protection and management of intellectual property rights. We conduct patent training to further enhance the patent awareness of scientific research personnel, and improve the capability of enterprises to prevent and resist patent risks. In 2017, the patent cluster was formed in key technological fields such as “Blast Furnace Slag Titanium Recovery Industrialization Project” and “Medium and Thick Dual-phase Stainless Steel Sheet Production Technology”,

laying a foundation for optimizing the core patent technology layout of Ansteel Group.

The number of patents obtained by Ansteel and the number of patents granted by the state continued to increase. The number of proprietary technologies was maintained at a reasonable level. All indicators were at the leading level in the industry, and one invention patent won the 19th China Outstanding Patent Award.



Pansteel Rail first authorized by Russian invention patent

In 2017, the invention patent for “high impact toughness rail and its production method” declared by the Institute of Heavy Rail and Railway Steel of Ansteel Research Institute of Vanadium & Titanium (Iron & Steel) was awarded the Russian invention patent. This is the first time that Pansteel has obtained the Russian invention patent in the field of steel rail. This technology has been approved by the Russian side, providing a technical method for subsequent export of high-impact toughness rails and improving market competitiveness of Pansteel's exported steel rails.



Pansteel rails loaded for delivery

Making technological achievements

In 2017, Ansteel Group's technological achievements continued to emerge. As the second implementation company, it won the second prize of National Science and Technology Progress Award; 6 metallurgical science and technology awards, including 5 second prizes and 1 third prize; 22 province-level Science and Technology Progress Awards, including 3 first prizes.

Ansteel Group organized and planned major scientific research projects based on major key common technologies, basic and cutting-edge technology research. In 2017, Ansteel Group entrusted to undertake key projects of the 13th Five-Year Plan by the Ministry of Science and Technology.

Case Conducting research on key technology

Research on Key Technology of High-efficiency Smelting in High-chromium Vanadium Titanium Magnetite of Pansteel is a national science and technology support project, forming a systematic theoretical system and technical system for high-chromium vanadium-titanium magnetite metallurgical separation based on blast furnace-converter processes. This achievement was technically certified by China Iron and Steel Industry Association (CISA) on September 11, 2017 and recognized as the world's first industrial test of large-scale blast furnace, large-scale converter metallurgical separation for high-chromium vanadium titanium magnetite. The high-chromium vanadium titanium magnetite blast furnace-converter metallurgical separation technology of proprietary intellectual property has reached the international leading level. The research successfully realized the high-efficient extraction of vanadium and chromium, the unified regulation of semi-steel quality and the effective utilization of elements such as iron, chromium, vanadium and titanium.

IT application

In 2017, Ansteel Group focused on strengthening the foundation, ensuring safety, promoting coordination and upgrading capability to implement *the Strategic Plan of Ansteel Group IT Application during 13th Five-Year Plan Period*.

More than 20 information systems covering human resources sharing, financial sharing, and merchant sharing, etc. were built to integrate decentralized and separated information systems to achieve business collaboration and information sharing across regions and sectors. The overall design of the Group's WAN was carried out to expand the network coverage of non-steel industries, and 3,322 new network access users were added. We also strengthened network security supervision and boundary protection construction, and built a three-in-one network security protection system of "basics + technology + mechanism", enhancing the overall safety protection level. Besides, we standardized and strengthened the information system and management of operation and maintenance service processes. The steady run rate of the information system reached more than 99% at Ansteel Group. We proposed the goal and strategy of integration of industrialization and

informatization; all subsidiaries simultaneously formulated plans of integration of industrialization and informatization to promote their development. The priorities mainly covered research on leveling up basic automation, full-process digitalized factory, new modes of smart manufacturing, industrial internet platform, etc., and implementation of pilot projects in selected areas, laying foundation for deep integration of industrialization and informatization as well as smart manufacturing.



Case Continuously improving the management system of integration of industrialization and informatization

On the basis of successfully completing the assessment of the integration of the industrialization and informatization management system in 2015, Angang Steel Company Limited made persistent efforts to conscientiously sum up experience, carefully organized and carried out the application of demonstration enterprises, and completed the compilation and reporting of the application materials. In August 2017, Angang Steel Company Limited was selected as the demonstration enterprise of the industrialization-informatization integration management system and became one of the first batch of 50 demonstration enterprises in Liaoning (total two in Liaoning Province). The demonstration priority was modern manufacturing and operation management.

Case Building the smart analysis platform for big data of steelmaking

In order to make full use of large amount of data resources accumulated by the ERP system and MES in the past ten years, Anshan Iron and Steel took into account the business needs of the production factories, used the big data technology in No. 5 production line of steel making, conducted relevant analyses, and built an analysis and forecasting model to figure out major factors that affect product quality and cost, so as to optimize protection technology, reduce defects, cut down on costs and improve the finished product rate of original varieties, and further realized smart production of steelmaking. The smart steelmaking system was officially put into operation on December 20, 2017.



Case Renovating the industrial chain through IT

Pansteel applied modern IOT means and modern financial methods to transform the industrial chain and took the lead to develop the integrated CIII ecosystem combing "integrated logistics + e-commerce platform + financial services". The Jwell (CII), industrial chain finance (DIII) and industrial chain trade (GIII) maintained a high-speed development momentum. Jwell has become the largest commodity industry chain service platform in the southwest China and the leading industrial internet platform in China. Through the practice of big data, Internet of Things, cloud computing and other advanced technologies, Jwell has established Sichuan Industrial Big Data Innovation Center and Blockchain Research Institute to build the IDC Big Data Center and the "Steel Brain", actively explored the new development mode of industrial internet, and promoted the deep integration of the Internet + advanced manufacturing.



Integrity

Sharing Development Outcome through Discussion and Collaboration

It is an ideal state that everyone participates in the construction, promotes and shares the economic and social development. Ansteel Group integrates the concept of sharing into aspects of operation and upholds honest operation to provide excellent service for customers, cooperates with partners and develops together with the industry, and promote the fair sharing of development results.

Led or participated in the formulation
139 standards

11 steel products
Won the "Golden Cup Award" for the physical quality of metallurgical products

The customer complaint rate of Anshan Iron and Steel fell year-on-year
15 %

The customer satisfaction rate
93.53 points

Amount of tender purchases
RMB 54 billion

Centralized procurement rate
91.25 %

The national market share of railway vehicle steel was about
44.93 %

The steel rail for high-speed railway produced by Pansteel Vanadium Co., Ltd. was awarded for the physical quality of metallurgical products "Special Quality Award"





Honest operation

Ansteel Group values the building of spiritual civilization, upholds legal compliance, and promotes the building of clean Party style. Through upright, honest and moral enterprise operation, we guarantee the sustainability of corporate development. Ansteel Iron and Steel under Ansteel Group won the state-level honor of "Observing Contract and Valuing Credit".

Compliance governance

Upholding legal compliance is the insurmountable bottom line for all management. Ansteel Group includes *Charter of Ansteel Group Culture* as one of the six management rules, emphasizes that it is necessary to refer to laws before decision-making, implement decisions according to law, and stick to legal production and operation. All actions of enterprises and employees should be operated within the framework of laws and institutions.

Anti-corruption

Ansteel Group actively shoulders the political responsibility for exercising strict governance over the Party, the internal life of the Party, the discipline of the Party and internal supervision within the Party. Ansteel Group also effectively resorts to supervision to inspect "the four forms in Party building" and maintained its "high-handed posture" in fighting against corruption. Besides, we have built a system mechanism to strengthen the system and mechanism for building anti-corruption awareness, strengthening anti-corruption prevention and control, and executing anti-corruption punishment mechanism, thus providing solid political support for Ansteel Group to win the battle of turning losses into profits and achieving sustainable development.



Comprehensively strengthening supervision

We set up the supervisory committee, established "three systems" of investor supervision, business supervision and special supervision, and coordinated the "1+3+5" model supervision system strongly supported by "five major platforms" to fulfill the responsibility for governance over the Party and enhance all-dimensional, full-process and full-coverage supervision of business management activities.

Fighting against corruption

From the four dimensions of professional assessment, supervision and evaluation, employee evaluation and self-evaluation of Party committees, 244 companies were evaluated in terms of corruption risks to inspect integrity risks and management issues and to purify the political ecology within the Party.

Continuing to deepen the rectification of inspections

We continued to promote the rectification promotion meeting and formulated the *List of Rectification Measures Responded to the Inspection Feedback of Central Committee* to continuously deepen the rectification of problems detected by the Central Committee. We also formulated the *Collection of Inspection and Rectification Highlights of Ansteel Group*, which was highly praised by the supervision team of the SASAC Party Committee.

Continuing to strengthen work style construction

We revised and implemented various systems such as the spirit of the eight-point decision on improving Party and government conduct and the expenditure for responsibility fulfillment and business performance. We seized the important time periods such as the Spring Festival, Dragon Boat Festival, Mid-Autumn Festival and National Day, etc., carried out 193 warning educations, sent 6,100 reminding messages through SMS and WeChat and 692 reminding emails, and organized 808 supervision and inspections. We seriously investigated, handled and reported all violations of the Central Committee's eight-point decision.

Audit management

Ansteel Group has set the problem-oriented goal of promoting reform, controlling risks and creating profits, enhanced internal audit supervision, and fulfilled auditing duty in a targeted and creative manner to improve internal control of the Group. In 2017, the two-level auditing organization of Ansteel Group completed 237 auditing projects and proposed 727 auditing recommendations,

which increased revenue and reduced expenditure of a total of RMB 623 million. Ansteel also further strengthened rectification of auditing problems, realizing benefits worth RMB 298 million through rectification; audited companies were urged to improve 11 systems and punish 9 responsible persons. Ansteel has achieved a remarkable result in rectification of auditing problems.





Providing excellent service

Ansteel Group improves the quality management system, strengthens quality research, and steadily improves product quality. We optimize product portfolio structure, improve production technology and technical equipment, and earnestly improve customer service to promote the transformation of the Company from a manufacturer to an excellent service provider.

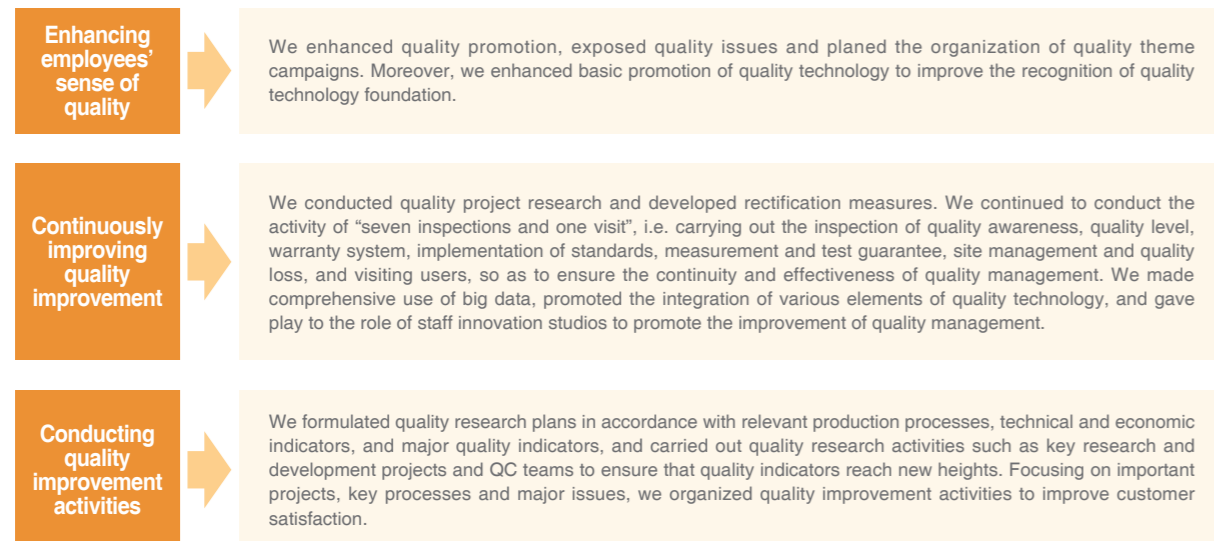
In 2017, 11 steel products of Ansteel Group won the “Golden Cup Award” for the physical quality of metallurgical products. Among them, the steel rail for high-speed railway produced by Pansteel Vanadium Co., Ltd. was awarded the “Special Quality Award”.



Enhancing quality management

Ansteel Group improves and upgrades various quality management systems and quality management standards, applies advanced quality management methods and quality

management modes to innovate in quality management. Subsidiaries set up the leading group on “Quality Month” activity to formulate activity plans and promote quality management.



Anshan Iron and Steel adopted various measures to improve product quality, such as control and management of key production process nodes, implementation of quality control projects, and deepening equipment inspection in production process nodes. The result of product quality improvement was remarkable, reducing the customer complaint ratio by 15%, and the quality difference rate by

13%, and increasing the completion rate of original product type in key orders by 17%.

Pansteel accelerated JLG (refine, quantitative, and implementation rigidity) management, upgraded the quality management level at the factory level, and continuously promoted and improved the building of the quality control system, reducing quality loss by RMB 35 million throughout the year.

Case Carrying forward the craftsmanship

Ansteel Group carried out quality literacy promotion activities, strengthened quality education and training, and continuously improved the quality and skills of employees. We extensively carried out mass quality activities such as quality improvement, quality research, technical competition and QC group, popularized quality knowledge, quality awareness and quality management methods. We carried out the activity of “mass entrepreneurship and innovation”, established quality benchmarks, promoted advanced quality, and formed a value orientation that respects grassroots creation and advocates the craftsmanship. We carried out quality literacy improvement activities, strengthened quality education and training, and continuously improved the quality and skills of grassroots personnel. We conducted activities such as “quality management team” and “quality improvement demonstration posts” to stimulate the public’s innovation enthusiasm, share and promote quality innovation results.

Providing excellent services

While maintaining the quality management, Ansteel Group strengthens its contact with customers to meet diversified needs of customers and solve customers concerns. We carry out customer evaluation and market evaluation of product quality and service quality to understand customer satisfaction and market recognition, laying a solid foundation for quality improvement and brand building.

Centering on customer needs, Anshan Iron and Steel has built a “three-in-one” (leadership + technology + marketing) marketing model, improved the industry representative system, and built an integrated marketing collaborative service system. We provide customers with new types of spot electronic transactions, sales of e-commerce, etc., and establish information service channels for VIP customers, and try to realize the linkage and integrated management of online and offline sales through the combination of platforms, so as to solve the problem of online and offline

sales disconnection. Anshan Iron and Steel has maintained a high level of customer satisfaction (over 90 points) for many years. In 2017, the customer satisfaction rate was on the increase, reaching 93.53 points.



The marketing service commitment of Angang Steel Company Limited

Improving service quality and meeting customer needs

Angang Steel Company Limited establishes customer service standards and publicizes its commitments to customers, regulates the marketing personnel's service behavior, and improves customer experience to fully satisfy customer service demands.

Financial settlement

With regard to the inquiry period of bank acceptance bill, the commitment is completed within 2 working days from the receipt of the acceptance bill to the next day, and the financial settlement period is promised to complete the settlement within 2 working days from the settlement date; as for the accuracy of financial accounts, the commitment reached 100%.

Logistics services

We undertake that the service of South China ship route is completed within 10 days from the arrival of goods at the departure port with loading conditions; the service of other routes is completed within 7 days to improve the timeliness of shipping. We undertake that the delivery is completed within two days when the delivery conditions are good to improve the timeliness of railway and automobile transportation.

Product and technical services

We undertake that we visit direct-supply customers once a quarter. We promise that we provide solutions instantly for simple problems and provide solutions within five working days for complex problems. For important issues, we provide on-site services and establish a file to provide follow-up service.

After-sales service

We undertake that personnel from subsidiaries arrive at the customer site within 24 hours (local) or 48 hours (non-local) and personnel from the headquarters arrive at the customer site to provide solutions within four days upon receipt of customers' complaints. We undertake that upon the establishment of the complaint file, we sign an agreement with the customer on solving the complaint within 15 days. We undertake that upon answering customers' consultation calls, we answer common questions instantly, reply to complex questions within 24 hours and provide follow-up service.

Case

Conducting strategic cooperation service with VIP customers

Anshan Iron and Steel and FAW Group established a VIP customer channel to realize information docking, and timely response to the needs of FAW Group, and carry out a number of EVI services. Anshan Iron and Steel provided timely, fast and convenient processing and distribution services for FAW Group through steel processing centers in Changchun, Tianjin and other cities, increasing the share of Ansteel automotive steel in FAW Group to 37%.

Anshan Iron and Steel and CRRC Group carried out strategic cooperation, regular high-level exchange visits and joint research and development cooperation in new markets, strengthened service and exchange, and facilitated China's manufacturing to go abroad. The national market share of railway vehicle steel was about 44.93% in 2017, ranking 1st in China for 14 consecutive years.

Anshan Iron and Steel makes exchange and conducts cooperation with CNPC and Sinopec to give full play to the advantage of Ansteel's broad product portfolio and improve product quality, logistics efficiency and customer satisfaction. In 2017, Ansteel ranked 2nd in terms of the number of winning bids of domestic pipeline projects, laying a foundation for future participation in the construction of a large batch of pipeline networks covering Oil Transportation Channel from Northern China to Southern China, the coastal internal transmission channel, the channel connecting northeast China, the offshore oil landing channel, and North China and East China coastal areas.

Providing excellent products

Ansteel Group focuses on satisfying customers' individual needs to develop high-quality, high value-added, market-leading products, and provides innovative and high-quality products through technological research and development.

- We successfully developed ultra-wide-strength martensitic stainless steel 40Cr13 for corrosion-resistant molds, becoming the only enterprise in China to produce martensitic stainless steel slabs with a width of more than 2,000mm, making a major breakthrough in high-end mold steel in China.

- The development of metal titanium products opened up the production process of Xichang Steel & Vanadium products of thin gauge and wide-width hot-rolled titanium coils. The surface quality of the products is good, with stably controlled finished product rate and surface quality; the development of titanium rod and wire products opened up the production processes of such products and realized the delivery capability.

Case

"Unblocking" the key obstacle of the Hutong Yangtze River Bridge

On October 22, 2017, the Hutong Yangtze River Bridge, the world's largest-span dual-purpose steel arch bridge and also the world's first public-rail dual-purpose bridge with over one kilometer of span, realized the integration of arch ribs of the special route of Tiansheng Port.

The smooth operation of the bridge cannot be realized without the support of a variety of new materials. As the only full-brand supplier, Ansteel Group innovated in its production processes and developed the highest-strength Q500qE bridge steel used in the key parts of the bridge. This kind of steel plate has not been used in domestic market at that time, and it has never been used in the construction of international bridges. Each piece of Q500qE steel plate has more than a dozen performance indicators on both sides of the head and tail, which was more than 20 indicators altogether. Each indicator restricts the others. With indicators higher than international standards, Ansteel Group guaranteed that the products were qualified in terms of all indicators. In addition to supplying 12,000 tons of Q500qE steel plates, Ansteel also provided nearly 40,000 tons of Q420qE and Q370qE bridge steel for the Hutong Yangtze River Bridge.



Case

Becoming the first CrMo steel plate supplier for ultra-wide (5-meter above) pressure vessel in the world

In November 2017, Ansteel Group successfully supplied more than 500 tons of steel plates for ultra-wide pressure vessel used in the largest domestic petroleum refining and chemical project under construction. This marked that the Company made a breakthrough in supplying steel plates of special specification for domestic ultra-wide pressure vessel and became the world's first enterprise with the supply capacity of CrMo steel plates for ultra-wide pressure vessels of more than five meters.

Ansteel Group solved a series of production and technical problems such as rolling limit, shape control and performance homogeneity in the production process of ultra-wide pressure vessel chrome-molybdenum steel plate of over 5 meters. It successfully developed a mature and stable production process of ultra-wide (5-meter above) steel plate rolling control and heat treatment. The steel plates produced are accurate in size, good in shape and uniform in performance, and have stable performance after heat treatment by customers, and meet expected requirements.

Protecting customers' privacy

Ansteel Group establishes a customer information protection system and strictly upholds the confidentiality system in accordance with the principle of "the person who is in charge of business is responsible for confidentiality". Through taking measures such

as restricting customer management rights and prohibiting the sales management system from accessing the internet, we have effectively protected customers' information. In 2017, there was no leakage of confidential information from customers.



By establishing rigid review procedure of supplier admission, Anshan Iron and Steel enlisted suppliers with legitimate business qualifications and the corresponding capacity into qualified suppliers. It also carried out dynamic management of qualified suppliers to ensure the suppliers' sustainable capacity of honoring contracts. In addition, Anshan Iron and Steel has set up an annual assessment mechanism of suppliers in order to optimize the quality of suppliers.



When selecting suppliers, Pansteel requires suppliers to have good business reputation and performance. Suppliers will be forced to quit the project when supplier violations are detected, such as law-violation, serious breach of the contract, and serious dishonesty acts.

Building the responsible supply chain

A high quality supply chain contributes to premium quality products. Ansteel Group attaches great importance to the responsible supply chain management, implements fair and impartial procurement, and creates a sustainable win-win supply chain mode of supply-procurement cooperation. We realize common development with suppliers and jointly create shared values to promote industry development and market prosperity.

Supplier management

Ansteel Group has improved the procurement management mechanism, enhanced supplier management, and built a supplier and customer information platform. Through the internet technology, we conduct online supplier registration and management and have realized the sharing of supplier resources within the Group. We include social responsibility clauses into the suppliers' admission conditions to

strengthen suppliers' admission review and also specify requirements of suppliers' requirements in law and regulation compliance, environmental protection, protection of workers' rights and interests, and honest operation. Regular evaluations and assessments are conducted accordingly. In 2017, Ansteel's responsible procurement ratio reached 100%.



Case

Ansteel supplier and customer information platform launched for operation

Ansteel Group promotes the construction of the bidding and procurement platform and has established a supplier information sharing system. The supplier customer information platform covers procurement suppliers of goods, engineering and service for production and operation of Ansteel Group as well as all sales customers of the finance sharing system. The platform shares information from the government and authoritative websites to see that suppliers' information is constantly updated and automatically verified and that all functions of supplier management are realized online. The platform will become a comprehensive service platform integrating the sharing of suppliers' information, business collaboration and data analysis of Ansteel Group. Owing to data of supplier information, data architecture and result platform, the platform realizes the management and operation of suppliers during the whole life cycle. In 2017, the amount of tender purchases was RMB 54 billion and the centralized procurement rate was 91.25%.



Transparent procurement system

Aiming at establishing a "transparent, cost-saving, safe and efficient" procurement system, Ansteel Group has set up a unified bidding platform. It implements unified bidding management by strictly following national laws and regulations as well as *Regulations on Procurement Management in Ansteel Group*, *Regulations on Bidding Management in*

Ansteel Group and other procurement management systems formulated by its subsidiaries. In 2017, Ansteel Group's rate of electronic invitation to tender and submission of tender reached 100%, and public bidding rate was 71.89%. Thanks to highly centralized procurement information, the procurement process became open and transparent.



Case

Innovating in the procurement management mechanism for operation

In order to further optimize procurement responsibilities, fulfill responsibilities and improve procurement quality and efficiency, Ansteel Group systematically promoted procurement rectification, established and operated the new procurement management mechanism of tiered pressure transfer, tiered index decomposition, tiered responsibility implementation, tiered vitality stimulation and tiered performance assessment. From qualification review of suppliers, bids evaluation and price negotiations to bid awarding, the whole process of tendering is open and transparent, with clear responsibility and smooth process. Consequently, the procurement responsibility is implemented, the procurement behavior is regulated and the procurement cycle is shortened.





Promoting strategic cooperation

Ansteel Group adheres to mutual benefits, strengthens win-win cooperation, and creates shared values to jointly promote industry development and market prosperity.

Enhancing cooperation

Ansteel Group deepens strategic cooperation with stakeholders such as the government, enterprises, financial institutions and scientific research institutions, continuously improves the level of cooperation, and expands cooperation areas to promote the shared development of enterprises and society.



Case Conducting exchange and cooperation with foreign enterprises

In order to stabilize the iron ore strategy, Ansteel Mining has successively cooperated with eight foreign companies in 2017. The iron ore resources from the mines are of good quality and the total resources reach more than 4 billion tons. In addition, Ansteel Mining and some steel mills have carried out comprehensive research work. To expand the supply of auxiliary materials, the company also cooperated with Mongolian coking coal production enterprises, such as Mongolia Erdeng Taolegai Coal Mine and Hutt Coal Mine.

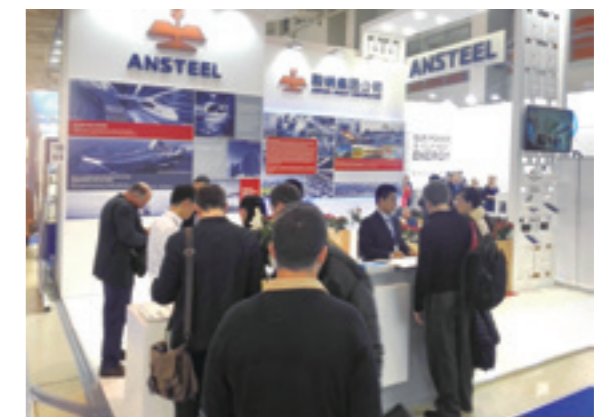
	Key partners	Cooperation content and significance
Government	The Municipal Government Of Anshan	Jointly developing iron ore resources of Anshan and building industrial parks to set up a model of mixed-ownership economy
Enterprise	China First Heavy Industries, China Youth Travel Service Group, DHI DCW Group Co., Ltd., Dongfang Electric Corporation, and State Development and Investment Corporation, etc	Forming cross-industry alliance and making use of various advantages in research and development of procured products, engineering projects, internationalized operation, capital operation, urban service industry, industrial internet and management, etc
Scientific research institutions	China Iron & Steel Research Institute Group, University of Science and Technology Liaoning, Central Iron and Steel Research Institute, and Institute of Metal Research, Chinese Academy of Sciences, etc	Conducting technical cooperation and progress & results docking
Banks	Industrial Bank Co., Ltd., China Construction Bank	Carrying out debt-to-equity business cooperation, and establishing long-term and stable strategic partnership to strengthen alliances and complement each other's strengths, striving to achieve de-leveraging goals

International exchange

Based on a global perspective, we actively organize and participate in relevant international forums, conferences and events, and build experience and achievements sharing platforms to enhance interactive exchanges, and share experience and standards of Ansteel Group.

We participated in the BRICS Business Forum Tang Fuping, then Chairman and Party Secretary of Ansteel Group, attended the BRICS Business Forum and discussed trade and investment, financial cooperation and development, interconnection, and blue economy with other representatives by focusing on "Deepening the BRICS Partnership and Opening a Brighter Future".

We participated in the 50th Annual Meeting of the World Steel Association, and discussed three topics with the representatives of various enterprises, i.e. the challenges faced by steel sector in the value chain of construction industry, the future roadmap of breakthrough technology and development priorities, and the impact of circular economy on steel demands.





Promoting progress of the industry

While developing itself, Ansteel Group actively promotes the construction of industry standards, takes the lead to organize and participate in exchange activities within the industry to promote industrial exchange and improvement and drive the industry progress.

Standard formulation

In 2017, Ansteel Group led or participated in the formulation of 139 standards, including several international standards, 66 national standards, 58 industry standards, and 10 group standards.

Technological exchange

Ansteel conducts technological cooperation and benchmarking exchange activities with universities and colleges, and draws on advanced management experience through industry benchmarking to improve the level of the Group and the industry.

Technological exchange and cooperation of Pansteel

- Organizing relevant companies to visit 27 renowned domestic enterprises and research institutions such as the Central Iron and Steel Research Institute, and reaching a joint cooperation agreement on building four joint laboratories.
- Signing 16 scientific and technological cooperation contracts with Northeastern University, Shanghai University, Central Iron and Steel Research Institute and other institutions, with a total contract value of RMB 19.965 million.
- Specially inviting the academician Wang Guodong from Northeastern University and the delegation of more than 20 teachers to Pansteel for academic exchange, including four special lectures as well as 15 special exchange activities covering hot rolled products and processes, cold rolled products and processes, steelmaking and continuous casting, ore beneficiation and iron making.

Technological exchange and cooperation of Anshan Iron and Steel

- Organizing scientific and technical personnel to participate in more than 10 academic conferences in the industry such as the 11th China Iron and Steel Annual Conference, and submitting more than 150 papers, and addressing more than 50 papers.
- Conducting technological exchanges with University of Science & Technology Beijing, CSIC 725 Institute (Luoyang Ship Material Research Institute), Harbin Institute of Technology, Harbin Engineering University, Tianjin University and CSSC 611 Institute, etc.
- Conducting energy-saving benchmarking activities with enterprises such as Baosteel, Shasteel, Shougang Group, Tangsteel and Baogang Group. Through industry benchmarking, Anshan Iron and Steel learned from advanced management experience, improved energy management, and promoted the improvement of various energy indicators.

Promoting regional development

Ansteel Group pays taxes according to law, actively promote localized operation, improve local employment, and bring considerable economic, social and environmental benefits to local society through business development. The Company regards itself as the “leader” of Liaoning revitalization, optimizes the layout of state-owned capital, fully implements the responsibility of maintaining and increasing value of state-owned assets, and prevents the loss of state-owned assets and major risk events. In 2017, Ansteel paid a total of RMB 11.067 billion of taxes.

Regional construction

Ansteel Group actively cooperates with the local government to make positive contributions to the development of regional economy. In 2017, Anshan City and Ansteel conducted a joint promotion project for the construction of industrial parks, which aimed to build six industrial parks (i.e. the mineral product development and comprehensive utilization industrial park, the coal tar deep processing industrial park, the modern logistics industrial park, the engineering technology industrial park, the steel further-processing industrial park, the powder new material industrial park) with increasing demonstration and radiation-driven effects and enhancing regional position and influence; we developed three major sectors, namely,

information sector, modern city comprehensive service sector and financial sector.

In 2017, Ansteel Mining established a joint venture with Liaoning Xin'an Holdings Co., Ltd. based on an agreement with Anshan City on the joint venture and cooperation of Xi'an Mount Iron Mine. The mining service project will achieve a breakthrough upon construction. Entrusted by the Anshan Municipal Party Committee and Municipal Government, the development of magnesite resources in Haicheng will be planned in a unified manner. A new model of mining custody services will be utilized in the future to participate in the development of magnesite resources.

Promoting employment

Ansteel Group pays attention to the introduction of college graduates and created 432 jobs for college graduates throughout the year. The investment enterprises of Ansteel Group continued to maintain flexible employment methods, made full use of local human resources, and promoted the employment of local residents and the stable development of enterprises.

Ansteel Group actively promotes the localization of employees, creates more jobs, and organizes trainings of vocational skills to cultivate local professionals in order to promote economic development. As of the end of 2017, the total number of employees overseas was 462, of which 46 were from China, and the localization rate of employees was 90.04%.



Environmental Protection

Drawing the Background of a Beautiful China

Human is born in nature, and human and nature are the shared community of life. Lucid waters and lush mountains are invaluable assets, protecting the environment is to protect the productivity and improving environment is to develop the productivity. Ansteel Group actively responds to the call of the state and implements the concept of green development in an all-round way. We build green factories for circular economy and sustainable development, continue to increase investment in environmental protection, and actively introduce advanced environmental technology, in order to integrate our survival and development with green development, and contribute to building a beautiful China and realizing the people's need for a better life.

Investment in energy conservation and emission reduction in 2017

RMB 1.367 billion

Environmental performance in 2017:

Compared with that of last year, comprehensive energy consumption per ton of steel was decreased by	new water consumption per ton of steel by	energy consumption per ten thousand yuan of output by
0.38 %	10.62 %	22.91 %
and emission of sulfur dioxide by	COD and nitrogen oxides by	Nitrogen oxide emissions decreased year-on-year
3.58 %	16.45 %	3.26 %

Pansteel Group Xichang Steel & Vanadium was awarded as "Environmentally-friendly Enterprise for Cleaner Production in China's Steel Industry"

Anshan Iron and Steel Co., Ltd. Bayuquan Subsidiary was included in the first batch of "Green Factory" certified by the Ministry of Industry and Information Technology

No major environmental pollution accidents happened throughout the year





Development led by green strategy

The ecological progress will benefit our future generations. Ansteel Group firmly establishes the concept of green development, builds and improves environmental management system and integrated environmental management platform, and strengthens environmental training and education, aiming to accelerate the ecological progress and enhance our efforts to build a green and beautiful Ansteel.

Environment management system

Ansteel Group has always fulfilled the social responsibility as a SOE and has implemented the new *Environmental Protection Law* and new environmental standards of steel industry. We regard energy saving and emission reduction as an important pointcut and a

breakthrough in promoting the green recycle, low carbon development and ecological progress, so as to realize the simultaneous advance of production and operation and environmental protection, effectively promoting the ecological progress.

Ansteel Group sets up Safety and Environment Protection Department in headquarters and Division of Environmental Protection and Energy Saving in subsidiaries to strengthen environmental management from top to bottom, improving the level of environmental management. We also constantly improve the energy saving management system and promote the energy saving management system with efficient process, clear goals and responsibility.

Ansteel Group follows the requirements of laws and regulations like *Environmental Protection Law* and *Environmental Impact Assessment Act* to implement "three simultaneous" system for environmental protection management strictly and carries out environmental assessment in a timely manner. In 2017, Anshan Steel carried out environmental assessment for 34 projects and Pansteel carried out environmental assessment for 11 projects.



Ansteel Group consciously accepts and actively cooperates with the Environmental Protection Supervision Work Group of the Central Committee. Meanwhile, the Group takes this opportunity to conduct special self-inspection and self-check activity on environmental protection work and has actively improved the pollution control and environmental management level of the subsidiaries. In 2017, a batch of environmental problems were solved, which effectively improved the Company's social image.

Ansteel Group implements environmental responsibility actively. The Group has included ecological progress and environmental protection into the important content of assessment of the leadership and leading cadres at all levels to give full play to the incentive function of assessment and evaluation. In 2017, Ansteel Group formulated Regulations on Environmental Accountability and Special Measures for Environmental Protection Assessment, and implemented environmental responsibility investigation and management of leadership, which further enhanced the environmental control capacity.

Training and exchange on environmental protection

Through the combination of outward training and internal training, Ansteel Group continues to train cadres and employees on relevant environmental protection laws and regulations, standards, technologies and management. We organize the staff who are responsible for the environmental protection work in all subsidiaries to carry out the training on contingency plans for environmental emergencies and training on total amount of pollutants.

We give full play to the internal collaboration to create an environmental exchange mechanism, build a sharing platform for environmental information, indicators, technology and resources among production bases, and strengthen the environmental communication. The benchmarking exchange activities effectively enhance the environmental management and technology level among different production bases.

- Anshan Iron and Steel launched over 10 phases of "three places" (Anshan, Bayuquan, Chaoyang) energy conservation benchmarking activities and implemented system benchmarking in the way of video conference to find out the shortages and to draw on each other's strengths.
- Pansteel organized the equipment and energy conservation and emission reduction technology progress promotion meeting. Pangang Steel & Vanadium, as well as its dynamic center and research institute all shared their experience, and 40 relevant managerial personnel from institutes like Pansteel Mining and Xichang Steel & Vanadium attended the intimate learning.
- The environmental protection managerial personnel from six subsidiaries, including Pangang Steel & Vanadium and Xichang Steel & Vanadium in Sichuan region, all came to brother companies like Anshan Iron and Steel, Ansteel Mining and Ansteel Group General Industrial Development Co., Ltd. in Liaoning to learn, communicate and make an on-the-spot investigation.



Practicing green ideas and strengthening the publicity of environmental protection

During the National Energy Conservation Week and the National Low Carbon Day, we organized energy conservation, environmental protection and low carbon publicity activities. In June 2017, a summary entitled *Playing the Green and Low-carbon Tune of Steel Life* was published on *Ansteel Daily*, fully introducing the work and achievements of Ansteel Group in building a resource-saving and environment-friendly enterprise. It also made a comprehensive report on the energy saving and environmental protection, green production, low-carbon development and resources recycling of subsidiaries, which has effectively created a green development atmosphere for energy saving and carbon reduction, diligence and frugality and sustainable development.





Deepening green production

Promoting clean production, exploring new approaches and new fields for comprehensive utilization of wastes was the key point of the green development for Ansteel Group in 2017. We realized the large-scale, intensive and modernized technology and equipment of the whole line, and accelerated the introduction and application of high efficiency and energy saving technology, to promote the implementation of energy saving projects, efficient use of resources and expansion of the comprehensive utilization and diversified development of waste. We fully accomplished the energy consumption target of 2017, not only creating good social benefits, but also achieving remarkable economic benefits.

Conducting clean production

Insisting on the principle of “efficiently guaranteeing supply, operating stably, optimizing indexes and reducing cost”, Ansteel Group has refined energy management, promoted energy conservation and emission reduction in the system, and vigorously carried out clean production.

The Group has invested RMB 1.367 billion to launch and implement 92 energy conservation and emission reduction projects, among which over 40 energy conservation and environmental protection projects of Anshan Iron and Steel and Pansteel has been completed.

Leading in technology and equipment and mature energy conservation technology

We promote green, recycling and low-carbon development to complete the production of iron and steel products with minimum consumption and emission. We are leading in main technology and equipment in the nation and we have complete, advanced and mature energy conservation technology to develop and utilize green energy, thus achieving coordinated development of production management and environmental protection.

Carrying out clean production competition to raise the awareness of green production

We launched special problem-tackling competition themed “controlling equipment oil leakage, achieving cleaner production”. In total, 513 key items were completed and 1,455 tons of oil were saved. We also carried out a problem-tackling competition focused on pure steel smelting in the system and 89 indexes reached Level D standard.

Further improving energy conservation and emission reduction technology

In 2017, we implemented a series of key energy conservation and emission reduction projects, including Pangang Steel & Vanadium’s newly built 80,000 cubic meter converter gas holder project, Pangang Steel & Vanadium’s blast furnace No. 4 TRT capacity expansion transformation, renovation of circulating water for initial rolling of Pansteel Group Jiangyou Great Wall Special Steel Co., Ltd. in Wudu district, odor control in the production area of Pangang Steel & Vanadium Ironmaking plant, and smoke dedusting system renovation of converter No. 2 in Pangang Steel & Vanadium Steelmaking plant.

Promoting low-carbon production

Ansteel Group adopts a contract energy mode to promote the application of low-carbon technology, widely spread the use of energy conservation technology and equipment like green lighting, energy-efficient motors and three-dimensional flow and reduce environmental pollution. We have conducted carbon emission management, paid close attention to the development of national carbon market, and national and local laws and regulations on greenhouse gas emission and actively promoted the building of carbon emission trading management system.



In 2017, we finished carbon emission trading enterprise list declaration, carbon emission baseline verification, research of the impact of carbon emission trading market on steel enterprises, the third-party verification of key enterprises’ carbon emission baseline and the fourth-party spot check of carbon emission reports.



The total power of green lighting transformation projects has reached 3.44 million kilowatts and 10 million kilowatt hours of power can be saved each year. We have carried out renovation for over 200 energy-saving water pumps and have transformed 2 energy-saving fans, which can save 12.4 million kilowatt hours of power each year. In 2017, Anshan Iron and Steel organized and implemented 26 energy-saving projects. The annual benefits of these energy-saving projects are expected to reach RMB 90.98 million.



We created a benefit of RMB 87.67 million accumulatively throughout the year by increasing the TRT power generated by each production base and improving the recycling and utilization of secondary energy, like converter gas, blast furnace gas, and waste heat of blast furnace slag water. Pangang Steel & Vanadium and Xichang Steel & Vanadium optimized the recycling and utilization of waste heat and waste energy, which saved 16,209 tons of standard coal in the year. Anshan Iron and Steel introduced sintered vertical kiln technology, which played a leading role in technology advancement of sintered waste heat recycling.



Using waste heat to supply heat for the public

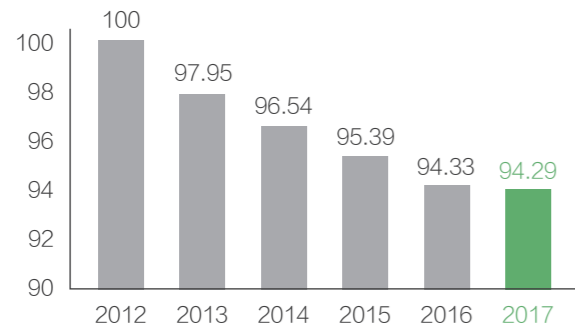
Anshan Iron and Steel and Anshan Municipal Government have worked together to use waste heat resource to supply heat for the city. We have increased the municipal heating area by years since 2017. In winter of 2017, we reached the goal of increasing municipal heating area by 5 million square meters, and the low vacuum heating projects of newly increased power generating set No. 4 in the steam engine operation area, dry quenching power generating set No. 5 in the north operation area and power generating set No.1 in the north operation area were all put into production on schedule. Burning coal for heat has been gradually phased out, which not only meets the requirement of environmental protection and emission reduction, but creates an estimated benefit of RMB 18 million.

Case

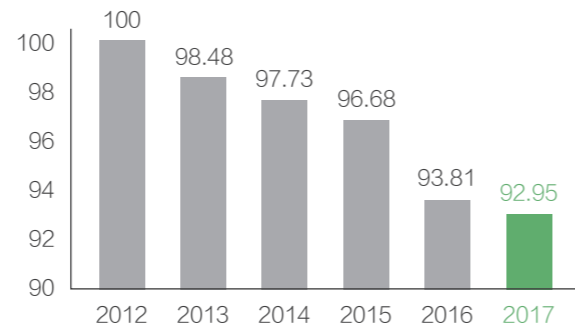
Xichang Steel & Vanadium — the biggest roof distributed photovoltaic power generation base in Southwest China

Xichang Steel & Vanadium and Yingli Group jointly built the biggest roof distributed photovoltaic power generation base in Southwest China, with a total installed capacity of 20.1 megawatts. It can generate 21.22 million kilowatt hours of power each year, equal to saving 7,639 tons of standard coal and reducing carbon dioxide emission by 21,156 tons. Xichang Steel & Vanadium was awarded the title of “National Verdurization Model Unit” by National Afforestation Environmental Protection Commission and “Environmental-friendly Enterprise for Cleaner Production” by China Iron and Steel Industry Association in succession.

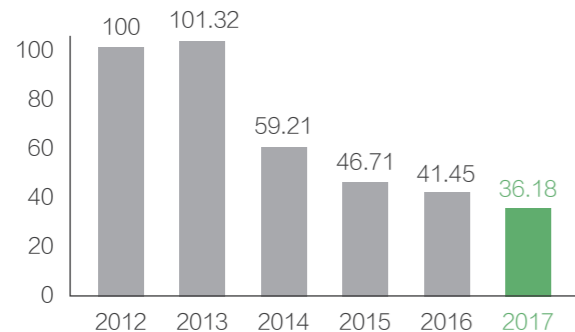
Rangeability of Anshan Steel's comprehensive energy consumption per ton of steel (%) (compared with the year of 2012)



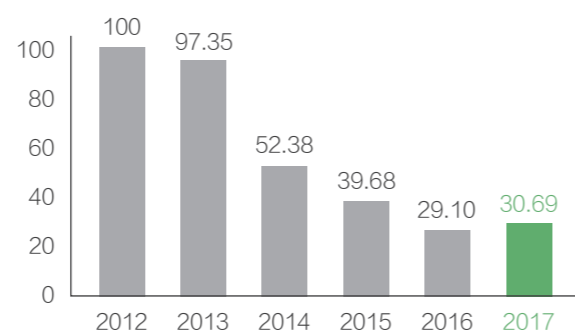
Rangeability of Pansteel's comprehensive energy consumption per ton of steel (%) (compared with the year of 2012)



Rangeability of Anshan Steel's smoke dust emission per ton of steel (%) (compared with the year of 2012)



Rangeability of Anshan Steel's sulfur dioxide emission per ton of steel (%) (compared with the year of 2012)



Water resources protection

Ansteel Group actively take measures, and ensure the discharge of the wastewater to meet the standards and reduce environmental pollution from the source.

Anshan Iron and Steel enhances the basic management of water system, and promotes technology innovation. For the unfavorable factors of system water quality brought by water saving and emission reduction, we ensure the

dynamic water quality balance by innovative ways, like building a database and a calculation model. We also carry out data analysis regularly to guide the economic operation of the system and guarantee the safety of water quality. The Xidagou deep treatment project constructed by Anshan Iron and Steel has been put into use and will ensure that the discharge of water can reach the standard.

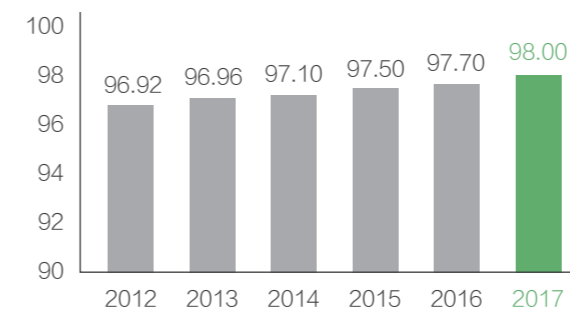
The measures taken by Anshan Iron and Steel to save water

- **Optimizing process to save water:** After conducting research systematically, we replaced new water used by some systems which had not realized cascade water utilization with purified water. The company also implemented many water-saving projects, including renovation of 2150 water system and 2# blast furnace water system, which could save 300 cubic meters of water per hour.
- **Improving water treatment system.** We have relieved the system's pressure of emission reduction through loading operation of Xidagou's deep treatment system and desalting water station. We have strengthened concentration ratio management of circulating water system, which improves concentration ratio by over 20% compared with that of last year in average. We have reduced the use of new water and the recycling rate of water is as high as over 98%.
- **Strengthening user management and control in the control center:** We have implemented timing and quantitative control to water replenishment and drainage of each subsidiary in the system, strengthened prediction and plan management of drainage rangeability for maintenance of each production line, lowered the impact of water consumption fluctuation and large amount of drainage for maintenance to the system and reduced external displacement of water.

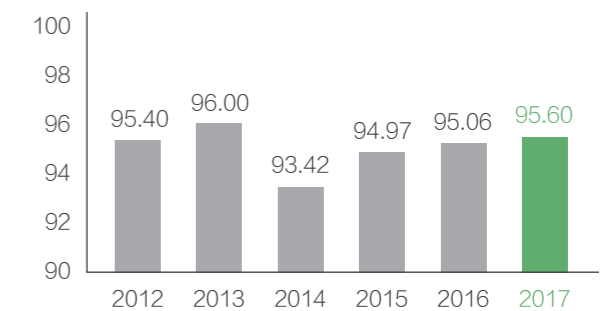
The measures taken by Pansteel to save water

- Invested RMB 16.20 million to collect and treat external waste water in discharge outlet No. 2, 5, 8, 12.
- Invested RMB 16.96 million to implement industrial wastewater treatment system renovation projects, including optimizing Pangang Steel & Vanadium industrial circulating water system, and standard improving and transformation of Pangang Steel & Vanadium cocking wastewater treatment system.

Anshan Iron and Steel water recycling rate from year 2012 to 2017 (%)



Pansteel water recycling rate from year 2012 to 2017 (%)



Solid waste utilization

Ansteel Group actively carries out comprehensive utilization of industrial solid waste resources, promotes the green production and green consumption, and thus promotes the green development of the iron and steel industry.



Case

The low-residue and green smelting time of blast furnace smelting

In 2017, the Blast Furnace Raw Materials Production Technology Research Project team from the Metallurgic Technology Institute of Ansteel Group Research Institute) took into account the reality of iron-making furnace production and proposed that the use of magnesium oxide, the solvent, should be cancelled or slightly increased during the process of sintering. The theory proved to be a success after industrial application at the Iron-making Factory of Angang Steel Company Limited. The slags generated per ton of iron production was reduced by 20 kg, coke consumption by one kg, and carbon dioxide emission was significantly reduced, symbolizing that Ansteel blast furnace iron-making entered a new era of green metallurgy.

After promotion at Ansteel Group, the technological achievement can effectively reduce discharge of slags and emission of waste gas generated by blast furnaces and cut down on fuels consumption of blast furnaces, thus realizing energy saving and emission reduction.

In 2017, Pansteel followed the principle of reduction, reclamation and recycling to utilize and dispose industrial solid waste and enhanced disposal and utilization management. The comprehensive utilization rate of main industrial solid waste reached 99.77%.



Exhaust gas controlling



New dust-removal equipments of Pangang Steel and Vanadium was almost completed

The new technology of dealing with the sintered ash using of sintered dust-removing machine

Ansteel Industrial Group applied sintered ash generated by Anshan Steel during production to produce potassium chloride and get iron concentrate product through enrichment, which achieves recycling and utilization of sintered ash and conforms to the development direction of market demand and the national industrial policy.

The new technology of harmless reclamation and comprehensive utilization of blast furnace dust

Ansteel Industrial Group uses fire fuming enrichment technology to enrich the iron element in blast furnace dust into slag and then obtains direct reduced iron and fine iron powder through mineral dressing. Carbon element is turned into part of the fuel in rotary kiln and non-ferrous metals like zinc and lead are fumed and enriched into second-rate zinc oxide powder, which is used to extract non-ferrous metal.

The new technology of using steel tailings to produce steel slag powder

In 2014, Slag Development Company built the world's first high pressure roller press slag powder production line with an annual capacity of 500,000 tons, and the adopted technologies, including twice selection and separation, three magnetic separations, and separation and grinding, all kept ahead in the world. The steel slag grinding technology reduces the destruction of steel slag to environment.



Developing green products

Green development is a new pattern of national development, and is also a necessary way for the development of enterprises. The five development concepts of "Innovation, coordination, green development, opening up, sharing" portray a new path for our development. We actively develop green products to help the green and low carbon development of customers and regions.

Industrialization of using blast furnace slag to extract titanium

Blast furnaces Slags generated by of Pansteel contains a high content of titanium dioxide. Since it was put into production in the 1970s, China, Sichuan province, Panzhihua city and Pansteel have been being engaged with technological research of high titanium bearing blast furnace slag. In 2010, Pansteel independently designed and built the pilot line of high temperature carbonization and low temperature chlorination, which provided another raw material path for high grade chlorinated titanium dioxide

powder production and created new prospects for the development of China's titanium industry in the future.

In 2017, the hundred-ton nanometer TiO₂ demonstration line of Pansteel was put into use, and industrialization demonstration project of using blast furnace slag to extract titanium started construction. The implementation of the projects has raised the voice of Panzhihua in the global titanium industry chain and promoted structural adjustment and transformation and upgrading of our nation's titanium industry.

Developing colored coating products

Colored coating product is more and more widely used in all sectors because of its advantages of energy conservation, environmental protection, corrosion resistance and longevity. It has gradually replaced spray coating product whose cost is hard to control and has a low environmental protection efficiency. The colored coating plate of Ansteel Group facilitates raw material transformation of domestic enterprises and is used in the key projects of China's 13th Five-Year Plan, like Beijing's new airport, the world's largest airport. The colored coating plate of Ansteel Group takes up 80% of all the colored coating plates used in this Airport, which greatly improves Ansteel Group's influence in the industry.



Case

Facilitating the first high corrosion resistance laboratory bench in China to replace spray coating with colored coating

A laboratory in Beijing attempted to replace spray coating plates used for its laboratory bench with colored coating plates. At the request of the customer, Angang Steel Company Limited cold rolling plant firstly adopted the three-coating technique to produce super-high strength and corrosion-resistant colored coating plate, which can be soaked in concentrated sulfuric acid of 95% for 10 minutes without damage.

Ecological protection

Good ecology breeds flourish civilization, and bad ecology can lead to rotten civilization. Ansteel Group pays attention to ecological protection in the process of production and operation, especially the mine reclamation and factory greening. We are strive to build a green ecological Ansteel that can develop the harmonious coexistence between human and nature and contribute to the promotion of ecological progress, realizing lucid waters and lush mountains and building a beautiful China, so as to enable the green to integrate into the whole process of ferrous metallurgy production.

Mine reclamation

Ansteel Group adheres to unified planning for production operation and environmental protection. The Group has carried out environmental protection governance and reclamation and reforestation to improve the overall image of mine, promote ecological progress and gradually root the concept of building the green mine into the heart of the public.

Pansteel	Ansteel Mining
<p>Pansteel Mining Company has carried out investigation to the current ecological environment and based on the production arrangement of limestone mine to choose greening method suitable to the climate and soil characteristics to recover the stopes. In 2017, Pansteel Group invested over RMB 5.2 million to implement the mining site recovery of the three platforms (1380-1435m) of Jianshan stope of Panzhihua Iron mine, 1,440-1,500m platform of Xiaojiawan dump and 1,436-1,448m platform of limestone mine stope, and the area of reclaimed land reached 296 mu.</p>	<p>In earlier 2017, with the strong support of the Ministry of Land and Resources, the Ministry of Finance and Liaoning Provincial Department of Land and Resources, Anshan Land and Resource Bureau and Anshan Mining jointly implemented the project of <i>geological environment governance and recovery of iron mines surrounding Anshan (phase three)</i>, with an investment of RMB 120 million. Through ways of slope shaping, out-soil engineering, drainage project and planting project, 5,000 mu of land was recovered, which has effectively improved the environment surrounding the quarry.</p>

Factory greening

The Group actively beautifies the appearance of the factories, and improves rectification effects earnestly to enhance the overall image of the company and create good working and living conditions for the staff. We use practical actions to contribute to the sustainable development of Ansteel Group, characterized by greener mountain, cleaner water, bluer sky, fresher air, more pleasant environment and steadier economic growth.



- In 2017, Ansteel Group launched a special activity to remove flying-dust in the factories, and the flying-dust was greatly reduced.
- In 2017, Anshan Iron and Steel carried out "one garden two belts" construction and green land upgrading, and complemented the planting of vegetation in protection forests in the south, west and east of the factories and in Lingshan quarry. We also upgraded greening of roads in the exhibition center and Zhuoxiu garden. These have greatly improved the appearance of the factories and the ecological dustproof capacity is increased day by day.
- In 2017, Pansteel increased input on greening in the factory and conducted comprehensive environmental governance in the factory. The company invested nearly RMB 8 million to afforest and reclaim the mine dumps, stopes, slopes and open space in the factory, aiming to build an ecological environment in harmony with surrounding urban areas. We also strengthened comprehensive governance of dirty and messy environment and improved environmental quality in the factory.
- In 2017, Ansteel Mining invested RMB 1.91 million, reclaimed land of 50,000 square meters and planted 80,000 locusts. The company has accumulatively invested RMB 497 million, planted 6 million arbors, 12.7 million shrubs, and 600,000 square meters of lawn, completed a restoration area of over 22.28 million square meters and the reclamation rate reaches 90%.

Case Bayuquan Steel Subsidiary listed into the first batch of "Green Factory" in China

Angang Steel Company Limited Bayuquan Steel Subsidiary carried out the idea of "six-in-one" green development, and was listed in the first batch of "Green Factory" certified by the Ministry of Industry and Information Technology in 2017.



Green office

Ansteel Group advocates employees to practice the concept of green office. By various forms of publicity, such as thematic meeting, internal publications, Internet, etc., Ansteel strengthens the education on energy conservation and emission reduction to enhance the employees' awareness of energy conservation.

	<ul style="list-style-type: none"> ● Saving power for air conditioning: The temperature of air conditioner is no lower than 26°C in summer and is no higher than 20°C in winter. When there is no one in the office, we do not use the air conditioner. When using the air conditioner, we do not open the doors and windows. ● Saving power for lighting: Natural lights are used. Lights should be turned off when rooms are empty and we won't turn on the light in the daytime and forbid the light turning on day and night. ● Saving power for office automation equipment: The standby time of office automation equipment should be reduced and closed off in time.
	<ul style="list-style-type: none"> ● Strengthening the awareness of water saving and using water-saving equipment. ● Enhancing maintenance of water equipment to timely find and solve the problems. ● Promoting recycled water to improve the utilization rate of water resources. ● Developing the habit to turn off the faucet immediately after using the water and putting an end to long flowing water.
	<ul style="list-style-type: none"> ● Strengthening daily management of the company car: providing strict inspection to reduce fuel consumption. ● Enhancing usage management of the company car: providing reasonable arrangement for better coordination. ● Staffs should reasonably choose routes so that several stations are contained in one route and several businesses can be completed in one station. ● Going to the nearby stop for taking the company car to improve the efficiency. ● The private use of the company car is prohibited.



Talent Cultivation

Building a Talent Team to Promote Business Development

The report of the 19th CPC National Congress states that we should foster model spirit of workers and quality workmanship, accelerate the building of an educated, skilled, and innovative workforce. Business prospers with talents, and talents come together for a successful business. Ansteel Group has established a systematic talent management system to comprehensively improve talent service level and make it more accessible. We have created a competitive environment for talents, established a sound management system suitable for their development and growth, and cared for them. Through such efforts, we have built a talent team that is energetic, enthusiastic and promising.

On-the-job employees in 2017	Labor contract signing rate in 2017	Total training participated by all employees in 2017
118,898	100 %	39,276 person-times

Total investment in employees training in 2017	Total training hours in 2017
RMB 82.95 million	34,057





Motivating the team

Ansteel Group strengthens the technological talent team building, deepens talent absorption and cultivation, establishes and improves the employee management system. We pay attention to employee training and growth, and have enhanced staff training to improve employees' overall capability, which provides high-caliber and professional talents with strong overall ability for the Group. Through such efforts, we aim to build a strong iron army for the Group.

Channels for employee development

Talents are the basis for business prosperity, and the development of talents is inseparable from the cultivation and support of the company. Upholding the concept of "producing steel and cultivating talents", Ansteel Group opens up talent promotion channels and establishes five- hierarchical manpower system with engineering, R&D, highly skilled, purchase and sales, and economic talents. There are 2,030 employees in total, including more than 9 second-class experts and 14 chief technicians.

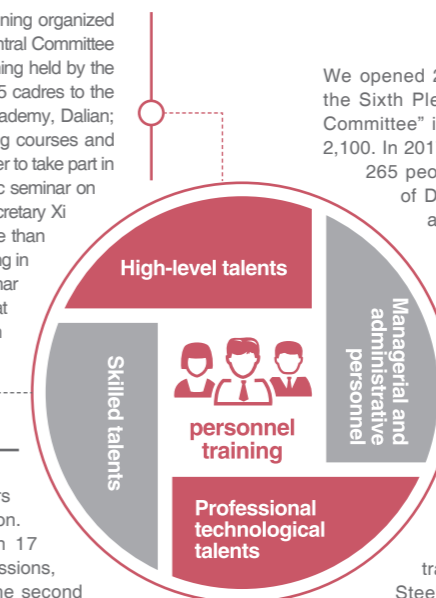
Ansteel Group conscientiously implements the annual employee education and training plan. Taking the optimization and reform of the Group's human resources as an opportunity, we prioritize the development of talents to continuously improve the professional quality of the staff and release the vitality of training in guiding employees and promoting innovation, through which we make the training more attractive and can realize the effective docking of training work with production and operation.



In 2017, Ansteel Group mainly launched the following training programs:

We selected 34 cadres to participate in the training organized by the Organization Department of the CPC Central Committee and the SASAC, selected 17 cadres to the training held by the National Organization Cadres Academy, and 15 cadres to the training held by China Business Executives Academy, Dalian; we held young and middle-aged cadre training courses and selected 79 leaders at the division level and higher to take part in the off-job training and held a high-level strategic seminar on the spirit of the speech delivered by General Secretary Xi Jinping to the Liaoning Youth League with more than 430 trainees and 54 senior executives participating in the discussion; we also held the High-level Seminar on Learning and Implementing the Party's Spirit at the 19th CPC National Congress with more than 290 attendants from Anshan and Panzhihua.

We conducted training of operation leaders and supervisors at the front-line of production. In 2017, we trained 850 supervisors in 17 sessions and 144 operation leaders in 3 sessions, organized 1,547 people to participate in the second Skill and Knowledge Network Competition of the Steel Industry and selected 16 people to participate in the ninth session of the National Iron and Steel Industry Vocational Skills Competition Referee Training Class. We also opened 12 skill training classes of different levels in the training and education center, training nearly 300 technical personnel.



We opened 23 training courses that focus on "the spirit of the Sixth Plenary Session of the Eighteenth CPC Central Committee" in Anshan and Panzhihua, covering more than 2,100. In 2017, we organized three training classes, including 265 people, covering the Secretary of CPC, Secretary of Discipline Inspection Commission, other leaders at the deputy division level and higher, heads of organization and publicity departments and secretaries of Party branches at the grassroots level.

We organized 130 new employees with bachelor's degree and higher to participate in English training, selected 40 professional technological personnel to participate in various training classes organized by the China Iron and Steel Industry Association, and opened more than 400 training classes on technological personnel innovation practice, metallurgical professional technological knowledge, mechanical technology, electrical application technology, safety and environmental protection knowledge, English and computer software applications, thus training 13,092 professional technological talents.

Vocational skills competition

Focusing on improving the skills and facilitating the growth of employees, Ansteel Group actively carries out post training and vocational skills competitions to motivate employees to become expert in one field while possessing all-round knowledge and ability and create favorable conditions for employees' career development.

Ansteel Group has cultivated numerous talents and outstanding workers. In 2017, Ansteel picked out 23 outstanding technical staff and 311 technical experts. The Group held the first "Ansteel Craftsmen" selection campaign, in which 14 employees were elected as "Ansteel Craftsmen". Among them, five were elected as the first batch of "Liaoning

Craftsmen" and one was elected as "Sichuan Craftsman". Zhang Yundong and Zheng Zhiwang won the National May 1st Labor Medal, and 10 employees including Liu Jiachun were honored Model Workers of Liaoning Province. At the same time, Anshan Iron and Steel won the National May 1st Labor Award, Angang Steel Company Limited Steelmaking Plant won the title of Advanced Group of Liaoning Province, the trade union of Pansteel won the first prize of Sichuan Province 2017 Trade Union Work Target Performance Appraisal, Anshan Iron and Steel exchanged the experience in cultivating and promoting advanced operation methods of employees at the membership conference of China Mechanical Metallurgy Staff Technology Association.





Case

Chasing dream through exploration and promoting craftsmanship

Lin Xuebin, an employee of Ansteel, has adhered to craftsmanship during his 34 years of work. He tackled more than 200 challenges in production, 50 of which won the awards issued by Ansteel Co. Ltd. Steelmaking Plant and Ansteel Group. Besides, he has achieved zero accidents in the area under his management for 17 consecutive years. Lin Xuebin imparts knowledge and experience to young workers unreservedly, making them competent technical experts just like him.

Remaining true to the original aspiration, Lin Xuebin has been devoted to the career he loves with perseverance and diligence. In 2017, he was among the first batch to be honored "Liaoning Craftsmen".



Salary structure reform

Adhering to the principle of prioritizing efficiency, highlighting contributions, and taking into account fairness, Ansteel Group actively explores ways to establish a distribution mechanism that directly links employee income with their positions, individual contributions and corporate profits, and builds a salary structure with performance management as the core. Under the guidance of the salary-benefit linkage mechanism and based on the state of business of each subsidiary, we have made researches and developed a number of new income distribution policies and established a staff salary growth mechanism to guarantee that the income of employees rises at different degrees. Furthermore, Ansteel Group actively promoted the implementation of medium and long-term incentive policies for key talents. For 15 key talents who met the medium and long-term reward conditions, we rewarded them correspondingly. In this way, we aim to give better play to the important role of various talents and stimulate their creativity.

- **For general management, technology, production and service employees:** We correlate their salary to their performance while further improving the distribution mechanism that directly ties employee income to their positions, skills and corporate profits.
- **Operators:** They receive annual salary. We have established and improved differentiated compensation distribution systems that are in line with functions of the Company, the selection mode of each operator and performance review linked to them.
- **For the R&D, engineering and technical personnel, purchase and sales staff, and high-skilled personnel:** They enjoy special wage distribution method that is suitable for the characteristics of their position.



Safe operation and production

Taking the *Opinions of the CPC Central Committee and the State Council on Promoting the Reform and Development of Work Safety* as the action plan, Ansteel Group has firmly upheld the concept of life first and safe development, and stuck to the red line that "development must not be at the expense of safety". With "safety first, prevention-based, comprehensive management" as the work safety policy, we set the rule of law as the premise to guarantee public security, guarantee by compliance production and pursue "zero accidents" as the goal, aiming to create a safe, stable and harmonious production and operation environment for the Group.

Enhancing safety management

To focus on the standardization of work safety and guarantee the implementation of work safety responsibility, Ansteel Group continuously improves the responsibility system, institutional system, cultural system and supervision system, and vigorously pushes for the safety management mode for the new era to comprehensively improve the work safety management.

Ansteel Group has established a work safety responsibility system for the whole staff in accordance with the principle to "hold both CPC committees and governments accountable, make leaders take responsibility for workplace safety in performing their duties, tackle the root and branch causes of the problem by concerted management, and hold those who fail to uphold safety standards accountable". In accordance with the principle of focusing on process management and dealing with accidents and looking into responsibility strictly, we regard prevention management as our guidance. In daily management and operation, we have established a sound safety management mechanism with clear responsibility assignment, efficient operation, and organic coordination on the basis of the principles that are tackling the root and branch causes of the problem by concerted management, dividing tasks properly among functional departments and combining professional management with public supervision. Through the establishment of systems and

rules, control of operation and evaluation, we aim to implement effective control over safety work.

Ansteel Group continuously enhances safety management. We strengthen safety target management and implement safety management responsibilities with establishing a large risk factor prevention and control system as the focus and improving the safety hazard identification and elimination mechanism as the approach. Ansteel Group has achieved good results in implementing the system of responsibility in safe production by signing a letter of responsibility of annual safety target and has strengthened the accident accountability assessment with subsidiaries.

Ansteel Group unwaveringly followed the instructions of the 19th CPC National Congress and the leaders of central government on work safety, effectively curbing serious accidents. Since its establishment 70 years ago, Ansteel has achieved zero work-related fatalities for the first time, reached the best work safety index in history, and guaranteed zero serious safety accidents of production in five consecutive years. The number of accidents and casualties in 2017 decreased by 30% and 41.67% respectively from the previous year, and the injury rate per 1,000 people was 0.204‰.



Case

Ansteel Mining promotes the examination and verification of "operation areas up to safety standards"

Ansteel Mining deepened the standardization of work safety construction of enterprises, operation areas, teams and posts. In the past year, 49 operation areas were verified as "star operation areas up to the standardization of safety", and five operation areas passed the review of "operation areas up to the standardization of safety". As of the end of 2017, the Group had picked out 112 "star operation areas up to the standardization of safety" and 162 "operation areas up to the standardization of safety", accounting respectively for 55.17% and 79.8% of the total. By pushing for safety standardization widely, we effectively promoted standardization of the management, operation sites and employee performance. The further standardized individual protection of employees and further improved operation sites contributed to creating a safe and comfortable working environment for employees.

Strengthening safety awareness

1 Organizing safety rules and regulations training

Ansteel organized publicity and training on rules and regulations, and trained more than 600 management personnel at all levels. We strengthened education through case study for all employees, compiled the *2017 Accident Warnings Handbook* and distributed it among the staff to improve their safety awareness and accident prevention skills.

2 Improving "0123" safety management model

On behalf of the Group and China Iron and Steel Industry Association, Anshan Iron and Steel reported achievements in management innovation and improved the safety culture of the Company. Ansteel Refractory Materials Co., Ltd. and Wire Plant passed the acceptance inspection of the Safety Culture Demonstration Enterprise of Security Production Superintend Management Bureau of Anshan City.

3 Holding the Work Safety Month theme activity

Ansteel held 12 Work Safety Month activities with different themes, such as "Implementing Target Management and Carrying out Responsibilities at All Levels". Through publicity, case training, safety culture, promotion and emergency drills, we improved our operation standards and safety procedures, strengthened hazard identification, identified and reduced safety hazards, and eliminated violations. With such efforts, we endeavor to constantly improve level of safety management, safety awareness and ability of all employees.

4 Organizing Monthly Classroom safety training

Ansteel invited leaders in charge of safety issues and heads of all related departments of Anshan Iron and Steel and Angang Steel Company Limited to participate in the safety management special training. The content covered policy and system publicity, occupational disease prevention, work safety standardization, etc. A total of 482 people participated in the training, which continuously improved their safety awareness and management ability.

Carrying out emergency management

Ansteel Group formulated relevant emergency plans for Anshan Iron and Steel, Angang Steel Company Limited Energy Management and Control Center, etc., and filed them in the Security Production Superintend Management Bureau of Liaoning. We also organized all departments to improve their emergency response plans and emergency response cards for different posts, and to refine and optimize the emergency response process, thus improving the emergency response capability. We comprehensively checked equipment, facilities and environmental hazards based on the safety management platform, so as to realize informatized management of the identification and elimination of safety hazards.

In June 2017, Anshan Iron and Steel organized a comprehensive emergency drill in the context of a gas poisoning accident, and launched an emergency knowledge competition themed "safety protection, rescue and firefighting". In 2017, all subsidiaries of

the Group organized a total of 730 emergency drills participated by 9,211 people, largely improving the safety protection and rescue capability of all employees.



Occupational health and safety

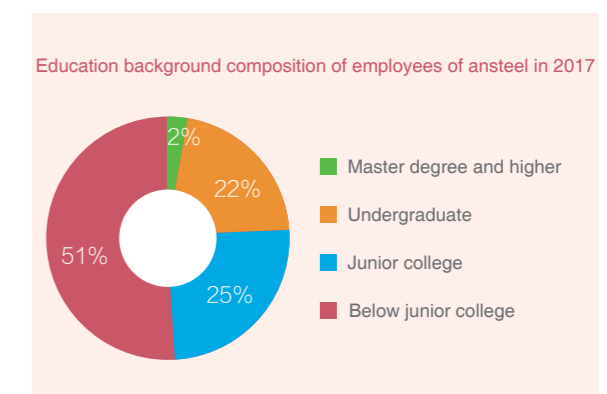
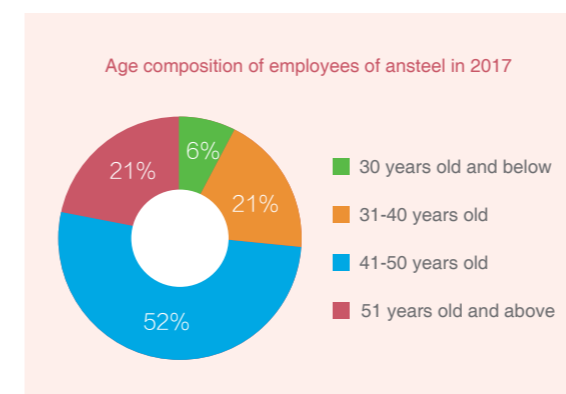
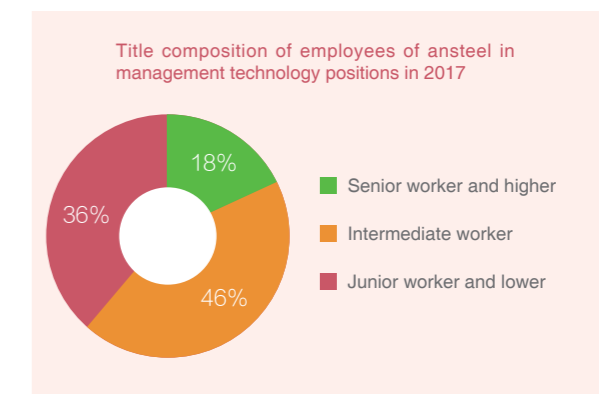
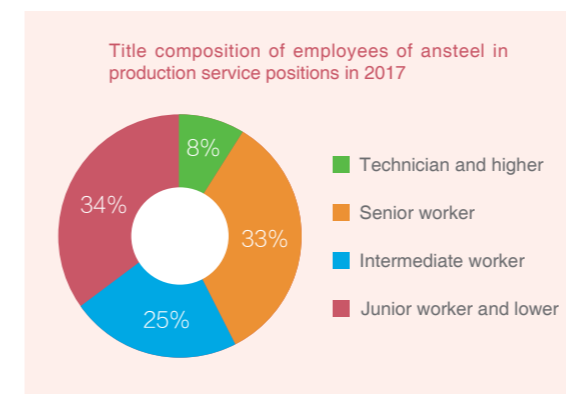
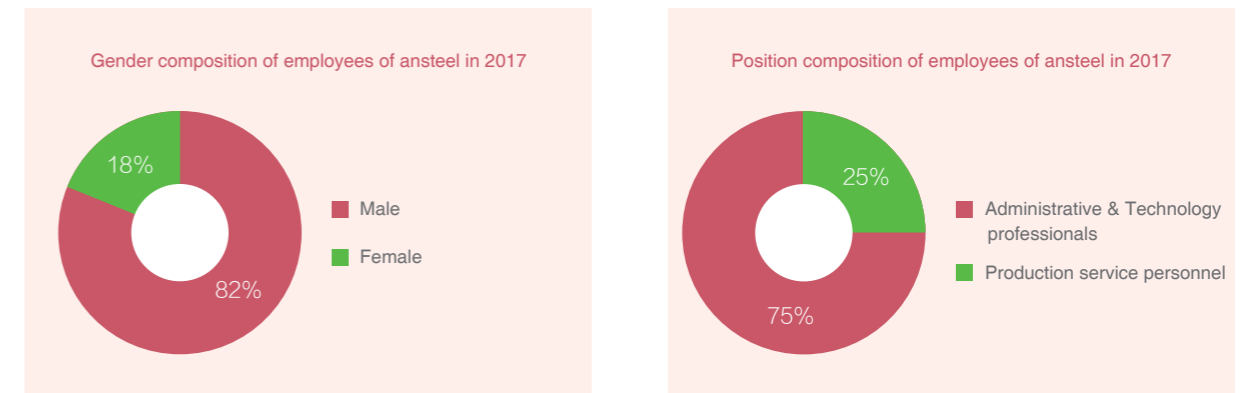
Ansteel Group ensures that the operation sites meet related environmental standards, and effectively implements occupational health examinations and detection of occupational hazards factors in the workplace in 2017. We discovered 11,517 dust detection points, 7,556 poison detection points, 8,646 noise detection point, 4,383 high temperature detection points, 841 radioactive source and radiation devices, and completed 64,301 occupational health examinations. All the 417 employees with occupational taboos were removed from the original position to prevent occupational diseases.

Ansteel Group held labor protection supervisor training classes in labor union, laws and regulations competitions, and team safety and occupational health knowledge Q&A and regularly organized work safety and equipment hazard inspections. We entrusted Ansteel Labor Hygiene Research Institute to conduct occupational hazard factors detection tests in six companies including Angang Steel Company Limited Large-scale Plant, so as to improve occupational disease prevention and control level and carried out physical examinations for employees, especially for workers of special positions.

Guaranteeing basic rights and interests

Ansteel Group understands well that employees are important assets to the Group. For the benefits of employees, we put people first, pay attention to the occupational health of employees, and guarantee the basic rights and interests of employees. By doing this, we aim to create a win-win situation where employees and the Group grow together, employees' rights and interests are fully guaranteed, and the happiness of employees is enhanced.

In 2017, Ansteel Group has 118,898 on-the-job employees. We lawfully terminated labor contracts with 4,246 employees based on their voluntariness with respect and through communication.





Guaranteeing the rights and benefits of employees

In compliance with national laws and regulations, Ansteel Group has established and improved the employee management system. According to law, we have strictly enforced the state's legal provisions on working hours, rest and vacation, etc., and formulated relevant rules and regulations in line with the actual situation of the Group. The Group implements the Standard Working Hours System (SWH System), which means that each employee shall work eight hours a day and 40 hours a week. For some special positions, we adopt the Integrated Working Hours System (IWH System) or Untimed Hours System (UHM) according to the law, effectively protecting the rights and interests of employees.

In accordance with the national, provincial and municipal insurance policies and in line with the characteristics of different regions, Ansteel Group has established and improved a comprehensive employee insurance system covering pension, medical care, unemployment compensation, employment injury insurance, supplementary medical insurance, supplementary employment injury insurance and housing fund for all employees according to law, and pays insurance fees in full. Those subsidiaries that meet certain conditions are allowed to establish an enterprise annuity system.



Enhancing democratic management

Taking the spirit of "Ansteel Constitution" as the driving force, Ansteel Group actively relies on employees for corporate development, and promotes democratic management and corporate affairs disclosure with the Workers' Congress as the major channel. We carried out the "Receiving Advice Online" activity thoroughly, through which we responded to 55,400 opinions and suggestions.

Ansteel Group makes great efforts to establish employee communication channels, protects the rights and interests of employees through symposiums, democratic reception days and so on, continuously improving democratic management. We have established and improved labor unions and labor dispute mediation organizations, and thoroughly promoted equal consultation and collective contract work, trying to ensure the stability of the workforce and found a harmonious and happy Ansteel.



Case

Pansteel honored the title of "National Advanced Unit for Factory Affairs Disclosure and Democratic Management"

Attaching great importance to the disclosure and democratic management of corporate affairs, Pansteel formulated and promulgated the *Pansteel Democratic Management Regulations*, established and improved comprehensive corporate affairs disclosure mechanisms and management systems, and promoted the institutionalization and standardization of corporate affairs disclosure. Pansteel actively innovated in the channels and forms of corporate affairs disclosure and democratic management, launched the "Pansteel Employees Online" forum, and established the "Receiving Advice Online" operation platform.

At the Award Presenting Ceremony of National Advanced Unit for Factory Affairs Disclosure and Democratic Management, Pansteel was honored the title of "National Advanced Unit for Factory Affairs Disclosure and Democratic Management".



Contribute to a better life

Ansteel Group stays close to the grassroots to fully understand employees. We help employees balance their work and life, assist needy employees, and make great efforts to help them solve problems in the work and life. We endeavor to enhance employees' sense of belonging, security and mission, and realize common growth with employees.

Caring about employees' life

Ansteel Group carried out a special service operation of "Practicing the concept of sharing and caring for frontline employees". Focusing on six aspects, including improving employee income and bettering the welfare benefits facilities, we identified 38 projects of the Group, 120 projects of subsidiaries, and 899 projects of grassroots units. Besides, we standardized living allowances,

adjusted overtime pay properly, improved allowances for employees on night shift and work group leaders as well as hygiene and health care expenditure standards for female employees. Moreover, we renovated staff operation room and duty room, maintained and renewed staff activity room and bathroom. Besides, Ansteel Talent Apartments were put into use.



Carrying out cultural and sports activities to energize the life of staff

Ansteel organized sports activities such as six-a-side football match and long-distance running on May 1 to improve the fitness of employees. We held the "Ansteel Cup" tug-of-war competition of the National Metallurgical Workers Sports Games and won the championships of the 600kg and 640kg groups. Ansteel Transport Co., Ltd. was awarded the honorary title of "National Mass Sports Advanced Unit". For the new recruits just graduated from college, we organized the directional cross-country running competition to enhance their sense of belonging, honor and achievement.

Encouraging the cultural and artistic creation and the development of hobbies

Attaching importance to the improvement of the staff's cultural literacy and the prosperity of the employee culture, Ansteel organized a series of cultural and sports activities, including the lantern riddles guessing activity during the Lantern Festival, the culture and art lecture for staff, the first youth culture festival of Ansteel Talent Apartments, mobile photography, etc., which were well-received by the staff.

Sending employees coolness in summer and warmth in winter

In the hot summer season, Ansteel Group spent more than RMB 3.4 million in purchasing electric fans, hygiene kits, salt soda water and other heatstroke prevention and cooling supplies for frontline workers; in the harsh winter season, we spent nearly RMB 400,000 on supplies for keeping warm and defending coldness for over 3,000 first-line outdoor workers and 1,101 workers of the Ansteel Talent Apartments.

Serving the grassroots thoroughly

Ansteel created a labor union service brand, and allocated subsidies for team building and birthday celebration, which enhanced the vitality and influence of grassroots trade unions. We organized employee representatives to supervise and check food prices in canteens, and organized more than 30,000 front-line workers to spend vacations and participate in outbound activities.

Caring for retirees and meeting their spiritual and cultural needs

Ansteel organized more than 3,800 retirees to visit the Ansteel Exhibition Hall and held large-scale cultural and sports entertainment activities for retirees such as the song singing activity to welcome the 19th CPC National Congress, which was participated by 18,000 employees of the Group. Besides, we held selecting activity of "ten model retirees and 100 outstanding team leader", and thus promoted the harmony and stability of the retiree team.



Caring for female employees

Ansteel Group conscientiously implements national laws and regulations. We enhanced the legal awareness and self-protection awareness of female employees, so that they could better protect their rights and interests. We paid

female employees according to rules during their marriage and maternity leaves as well as lactation period. No female employees were put in taboo work.

Protecting the legitimate rights and special interests of female employees

Ansteel Group has included "providing a gynecologic examination and a breast disease examination for female employees every year" and "purchasing group health insurance for all working female employees" in the *Collective Contract* to effectively protect the legitimate rights and interests of female employees.

Improving the cultural literacy and building harmonious families

Ansteel Group carried out a composition competition themed "Books and Women" to encourage female employees to "read one hour a day, read a book a month". We selected "Five Good Families" and "Characteristic Families" in Group Company and Anshan City to leverage the special role of female employees in promoting the virtues of Chinese national families. In addition, we co-organized six lectures themed "Female Quality Improvement" with Anshan General Labor Union.

Caring for female employees

Assisting disadvantaged employees

Ansteel Group has built an assistance system and actively explored the operation system combining "providing relief and support, facilitating to enhancing the blood-making capacity and formulating supporting policies". We implemented targeted poverty alleviation throughout the entire process of solving difficulties and relieving poverty for needy employees. Through multiple assistance measures, we helped solve problems of needy employees.

In 2017, we launched a series of large-scale visiting activities and visited 46,700 needy employees and retirees. We offered a total of RMB 16.59 million of relief funds, reviewed and issued RMB 12.11 million of medical assistance funds, benefiting 2,146 people.



Improving the employee assistance mechanism

Ansteel has established an employee assistance system, filed the information of needy employees, and established a regular visiting system. We clearly understand the living conditions of needy employees in time through daily surveys and visit.

Improving employee assistance measures

Ansteel established the system for leaders of Group to help poor households of employee one on one, the dynamic adjustment system for identifying needy employees, and the medical assistance system. We conducted surveys on the basic conditions of disabled employees, registered 1,248 disabled employees with second-generation disability certificate, and strengthened the management and service of disabled employees.



Case Financial Aid for Schooling in Golden Autumn

Financial Aid for Schooling in Golden Autumn is a warm-hearted policy of Ansteel Group. By taking household visits, we investigated the situation of students and families of needy employees one by one, so as to ensure that all our student aid reached the right persons without any omission. In 2017, we assisted 103 children of needy employees and distributed RMB 175,500 of relief funds.



Benefiting the People

Reinforcing the Base for a Better Life

The world is prosperous only if the people are wealthy, and the world is peaceful only if the people are happy. Closely following national policies, Ansteel Group cares about the people's wellbeing and livelihood, unwaveringly practices the people-oriented development thinking, accurately responds to the people's yearn for a better life, and leads the Chinese people to get through all difficulties and realize the great dream.

Ansteel launched a total poverty alleviation projects in 2017 of 57

Poverty alleviation projects launched by Anshan Iron and Steel 20

Poverty alleviation projects launched by Pansteel 37

Ansteel invested a total in 2017 of poverty alleviation funds RMB 20.04 million

Anshan Iron and Steel invested poverty alleviation funds RMB 11.74 million

Pansteel invested poverty alleviation funds RMB 8.3 million

Angang Steel Company Limited Coking Plant was selected among the third batch of National Lei Feng Demonstration Sites of the Publicity Department of the Communist Party of China. It was rated as Liaoning Good Man - the Best Lei Feng by Your Side (Collective), and Following Lei Feng and Guo Mingyi Activity Demonstration Point of Liaoning Province

Ansteel employee Guo Daiyi was rated a model of the Learning from Comrade Lei Feng and Guo Mingyi Activity of Liaoning Province

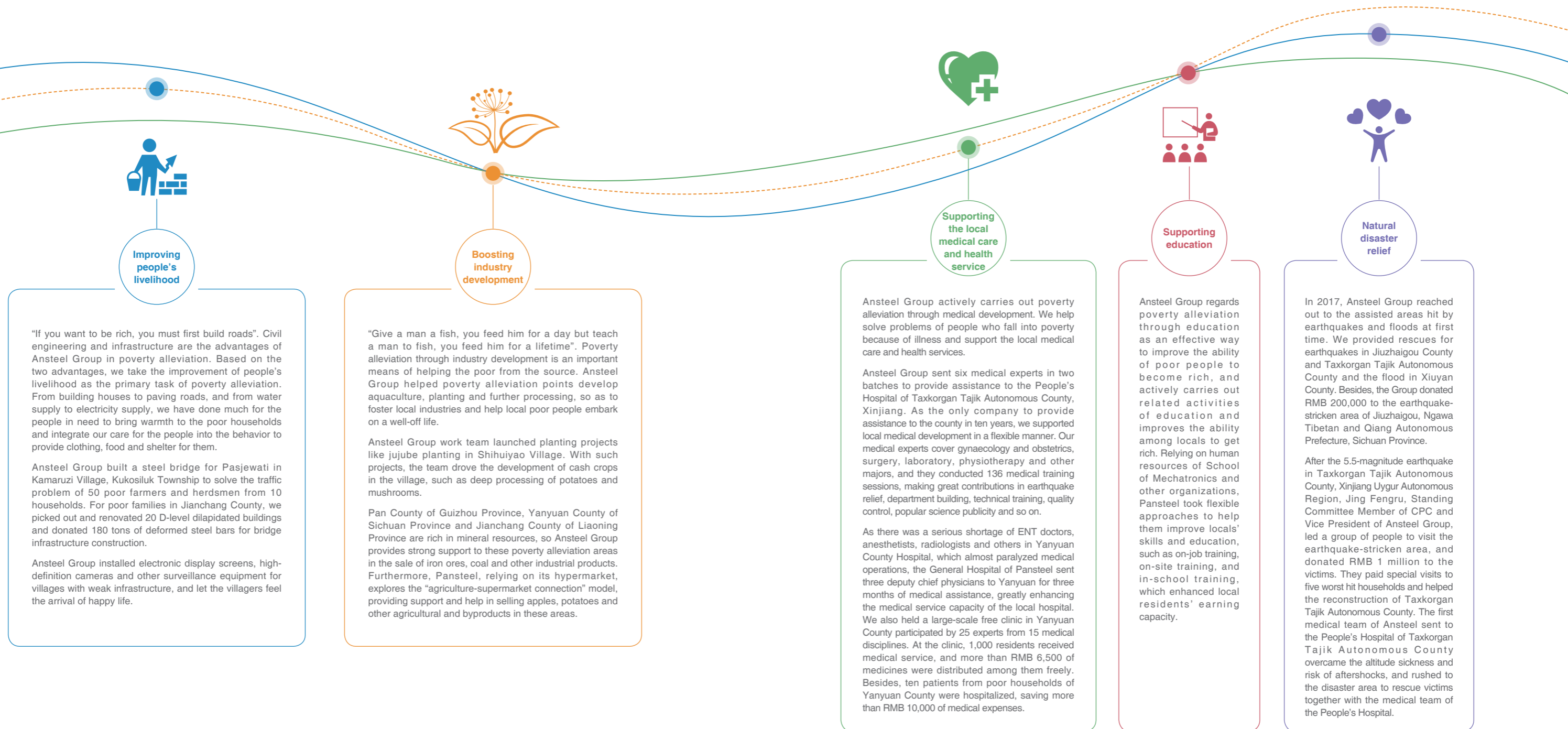


Targeted poverty alleviation

Ansteel Group actively assumes the social responsibility as a central state-owned enterprise. In the poverty alleviation work of 2017, we formulated the “four practical” work ideas which are earnestly fulfilling the responsibility of leaders, concentrating the power of all companies, accurately identifying poverty alleviation projects and carrying out targeted poverty alleviation earnestly. Through cooperation with local governments, we adhered to the combination of “transfusion of blood” and “hematopoietic”, poverty alleviation and education support. Centering on the targets of poverty alleviation points, we accurately aligned with and innovated in poverty alleviation projects, implemented responsibilities earnestly, and followed the progress of projects closely. Through such efforts, we contributed to the economic development of poor areas, and helped poor people to get rid of poverty, which was well-received by the local government and the masses.

Attaching great importance to targeted poverty alleviation, Ansteel Group took the following measures:

- Strengthening the organization and leadership for poverty alleviation work and establishing the Ansteel Group Poverty Alleviation Work Leading Group
- Carrying out talent support for selected outstanding cadres and assigning tasks to specific organizations and personnel
- Conducting in-depth poverty alleviation research and working out the *Poverty Alleviation Plan for 2017-2020*
- Strengthening the supervision and inspection of designated poverty alleviation points



In 2017, Ansteel Group invested RMB 251,000 for setting up a computer room equipped with 80 computers, tables and chairs, exchangers and so on at the boarding school in Jinzhu Town, Daocheng County and the Central School of Sangdui Town respectively, and provided RMB 30,000 of student aid for students in Kukosilik Township, Taxkorgan Tajik Autonomous County, Xinjiang. The School of Mechatronics invested RMB 16,200 and sent a team of professional teachers to carry out professional skills training of 68 primary and middle schools' teachers for 5 days and 40 hours each subject covering music, fine art and computer skills in Daocheng County, Sichuan Province.

In August 2017, Xiuyan Manchu Autonomous County of Anshan City, Liaoning Province, suffered the heaviest precipitation in history, which affected the whole county. Ansteel Group contacted the local government and the staff member of Ansteel Poverty Alleviation Task Force in Xiuyan in the first place to learn about the situation and needs of the disaster area. Anshan Steel donated RMB 5 million on behalf of Ansteel Group (including of RMB 3.5 million of cash and RMB 1.5 million for vehicles) for fighting the flood, carrying out disaster relief and poverty alleviation. Though there were heavy production tasks, Ansteel Group made every effort to dispatch personnel and large-scale engineering vehicles to participate in emergency repair and post-disaster reconstruction work in the affected area. We successively sent two batches of 65 sets of large-scale construction

equipment and more than 100 rescue personnel to rush to the worst hit disaster to provide rescues.



Community engagement

Ansteel Group has never stopped providing support for the elderly and the vulnerable. We seek benefits for the people, relieve their worries, and actively participate in assistance of others. We actively engage in cultural education development, pay attention to the protection of traditional cultural heritage, publicize socialist core values, promote the development of education in poverty-stricken areas, and earnestly practice social responsibility so as to promote harmonious development of society.

Joint community building

Ansteel Group organized more than 200 young volunteers to do the cleaning for the Retired Cadres Reception Center and the Retired Cadres University.

Angang Steel Co., Ltd. Bayuquan Steel Subsidiary organized more than 80 young employees to visit the Section II of Furuiyuan Apartment for the Elderly in the Bayuquan District. They launched an activity themed "Entering the community, making contributions and promoting virtues". During the activity, they cleaned up the community, visited the elderly and sent rice, oil, and other daily necessities to them, publicizing the concept of "building a harmonious and shared community" with action.

Anshan Iron and Steel replaced or repaired more than 6,100 manhole covers, replaced more than 70 garbage bins. We approved a total of RMB 3 million of funds for community renovation and the periphery of the 8 communities were fenced according to the highest standards as those applied

to the main roads, and more than 600 panels were set up to publicize socialist core values.



Ansteel organizes the large-scale voluntary activity of hematopoietic blood stem cells sample collection and donation themed "Following Guo Mingyi to Learn from Lei Feng"

Case

Showing the power of Ansteel in building a civilized city

On August 5, 2017, Ansteel Guo Mingyi Team launched the large-scale Dedication Day activity with 100 volunteer teams and thousands of volunteers. The Guo Mingyi Team provided voluntary services for 22 important transportation points in Anshan City, including directing the traffic, cleaning up and publicity on building a civilized city. Guo Mingyi, the "Contemporary Lei Feng" came to the activity sites to encourage the Ansteel volunteers to contribute to building a civilized city with their own actions.

"The model of the era" Li Chao went on duty voluntarily at the Yongchang Traffic Post on Shengli Road. Standing in front of the zebra crossing, Li Chao carefully directed vehicles and pedestrians to pass by in line with traffic rules while motivating pedestrians to actively participate in building a civilized city. Under the influence of Li Chao, the police officers and volunteers at the site felt greater enthusiasm to work under the scorching sun. Pedestrians passing by also said that they would

try to become civilized citizens of a civilized city by starting from every little thing in daily life.



Ansteel Model Advanced Deeds Report

Community culture and education

It takes ten years to grow a tree and a hundred years to bring up a generation of good men. The primary-level Youth League Committee of Anshan Iron and Steel established a Lei Feng Co-building Relationship with Guangming Primary School and Ansteel Seventh Kindergarten. We flatted more than 10,000 square meters of playgrounds for the school,

donated more than 100 books to the kindergartens and more than 120 toys accumulatively.

The Company visited the welfare center with more than 400 gifts for children there, including books, toys, clothing and so on, and successively donated more than RMB 10,000.

Protecting cultural heritage

In December 2017, the Ministry of Industry and Information Technology released the first batch of proposed national industrial heritage list, and "Anshan Iron and Steel Factory" was on the list. The industrial photos exhibition with the theme of "the Wealth by the Years of Precipitation" was held in the Museum of Ansteel Group, focusing on the 16 industrial heritage projects of Ansteel released by the Ministry of Industry and Information Technology. The exhibition demonstrated the revitalization and great achievements of the national industry of new China, the spirit of the first generation of steel workers who had fought for the foundation of the new China, and Ansteel's great contributions to the development of China's industrialization.

Ansteel Group currently has four Provincial Cultural Relic Protection Units, three of which are in normal use and one has been collected by the Museum of Ansteel Group. The Museum of Ansteel Group has been listed the only national 4A-level scenic spot in the industry in China. According

cultural relics verifications and grade identification conducted by the museum, 434 collections have been rated as or above third-class national cultural relics, of which 15 have been recommended as first-class national cultural relics.



Ansteel Group held the industrial photos exhibition, and 16 industrial heritage projects of Ansteel were released



Volunteer team management

Following the instructions in President Xi Jinping's letter of reply to Guo Mingyi Team, Ansteel Group conscientiously implemented the "Following Guo Mingyi to Learn from Lei Feng" activity. Under the leadership of Guo Mingyi, known as the "Contemporary Lei Feng", we encouraged all employees to participate in public welfare so as to create a good corporate style where everyone is willing to make contributions. Currently, there are more than 1,000 Guo Mingyi Teams in China with more than 1.8 million members. Guo Mingyi Team won the honorary title of "Four 100" Volunteer Service Team of China, and Angang Steel Company Limited Coking Plant was selected one of the third batch of national Lei Feng volunteer service demonstration sites.

All levels of Youth League organizations of Ansteel Group have organized a wide range of activities such as "Practicing the character of Guo Mingyi, striving to be the successor of Lei Feng" and "Holding up the flag of the Youth League, dedicating youth to the Youth League Representatives Congress". Through the professional, normalized and branded operation mode, we endeavor to improve the vitality, appeal and influence of the volunteer service team.

According to incomplete statistics, Guo Mingyi Team of Ansteel has donated more than RMB three million, assisted the construction of five Hope Primary Schools, subsidized more than 5,000 students. A total of 3,211 volunteers have donated more than two million milliliters of blood, 179 volunteers have donated more than 4,000 blood samples of hematopoietic stem cells, and 13 volunteers have donated their corneas, more than 2,300 people have become volunteers for organ donation. Moreover, 1,328 volunteer service activities have been organized, 15,175 young volunteers have participated in volunteer service activities, and 395 Saturday Dedication Day activities involving 5,257 participants in total have been held. A total of 256 pairs have been matched as "hand in hand", "one to one" and "several to one" assistance, 102 youth volunteer service points have been established, and 164 youth volunteer service teams have been formed.



Case

Angang Steel Company Limited Coking Plant was selected National Demonstration Point for Learning from Lei Feng

The Coking Plant is the place where Comrade Lei Feng used to work. The factory has set up 12 Learning from Lei Feng Squadrons and 24 Guo Mingyi Teams and Guo Mingyi Dedication Teams, and established the regular activity mechanism covering Learning from Lei Feng monthly activities, Youth League members for social dedication activity, bringing convenience to the factory activity. The Coking Plant has accumulatively carried out more than 150 voluntary labor activities, donated RMB 154,000 for needy employees, and mobilized the staff to donate RMB 57,000 for setting up a special fund for student aid, which assisted more than 30 children of poor employees. The Coking Plant has established a Coalition of Learning from Lei Feng with schools and communities, helping flat more than 10,000 square meters of pitches and donating more than 620 sets of books and toys.



Case

Great achievements of volunteer service of Ansteel Mining

More than 500 employees of Ansteel Mining have participated in the Red Cross Volunteer Emergency Relief Team of Anshan City, actively participating in relief activities of the social crisis events. The company has signed co-construction agreements with more than 10 communities, and set up long-term helping pairs with the widowed elderly and poor families in the community. It regularly organized volunteers to provide support for the society and carried out 280 volunteer service activities in the form of poverty alleviation and voluntary services, which were well-received by the general public.

Qidashan Iron Mine of Ansteel Mining was awarded the title of the Fifth National Civilized Unit, and Xu Pingxin, an employee of Qidashan Iron Mine, was nominated as an Advanced Individual of Learning from Lei Feng in Liaoning Province in 2017.



Outlook 2018

2018 marks the first year of fully implementing the spirit of the 19th CPC National Congress, a crucial year and a connecting link between the preceding and the following for the implementation of the 13th Five-Year Plan, as well as a year for Ansteel to move from "ensuring survival" to "pursuing development", and to realize revitalization and development.

In 2018, Ansteel Group will continue to adhere to the mission of Producing better material, creating more wonderful life. We will stay true to the original aspiration and forge ahead, and roll up our sleeves and work with added energy for the realization of the corporate goal of being an iron and steel conglomerate with the most international influence. The new era endows us with new missions, and the new starting point signifies a new journey. Ansteel Group will earnestly enhance the sense of responsibility and mission. Standing at a new starting point, we will overcome new challenges, make new achievements and make new progresses with unremitting mental state and striving posture.

Building a Leading Ansteel

Guided by Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, we will comprehensively carry out the spirit of the 19th CPC National Congress and implement the requirements of the "Three Advances". We will adhere to the general work guideline of making progress while maintaining stability and focus on the goal of sustainable development. According to the "Six Accelerative Promotion", including promote the new journey of revitalization and development of Ansteel vigorously, promote industrial restructuring thoroughly, promote the reform of the enterprise system and mechanism with all-out efforts, promote innovative development with high-speed, promote management accelerative improvement, and promote the building of a "Happy Ansteel" quickly, we aim to bring Ansteel Group to the development of a higher level and better quality, make greater achievements, and launch a new journey for the revitalization of Ansteel.

Building a Honest Ansteel

We will continue to implement the system of accountability for improving Party conduct and upholding integrity, and promote the anti-corruption struggle, so as provide strong political and organizational guarantee for the realization of the Group's development goals. We will manage contracts and audit processes strictly to ensure compliance with laws and regulations and enhance the Group's internal control capability and management level. We will strengthen quality control, select suppliers with strict requirements and conduct unified supervision and management to ensure the transparency of the industry. We will strengthen strategic cooperation, and build long-term strategic partnerships based on complementary advantages to enhance the international competitiveness of China's steel industry.

Building a Green Ansteel

Ansteel Group will strive to promote environmental protection in various aspects by focusing on prevention and control of atmospheric pollution, continue to promote green manufacturing, so as to establish an green manufacturing system with efficient, clean, low-carbon and circular and build a green steel manufacturing process. At the same time, Ansteel Group will earnestly improve the political position and always keep a high-degree consistence with the spirit of the Party Central Committee with President Xi Jinping as the core, resolutely

undertake the social responsibility of ecological progress and ecological environmental protection, so as to contribute to building a beautiful China and continuously satisfying the people's growing demand on a beautiful ecological environment.

Building a Happy Ansteel

We will fully promote the construction the "Happy Ansteel" and continue to carry out the special service action of "Practicing the concept of sharing and caring for frontline employees". We will continue to promote grass-roots activities of service for employees with "face to face, heart to heart, truthful" and strengthen the construction of staff innovation studios and increase investment in funds. We will continue to carry forward the spirit of "Ansteel Constitution", deepen the "Receiving Advice Online" activities, and encourage employees to contribute ideas for corporate development. We will vigorously promote the spirit of labor models and craftsmanship, and play a good exemplary role. Ansteel Group will actively give play to the role of employees as the main force, and steadily increase the income of employees while improving the economic benefits of the Group, so that the achievements of reform and development could reach more employees in a more equal manner.

Building a Harmonious Ansteel

We will continue to carry out in-depth and targeted poverty alleviation in accordance with the standards of "enabling the poor to develop themselves, promoting sustainable development of the local economy and society, enhancing the good social image of Ansteel", stay close to villagers and focus on improving the well-being of the people. We will deepen the poverty alleviation through mutual assistance and come up with targeted plans for each household. We will develop collective economy to support poor households. We will pay attention to projects concerning the livelihood of the people, and increase investment in infrastructure facilities. We will develop leading industries to boost local economy. We will give play to the exemplary role of village where we have stations to promote the battle against poverty and make new contributions to building a well-off society in all respects. At the same time, Ansteel Group will continue to strengthen the management of volunteer teams, vigorously promote the "Lei Feng Spirit" and "Guo Mingyi Spirit", and strive to build a strong, democratic, civilized, harmonious and beautiful socialist modernized power.

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Feedback Form

Dear readers,

This is the eleventh sustainability report of Ansteel Group released to the public. We would like to solicit your opinions and suggestions so as to help us make constant improvement in our fulfillment of social responsibility and achieve sustainable development. We would highly appreciate it if you could spare some time to share your thoughts with us on the following issues:

1. Do you think this report reflects the significant impact that Ansteel Group has exerted on the economy, society and environment? (Please tick your option.)

Yes Fairly No

2. Does this report make an exact and comprehensive analysis of the relationship between Ansteel Group and other stakeholders? (Please tick your option.)

Yes Fairly No

3. Are the information, data and indexes disclosed in this report clear, accurate and complete? (Please tick your option.)

Yes Fairly No

4. Are the content layout and format design in this report helpful to your reading? (Please tick your option.)

Yes Fairly No

What makes the most satisfactory part of this report?

Is there any necessary information omitted in this report?

What are your opinions about our report on sustainable development to be released in the future?

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