



地址/Add: 中国北京海淀大街8号100080  
8 Haidian St., Beijing, P.R.China 100080  
电话/Tel: +86-10-62689837  
传真/Fax: +86-10-62689800  
电邮/E-mail: [csr@sinosteel.com](mailto:csr@sinosteel.com)  
网址/Website: [www.sinosteel.com](http://www.sinosteel.com)

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2020 中钢集团可持续发展报告  
2020 Sinosteel Sustainability Report



2020中钢集团  
可持续发展报告  
Sustainability Report

# 关于本报告

## ABOUT THE REPORT

### 可靠性保证

中国中钢集团有限公司保证 2020 年可持续发展报告信息的真实性、准确性和完善性，并努力做到兼顾内容的实质性和平衡性。我们期待通过发布可持续发展报告与利益相关方加强沟通，建立互信，共同创造可持续的未来。

### 报告范围

时间范围 :2020 年 1 月 1 日—12 月 31 日，部分内容超出此范围。  
组织范围 : 报告组织范围包括中国中钢集团有限公司总部、各子集团及所属企业。为便于表述和阅读，“中国中钢集团有限公司”在本报告中也以“中钢集团”“中钢”“集团”“公司”和“我们”表示。

### 发布周期

此报告为中钢集团发布的第 14 份年度可持续发展报告。

### 报告数据说明

此报告所引用的 2020 年财务数据可能与最终数据略有差异，请以经审计的财务报告为准；其他数据来源于公司正式文件和统计报告。

### 报告参考标准

国务院国资委《关于中央企业履行社会责任的指导意见》《关于国有企业更好履行社会责任的指导意见》；  
中国社科院经济学部企业社会责任研究中心《中国企业社会责任报告编制指南（CASS-CSR4.0）》；  
全球报告倡议组织《可持续发展报告指南》（GRI 4.0）；  
联合国全球契约十项原则；  
联合国可持续发展目标；  
国际标准化组织《ISO26000（2010）》。

### 报告发布语言与形式

本报告以中英文两种文字出版，以纸质版和网络版两种形式发布。

### 联系方式

报告反馈及建议：中钢集团办公室（董事会办公室）  
电话：8610-62689837  
传真：8610-62689800  
电子邮箱：csr@sinosteel.com  
公司网址：http://www.sinosteel.com

### Reliability Assurance

Sinosteel Corporation hereby assures the authenticity, accuracy and completeness of the 2020 Sustainability Report, and strives to take into account the substantiality and balance of the content. We look forward to enhancing the communication with stakeholders, establishing the mutual trust and jointly creating a sustainable future with the stakeholders through issuing the Sustainability Report and other approaches.

### Reporting Period and Scope

Reporting period: January 1, 2020 - December 31, 2020, and part of contents are beyond this range.  
Reporting Scope: Sinosteel Corporation headquarters, Subgroups and all its subsidiaries and branches. For the convenience of presentation and readability, "Sinosteel Group Co. LTD" is referred to as "Sinosteel Corporation", "Sinosteel", "The Company" and "We" in the Report.

### Release Cycle

This report is the 14th annual Sustainability Report released by Sinosteel Corporation.

### Report Data Specification

2020 financial data referred in this report may be slightly different with the final data; the audited financial report shall prevail; other data are based on the Company's official documents and statistical reports.

### Report Reference Standards

*Guidelines for Central Enterprises to Fulfill Social Responsibilities, Guidance for the State-owned Enterprises to Better Fulfill the Social Responsibilities* by the SASAC of the State Council;  
*Preparation Guidelines for China Corporate Social Responsibility Reports* by the Research Center for Corporate Social Responsibility of Chinese Academy of Social Sciences (CASS-CSR4.0);  
*Sustainability Reporting Guidelines* by the Global Reporting Initiative (GRI 4.0);  
Ten Principles of United Nations Global Compact (UNGC);  
United Nations Sustainable Development Goals;  
*ISO 26000 (2010)* by International Standard Organization.

### Reporting Language and Form

The report is published in both Chinese and English, and made in paper version and online version.

### Contact

Feedback and suggestions: Sinosteel President's Office (Board Office)  
Tel: 8610-62689837  
Fax: 8610-62689800  
Email: csr@sinosteel.com  
Website: http://www.sinosteel.com





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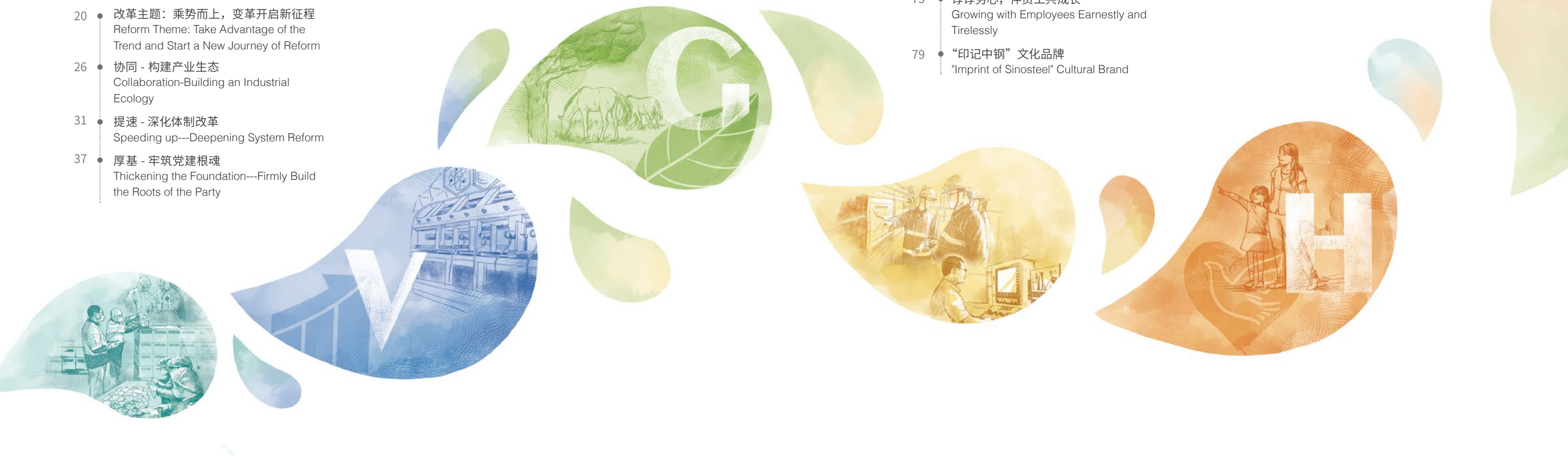
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# 管理者致辞 FROM THE MANAGEMENT



徐思伟  
Xu Siwei

中国中钢集团有限公司  
董事长 党委书记  
Chairman and Secretary  
of the Party Committee  
of Sinosteel

2020 年是新中国历史上极不平凡的一年，也是中钢改革发展破浪前行并取得重大进展的一年。面对严峻复杂的内外部形势特别是新冠肺炎疫情冲击，中钢集团广大干部职工团结一心、攻坚克难，认真落实党中央、国务院决策部署和国资委“三稳四保一加强”工作要求，坚持疫情防控和经营发展两手抓，疫情防控、经营发展取得双胜利。

过去一年，我们以价值创造为核心夯实发展根基。科技新材料产业突出业务重组，优化资源配置，不断延伸和完善产业链、价值链；工程技术产业不断提升自身在大型焦炉、带式焙烧、长材、节能减排、安全环保领域的专业优势；装备制造产业不断提高生产过程的自动化、数字化水平，优化品种结构，提高产品质量；矿产资源产业挖掘铁、铬资源价值，拓展萤石资源，提升保障供应能力；贸易服务业务聚焦核心商品，注重内涵发展，增值服务能力得到进一步增强。



刘安栋  
Liu Andong

中国中钢集团有限公司  
总经理 党委副书记  
President and Deputy  
Secretary of the Party  
Committee of Sinosteel

过去一年，我们以科技创新为驱动践守绿色承诺。贯彻落实新发展理念，积极承担国家重大攻关工程。利用集团自身优势，解决行业在高端耐磨材料、磁性材料、高温材料、核石墨材料等领域“卡脖子”关键核心技术问题，促进生产方式绿色转型，为实现“碳达峰”“碳中和”贡献中钢智慧和中钢方案。

过去一年，我们以和谐共赢为主旨与利益相关方携手共建。面对百年不遇的新冠疫情冲击，集团海内外企业守望相助，同心抗疫。加入中国宝武大家庭后，中钢集团积极融入宝武“一基五元”战略布局，充分发挥中钢集团的系统集成服务优势，为共建高质量钢铁生态圈做出积极贡献。

展望未来，可持续发展已成为全人类前进道路上的重要使命。中钢集团将继续秉持“坚持价值创造、绿色播种希望、爱心铸就未来”的可持续发展理念，承担央企责任，践行社会承诺；以创新思维积极破解可持续发展难题，为集团高质量发展做出新的更大贡献。

2020 is an extraordinary year in the history of New China. It is also a year in which Sinosteel has braved the waves of reform and development and made significant progress. In the face of the severe and complex internal and external situation, especially the impact of the COVID-19 pandemic, the majority of cadres and employees of the group united and overcame difficulties, earnestly implemented the Party Central Committee and the State Council's decision and deployment and the SASAC's "Three Stability, Four Guarantees and One strengthening" work requirements, persisting in the prevention and control of the epidemic and the development of business operations, eventually achieved the victory in the fight against the epidemic as well as the development of business.

In the past year, we have consolidated the foundation for development with value creation as the core. The technology and new materials industry highlighted business reorganization, optimized resource allocation, and continuously extended and improved the industrial chain and value chain; The engineering technology industry continued to improve its professional advantages in the fields of large coke ovens, belt roasting, long products, energy saving and emission reduction, as well as safety and environmental protection; The equipment manufacturing industry continuously improved the automation and digitization level of the production process, optimized the variety structure, and improved product quality; The mineral resources industry expanded fluorite resources, tapped the value of iron and chromium resources, and enhanced the ability to guarantee supply; The trade service business focused on core products and connotation development, and value-added service capabilities were further enhanced.

In the past year, we have kept our green promise through technological innovation. We carried out national strategies, and actively undertook major national research projects. We took advantage of the group's own merits, focusing on solving the key core technical problems of the industry in the fields of high-end wear-resistant materials, magnetic materials, high-temperature materials, and nuclear graphite materials, promoted the green transformation of production methods, and contributed Sinosteel's wisdom and Sinosteel solutions to the realization of "carbon peak" and "carbon neutrality".

In the past year, we have worked hand in hand with stakeholders to build harmony and win-win prospect. In the face of unprecedented challenges, the Group's domestic and overseas enterprises have worked together to fight the epidemic. Sinosteel actively integrated into China's Baowu Group "One Base and Five Elements" strategy, gave full play to the advantages of Sinosteel's system integration services, and made positive contributions to the joint construction of a high-quality steel ecosystem.

Looking to the future, sustainable development has become an important mission on the road ahead for all mankind. Sinosteel will continue to uphold the concept of sustainable development of "adhering to value creation, green sowing hope, and love forging the future", assuming the responsibilities as a central enterprise and fulfilling social commitments, and will actively solve the problems of sustainable development with innovative thinking, and make new and greater contributions to the high-quality development of the group.



# 走进中钢集团

## ABOUT SINOSTEEL

### 公司简介

#### Company Profile

中国中钢集团有限公司（简称中钢集团，英文简称 Sinosteel）是由国务院国有资产监督管理委员会履行出资人职责的中央企业。中钢集团主要从事冶金矿产资源开发与加工, 冶金原料、产品贸易与物流, 相关工程技术服务与设备制造, 是一家为冶金工业提供资源、科技、装备集成服务, 集矿产资源、工程装备、科技新材、贸易物流、投资服务为一体的大型跨国企业集团。目前, 中钢集团所属企业 67 家, 其中境内 49 家, 境外 18 家。

Sinosteel Group Corporation Limited (abbreviated as “Sinosteel”) is a central enterprise under the administration of the State-Owned Assets Supervision and Administration Commission. It mainly engages in the developing and processing of metallurgical mineral resources, trading and logistics of metallurgical raw materials and products, and related engineering technical services and equipment manufacture. It is a large multinational enterprise group that provides resources, technology, and equipment integration services for the metallurgical industry, integrating mineral resources, engineering equipment, technology and new materials, trade logistics, and investment services. At present, Sinosteel has 67 subsidiaries, including 49 at home and 18 in overseas regions.

### 事业版图

#### Business Map



科技新材板块  
New Material  
Technology  
Section

作为中钢的创新性业务, 构建科技创新资源平台, 着力培养一批高端科研人才, 推出一批重大科研成果, 培育一批优势产业项目, 为打造核心能力、培育比较优势和探索战略转型提供有力支持。

As an innovative business sector of Sinosteel, it builds a platform for scientific and technological innovation resources and develops a group of high-end scientific research talents, research results and advanced projects to strongly support the core capacity, compared advantages and the exploration of strategic transformation.



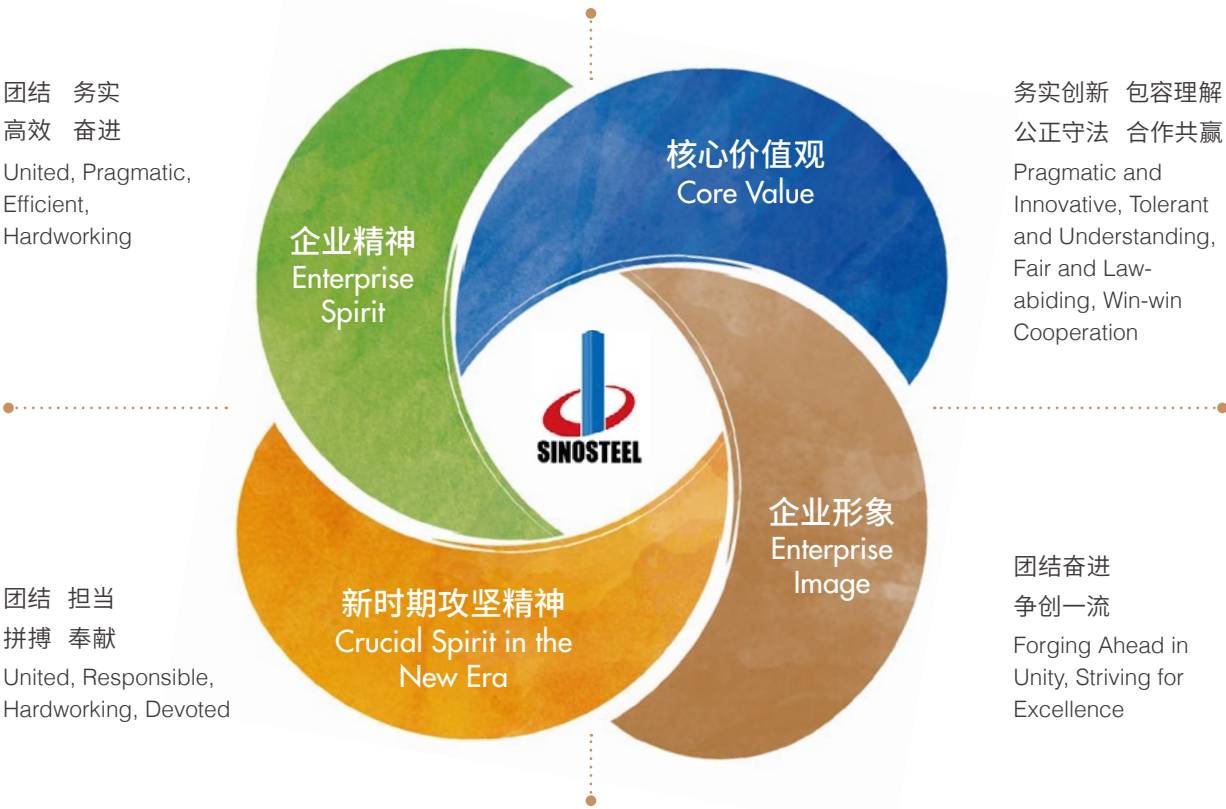
工程装备板块  
Engineering  
Equipment  
Section

作为中钢的战略拓展性业务, 不断强化工程总承包能力, 抓住国家“一带一路”和国际产能合作等契机, 加快“走出去”步伐, 培育新的增长点。

As a strategic expansion business sector of Sinosteel, it continuously strengthens the general contracting capacity of the project, seizes the opportunity of the “Belt & Road Initiative” and international capacity cooperation thus accelerating the pace of “going global” and with new growth points.

### 企业文化

#### Corporate Culture



矿产资源板块  
Mineral Resources  
Section

作为中钢的战略关键性业务, 借力国家政策、资本市场和客户支持, 整合铁矿、铬矿以及萤石资源, 努力打造形成具有核心竞争力和重要影响力的拳头产品。

It is a strategically vital business section of Sinosteel, which leverages national policies, capital markets, and customer support to integrate iron ore, chrome ore and fluorite resources, and strives to create hit product with core competitiveness and significant influence.

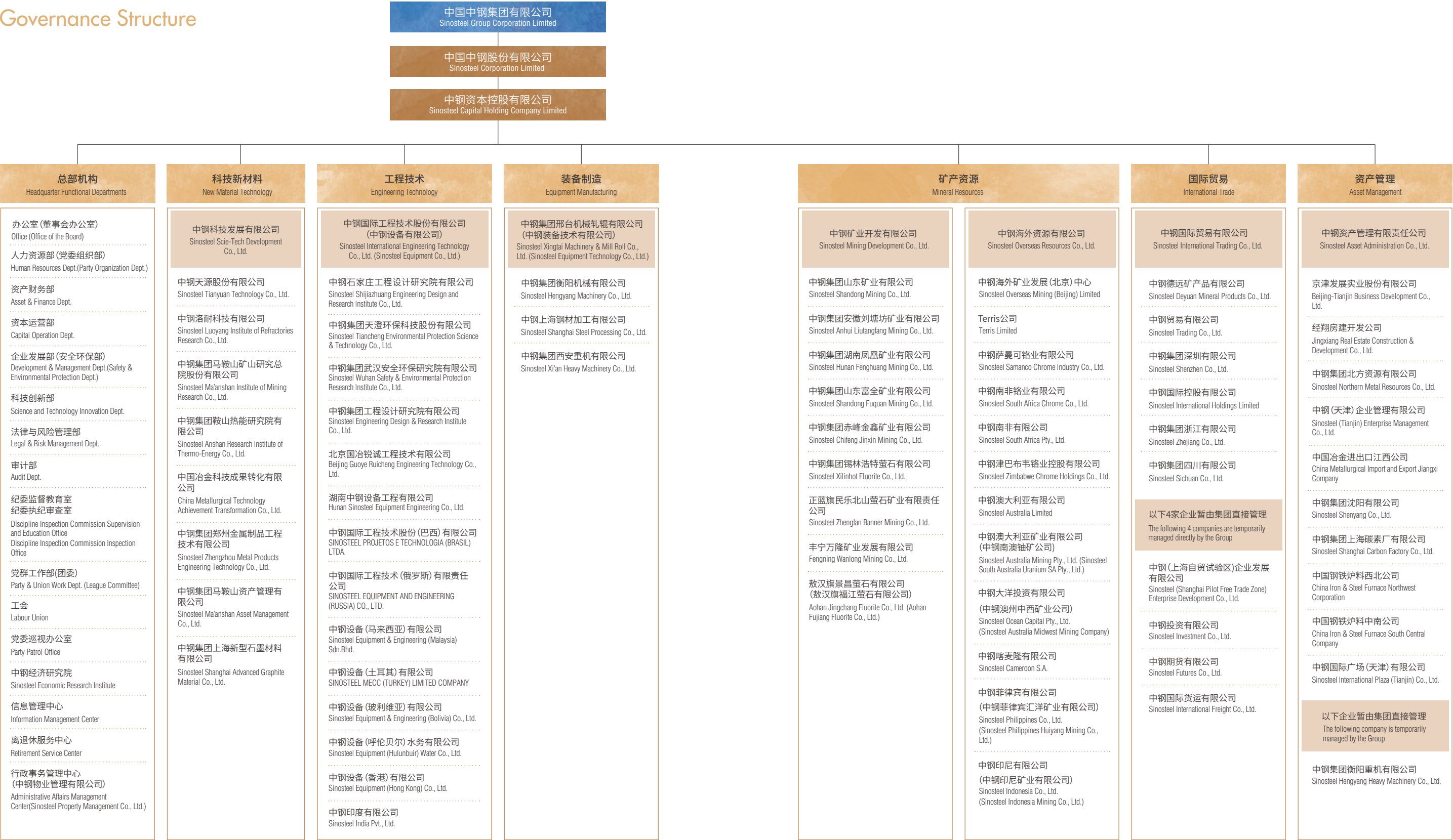


贸易与服务板块  
Trade and Service  
Section

紧紧围绕服务实体经济这一目标, 为实体企业提供有竞争力的供销解决方案, 着力推进营销渠道建设, 逐步打造以专业化协同为支撑的供应链体系。

Closely revolving around the fundamental goal of serving the real economy, Trade & Service Section provides competitive supply and marketing solutions for business entities, and promotes the construction of marketing channels, gradually building a supply chain system supported by professional synergy.

治理结构  
Governance Structure





# 责任中钢

## SINOSTEEL RESPONSIBILITY

### 责任理念

#### Responsibility Concept

中钢集团切实履行经济、环境和社会三重底线责任，结合行业特征和企业特点，始终兼顾各利益相关方的利益，提出了由“价值产业链、绿色创新链、和谐共赢链”构成的可持续发展理念，坚持提升价值创造，坚信绿色发展引领未来，坚定贡献社会和谐发展。

Sinosteel earnestly fulfills the triple bottom-line responsibilities of economy, environment and society, combined with the characteristics of the industry and the company, and always takes into account the interests of all stakeholders, and proposes the responsibility philosophy of "value industry chain, green innovation chain, and harmonious and win-win chain", insisting on enhancing value creation. Sinosteel firmly believes that green development leads the future and is determined to make contributions to the harmonious development of society.

中钢集团可持续发展责任模型  
Figure-Sinosteel Group's Sustainable Development Responsibility Model



### 价值产业链，坚持创造价值

#### Value Industry Chain, Insisting on Creating Value

这是中钢集团可持续发展的经济维度，指公司注重为股东创造价值。同时兼顾银行、政府、客户和供应商等利益相关方的利益，持续提升整个产业链的价值创造能力，实现中钢集团的基业长青。

This is the economic dimension of Sinosteel's sustainable development. It means that the company focuses on creating value for shareholders, while taking into account the interests of stakeholders such as banks, governments, customers, and suppliers, and continuously improving the value creation capabilities of the entire industry chain to guarantee the solid foundation of Sinosteel.

### 绿色创新链，绿色播种希望

#### Green Innovation Chain, Sowing Hope

这是中钢集团可持续发展的环境和创新维度，指公司注重环境保护，发展低碳经济，提升上下游企业的环保水平，通过持续创新培育发展新动力、拓展发展新空间，不断致力于钢铁产业链的绿色制造、创新发展，以促进中钢集团的可持续发展。

This is the environment and innovation dimension of Sinosteel's sustainable development. It refers that the company focuses on environmental protection, develops a low-carbon economy, improves the environmental protection level of upstream and downstream enterprises. Through continuous innovation, it fosters new development momentum, expands new development space, and gets continuously committed to green manufacturing and innovation development of the steel industry chain to promote the sustainable development of Sinosteel.

### 和谐共赢链，爱心铸就未来

#### Harmony and Win-win Chain, Love Creating Future

这是中钢集团可持续发展的社会维度，指公司在发展过程中，始终注重企业运营对员工、社区等利益相关方整体福利水平的提升，以推动中钢集团与社会的和谐共赢。

This is the social dimension of Sinosteel's sustainable development. It refers that the company always pays attention to the improvement of overall welfare of employees, community and other stakeholders by enterprise operation in order to promote the harmonious and win-win situation between Sinosteel and the society.

# 责任维度 Responsibility Dimension

基于战略目标实现和利益相关方关注度这两大维度的综合考虑，中钢集团将企业现阶段的社会责任工作聚焦于四个维度：

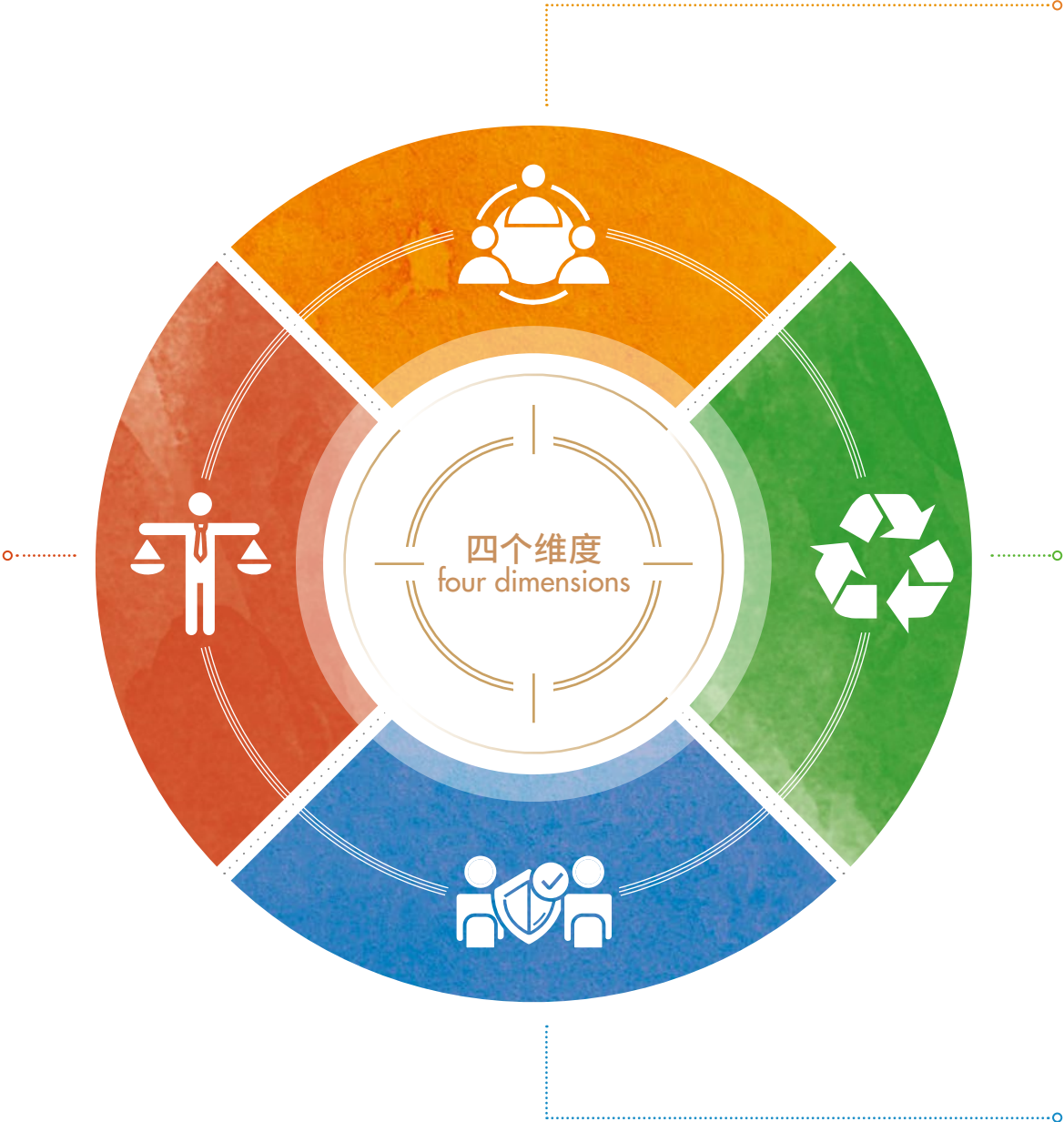
Based on the comprehensive consideration of the two dimensions of the realization of strategic goals and the attention of stakeholders, Sinosteel focuses on four dimensions of the company's current social responsibility work:

政府维度 Government dimension

遵守法律法规，促进国家资源安全  
Abide by laws and regulations and promote national resource security

中钢始终承担着国家资源安全的战略责任，致力于为国内钢铁企业提供安全、稳定、可靠的矿产资源，通过深化国际合作，促进世界经济繁荣与发展。与此同时，中钢集团在海内外的所有合作都将严格按照业务所在国家和地区的政府及有关部门法律、法规要求，严格履行企业承诺。

Sinosteel has always assumed the strategic responsibility of national resource security, committed to providing safe, stable and reliable mineral resources for domestic steel companies, and promoted the prosperity and development of the world economy by deepening international cooperation. At the same time, all Sinosteel cooperation at home and abroad will strictly comply with the laws and regulations of the governments and relevant departments of the countries and regions where the business is located, and strictly fulfill the corporate commitments.



社会维度 Social dimension

诚信经营，保护环境，贡献社区  
Integrity management, environmental protection, contribution to the community

中钢集团在不同国家和地区开展业务，并对当地社会践行承诺，高质量履行多方面社会责任。

Sinosteel conducts business in different countries and regions, and fulfills its commitments to local communities and fulfills its social responsibilities in many aspects with high quality.

企业维度 Corporate dimension

追求可持续发展  
Pursuing sustainable development

中钢集团注重企业自身的可持续发展能力建设，通过自身改革创新寻求持续发展之路，不断加强履行社会责任的能力。

Sinosteel pays attention to the company's own sustainable development capacity, seeks a way of sustainable development through its own reform and innovation, and continuously strengthens the ability to perform social responsibilities.

员工维度 Employee dimension

权益保障，共同发展  
Protection of rights and interests, common development

中钢集团注重保障员工合法权益，为员工提供使其能够充分发挥积极性和创造性的发展平台。员工既是中钢对内履行社会责任的主要对象，也是集团对外履责的重要窗口。

Sinosteel attaches great importance to protecting the legitimate rights and interests of employees, and provides employees with a development platform that enables them to give full play to their enthusiasm and creativity. Employees are not only the main targets of Sinosteel's internal fulfillment of social responsibilities, but also an important window for the group to perform external responsibilities.



# 责任治理

## Responsibility Governance

中钢持续健全社会责任管理体系，根据集团管控模式调整与业务推进情况，公司社会责任工作由中钢集团社会责任工作领导小组负管理责任，办公室作为归口管理部门，负责社会责任工作的整体推进，并进一步明确了各个职能部门和下属企业在社会责任推进过程中的主要职责和重点工作。

在有序推进经营活动的同时，集团仍按照计划推进社会责任管理工作，不断将社会责任融入到日常运营活动之中，并按时发布可持续发展报告、与利益相关方积极沟通，加强履责能力建设。

公司积极参加国资委等相关部门组织的社会责任培训，对标先进企业，提升社会责任工作的管理水平和实践水平，不断增强社会责任工作能力，形成可操作的经验和模式。加强企业可持续发展能力建设，推进企业经营模式转变，推动改革探索。

Sinosteel continues to improve its social responsibility management system. According to the adjustment of the group's management and control model and business promotion, the company's social responsibility work is managed by the Sinosteel Group's Leading Group for Social Responsibility. As a centralized management department, the office is responsible for the overall promotion of social responsibility work, and further clarifies the main responsibilities and key tasks of various functional departments and subsidiaries in the process of promoting social responsibility.

While advancing business activities in an orderly manner, the Group promoted social responsibility management according to the plan, continuously integrated social responsibility into daily operations, released sustainability reports on time, actively communicated with stakeholders, and strengthened the ability to perform responsibility construction.

The company actively participated in social responsibility training organized by the SASAC and other relevant departments, benchmarked advanced enterprises, improved the management level and practice level of social responsibility work, continuously enhanced social responsibility work capabilities, and formed operable experience and models to strengthen the sustainable development of enterprises, promote the transformation of business models, and promote reform and exploration.

# 责任沟通与议题识别

## Responsibility Communication and Issue Identification

中钢非常重视与各利益相关方的沟通，建立互信，促进合作，共同创造可持续的未来。在公司内部，充分利用职工代表大会、建议箱、员工座谈会、培训活动等渠道，加强领导与员工之间的沟通。对外，公司通过定期发布可持续发展报告，准确披露公司上年度的经济、社会、环境的履责情况，让利益相关方更了解企业。

中钢集团认真研究分析国内外各项方针政策，识别并筛选出对公司和利益相关方都重要的实质性议题，并绘制实质性矩阵，指导公司有的放矢地开展社会责任工作。

Sinosteel attached great importance to communication with various stakeholders, building mutual trust, promoting cooperation, and jointly creating a sustainable future. Within the company, the company made full use of channels such as employee representative meetings, suggestion boxes, employee seminars, and training activities to strengthen communication between leaders and employees. Externally, the company regularly published sustainability reports to accurately disclose the company's economic, social, and environmental responsibilities in the previous year, so that stakeholders could better understand the company.

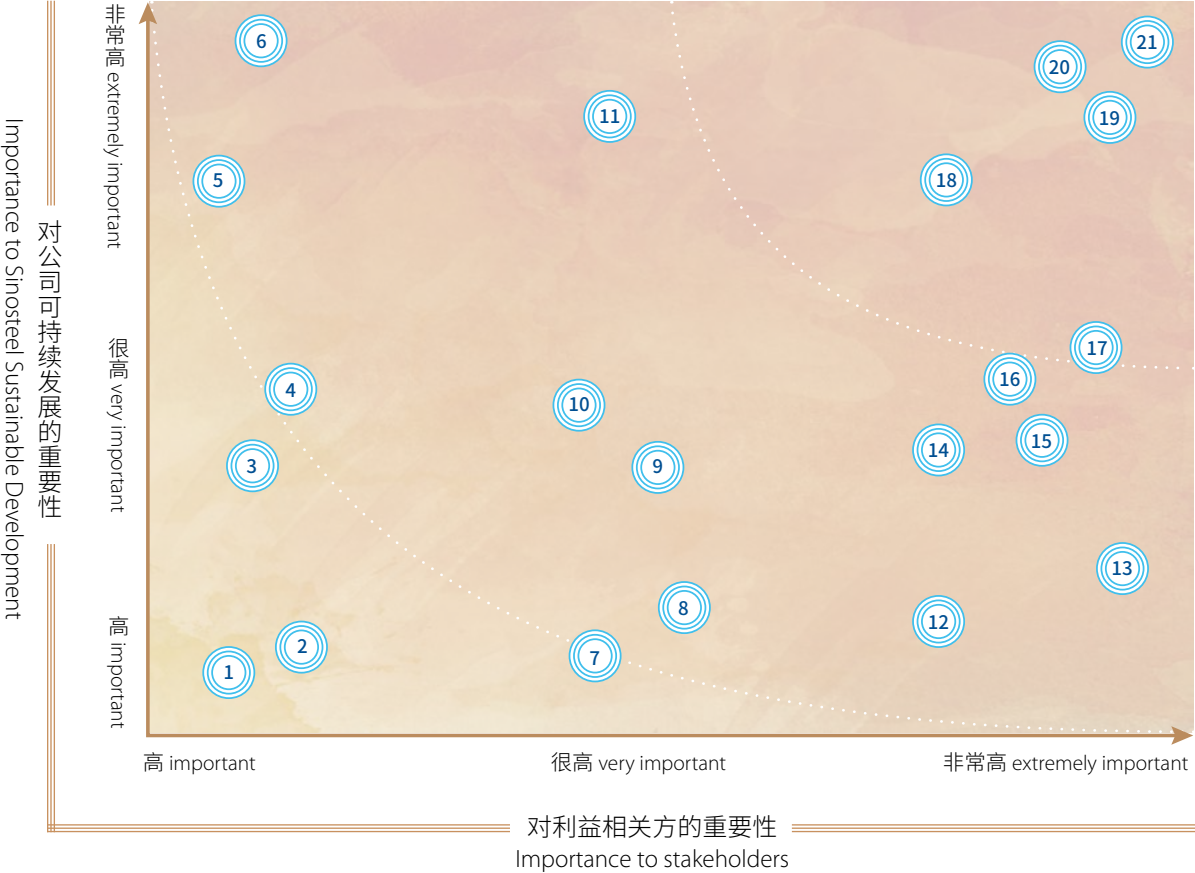
Sinosteel earnestly studied and analyzed various policies at home and abroad, identified and screened out substantive issues that are important to the company and stakeholders, and drew a substantive matrix to guide the company to carry out its social responsibility work in a targeted manner.



议题识别背景分析  
Issue Identification Background Analysis

国家宏观政策导向 National macro policy orientation	深入解读国家宏观政策及行业相关政策法规，领会可持续发展的方向及趋势。	In-depth interpret national macro policy and related policies and regulations, grasp the direction of sustainable development and the trend.
国内外社会责任标准研究分析 Research and analysis of social responsibility standards at home and abroad	认真梳理全球可持续发展标准委员会 (GSSB)《GRI 可持续发展报告标准》(GRI Standards)、国际标准化组织《社会责任国际标准》(ISO 26000) 等相关国际标准，同时参考国家标准《社会责任报告编写指南》(GB/T 36001-2015)，以及《中国企业社会责任报告编制指南》(CASS-CSR4.0)、《电子信息行业社会责任指南》(SJ/T 16000-2016) 等标准，了解全球可持续发展议题管理及信息披露最新要求。	Conscientiously sort out related international standards such as <i>GRI Sustainability Reporting Standards</i> (GRI Standards) by the Global Sustainable Development Standards Committee (GSSB), <i>International Standards for Social Responsibility</i> (ISO 26000) by the International Organization for Standardization, and refer to the national standard <i>Social Responsibility Report Preparation Guidelines</i> (GB/T 36001-2015), and standards such as the <i>Guidelines for the Preparation of Corporate Social Responsibility Reports in China</i> (CASS-CSR4.0), and the <i>Guidelines for Social Responsibility in the Electronic Information Industry</i> (SJ/T 16000-2016), Understand the latest requirements for the disclosure of management performance information on global sustainability issues.
行业对标 Industry benchmarking	对行业可持续发展战略及管理、实质性议题、指标进行全面对标，研究确定行业热点议题。	Comprehensively benchmark the sustainable development strategies and management, substantive issues, and indicators of the industry; research and determine the hot topics in the industry.
利益相关方的访谈与调研 Interviews and research with stakeholders	通过对企业内部各部门、员工以及上下游关联企业、合作伙伴进行访谈，并辅之以线上线下问卷调查等形式，了解利益相关方对企业的期望与诉求。	Through interviews with various internal departments, employees, upstream and downstream affiliated companies and partners, supplemented by online and offline questionnaire surveys, understand the expectations and demands of stakeholders on the company.
公司发展战略规划 Company development strategy planning	结合企业发展战略规划，识别对公司实现战略目标意义重大的关键议题。	Combining with the enterprise development strategy planning, identify key issues that are of great significance for the company to achieve strategic goals.

中钢社会责任议题识别实质性矩阵  
Material Matrix for the Identification of Sinosteel Social Responsibility Issues



- 1 按时足额纳税  
Pay taxes in full and on time

2 聚焦精准扶贫  
Focus on targeted poverty alleviation

3 供应链管理  
Supply chain management

4 安全生产  
Safe production

5 防范经营风险  
Prevent business risks

6 国有资产保值增值  
Maintain and increase the value of state-owned assets

7 社区繁荣和谐  
Prosperity and harmony in the community
- 8 推动行业进步  
Promote industry progress

9 员工职业发展  
Career development of employees

10 员工健康安全  
Health and safety of employees

11 技术创新与应用  
Technological innovation and application

12 优化合作关系  
Optimize partnership

13 碳中和  
Carbon neutral

14 绿色生产  
Green production
- 15 循环经济  
Circular economy

16 恢复生产，稳定就业  
Resume production and stabilize employment

17 捐赠救灾  
Donate for disaster relief

18 良好的客户关系  
Good customer relationship

19 优质服务  
Quality service

20 优质产品  
Quality product

21 抗击疫情  
Fight the epidemic



1 以价值创造为核心，  
夯实发展根基

TAKE VALUE CREATION AS  
THE CORE AND CONSOLIDATE  
THE FOUNDATION FOR  
DEVELOPMENT



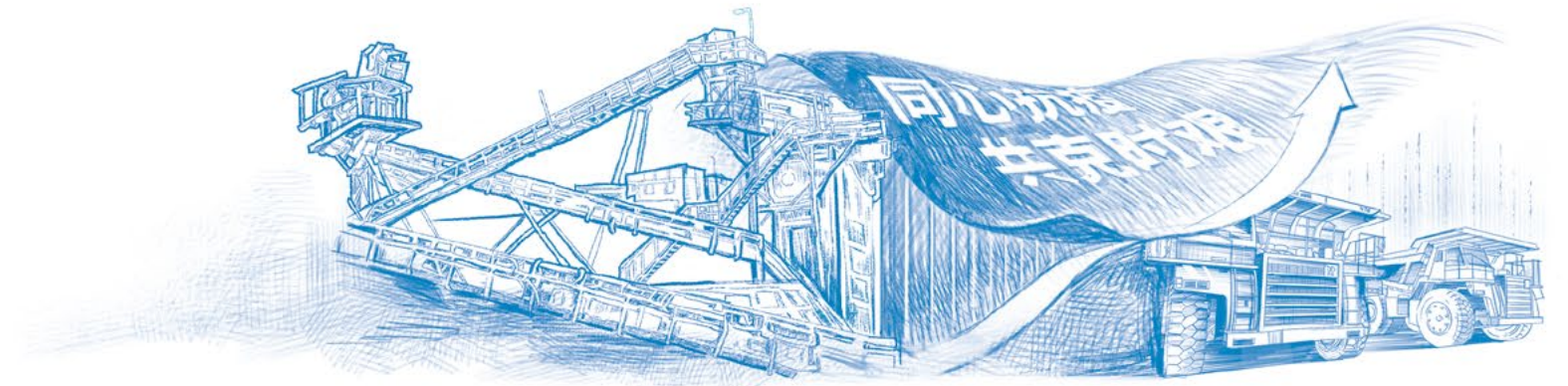
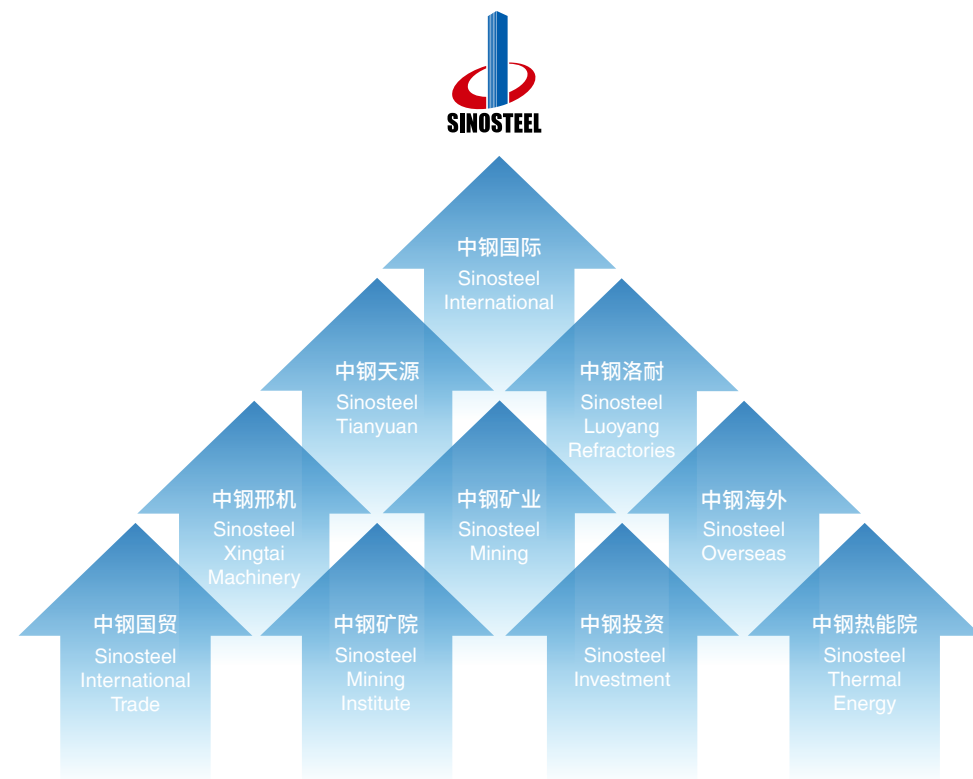


# 乘势而上，变革开启新征程

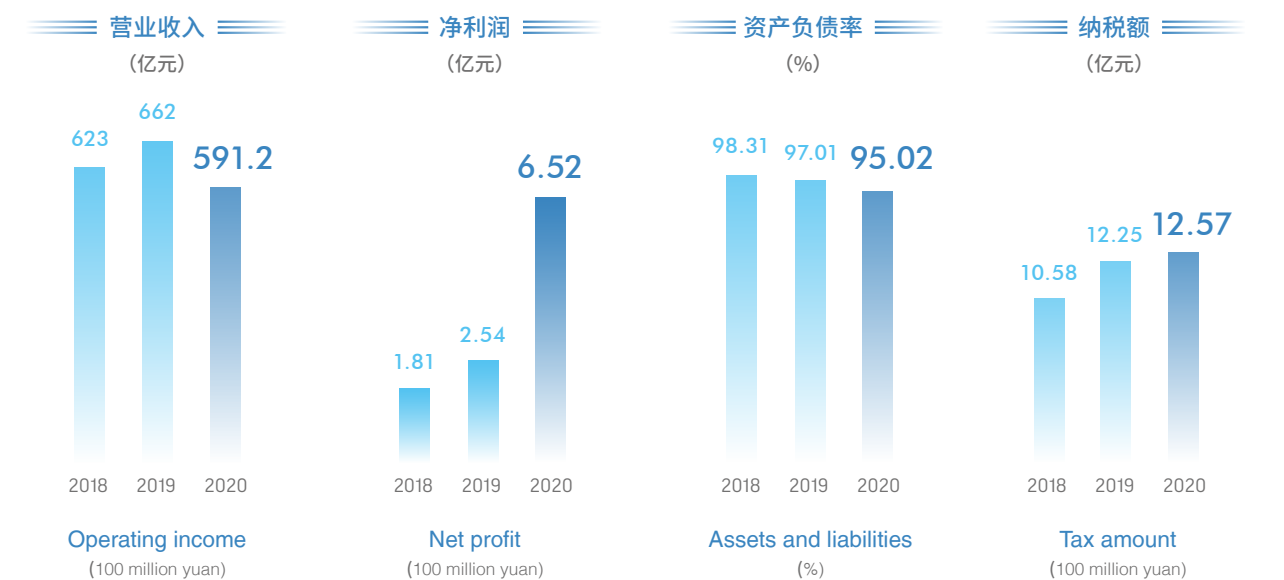
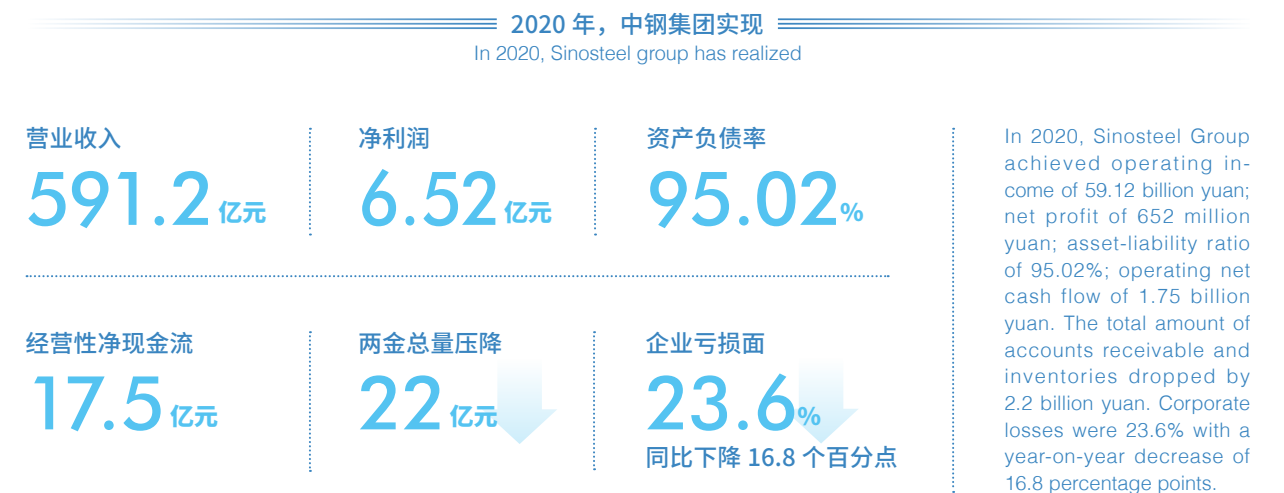
TAKE ADVANTAGE OF THE TREND AND START A NEW JOURNEY OF REFORM

2020 年，中钢集团面对世纪罕见的新冠疫情严重冲击，坚持以习近平新时代中国特色社会主义思想为指导，认真执行党中央、国务院决策部署和国资委“三稳四保一加强”工作要求，坚持聚焦四大优势产业，大力实施耐火材料、磁性材料、炭材料业务重组，促进产业结构调整，优势产业核心业务在细分行业的影响力、核心竞争力逐渐显现，中钢国际等一批支柱企业已成为集团稳增长的骨干力量。

In 2020, facing the severe impact of the COVID-19 epidemic that is rare in the century, Sinosteel adhered to the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, and earnestly implements the Party Central Committee, the State Council's decision and deployment and the SASAC's "Three Stability, Four Guarantees and One Strengthening" Work Requirements. Sinosteel focused on four major industries and vigorously implemented the business reorganization of refractory materials, magnetic materials and carbon materials to promote industrial restructuring. The influence and core competitiveness of the core business of competitive industries in sub-industries have gradually emerged, and a number of pillar companies such as Sinosteel International have become the backbone of the group's steady growth.



## 经营情况 Business conditions





## 疫情防控、经营发展双胜利

### Double Victories Achieved in Epidemic Prevention and Control as well as Business Development

在党中央、国务院和国资委党委领导下，中钢集团全力以赴投身疫情防控阻击战，坚持疫情防控与生产经营两手抓，两手都要硬、两战都要赢。

Under the leadership of the Party Central Committee, the State Council, and the State-owned Assets Supervision and Administration Commission, Sinosteel Group has gone all out to fight the epidemic. At the same time, victory was achieved in epidemic prevention and control and production and operation.

### 全力以赴投身疫情防控阻击战

#### Go All Out to Join the Fight Against the Epidemic

集团党委闻令而动，周密组织，迅速形成了全面动员、全面部署、全面投身疫情防控工作的局面。

The party committee of the group moved upon hearing the order, organized carefully, quickly and comprehensively mobilized, deployed in an all-round way, and devoted itself to the prevention and control of the epidemic.

第一时间建立由主要负责人任组长的疫情防控工作领导小组

Established a leading group for epidemic prevention and control with the main person in charge as the team leader at the first time



全系统建立疫情  
每日报告制度

Established a daily reporting system for the epidemic situation throughout the system



全系统 24 小时  
值班值守

The whole system was on duty 24 hours a day



召开多次专题会议，  
布置各项防控工作

Convened several special meetings to arrange various prevention and control work



疫情防控视频会  
Epidemic Prevention and Control Video Conference

#### 疫情防控与落实

#### Epidemic prevention and control and implementation

印发疫情防控通知、倡议书、防疫应知应会手册

Printed and distributed epidemic prevention and control notices, proposal letters, and epidemic prevention notices and handbooks

挺身而出，全方位支持疫情防控

Came forward and supported the prevention and control of the epidemic in all aspects



火速从澳大利亚采购 1 万件医用防护服驰援抗疫前线

Bought 10,000 protective clothing from Australia to support anti-epidemic frontlines

中央赴湖北等疫情严重地区指导组和湖北省慈善总会发来感谢信

The central steering group to Hubei and other severely affected areas and the Hubei Charity Federation sent a letter of appreciation

向湖北疫情严重地区捐款 672 万余元

Donated over 6.72 million RMB to epidemic-stricken areas in Hubei



从境外采购 18 万只医用口罩支持国内所属企业复工复产

Purchased 180,000 surgical masks from overseas to support domestic companies' resumption of work

孙晓轩

中钢澳大利亚有限公司 总经理

荣获“中央企业抗击新冠肺炎疫情先进个人”荣誉称号

Sun Xiaoxuan, General Manager of Sinosteel Australia Co., Ltd., was awarded the honorary title of "Advanced Individual of Central Enterprises in Fighting COVID-19 Epidemic"

中钢集团武汉安全环保研究院有限公司  
劳动保护用品检验实验室

荣获“中央企业抗击新冠肺炎疫情先进集体”荣誉称号

Labor Protection Products Inspection Laboratory of Sinosteel Wuhan Safety and Environmental Protection Research Institute Co., Ltd. was awarded the honorary title of "Advanced Group of Central Enterprises in Fighting COVID-19 Epidemic"



## 咬紧目标勇担当，复工复产稳增长

### Caught up on the Goal and Took Responsibility, Resumed Work and Production to Grow Steadily

在抓好疫情防控的同时，集团坚持“戴着口罩”抓经营、强管理、补短板，最大限度恢复和稳定生产经营。

While doing a good job in the prevention and control of the epidemic, the group insisted on “wearing a mask” to focus on operations, strengthen management, make up for weaknesses, and restore and stabilize production and operation to the maximum extent.

#### 积极推动企业加快复工复产

#### Actively promote enterprises to speed up the resumption of work and production

疫情发展趋于平稳后，中钢集团多次以视频方式按业务板块召开调度会议，研究部署精准推动疫情防控和生产经营工作。

After the progress of the epidemic stabilized, Sinosteel held several scheduling meetings based on business segments through video methods to study and accurately deploy epidemic prevention and control and production and operation work.



#### 科技新材 > New Technology Materials

以子集团一体化为方向，加快体制机制改革  
Accelerate the reform of the system and mechanism with the integration of sub-groups as the direction

#### 装备制造 > Equipment Manufacturing

加大产能释放，做好子集团一体化、新厂建设、土地盘活工作  
Increase production capacity release, with great efforts in sub-group integration, new plant construction, and land revitalization

#### 国际贸易 > International Trade

开拓海外市场，做好存量盘活、清收清欠、风险防控和混改工作  
Exploit overseas markets, and work hard in inventory revitalization, collection and debt collection, risk prevention and control, and mixed ownership reform

#### 工程技术 > Engineering Technology

确保人员健康，推进项目进度  
To ensure the health of personnel and promote the progress of the project

#### 矿产资源 > Mineral Resources

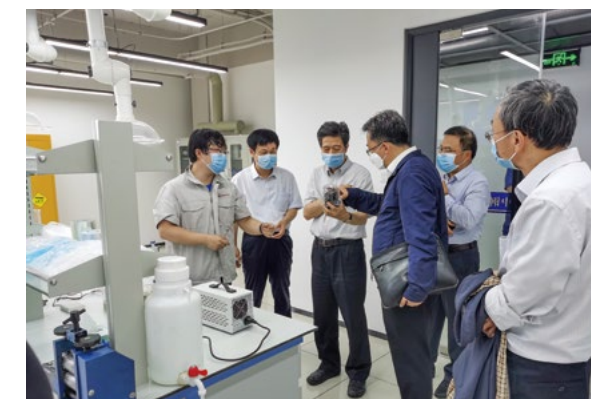
根据疫情态势改进生产运营  
Improve production and operations based on the situation of the epidemic

#### 资产管理 > Asset Management

加快改革调整，建立考核激励机制  
Speed up reform and adjustment, and establish an assessment and incentive mechanism

#### 领导赴所属企业调研疫情防控和复工复产

#### The management went to subsidiaries to investigate epidemic prevention and work resumption



疫情期间，集团领导赴分管板块、企业调研疫情防控和复工复产工作。指导所属企业想方设法开拓市场，抢抓市场机遇，努力争创效益；千方百计抢工期、赶进度，最大限度降低疫情对经营的不利影响。

During the epidemic, the group leaders went to the divisions and companies in charge to investigate the prevention and control of the epidemic and resume work and production. They well guided the affiliated companies to find ways to open up the market, seize market opportunities, and strive to create benefits, and did everything possible to seize the construction period, catch up with the progress, and minimize the adverse impact of the epidemic on operations.

#### 所属企业复工复产

#### Affiliated companies resumed work

各所属企业不等不靠，加班加点，克服重重困难，力争把疫情造成的损失夺回来。

All affiliated companies were self-reliant, working overtime, overcoming numerous difficulties, and striving to regain the losses caused by the epidemic.







# 协同 - 构建产业生态

## Collaboration- Building an Industrial Ecology

2020 年，中钢集团发挥产业优势带动构建新发展格局：立足国内大循环，扩大有效投资；发挥产业龙头作用，切实增强产业链供应链自主可控能力，推动上下游、产供销有效衔接、协调运转，主动适应和创造市场需求；助力畅通国内国际双循环，加强国际产能合作，优化境外投资布局，坚定不移深化对外开放。

In 2020, Sinosteel gave full play to its industrial advantages to drive the construction of a new development pattern: based on the domestic cycle, expand effective investment; play the leading role of the industry, effectively enhance the independent controllability of the industrial chain and supply chain, and promote the effective connection and coordination of upstream and downstream, production, supply and marketing, actively adapt to and create market demand; help smooth the domestic and international dual cycle, strengthen international production capacity cooperation, optimize the layout of overseas investment, and unswervingly deepen the opening up.

# 科技新材优化资源配置

## Optimize the Allocation of Resources with New Technology Materials

集团科技新材板块突出业务重组，通过优化资源配置，不断延伸和完善产业链、价值链。

The Group's technology and new materials segment highlights business restructuring. It continuously extends and improves the industrial chain and value chain by optimizing resource allocation.

### 中钢洛耐科技股份有限公司成立

Sinosteel Luoyang Refractories Science & Technology Co., Ltd. established

2020 年 8 月 17 日，中钢洛耐科技股份有限公司成立。公司将以科技为支撑，打造高质量发展的世界一流耐火材料企业。

On August 17, 2020, Sinosteel Luoyang Refractories Science & Technologies Co.Ltd. was formally established. The company, with the support of the science and technology, will be dedicated to building a world-class refractory enterprise with high-quality development.



### 牵头制定首项金属磁粉心国际标准

Take the lead in formulating the first international standard for metal magnetic powder cores



2020 年 7 月，由中钢天源参股企业牵头起草的国际标准 IEC 63182-1 : 2020 Ed.1.0 Magnetic powder cores - Guidelines on dimensions and the limits of surface irregularities - Part 1: General specification (金属磁粉心尺寸和表面缺陷极限导则，第 1 部分：通用规范) 正式发布，实现了我国金属磁粉心领域国际标准零的突破，标志着中钢集团在国际磁性材料标准化领域的话语权进一步增强。

In July 2020, the international standard IEC 63182-1: 2020 Ed.1.0 Magnetic powder cores-Guidelines on dimensions and the limits of surface irregularities-Part 1: General specification is officially released. The issuance of this standard which is drafted by a share enterprise of Sinosteel Tianyuan Technology Co., Ltd., has achieved a breakthrough in international standard in the field of metal magnetic powder cores in our country, and marked that Sinosteel has further strengthened its right to speak in the field of international magnetic material standardization.



### 中钢新型成为国内唯一核级石墨粉供应商

Sinosteel Advanced Materials Co., Ltd. became the only domestic nuclear-grade graphite powder supplier



年内，中钢集团参研的全球首条工业化规模、我国拥有完全自主知识产权的高温气冷堆核燃料元件生产线首批产品用于山东荣成石岛湾高温气冷堆核电站示范工程。核石墨是建设高温气冷堆、快堆等新一代核电站的关键材料，曾长期受制于人，是典型的“卡脖子”材料。

In 2020, the first batch of products Sinosteel participated in the research of the world's first industrial-scale high-temperature gas-cooled reactor nuclear fuel element production line with complete and independent intellectual property rights in our country has been used in the demonstration project of Shandong Rongcheng Shidaowan High Temperature Gas-cooled Reactor Nuclear Power Plant. Nuclear graphite is a key material for the construction of new generation nuclear power plants such as high-temperature gas-cooled reactors and fast reactors, a typical "stuck neck" material severely relied on imports.

中钢新型不仅作为中国唯一代表向 IAEA (国际原子能机构) 提交核石墨辐照蠕变协同研究项目内容，同时，还被 ASTM- 石墨测试委员会特邀成为该委员会成员 (该委员会目前仅有四家成员单位，除中钢新型外，均为国际碳材料行业老牌领军企业，分别为日本东洋、德国 SGL、美国 GrafTech)。

As the sole representative of China, Sinosteel Advanced Materials Co., Ltd. not only submitted the contents of the



中钢新型核燃料生产线  
Sinosteel New Materials nuclear fuel production line

nuclear graphite radiation creep collaborative research project to the IAEA (International Atomic Energy Agency), but also was specially invited by the ASTM-Graphite Testing Committee to become a member of the committee (the committee currently has only four member units, all established leaders in the international carbon material industry except for Sinosteel Advanced Materials, namely Japan TOYO, Germany SGL, and American Graf Tech).





工程技术提升专业优势

Engineering Technology Enhancing Professional Advantages

在工程技术产业板块，中钢集团不断提升自身在大型焦炉、带式焙烧、长材、节能减排、安全环保领域的专业优势，加快向高新技术企业转型升级。

In the engineering technology industry sector, Sinosteel continues to enhance its professional advantages in the fields of large coke ovens, belt roasting, long products, energy saving and emission reduction, and safety and environmental protection, and accelerate the transformation and upgrading to high-tech enterprises.

中钢国际 EPC 总承包 4 座大型焦炉全部投产

All 4 large coke ovens generally contracted by Sinosteel international were put into operation

2020 年，由中钢设备 EPC 总承包的柳钢集团防城港钢铁基地（简称“柳钢防城基地”）焦化系统备煤焦炉项目 4 座 7.5 米大型焦炉全部投产。这 4 座焦炉从设计到建设，再到运行，凭借其在绿色节能方面的缜密设计和技术优势，不仅能满足现行国家超低排放标准的要求，而且已经达到了国际先进水平。



In 2020, all four 7.5-meter large coke ovens in the coking system coal preparation coke oven project of the Fangchenggang Iron and Steel Base of Liuzhou Iron and Steel Group, which was generally contracted by Sinosteel Equipment EPC, were put into operation. From design to construction, to operation, these four coke ovens not only meet the requirements of the current national ultra-low emission standards, but also have reached the international advanced level by virtue of their meticulous design and technical advantages in terms of green energy saving.

中钢石家庄设计院荣获 2020 年度中国有色金属建设行业“工程咨询、勘察、设计及信息成果奖”

Sinosteel Shijiazhuang Design Institute won the 2020 China Non-ferrous Metal Construction Industry "Engineering Consulting, Investigation, Design and Information Achievement Award"

单位名称 Unit name	项目名称 Project name	奖项 Awards
中钢石家庄设计院 Sinosteel Shijiazhuang Design Institute	《井陉县 120 米广播电视塔》 "The 120-meter Radio and Television Tower in Jingxing County"	工程设计成果奖一等奖 the first prize of the Engineering Design Achievement Award
	《江苏省鑫鑫钢铁集团有限公司 4#265 m <sup>2</sup> 烧结机技改工程余热利用工程设计》 "The Waste Heat Utilization Engineering Design of the 4#265m <sup>2</sup> Sintering Machine Technical Transformation Project of Jiangsu Binxin Iron and Steel Group Co., Ltd."	工程设计成果奖二等奖 the second prize of the Engineering Design Achievement Award
	《繁峙县金程矿业有限公司年产 120 万吨球团工程》 "1.2 million tons per year pelletizing project of Fanzhi County Jincheng Mining Co., Ltd."	工程设计成果奖三等奖 the third prize of the Engineering Design Achievement Award
	《乌兰浩特钢铁有限公司炼钢装备置换提升、产能置换项目可行性研究报告》 "The Feasibility Study Report of Ulanhot Steel Co., Ltd. Steelmaking Equipment Replacement Upgrade and Capacity Replacement Project"	工程咨询成果奖二等奖 the second prize of Engineering Consulting Achievement Award

装备制造实现持续超越

Equipment Manufacturing Achieves Continuous Surpassing

集团装备制造产业不断提高生产过程的自动化、数字化水平，优化品种结构，提高产品质量，实现持续超越。

The group's equipment manufacturing industry continues to improve the level of automation and digitization in the production process, optimize the variety structure, improve product quality, and achieve continuous transcendence.

中钢邢机国内最大直径超级耐磨 NM 型钢水平辊环备受用户称赞

The largest diameter super wear-resistant NM steel horizontal roller ring in China is praised by users

中钢邢机的超级耐磨 NM 型钢水平辊环，直径 1300mm，是目前国内最大直径的超级耐磨 NM 型钢水平辊环，被国外客户誉为“型钢市场的扛鼎之作”，并称“必定会引领型钢轧制的重大变革”。

Sinosteel Xingtai Machinery's super wear-resistant NM steel horizontal roller ring with a diameter of 1300mm, is currently the largest diameter super wear-resistant NM-section steel horizontal roll ring in China. It is praised by foreign customers as "the masterpiece of the section steel market" and said that it "will definitely lead the section steel rolling major changes".



国内最大直径超级耐磨 NM 型钢水平辊环  
Super wear resistant NM profile steel horizontal roll ring with the largest diameter in China

中钢衡机成功制造出国内第一条镁带生产线卷筒

Sinosteel Hengyang Machinery Co., Ltd. successfully manufactured the first domestic magnesium belt production line reel

2020 年，中钢衡机攻克了一系列难关，制造出国内第一条产品的性能及质量全部符合设计要求的镁带生产线卷取机卷筒，并圆满通过测试验收。镁带的生产环境极其恶劣，镁带卷筒要具有较高的耐高温和耐腐蚀的性能。

In 2020, Sinosteel Hengyang Machinery Co., Ltd. has overcome a series of difficulties and manufactured the first domestic magnesium strip production line coiler drum whose performance and quality all meet the design requirements, and successfully passed the test and acceptance. The production environment of magnesium strip is extremely harsh, and the reel of magnesium strip must have high temperature resistance and corrosion resistance.





# 矿产资源不断做强做大

## Mineral Resources Sector Continues to Grow Stronger and Bigger

集团矿产资源产业不断拓展萤石资源，挖掘铁、铬资源价值，提升保障供应能力。

The Group's mineral resources industry continues to expand fluorite resources, tap the value of iron and chromium resources, and enhance the ability to guarantee supply.

中钢富全矿业“膏体压滤系统”  
Sinosteel Shangdong Fuquan Mining "Paste Filter Press System"

中钢富全矿业“膏体压滤系统”项目是 2020 年重点工程，是彻底解决富余膏体、进一步提升尾矿价值、全面实现极细尾砂完全利用的关键工程。该工程于 2020 年 1 月 10 号正式开始施工，3 月 20 日顺利完成并一次试车成功。可年处理尾矿膏体 30 多万吨，可处理库存尾砂 100 余万吨，产品全部销售，年创造经济效益 1000 余万元。

Sinosteel Shangdong Fuquan Mining's "Paste Filter Press System" project is a key project in 2020. It is intended to completely solve the surplus paste, enhance the value of tailings, fully realize the full utilization of ultra-fine tailings. The construction of the project officially started on January 10, 2020, and was successfully completed on March 20 with a successful test run. The completed system can process more than 300,000 tons of tailings paste annually, and can process more than 1 million tons of inventory tailings. All products were sold out, and annual economic benefits reached more than 10 million yuan.



中钢矿业铁精粉获用户好评  
Sinosteel Mining's fine iron powder is well received by users

2020 年 11 月，中钢矿业开发有限公司与石横特钢集团有限公司签订铁精粉供销合同。中钢矿业作为石横特钢在铁精粉方面的主要供应商，5 年来已累计向石横特钢供应铁精粉 200 万吨，助力石横特钢高质量发展。

In November 2020, Sinosteel Mining Development Co., Ltd. and Shiheng Special Steel Group Co., Ltd. signed an iron concentrate supply and marketing contract. As the main supplier of Shiheng Special Steel's fine iron powder, Sinosteel Mining has supplied 2 million tons of fine iron powder to Shiheng Special Steel in the past five years, helping Shiheng Special Steel's high-quality development.

中钢海外矿产资源分布  
Distribution of Sinosteel's overseas mineral resources

项目名称 Project	矿产产量 Mineral output	项目名称 Project	矿产产量 Mineral output
MIDWEST 铁矿 MIDWEST Iron Ore	赤铁矿资源 3.2 亿吨、磁铁矿资源量 6.9 亿吨 320 million tons of hematite resources and 690 million tons of magnetite resources	印尼镍矿 Indonesia Nickel Mine	镍矿资源量 1700 万吨以上 More than 17 million tons of nickel ore resources
恰那铁矿 Channar Iron Ore	累计为中国输送了 2.9 亿吨铁矿石 A total of 290 million tons of iron ore has been transported to China	南非 SAMANCOR 铬矿 South Africa SAMANCOR Chrome Ore	中钢控制的铬矿资源量为 10 亿吨，铬铁产能 270 万吨，铬矿资源量位列全球第一 Sinosteel controls 1 billion tons of chromium ore resources and 2.7 million tons of ferrochromium production capacity, ranking first in the world in terms of chromium ore resources
喀麦隆铁矿 Cameroon Iron Ore	磁铁矿资源 6.3 亿吨，远景资源量超过 10 亿吨 630 million tons of magnetite resources and more than 1 billion tons of prospective resources	津巴布韦 ZIMASCO 铬矿 Zimbabwe ZIMASCO Chrome Ore	
菲律宾镍矿 Philippine Nickel Mine	镍矿 石量 3000 万吨、三氧化二铬矿砂量 200 万吨 30 million tons of nickel ore and 2 million tons of chromium trioxide ore	南非 ASA 铬矿 South Africa ASA Chrome Ore	

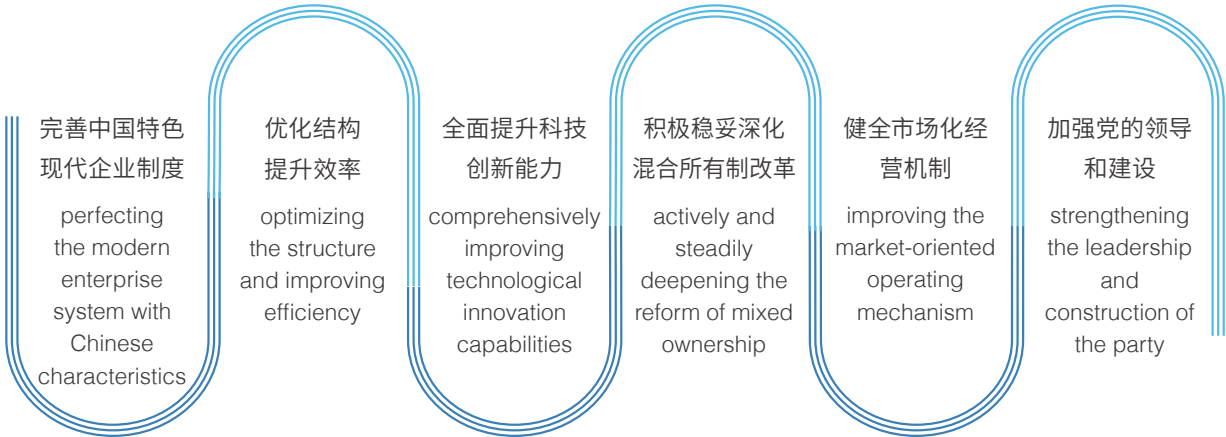
# 提速 - 深化体制改革

## Speeding up-Deepening System Reform

中钢集团抓紧抓实国企改革三年行动，强化企业改革主体责任，聚焦重点任务、注重激发活力、突出基层创新，将三年行动落实情况纳入业绩考核，确保在重要领域、关键环节取得实质性突破和进展。

Sinosteel has seized the three-year action of state-owned enterprise reform, strengthened the main responsibility of corporate reform, focused on key tasks, focused on stimulating vitality, and highlighted grassroots innovation, and incorporated the implementation of the three-year action into the performance evaluation to ensure substantive results in important areas and key links.

方案六大内容  
Six major aspects of the plan



## 企业改革开新篇

### Opening a New Chapter in Corporate Reform

2020 年，中钢集团用扎实的整改成效推动企业变革发展。做实了 7 个子集团，深化贸易企业改革，坚决退出国内风险贸易业务。混合所有制改革和股权多元化持续深化，所属企业法人治理结构不断完善。

In 2020, Sinosteel promoted the reform and development of the enterprise with solid rectification results. We consolidated 7 sub-groups, deepened the reform of trading enterprises, and resolutely withdrew from the domestic risk trading business. The mixed ownership reform and equity diversification continued to deepen, and the corporate governance structure of affiliated companies was continuously improved.

#### 双百行动 Double Hundred Action

中钢矿院入选国资委改革案例，在双百企业专项评估中获得 A 级，科创板上市进入问询阶段

Sinosteel Mining was selected as a case of reform of the State-owned Assets Supervision and Administration Commission, and was awarded A grade in the special evaluation of double-hundred enterprises. Sinosteel Mining entered the inquiry stage for listing on the Science and Technology Innovation Board.



#### 中钢矿院

##### 《引“战投”转机制 探索科研院所创新转型发展》

"Strategic Investment" Transition Mechanism to Explore the Innovation and Transformation and Development of Scientific Research Institutes" by Sinosteel Mining Institute

#### 科改示范 Science reform demonstration

推进中钢洛耐引战混改，科创板上市申报已获受理，同步实行员工持股；中钢天源非公开发行股票筹资获证监会核准

Mixed reform of Sinosteel Luoyang Refractories was promoted. The sci-tech innovation board listing application has been accepted, and employee shareholding has been implemented simultaneously. Sinosteel Tianyuan's non-public issuance of stocks has been approved by the China Securities Regulatory Commission.

#### 处僵治困 Help the dying enterprises out of difficulties

完成 27 户企业治理任务，企业亏损面大幅下降

Completed 27 corporate governance tasks, and the loss of the company dropped significantly.

#### 三供一业 Three supplies and one industry

完成审计清算，厂办大集体和离退休人员社会化主体任务达成目标

Completed the audit and liquidation, and achieved the goal of the main task of socialization of large factory-run collectives and retirees.

#### 所属企业董事会应建尽建 Promote the boards of affiliated companies to be fully built

中钢洛耐、中钢邢机、中钢矿业、中钢海外、中钢热能院完成董事会建设  
Sinosteel Luoyang Refractories, Sinosteel Xingtai Machinery, Sinosteel Mining, Sinosteel Overseas, and Sinosteel Thermal Energy Institute completed the construction of the board of directors.



集团召开所属企业规范董事会建设会议  
The Group held a meeting to standardize the construction of subsidiaries' boards





## 对标世界一流，落实管理提升

Benchmarking the world-class standards, implementing management improvements



2020年9月，中钢集团组织召开对标世界一流管理提升行动工作推进会，进一步贯彻落实国资委对标提升行动工作部署，扎实推动集团各级企业对标提升工作向纵深拓展。

In September 2020, Sinosteel organized a meeting to promote the benchmarking of world-class management improvement actions to implement the SASAC's deployment of benchmarking actions, and promote the in-depth expansion of the benchmarking and improvement work of enterprises at all levels of the group.



## 中国宝武对中钢集团实施托管

China Baowu implements trusteeship to Sinosteel



10月19日，中钢集团召开干部大会。根据国务院国资委决定，由中国宝武钢铁集团有限公司对中钢集团进行托管。

On October 19, Sinosteel held a cadre meeting. Comrades from the State-owned Assets Supervision and Administration Commission conveyed the decision that China Baowu Iron and Steel Group Co., Ltd. would take trusteeship of Sinosteel.



## 风险防范守底线

Keeping the Bottom Line on Risk Prevention

集团持续强化风险意识，居安思危、做好充分准备，在应对变局中保持战略定力，在良好发展中坚持底线思维，确保经营发展稳中加固向好，实现企业持续健康发展。

The Group continues to strengthen risk prevention awareness, be prepared for danger in times of peace, and be fully prepared to maintain strategic determination in responding to changes, adhere to bottom-line thinking in good development to ensure progress in stable business development, and achieve sustainable and healthy development of the company.

统筹发展和安全，深入分析生产、销售、融资、法律等各领域各环节面临的危险，制定周密预案，及时有效应对。

Coordinate development and safety, thoroughly analyze the risks faced by various links in production, sales, financing, and law, formulate thorough plans, and respond in a timely and effective manner.

进一步压实各环节安全生产责任，积极排查风险隐患、完善管理体系，从根本上消除事故隐患，扎实做好安全生产工作，慎终如始抓好常态化疫情防控。

Further consolidate the responsibilities for production safety in all links, actively investigate hidden risks, improve the management system, fundamentally eliminate hidden accidents, do a solid job in safety production, and take care of normalizing epidemic prevention and control.

安全生产投入

10045.3万元

Safety production investment:  
100.453 million yuan

安全培训次数

907次

Safety training times: 907

安全培训人次

26969人次

Safety training: 26969 person-times



开展安全检查

3790次

Carried out 3790 safety inspections

应急演练

262次

262 emergency drills

参演职工

6660人次

and 6660 employees





## 开展专项整治，落实三年行动

Carry out special rectification and implement the three-year action



2020年5月，中钢集团召开安全生产专项整治三年行动专题视频会议。会议结合集团实际和所属企业安全生产风险特点，对贯彻落实安全生产专项整治三年行动指导意见进行了细化分解和深入解读，为企业完善和落实重在“从根本上消除事故隐患”的责任链条、制度成果、管理办法、重点工程和工作机制提供了系统的解决思路。

In May 2020, Sinosteel held a special video conference on the three-year action of special rectification of production safety. Based on the actual situation of the group and the characteristics of the safety production risks of the affiliated companies, the meeting conducted a detailed decomposition and in-depth interpretation of the three-year action guidance for the implementation of the special rectification of production safety, and provided systematic solutions to improve and implement the responsibility chain, system results, management methods, key projects and working mechanisms that focus on "fundamentally eliminating potential accidents" for the enterprise.



## 消除事故隐患，筑牢安全防线

Eliminate hidden dangers of accidents and build a strong line of defense



2020年5月29日，集团董事长、党委书记徐思伟和总经理、党委副书记刘安栋发表题为《消除事故隐患 筑牢安全防线》的公开信，倡导广大干部员工积极响应国务院安委会和应急管理部的统一部署和相关要求，切实加强安全生产风险管控和隐患排查治理工作，坚持在常态化疫情防控中牢牢守住安全生产底线，坚决遏制较大以上生产安全事故，全力推动集团安全生产形势持续稳定好转。

On May 29, 2020, the group's chairman and party secretary Xu Siwei and President and party committee deputy secretary Liu Andong issued the open letter entitled *Eliminating hidden dangers of accidents, building a strong line of defense so as to create a long-term stable safety environment for the group's high quality development* encourages cadres and employees to actively respond to the unified deployment and related requirements of the State Council Security Committee and the Emergency Management Department, and effectively strengthen the management and control of safety production risks and the investigation and management of hidden dangers, insist on firmly holding the bottom line of safety production in the normalized epidemic prevention and control, resolutely curb large production safety accidents, and make every effort to promote the continuous and stable improvement of the group's safety production situation.

## 厚基 - 筑牢党建根魂

Thickening the Foundation-Firmly Build the Roots of the Party Building

2020年，中钢集团党委以“中央企业基层党建巩固深化年”专项行动为抓手，在“六个巩固深化”上下功夫，坚决落实巡视整改各项任务，以高质量党建引领集团二次创业实现高质量发展。

In 2020, the Party Committee of Sinosteel took the special action of "The Year of Consolidation and Deepening of Party Building at the Grassroots Level of Central Enterprises" as its starting point, worked hard on the "six consolidation and deepening", resolutely implemented various tasks of inspection and rectification and used high-quality party building to lead the group's second business venture to achieve high quality development.

## 薪火相传，赓续精神血脉

Passing on From Generation to Generation, Continuing the Spiritual Bloodline

红色资源是对中国共产党和中国人民初心与使命、苦难与辉煌、奋进与担当最深刻的见证和铭记，是中华民族和中国人民最宝贵的精神财富，中钢集团立足新时代要求，做好挖掘、保护和利用工作，充分激发红色资源新活力。

The "red" resource is the most profound testimony and memory of the original aspirations and mission, suffering and glory, forge ahead and responsibility of the Chinese Communist Party and the Chinese people. It is the most precious spiritual wealth of the Chinese nation and the Chinese people. Based on the requirements of the new era, Sinosteel does a good job in mining, protecting and utilizing red resources to fully stimulate the new vitality of "red" resources.

## 中央企业红色教育课题研讨交流会在中钢洛耐红色教育基地召开

The seminar and exchange meeting on red education topics of central enterprises was held in the Red Education Base of Sinosteel Luoyang Refractories



国资委宣传局于10月17日在中钢洛耐召开“不忘初心、信念永恒——洛耐职工怀念习仲勋同志展览”开展1周年纪念暨中央企业红色教育课题研讨交流会。

The Publicity Bureau of the SASAC held the Central Enterprise "Red" Education Project Seminar and Exchange Meeting for the first anniversary of the "Not forget the Original Aspiration, Eternal Belief—Sinosteel Luoyang Refractories' Employees Commemorate Comrade Xi Zhongxun Exhibition" on October 17th.







## 中钢洛耐举行向习仲勋同志塑像敬献花篮仪式

Sinosteel Luoyang Refractories held a ceremony to present floral baskets to the statue of Comrade Xi Zhongxun



为深切缅怀老一辈无产阶级革命家习仲勋同志的丰功伟绩和高尚情操,牢记“一定要把生产搞上去”的谆谆嘱托,中钢洛耐干部职工向习仲勋同志塑像敬献花篮。

In order to deeply cherish the memory of the old generation of proletarian revolutionist Comrade Xi Zhongxun's great achievements and noble sentiments, Sinosteel staff held a flower basket ceremony to the statue of Comrade Xi Zhongxun, with the exhortation of "we must promote production" in mind.



## 持续学习, 加强队伍建设

### Continuing to Learn, Strengthening Team Building

集团研究制定《中钢集团党委中心组 2020 年专题学习重点内容计划》, 每次学习中研讨时间占比 50% 以上; 建立摸排督导机制, 对中心组学习和基层支部“三会一课”学习情况进行抽查。在抗击新冠肺炎的特殊时期, 先后 11 次学习习近平总书记重要指示批示精神, 6 次专题研究复工复产, 2 次召开全系统视频电话会议部署, 形成学习贯彻闭环。

Sinosteel studied and formulated the "Key Contents Plan for Special Study of the Central Group of the Party Committee of Sinosteel Group in 2020". Research and discussion time accounts for more than 50% of each study. It established a monitoring and supervision mechanism, and conduct random inspections and spot checks on the study of the central group, the "three meetings and one lesson" of the grassroots branch. In the special period of the nation's fight against the new crown pneumonia epidemic, Sinosteel has organized 11 collective studies of the spirit of General Secretary Xi Jinping's important instructions, 6 special studies to resume work and production, and 2 system-wide video conference calls for deployment, forming a closed learning loop.



## 命名表彰基层示范党支部

Naming and commending the grassroots demonstration party branch



2020 年 9 月, 集团党委在北京举办 2020 年度基层党支部书记示范培训班, 并在开班仪式上为集团党委命名表彰的基层示范党支部授牌。

In September 2020, the group party committee held the 2020 grassroots party branch secretary demonstration training class in Beijing, and awarded the group party committee naming and commendation of the grassroots demonstration party branch at the opening ceremony.



基层示范党支部获得表彰  
Grass roots model Party branch won commendation

### 中钢集团第一批基层示范党支部名单

- |                            |                       |
|----------------------------|-----------------------|
| ◆ 中钢洛耐科技股份有限公司模具分厂综合工段党支部  | ◆ 中钢邢机(中钢装备)技术中心党支部   |
| ◆ 中钢集团郑州金属制品研究院有限公司质检中心党支部 | ◆ 中钢山东矿业有限公司提选动力车间党支部 |
| ◆ 中钢集团马鞍山矿院新材料科技有限公司党支部    | ◆ 中钢山东富全矿业有限公司生产技术党支部 |
| ◆ 中钢设备有限公司钢轧党支部            | ◆ 中钢澳大利亚党支部           |
| ◆ 中钢集团天澄环保科技股份有限公司第四党支部    | ◆ 中钢贸易有限公司党支部         |
| ◆ 中钢邢机(中钢装备)铸铁分厂党总支铸造车间党支部 |                       |

## 集团党委 2020 年度党建课题研究成果喜获一等奖

The group's party committee's 2020 party building project research results won the first prize



在 2020 年度国资委中央企业党建思想政治工作研究会重点研究课题评比中, 中钢集团党委参评的《充分发挥红色资源在推动国有企业高质量发展中的作用研究 -- 中钢洛耐深入挖掘传承习仲勋同志在洛耐宝贵精神财富推动企业实现凤凰涅槃走上高质量发展道路》喜获一等奖。

In 2020 key research topics evaluation of State-owned Assets Supervision and Administration Commission's Central Enterprise Party Building Ideological and Political Work Research Committee, the Sinosteel Party Committee's participating topic "Research on the Role of Fully Utilizing 'Red' Resources in Promoting the High-quality Development of State-owned Enterprises --- Sinosteel Luoyang Refractories in-depth exploration on Comrade Xi Zhongxun's valuable spiritual wealth to promote enterprises to achieve the nirvana of the phoenix and embark on a path of high-quality development" won the first prize.



## 培训纪检干部，强化自身建设

Training discipline inspection cadres to strengthen self-construction



为进一步加强纪检干部队伍自身建设，提升纪检干部政治能力和业务水平，集团纪委举办中钢集团 2020 年纪检干部培训班。

In order to further strengthen the self-construction of the discipline inspection cadre team and improve the political ability and professional level of the discipline inspection cadres, the Group's Discipline Inspection Commission organized the Sinosteel 2020 discipline inspection cadre training course.



## 监督保障，护航企业发展

Supervision and Guarantee, Escorting the Development of the Enterprise

2020 年，中钢集团党风廉政建设和反腐败工作任务分为八项重点：

In 2020, Sinosteel's construction of a clean and honest administration and anti-corruption tasks are divided into eight key points:



一是把政治监督摆在首位，督促各级党组织不断增强“四个意识”、坚定“四个自信”、做到“两个维护”

1. Put political supervision in the first place, and urge party organizations at all levels to continuously enhance the “four consciousnesses”, strengthen the “four self-confidence”, and achieve “two safeguards”



二是突出近距离常态化监督，切实把日常监督做实做细

2. Emphasize close-range normalized supervision, and earnestly implement daily supervision in detail



三是紧盯巡视整改抓监督，推动集团和所属企业党委做好巡视整改“后半篇文章”

3. Pay close attention to the inspection and rectification and supervision, and promote the party committee of the group and affiliated enterprises to do the follow-up work of the inspection and rectification



四是巩固拓展作风建设成效，驰而不息正风肃纪

4. Consolidate and expand the effect of style construction, and maintain discipline



五是构建一体推进不敢腐、不能腐、不想腐的体制机制，巩固和发展反腐败斗争压倒性胜利

5. Establish an integrated system and mechanism so as to ensure officials do not dare to be, are not able to be, and do not want to be corrupt and consolidates and develops an overwhelming victory in the anti-corruption struggle



六是持续深化纪检监察体制改革，推动完善中国特色现代企业监督体系

6. Continue to deepen the reform of the discipline inspection and supervision system, and promote the improvement of the modern enterprise supervision system with Chinese characteristics



七是深化政治巡视，促进巡视巡察与纪检监察贯通融合

7. Deepen political inspections and promote the integration of inspections and disciplinary supervision



八是建设高素质专业化干部队伍，做忠诚干净担当、敢于善于斗争的战士

8. Build a contingent of high-quality professional cadres and be loyal, clean and responsible fighters who dare to fight

## 2020 年党风廉政建设和反腐败工作会议暨警示教育大会

2020 Party Construction of a Clean and Honest Administration and Anti-corruption Work Conference and Warning Education Conference



2020 年 3 月 27 日，集团党委召开 2020 年党风廉政建设和反腐败工作会议暨警示教育大会，深入学习贯彻十九届中央纪委四次全会精神和国资委党风廉政建设和反腐败工作会议暨警示教育大会的工作部署。

On March 27, 2020, the Party Committee of the Group held the Party Construction of a Clean and Honest Administration and Anti-corruption Work Conference and Warning Education Conference, studied and implemented the work deployment of the Fourth Plenary Session of the 19th Central Commission for Discipline Inspection and the SASAC's Party Construction of a Clean and Honest Administration and Anti-corruption Work Conference.







# 以科技创新为驱动， 践守绿色承诺

DRIVEN BY  
TECHNOLOGICAL  
INNOVATION, FULFILLING  
THE GREEN PROMISE



# 励精图治，各施所长争创新

## WORKING HARD, STRIVING FOR INNOVATION

多年来，中钢集团牢固树立“科技是第一生产力、创新是第一驱动力”的理念，积极推进前瞻性技术研究，加大科研投入，科技创新成果及应用屡创佳绩。

Over the years, Sinosteel has firmly established the concept of "science and technology is the first productive force and innovation is the first driving force", actively promoted forward-looking technology research, increased investment in scientific research, and achieved good results in scientific and technological innovation and application.

中钢集团组织召开“十四五”发展规划院士报告会，邀请冶金材料专家干勇院士、矿物加工工程专家孙传尧院士、压力加工专家毛新平院士、陶瓷基复合材料专家董绍明院士和非煤矿山采矿工程专家王运敏院士 5 位中国工程院院士莅临指导，以更好突出科技创新的战略引领作用，更好地研判相关专业领域的科技现状、战略环境和发展趋势。



五位中国工程院院士莅临报告  
Report of five academicians of Chinese Academy of Engineering

Sinosteel organized an academician report meeting for the "14th Five-Year" development plan, inviting metallurgical materials expert Gan Yong, mineral processing engineering expert Sun Chuanyao, pressure processing expert Mao Xinping, ceramic matrix composite material expert Academician Dong Shaoming and non-coal mine mining engineering expert Wang Yunmin of the Chinese Academy of Engineering came to give guidance to better highlight the strategic leading role of scientific and technological innovation and better study and judge the scientific and technological status quo, strategic environment and development trend of related professional fields.

### “十四五”期间，科技创新工作重点

The focus of scientific and technological innovation during the "14th Five-Year Plan" period



发挥规划引领作用  
Play a leading role in planning



提升科技治理效能  
Improve scientific and technological governance efficiency



强化核心技术攻关  
Strengthen core technology research



促进科技与经济的结合  
Promote technology integration with the economy



加大科技研发投入  
Increase scientific and technological research and development investment



鼓励人才干事创业  
Encourage talents to start entrepreneurship

8 月，中钢集团召开 2020 年科技创新工作推进会。会议要求各单位充分理解科技创新引领发展的战略意义，深刻领会会优化完善科技创新体系的现实意义，不断提升科技创新能力，为中钢集团二次创业、高质量发展做出新的贡献。会议还聘任 2020-2022 年度集团科技骨干人才，表彰 2019 年度科技奖励获奖项目。

In August, Sinosteel held the 2020 Science and Technology Innovation Work Promotion Conference. The meeting required all companies to fully understand the strategic significance of scientific and technological innovation-

driven development and the practical significance of improving the scientific and technological innovation system, continuously improve the scientific and technological innovation ability, and make new contributions to the secondary entrepreneurship and high-quality development of Sinosteel. The meeting also appointed key talents of science and technology of the group in 2020-2022, and commended the award-winning projects of science and technology in 2019.



集团专家受聘仪式  
The scene of the group expert's appointment ceremony

### 中钢集团召开中钢科技深化改革动员会

Sinosteel held a mobilization meeting for deepening reforms of Sinosteel Scie-Tech



中钢集团在总部召开中钢科技深化改革动员会。中钢科技拟通过深化改革，实现由管理平台向产业子集团转型，着力打造具有国际影响力的世界一流科技创新型先进材料企业。

Sinosteel held a mobilization meeting for deepening the reform of Sinosteel Scie-Tech at its headquarters. Sinosteel Scie-Tech intended to realize the transformation from a management platform to an industrial sub-group through deepening reforms, and strove to build a world-class technological innovation advanced material enterprise with international influence.

### 改革目标 Reform Goals

2025 年  
In 2025

营业收入  
超 200 亿元  
Operating income exceeds 20 billion yuan

利润  
超 20 亿元  
Profit exceeds 2 billion yuan

总市值  
超 300 亿元  
Total market value exceeds 30 billion yuan

### 改革方案 Reform Plan

## “1138”深化改革方案 1138 Deepening Reform Plan

1 始终坚持党的领导这一重大政治原则

Always adhere to the important political principle of party leadership

+

1 争创世界一流科技创新型先进材料企业

Strive to be a world-class technological innovation advanced material enterprise

+

3 以“夯实基础、快速发展、争创一流”三步走为发展路径

Take the three-step development path of "solid foundation, rapid development, and striving for first-class"

+

8 实现八大中心功能

Realize the eight central functions



李红霞获“全国劳动模范”称号  
Li Hongxia won the title of "National Model Worker"



李红霞投身耐火材料事业 20 余年，始终牢记和遵循习近平总书记关于国有企业指示批示精神，始终把打造国际一流的耐火材料技术中心、信息中心、行业服务中心作为根本方向，以实业报国、科技报国为己任。

Li Hongxia has devoted herself to the refractory business for more than 20 years, always keeping in mind and following the spirit of General Secretary Xi Jinping's instructions on state-owned enterprises. She always takes "the industry to serve the country and science and technology to serve the country" as her own responsibility, and takes the creation of a world-class refractory material technology center, information center, and industry service center as the fundamental direction.



精益求精，深耕科研  
Strive for perfection, deepen scientific research

在她的带领下，中钢洛耐院承担国家耐火材料领域

科技开发计划和科技攻关项目  
**300 多项**

部省级科技成果  
**600 多项**

部省级以上科技奖励  
**200 多项**

授权专利  
**100 余项**

Under her leadership, Sinosteel Luoyang Institute of Refractories Research has undertaken more than 300 national scientific and technological development plans and scientific and technological research projects in the field of refractory materials, and obtained more than 600 ministerial and provincial scientific and technological achievements, more than 200 scientific and technological awards at the ministerial and provincial level and more than 100 authorized patents;

建成了先进耐火材料国家重点实验室、国家级企业技术中心等**国家级创新服务平台、中原学者科学家工作室**；在冶金高温多相耦合复杂环境下耐火材料研究的新方法、关键性能协同提升的新途径、新型耐火材料及应用技术研发等方面取得成功；为宝武集团、太钢集团等国家重大工程服务，引领中钢洛耐院成为国家级创新型企业 and 高新技术企业。

She built the State Key Laboratory of Advanced Refractories, National Enterprise Technology Centers, and Central Plain Scholars and Scientists Studio. Breakthroughs have been made in the new methods of refractory research under the complex environment of metallurgical high temperature multiphase coupling, new ways of synergistic improvement of key properties, research and development of new refractories and application technologies, which promote and lead the innovation and development of the industry. It has successively served Baowu Group, Taiyuan Iron and Steel Group and other major national projects, leading Sinosteel Luoyang Refractory Institute to become a national-level innovative enterprise and high-tech enterprise.

与时俱进，创新管理  
Innovation management in tune with the times

李红霞长期坚持“科技为立院之本，产业为强院之路，走高科技集团发展之路”的战略思想，推动中钢洛耐院由课题承包制逐步走上了科技开发、推广应用、产业化生产和规模化经营的轨道，成为全国 242 家转制院所中的改革典范，先后被评为国家创新型企业、国家技术创新示范企业、国家火炬计划重点高新技术企业。

同时，李红霞很注重青年人才培养和团队建设。担任北京科技大学、郑州大学、武汉科技大学等高校的博士生导师，为我国高温材料技术的发展和人才的培养做出了积极的贡献。

Li Hongxia has long adhered to the strategic thinking of "science and technology as the foundation of the academy, industry as the road to a strong institute, and the road to the development of high-tech groups", and promoted Sinosteel Luoyang Refractories to gradually embark on the track of scientific and technological development, promotion and application, industrialized production and large-scale operation. It has become a model of reform among the 242 restructuring institutes in the country, and has been successively rated as a national innovative enterprise, a national technological innovation demonstration enterprise, and a key high-tech enterprise of the national torch plan.

At the same time, Li Hongxia attached great importance to the training of young talents and team building. Serving as a doctoral tutor at Beijing University of Science and Technology, Zhengzhou University, Wuhan University of Science and Technology and other universities, she has made positive contributions to the development of high-temperature materials technology and talent training in our country.

2020 年 1 月，李红霞个人出资设立  
**科技人才奖励基金**  
激励为中钢洛耐院科技创新做出贡献的科技人才



In January 2020, Li Hongxia personally funded the establishment of a science and technology talent award fund to reward science and technology talents that has contributed to the scientific and technological innovation of Sinosteel Luoyang Refractories.

李红霞曾获奖项

亚太材料科学院院士

“新世纪百万人才工程”国家级人选

国家有突出贡献专家

全国优秀科技工作者

全国三八红旗手

全国巾帼建功标兵

河南省科学技术杰出贡献奖

第三届中华国际科学交流基金会杰出工程师奖

中国经济女性年度创业人物

中原学者



As the director of the State Key Laboratory of Advanced Refractories and the Director of the National Engineering Research Center for Refractories, Li Hongxia was an academician of the Asia-Pacific Academy of Materials Science, a national candidate for the "New Century Talent Project", an expert with outstanding national contributions, and a national outstanding scientific and technological worker, won National March Eighth Red Banner Bearer, National Female Achievement Model, Henan Province Science and Technology Outstanding Contribution Award, the Third China International Science Exchange Foundation Outstanding Engineer Award, Chinese Economic Women of the Year Entrepreneur, Central Plains Scholar and many other honors.





# 创新驱动，智慧制造

## Innovation-Driven Smart Manufacturing

2020 年，集团多家所属企业的科研专利传来喜报，为企业改革发展凝聚起更为强大和持久的攻坚力量。

In 2020, the group has received good news from the scientific research patents of many affiliated enterprises, which has gathered more powerful and lasting strength for the reform and development of enterprises.

### 2020 年，全集团



In 2020, the group applied for 687 patents and added 342 authorized patents;  
39 standards were prepared, including 3 new international standards;  
It has won 54 scientific and technological achievements awards and more than 30 new achievements have been transformed.  
Strengthen the incentive of scientific and technological talents, commend the first academicians of Chinese Academy of Engineering and the first prize winning team of national science and technology progress of Sinosteel group, and reward the technical personnel who have made important contributions to the localization of nuclear grade graphite.

强化科技人才激励，对中钢集团首位中国工程院院士、首例国家科技进步一等奖获奖团队给予表彰，对核级石墨国产化攻关过程中做出重要贡献的技术人员给予奖励。

高品质特殊钢绿色高效电渣重熔关键技术的开发和应用，获国家科技进步一等奖  
The development and application of key technologies for green and efficient electroslag remelting of high-quality special steel won the first prize of National Science and Technology Progress Award

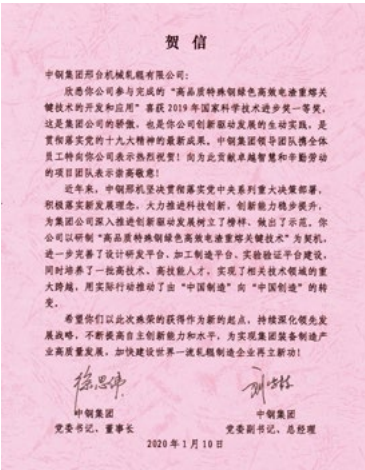


2020 年 1 月，中钢集团邢台机械轧辊有限公司参与的“高品质特殊钢绿色高效电渣重熔关键技术的开发和应用”喜获国家科学技术进步奖一等奖。

该项目突破了传统电渣重熔经典理论，深化夹杂物去除、渣系作用的理论认识，自主创新电流摆动、炉内气氛检测及控制、钢锭二次冷却等多项具有自主知识产权的关键技术，属于钢铁冶金学科中电渣冶金的新工艺、新技术和新装备。以技术和产品研发为契机，中钢邢机进一步完善了设计研发平台、加工制造平台、实验验证平台建设，同时培养了一批高技术、高技能人才，实现了相关技术领域的重大跨越，用实际行动推动了由“中国制造”向“中国创造”的转变。

Sinosteel Xingtai Machinery Roll Co., Ltd. participated in the “Development and Application of Key Technologies for Green and High-efficiency Electroslag Remelting of High-quality Special Steels” and won the first prize of the National Science and Technology Progress Award.

This project breaks through the traditional classic theory of electroslag remelting, and deepens the theoretical understanding of inclusion removal and the role of slag system, independent innovation of current swing, furnace atmosphere detection and control, steel ingot secondary cooling and many other key technologies with independent intellectual property rights, which belong to the new process, new technology and new equipment of electroslag metallurgy in the discipline of iron and steel metallurgy. Taking technology and product research and development as an opportunity, Sinosteel Xingtai



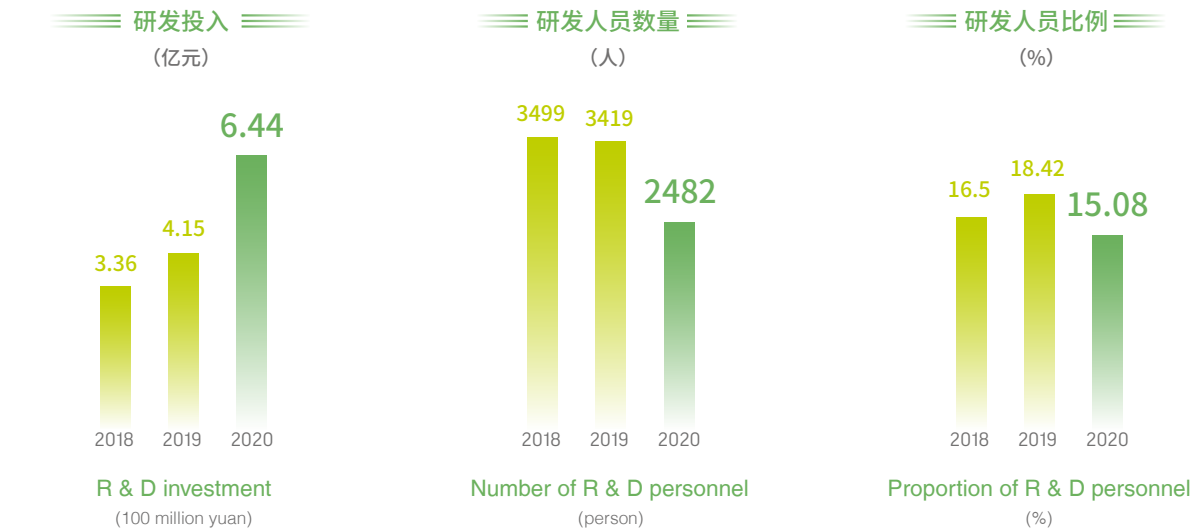
Machinery further improved the design and development platform, processing and manufacturing platform, and experimental verification platform construction. At the same time, it cultivated a group of high-tech and high-skilled talents and achieved a major leap in related technical fields, promoting the transition from “Made in China” to “Created in China” with practical action.

中钢热能院喜获第二十一届中国专利优秀奖  
Sinosteel Thermal Energy Institute won the 21st China Patent Excellence Award



2020 年 7 月，第二十一届中国专利奖公布，中钢集团鞍山热能研究院有限公司发明专利“以煤焦油软沥青为原料制取针状焦的工艺”喜获中国专利优秀奖，集团知识产权质量提升取得了标志性成绩。

In July 2020, the 21st China Patent Award was announced. The invention patent of Sinosteel Anshan Thermal Energy Research Institute Co., Ltd. entitled “Process for preparing needle coke from coal tar soft pitch” won the China Patent Excellence Award, marking the group’s landmark achievement in improving the quality of intellectual property rights.







### 3D 打印提名国家技术发明奖一等奖 3D printing nominated for the first prize of the National Technology Invention Award



由中钢参股、中钢设备有限公司发起设立的武汉天昱智能制造有限公司研发的“大型复杂高端零件微铸锻同步超短流程制造技术与装备”提名 2020 年度国家技术发明奖一等奖。其“微铸锻铣复合增材制造技术”将金属铸造和锻压技术合二为一，成功制造出世界首批 3D 打印锻件，攻克了大型复杂高端锻件无法高品质短流程制造的“卡脖子”难题。



天昱智造金属 3D 打印用于修复再制造  
Tianyu metal 3D printing for repair and remanufacturing

Wuhan Tianyu Intelligent Manufacturing Co., Ltd., which was invested by Sinosteel and initiated and established by Sinosteel Equipment Co., Ltd., was nominated for the first prize of the 2020 National Technological Invention Award for the "Large and Complex High-end Parts Micro-casting and Forging Synchronous Ultra-Short Process Manufacturing Technology and Equipment". Its "micro-casting, forging and milling composite additive manufacturing technology" combines metal casting and forging technology into one, successfully manufacturing the world's first batch of 3D printed forgings, and overcoming the problem that large complex high-end forgings cannot be manufactured in a short process with high quality.

### 中钢西重在材料锻造领域首次取得发明专利授权 Sinosteel Xi'an Heavy Machinery Co., Ltd. has obtained invention patent authorization in the field of material forging for the first time



2020 年，中钢集团西安重机有限公司申请的“一种硅钢及其板材的制备方法”获得国家知识产权局授权，这是公司在材料锻造领域首次取得发明专利。

该发明涉及碳含量小于 0.06%，硅含量在 2.5%-3.5% 的新配方硅钢板材的一种制备方法。该专利采用了合理的锻前升温工艺，保证锻前毛坯的内外温度均匀，保证了锻造过程中应力的控制，提高了锻后品质。通过加热、加压，有效消除了坯料金属在冶炼过程中产生的铸态疏松等缺陷。利用该专利技术锻造后的硅钢板，有效消除了原材料的热应力和内部疏松问题，优化了微观组织结构，提高了零件机械强度，增强了零件的综合机械性能。



硅钢板在加热炉中加热  
Silicon steel plate is heated in heating furnace

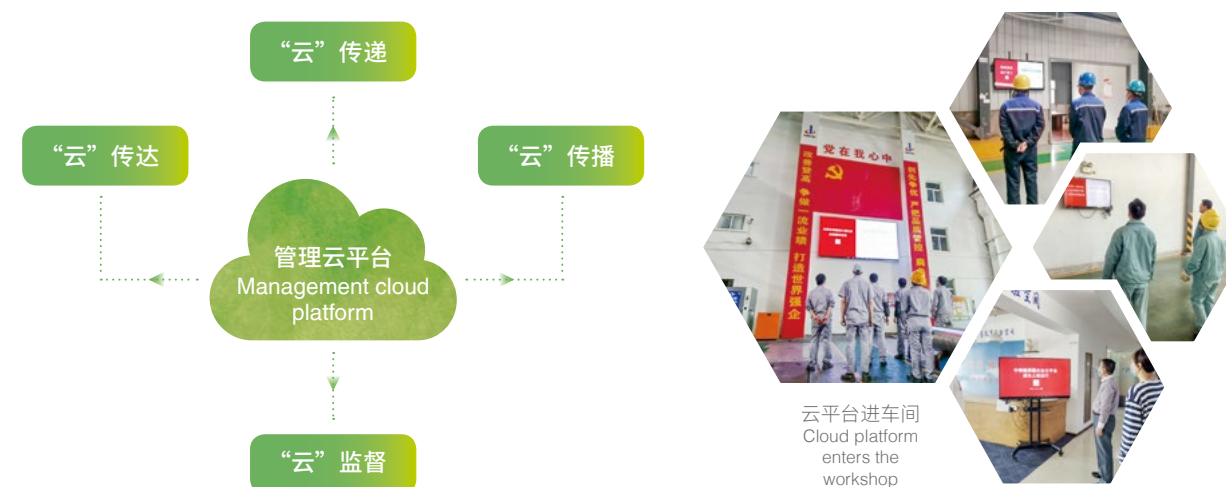
In 2020, "a method for preparing silicon steel and its plate" applied by Sinosteel Xi'an Heavy Machinery Co., Ltd. was authorized by the State Intellectual Property Office. This is the company's first patent for invention in the field of material forging.

The invention relates to a preparation method of a new formula silicon steel sheet with a carbon content of less than 0.06% and a silicon content of 2.5%-3.5%. This patent introduces a reasonable heating process before forging to ensure uniform temperature inside and outside of the blank before forging, ensuring the control of stress during the forging process, and improving the quality after forging. By heating and pressurizing, the defects of as-cast looseness and other defects produced in the smelting process of the blank metal are effectively eliminated. The silicon steel plate forged with technology proposed by the patent effectively eliminates the thermal stress and internal looseness of the raw materials, optimizes the microstructure, improves the mechanical strength of the parts, and enhances the comprehensive mechanical properties of the parts.

## 管理创新迈出新步伐 New Steps in Management Innovation

中钢集团探索创建的管理云平台，于 2020 年 4 月 28 日正式上线运行。目前，总部及 70 家所属企业共 185 台终端设备已实现同步运行。管理云平台能够实现“一对多”或“点对点”的实时信息推送，目前设立了学习榜、光荣榜、改进榜、文化榜、问题榜五个栏目。

The management cloud platform that Sinosteel explored and created was officially launched on April 28, 2020. At present, a total of 185 terminal devices in the headquarters and 70 affiliated companies have achieved synchronous operation. The management cloud platform can realize "one-to-many" or "point-to-point" real-time information push. Currently, there are five columns for learning list, honor list, improvement list, culture list, and problem list.



### 中钢热能院创新成果荣获辽宁省企业管理创新二等奖 The innovation achievements of Sinosteel Thermal Energy Institute won the second prize of Liaoning Province Enterprise Management Innovation



2020 年，中钢热能院《改制科研院所管理模式的探索和创新实践》获辽宁省企业管理创新成果奖二等奖。该项目倡导回归技术创新引领发展的经营管理模式，构建了中钢热能院研发成果产业化与产业反哺研发的良性互动新局面，大大改变了公司的经营状况、创新能力和技术水平，为实现公司的转型和高质量发展迈出了关键而坚实的一步。

In 2020, Sinosteel Thermal Energy Institute's "Exploration and Innovative Practice of the Management Model of Reformed Scientific Research Institutes" won the second prize of Liaoning Province Enterprise Management Innovation Achievement Award. The project advocated returning to the operation and management model of technological innovation leading development, and established a new situation of positive interaction between the industrialization of research and development achievements of Sinosteel Thermal Energy Institute and the industry's back-feeding of research and development, greatly improved the company's operating conditions, innovation capabilities and technical level, taking a critical and solid step to achieve the company's transformation and high-quality development.





# 科技创新实现新突破

## Technological Innovation Achieves New Breakthroughs

集团始终大力推进科技创新工作，强化企业创新主体意识，优化研发支出结构，着力抓好关键核心技术攻关，着力提升技术创新能力，系统推进科技创新激励保障机制建设，进一步激发广大科研人员创新动力、创造潜能。

The group has always vigorously promoted scientific and technological innovation, strengthened the awareness of the main body of enterprise innovation, optimized the structure of R&D expenditures, focused on key core technologies, improved technological innovation capabilities, systematically promoted the construction of scientific and technological innovation incentives and guarantees, and further stimulated the innovation motivation and creativity potential of scientific researcher.

王运敏院士荣获“十三五”钢铁工业科技成就奖  
Academician Wang Yunmin won the "13th Five-Year" Iron and Steel Industry Science and Technology Achievement Award

2020 年 7 月，在中国钢铁工业“十三五”科技成果展启动仪式上，中钢集团王运敏等 9 位中国工程院院士喜获“‘十三五’钢铁工业科技成就奖”。

作为我国金属矿开采领域的著名专家，王运敏院士长期致力于金属矿山开采关键技术研究工作，主持并承担了 30 余项国家与省部级重点课题的研究与应用工作，凭借多项创新技术与成果，在矿山高效开采、绿色开采、高效运输、灾害控制等方面作出了突出成绩。

In July 2020, at the launching ceremony of the "13th Five-Year" Science and Technology Achievement Exhibition of China's Iron and Steel Industry, 9 academicians of the Academy of Engineering including Wang Yunmin of Sinosteel won the "13th Five-Year" Iron and Steel Industry Scientific and Technological Achievement Award.



王运敏院士的“十三五”钢铁工业科技成就奖  
Academician Wang Yunmin's "13th Five-Year" Iron and Steel Industry Scientific and Technological Achievement Award

中钢集团 2 项成果喜获第三届中央企业 QC 小组成果发表赛二等奖  
Two achievements of Sinosteel group won the second prize of the third central enterprise QC group achievement presentation competition

2020 年 9 月 22 日至 25 日，在第三届中央企业 QC 小组成果发表赛上，代表集团入围的中钢洛耐“高铝分厂 QC 小组”和中钢邢机铸铁分厂“铸造车间 QC 小组”分别获得大赛二等奖。

From September 22 to 25, 2020, in the third central enterprise QC group achievement presentation competition, the "high aluminum branch QC group" of Sinosteel Luoyang Institute of Refractories Research and the "foundry QC group" of cast iron branch, Sinosteel Xingtai Machinery & Mill Roll, which were shortlisted on behalf of the group, won the second prize of the competition respectively.

第三届中央企业 QC 小组成果发表赛 二等奖 (82 个)				
序号	发表号	集团名称	单位名称	小组名称
31	B34	中国中钢集团有限公司	中钢洛耐新材料科技有限公司	高铝分厂 QC 小组
81	B1	中国中钢集团有限公司	中钢集团邢台机械轧辊有限公司铸铁分厂	铸造车间 QC 小组

# 行业引领再创新成果

## Industry-leading Creating New Results

发布四项科技成果评价团体标准  
Four standards for evaluation of group scientific and technological achievements published

2020 年 4 月，由科技部主管的中国技术市场协会发布了 2020 年第 2 号公告，中钢集团首次参与编制的《科技成果评价工作指南》(标准编号:T/TMAC 019.F-2020)、《科技成果评价机构运营服务规范》(标准编号:T/TMAC 020.F-2020)、《科技成果评价机构评价导则》(标准编号:T/TMAC 021.F-2020)、《科技成果评价执业规范》(标准编号:T/TMAC 022.F-2020) 等四项团体标准顺利通过审查，于 2020 年 4 月 1 日正式发布,并于 4 月 30 日起正式实施。

In April 2020, the China Technology Market Association, which is under the charge of the Ministry of Science and Technology, issued the Announcement No. 2 of 2020. Sinosteel group firstly participated in the preparation of the *Work Guide for the Evaluation of Scientific and Technological Achievements* (Standard No.: T / TMAC 019. F-2020), the *Operation Service Specification for the Evaluation Institutions of Scientific and Technological Achievements* (Standard No.: T / TMAC 020. F-2020), *Guidelines for the Evaluation of Scientific and Technological Achievements Evaluation Institutions* (Standard No.: T / TMAC 021. F-2020) and *Code of Practice for the Evaluation of Scientific and Technological Achievements* (Standard No.: T / TMAC 022. F-2020), have passed the review successfully. They were officially issued on April 1, 2020 and formally implemented on April 30.





## 优质环保无铬新材料，推动耐火材料行业升级

High-quality, environmentally friendly and chromium-free new materials promote the upgrading of the refractory industry



2020 年，中钢洛耐科技股份有限公司“特种钢绿色高效冶炼用优质环保无铬新材料开发与产业化应用”项目荣获“金桥奖项目奖一等奖”，这是中钢集团首次组织企业参评该奖项，也是所属企业首次获得该奖项的最高殊荣。

In 2020, Sinosteel Luoyang Refractories Science & Technology Co., Ltd. won the first prize of "Golden Bridge Award Project Award" for the "Development and Industrial Application of High-quality Environmentally Friendly Chromium-Free New Materials for Green and Efficient Smelting of Special Steel". This is the first time that Sinosteel group organizes enterprises to participate in the award and the highest award of its own enterprises for the first time.



## 中钢热能院 3 项成果，探索行业可持续发展未来

3 achievements of Sinosteel Thermal Energy Institute, exploring the future of sustainable development of the industry



2020 年，中钢热能院 3 项科技成果获得“2019 年辽宁省自然科学学术成果奖”，其中一等奖 2 项，二等奖 1 项。分别为：“神木半焦用于高炉喷吹的研究”成果、“响应曲面法优化电化学耦合体系预处理”成果、“配入低成本褐煤生产气化焦的研究”成果。

In 2020, Sinosteel Thermal Energy Institute won the "2019 Liaoning Province Natural Science Academic Achievement Award" for 3 scientific and technological achievements, including 2 first prizes and 1 second prize. They are "Shenmu semi-coke used in blast furnace injection", "Response Surface Methodology Optimizing Electrochemical Coupling System Pre-treatment", and "Research on Blending Low-cost Lignite to Produce Gasified Coke" achievements.



中钢热能院转让技术并总承包的鞍钢 4 万吨 / 年煤系针状焦项目工程  
Sinosteel Thermal Energy Institute transferred technology and contracted Anshan Iron and Steel's 40,000 tons/year coal series needle coke project

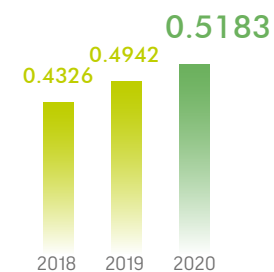
## 低碳发展，拥抱未来

### Low-Carbon Development, Embracing the Future

中钢积极参与全球气候治理，带头履行社会责任，促进生产方式绿色转型，积极参与“碳达峰”“碳中和”行动，持续为推动构建公平合理、合作共赢的全球气候治理体系贡献“中钢智慧”和“中钢方案”。

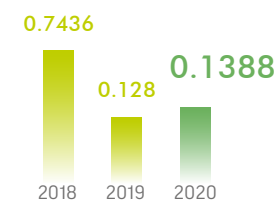
Sinosteel actively participates in global climate governance, takes the lead in fulfilling social responsibilities, promotes the green transformation of production methods, actively participates in the "carbon peak" and "carbon neutral" actions, and continues to contribute to the construction of a fair, reasonable, and win-win global climate governance system with "Sinosteel Wisdom" and "Sinosteel Plan".

#### 环保投入 (亿元)



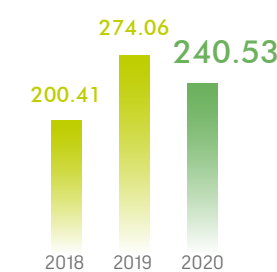
Investment in environmental protection  
(RMB100 million yuan)

#### 碳强度 (吨当量二氧化碳 / 万元)



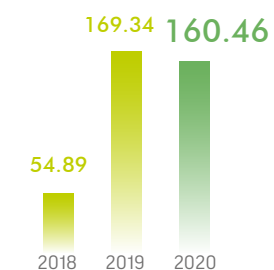
Carbon intensity  
(Ton equivalent carbon dioxide / 10000 yuan)

#### SO<sub>2</sub> 排放量 (吨)



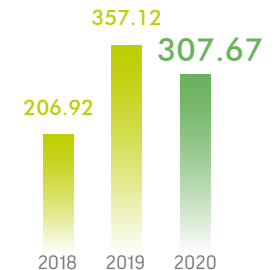
SO<sub>2</sub> emission  
(ton)

#### COD 排放量 (吨)



COD emission  
(ton)

#### 氮氧化物排放量 (吨)



NOx emission  
(ton)

#### 氨氮排放量 (吨)



Ammonia nitrogen emission  
(ton)





## 战“疫”中的绿色卫士

The Green Guardian in the Fight against the Epidemic



在抗击新型冠状病毒肺炎的战“疫”中，中钢天澄建起了一道看不见的墙——墙的这一面是协助确保医疗废物的安全处置；墙的另一面是将果蔬垃圾安全、有效、清洁处理，让民众安心。

In the fight against the “epidemic” of the COVID-19 pandemic, Sinosteel Tiancheng has built an invisible wall—one side of the wall is to help ensure the safe disposal of medical waste; the other side of the wall is the safe, effective and clean treatment of fruit and vegetable waste, so as to make people feel at ease.

### 焊牢隐形防线

Weld the invisible line of defense

由中钢天澄设计并提供技术咨询服务的湖北省荆门市医疗废物集中处置中心，在此次防控疫情总体战、阻击战中发挥了重要作用。作为荆门市唯一的医疗危废处置中心，总处理能力为11吨/天，自疫情发生以来，整个城市2000多家大小医疗废物机构产生的医疗废物都在此集中处理。该处置中心的设施呈满负荷运行，各疑似和隔离观察点所产生的部分生活垃圾也全部纳入医疗废物管理范围内，进行统一处理。

The Centralized Medical Waste Disposal Center in Jingmen City, Hubei Province, which was designed and provided technical consulting services by Sinosteel Tiancheng, played an important role in the overall fight against the epidemic. As the only medical hazardous waste disposal center in Jingmen City, with a total processing capacity of 11 tons/day, since the outbreak of the epidemic, medical waste generated by more than 2,000 large and small medical institutions throughout the city has been centrally processed here. The facilities of the disposal center are operating at full capacity, and part of the domestic garbage generated by each suspected and isolated observation point is also included in the scope of medical waste management for unified treatment.



荆门市医疗废物集中处置中心  
Jingmen medical waste centralized disposal center

### 变废为宝，架起桥梁

Turn waste into treasure and build a bridge

云南省昆明市嵩明县地处滇中，是有名的“废弃果蔬大户”，每年产生蔬菜垃圾高达45万吨。

Songming County, under the jurisdiction of Kunming City, Yunnan Province, is located in central Yunnan. It is a well-known “large waste fruit and vegetable household” and generates 450,000 tons of vegetable waste every year.

针对蔬菜垃圾物料含水高、不易储存、易腐烂易酸化的特性，中钢天澄固体废物处理处置设计团队经不同物料配比的反复试验、技术比选及综合分析，将“高浓度推流式厌氧反应器(HCPF)+内循环厌氧反应器(IC)”工艺路线有机结合，首次应用到蔬菜垃圾产沼实践中，实现了全过程污染“零”排放，更把废弃果蔬变成了生物天然气、有机肥等，真正实现了“变废为宝”。这就是国内首例大型工程化蔬菜垃圾资源化处理处置设计项目——废弃果蔬资源化综合利用暨生物天然气工程有机肥项目。



According to the characteristics of high water content, difficult storage, easy to rot and acidification of vegetable waste materials, the design team of Sinosteel Tiancheng solid waste treatment and disposal has conducted repeated trials, technical comparisons and comprehensive analysis of different material ratios to push the process route of “high concentration plug flow anaerobic reactor (HCPF) + internal circulation anaerobic reactor (IC)” and applied it to the biogas production practice of vegetable waste for the first time. The “zero” emission of pollution in the whole process has been realized, and the waste fruits and vegetables have been turned into biological natural gas, organic fertilizer, etc., thus truly realizing the “turning waste into treasure”. This is the first large-scale engineering vegetable waste recycling treatment and disposal design project in China --- waste fruits and vegetables recycling comprehensive utilization and organic fertilizer project of biological natural gas engineering.



疫情期间，项目更是担当起疫情防控、守护环保底线的重任——不停工、不停产、安全运行、稳定生产，平均每天处理约

**500吨**蔬果垃圾，有效切断病毒通过废弃蔬菜和水果传播、二次污染的可能性。

During the epidemic, the project has taken on the important task of epidemic prevention and control and guarding the bottom line of environmental protection---non-stop work, non-stop production, safe operation, stable production. It processes about 500 tons of fruit and vegetable waste every day on average, effectively cutting off the possibility of virus spreading through waste vegetables and fruits and secondary pollution.





## “绿色矿山”，正蓝旗矿业 "Green Mine", Zhenglan Banner Mining



2020 年，中钢正蓝旗矿业持续推进绿色矿山建设，对矿区尾矿库开展平整、覆土、植树种草等治理工作，累计治理面积达 8200 平方米。

In 2020, Sinosteel Zhenglan Banner Mining continues to promote the construction of green mines, carries out the management of mine tailings pond leveling, soil covering, tree planting and grass planting, etc., and the cumulative treatment area reached 8,200 square meters.



## “以电代气”，深入推进大气污染治理 "Replace gas with electricity" to further promote air pollution control



2020 年，为深入推进大气污染综合治理工作，提高企业污染治理水平、落实企业环境保护责任，中钢邢机主动对标国家生态环境部《重污染天气重点行业应急减排措施制定技术指南铸造行业环保绩效评价 A 级标准》要求，在企业污染物达到超低排放水平的基础上，继续深度治理减排，大力促进区域环境质量改善。



In 2020, in order to further promote the comprehensive control of air pollution, improve the level of corporate pollution control, and implement corporate environmental protection responsibilities, Sinosteel Xingtai Machinery actively benchmarked the National Ministry of Ecology and Environment *Technical Guidelines for the Development of Emergency Emission Reduction Measures for Key Industries in Heavy Pollution Weather A-level Standard for Environmental Protection Performance Evaluation of Foundry Industry*. Based on the ultra-low emission level of pollutants of enterprises, they continued to make deep efforts to control and reduce emissions, and vigorously promote the improvement of regional environmental quality.

## 提供绿色制造系统解决方案，提升行业绿色制造水平 Provide green manufacturing system solutions to improve the level of green manufacturing in the industry



2020 年 7 月，中钢马矿院以第一名的成绩中标“绿色关键工艺系统集成应用（钢铁节能改造）”绿色供应商。本次中标是公司“绿色制造”这一国家重点战略领域内的重要里程碑，体现了国家对公司在绿色制造服务能力上的充分认可。

In July 2020, Sinosteel Ma'anshan Mining Research Institute won the bid for the green supplier of "Green Key Process System Integration Application (Steel Energy Saving Reform)" with the first place. The winning of the bid is an important milestone in the company's "green manufacturing", a national key strategic area, and reflects the country's full recognition of the company's green manufacturing service capabilities.

“2020 年绿色系统解决方案供应商项目”是国家工信部实施的行业服务鼓励类项目，旨在鼓励不同行业的服务提供商通过提供技术服务、参与技术交流、为政府建言献策、编制标准规范等工作，搭建国家级技术服务平台，为行业内共性问题提供解决方案，从而推动整个行业的绿色制造水平的提升。

The "2020 Green System Solution Supplier Project" is an industry service incentive project implemented by the Ministry of industry and information technology of the People's Republic of China. It aims to encourage service providers in different industries to build a national technical service platform to provide solutions for common problems in the industry by providing technical services, participating in technical exchanges, giving advice and suggestions to the government, and preparing standards and specifications, so as to promote the green manufacturing level of the whole industry.



3

以和谐共赢为主旨，  
不忘桑梓情深

**BASED ON HARMONY  
AND WIN-WIN, NEVER  
FORGETTING THE DEEP LOVE  
OF BROTHERHOOD**





## 铮铮钢骨，同舟共济战疫情

FIRM AND UNYIELDING STEEL-LIKE CHARACTER, HELPING EACH OTHER IN THE SAME BOAT TO FIGHT THE EPIDEMIC

在新冠疫情肆虐全球的背景下，一带一路项目建设为全球经济“寒冬”注入了暖流，为各国抗击疫情和疫后恢复经济提供信心与动力。作为这其中的一员，中钢集团在输出中国技术、中国装备以及项目管理执行能力的同时，也展现出强大的韧性与活力。

In the context of the epidemic raging around the world, the construction of the "Belt and Road Initiative" brought a "warm current" into the "cold winter" of the global economy, and provided confidence and impetus for countries to fight the epidemic and restore the economy after the epidemic. As one member of them, Sinosteel has shown strong resilience and vitality while exporting Chinese technology, Chinese equipment and project management execution capabilities.

中国 - 南非商务理事会中方委员会年会  
The annual meeting of Chinese Committee of China-South Africa Business Council



疫情期间，中钢集团开展了 25 次视频巡检会、14 次国资委视频巡检及地毯式“四查四清”工作，摸清了全部海外所属企业及项目的人员总数和物资储备情况。

During the epidemic, Sinosteel carried out 25 video inspections, 14 SASAC video inspections, and carpet-style "four inspections and four clearing" work, and figured out the total number of personnel and materials reserve situation of all overseas subsidiaries and projects.



将海外所属企业分为 ABCD 四个防控类型，“一企一策”分类管理。

Divided overseas affiliated companies into four prevention and control types as ABCD, and managed them by "one company, one policy".



疫情信息直达总部，由海外领导小组直接与海外所属企业及项目建立联系。

The epidemic information was directly sent to the headquarters, and the overseas leading group directly established contacts with overseas affiliated companies and projects.



与国药集团积极沟通争取，为因公出国人员接种新冠疫苗。  
Actively communicated with Sinopharm Group to vaccinate people going abroad on business.



为全部外派职工每日发放特别津贴，购买包含新冠疫情救治赔付项目在内的海外意外保险。  
Provided daily special allowances to all expatriates and purchased overseas accident insurance for them including new crown epidemic treatment compensation items.

## 与祖国同气连枝，与住在国同心同行

Stay with Our Motherland While Work Together in One Heart with the Country of Residence

在澳大利亚，他们挺身而出，与各界同仁共克时艰

In Australia, they stepped forward to overcome difficulties with colleagues from all walks of life



在保障当地员工健康安全的基础上，中钢澳大利亚公司协同澳大利亚中国总商会，多措并举助力西澳抗击疫情，购买并赠送 20000 个医用口罩给合作伙伴力拓公司，为西澳州政府和医院捐赠 2 万澳元检测试剂盒及 200 余件医用防护服，购买 8000 个防护口罩给当地中资员工，向广大在澳留学生及滞澳人员定向捐赠 4000 个口罩。同时，中钢澳公司还协同商会致信州长办公室，呼吁西澳政府对其他州到西澳的人员到达后隔离 14 天观察。收到呼吁后，西澳采取了澳洲历史上最严格的州隔离措施。

China Chamber of Commerce, took multiple measures to help Western Australia fight the epidemic, purchased and donated 20,000 medical masks to its partner Rio Tinto, and donated 20,000 Australian dollars testing kits and more than 200 pieces of medical protective clothing to the Western Australian government and hospitals. 8,000 protective masks were purchased for local Chinese-funded employees, and 4,000 masks were donated to the majority of overseas students and persons stranded in Australia. At the same time, Sinosteel Australia also cooperated with the Chamber of Commerce to write to the Governor's Office, calling on the Western Australian Government to isolate personnel from other states to Western Australia for 14 days for observation. After receiving the appeal, Western Australia adopted the strictest state isolation measures in Australian history.



中钢国际与安赛乐米塔尔子公司签订 500 万吨 / 年带式焙烧机球团 EPC 总承包合同  
Sinosteel International and ArcelorMittal's subsidiary signed an EPC contract for 5 million tons/year belt roaster pellets



### 在菲律宾，他们支持社区抗疫，诠释中资企业担当

In the Philippines, they offered big support for the community's fight against the epidemic, shouldering the responsibility as Chinese-funded enterprises



中钢菲律宾汇洋矿业主动参与到当地疫情防控工作中，印刷制作防疫抗疫宣传栏，在当地进行广泛的科普和宣传。随着疫情蔓延，菲政府于3月15日进行全面封岛。在得知市内多处隔离点生活物资和基础药物匮乏时，公司紧急动员组织，争分夺秒采购了价值2.5万元的食物和药品等基本保障物资，解决了隔离点人员的燃眉之急。同时为部分隔离点志愿服务工作人员发放了抗疫补贴。



中钢菲律宾公司印制抗疫宣传栏  
Sinosteel Philippines printed the anti-epidemic bulletin board

Sinosteel Philippines Huiyang Mining actively communicated with the local government, and actively participated in the local epidemic prevention and control work. The company printed and produced anti-epidemic publicity boards, and conducted extensive science and publicity in the local area. As the epidemic spread, the Philippine government carried out a complete closure of the island on March 15. Upon learning that many quarantine points in the city lacked living materials and basic medicines, the company took urgent measures and raced against time to purchase 25,000 yuan worth of basic security materials, including food and medicine, to solve the urgent needs of personnel at the quarantine points. At the same time, anti-epidemic subsidies were issued to some volunteer workers in isolation points.

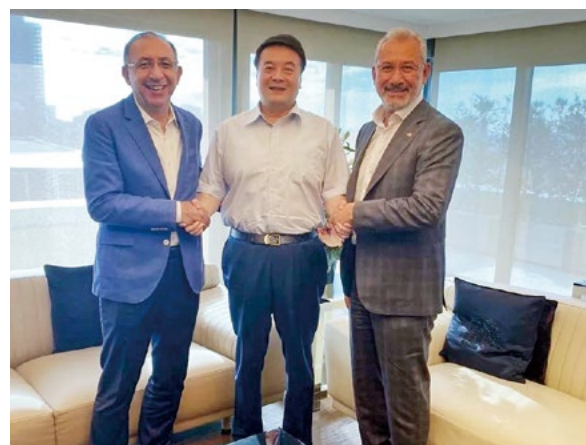
### 在土耳其，他们超越期待，拓宽合作新渠道

In Turkey, they broadened new cooperation channel beyond expectation



2020年10月，中钢国际与TOSYALI集团于土耳其签订350万吨/年1800mm热连轧项目EP总承包合同。该项目是中国企业在海外总承包建设的最大规模热连轧项目，对保障企业良好运转、刺激土国经济起到了重大示范带动作用，得到了土耳其政府的大力支持。

In October 2020, Sinosteel International and TOSYALI Group signed an EP general contract for a 3.5 million tons/year 1800mm hot strip rolling project in Turkey. This project is the largest hot strip rolling project undertaken by a Chinese company in an overseas general contract. It has played a major demonstration role in ensuring the sound operation of the company and stimulating the Turkish economy, and has received strong support from the Turkish government.



中钢国际签约TOSYALI土耳其1800mm热连轧项目  
Sinosteel International signed a contract with TOSYALI Turkey on 1800mm hot strip rolling project

### 在南非，他们力破险阻，降本增效达目标

In South Africa, they broke through obstacles and achieve goals by reducing costs and increasing efficiency



受疫情影响，中钢南非铬资源项目生产受限、订单下降，中钢海外资源项目团队决定挖掘生产成本和效率空间。经反复沟通，他们说服外方接受建议并试验，通过强化电极管理、优化炉料结构和调整原料粒度等措施，压缩了生产成本、改善了生产指标。

The epidemic declined the production and orders of Sinosteel's chromium resource project in South Africa. The project team of Sinosteel Overseas Resources decided to explore the production cost and efficiency space. After repeated communication, they convinced the foreign side to accept the proposal and test their program. At last, they successfully reduced the cost and improved production index through strengthening electrode management, optimizing furnace structure and adjusting raw material particle size.



### 在印尼，他们坚守阵地，高效统筹完成项目

In Indonesia, they stuck to their posts and completed the project efficiently



中钢国际EPC总承包新建的“一带一路”印尼德信烧结项目中，项目团队保证人员两班倒、24小时连轴转。2020年12月28日，2号烧结机热负荷联动试车一次成功，比客户的工期要求提前3天投产。

In the newly built the Belt and Road Initiative Indonesia Dexin sintering project under the EPC general contract of Sinosteel International, the team members ensured the personnel worked in two shifts, rotated 24 hours a day. On December 28, 2020, the heat load linkage test run of No.2 sintering machine was successful, and was put into production three days earlier than the customers' construction period requirements.

### 在玻利维亚，他们云端逆势，开启合作新篇章

In Bolivia, they communicated fully online, opening a new chapter of cooperation



玻利维亚穆通综合钢厂项目是政府钢铁工业国家发展计划的重点项目，也是中国进出口银行的“两优贷款项目”，于当地时间6月18日正式重启，建成后将彻底打破玻国钢铁工业空白局面。

The Bolivian Mutong integrated steel plant project, reconstructed in June 18 local time, was a key project of the government's national development plan for the steel industry, and also China's foreign preferential loans and preferential export buyer's credit project of the export-import bank of China. After completion, the project will fill the gaps in the iron and steel industry.





## 拳拳赤诚，助脱贫共小康

### Sincerely Helping Alleviate Poverty for a Moderately Prosperous Society

2020 年是脱贫攻坚决战决胜之年，中钢集团坚定不移按照“四个不摘”要求为脱贫攻坚注入持久动能，使“输血”更精准，让“造血”更持久，为全面建成小康社会、实现第一个百年奋斗目标做出新的更大贡献。

2020 is a year of decisive victory in poverty alleviation. Sinosteel will unswervingly input lasting momentum for poverty alleviation in accordance with the requirements of the "Four Not Picks", making "blood transfusion" more precise, making "blood making" more durable so that it can make new and greater contributions to building a well-off society in an all-round way and realizing the first centenary goal.

中钢集团自 2010 年以来定点帮扶国家级贫困旗——内蒙古自治区翁牛特旗，集团充分发挥技术和资源优势，实施精准帮扶，在基础设施建设和产业扶贫、就业扶贫、科技扶贫、智力扶贫、教育扶贫、消费扶贫等方面持续发力。

Since 2010, Sinosteel has been helping the national poverty Qi-Wengniute in Inner Mongolia Autonomous Region. The Group gives full play to its technological and resource advantages, and continues to provide targeted assistance in infrastructure construction and industrial poverty alleviation, employment poverty alleviation, technological poverty alleviation, intellectual poverty alleviation, education poverty alleviation, consumption poverty alleviation, etc. In March 2020, Wengniuteqi officially withdrew from the poverty-stricken county series, including 82 key poverty-stricken Gacha villages. The poverty population of the whole banner decreased from 54616 at the end of 2013 to 2,370 at the end of 2019, and the incidence of poverty dropped from 13.23% to 0.57%.

#### 2020 年 3 月，翁牛特旗正式退出贫困旗县序列



## 科技扶贫，授以脱贫之渔

### Teach How to Fulfill Poverty Alleviation through Science and Technology

近年来开展安全环保、金融扶贫等培训，培训基层干部人数 300 余名、培训技术人员人数 600 余名；建设中钢农业技能培训基地。

The group has carried out safety and environmental protection, financial poverty alleviation and other trainings in recent years, training more than 300 grassroots cadres and more than 600 technical personnel. It has established a Sinosteel agricultural skills training base as well.

2020 年，集团出资帮助地方协调国家相关资质单位和聘请有关安全环保方面专家，对翁牛特旗域内的 10 家非煤矿山企业、6 家危化品企业、16 家其他工矿商贸企业进行了全面安全诊断和“安全体检”。

In 2020, the Group contributed funds to assist local governments in coordinating relevant national qualification units and hiring experts in safety and environmental protection, and conducted comprehensive safety diagnosis and "safety checkup" on 10 non-coal mining companies, 6 hazardous chemical companies, and 16 other industrial, mining, and trading companies in Wengniuteqi.

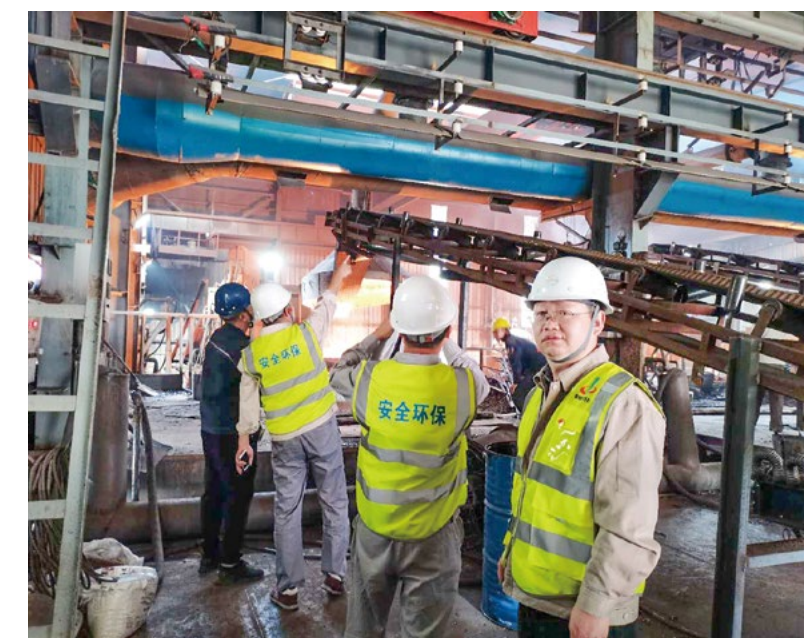
#### 帮扶翁牛特旗安全生产科技扶贫

Help Wengniute Qi to fulfill Poverty Alleviation by Safe Production and Technology



中钢安环院组建科技扶贫工作队。在短短十余天内先后对翁牛特旗辖区内 55 家非煤矿山、危化及工贸等企业进行了安全检查和诊断，帮助企业排查安全隐患 730 余项，提出管理建议 430 多项。

Sinosteel Safety and Environmental Protection Institute established a scientific and technological poverty alleviation work team. In just over ten days, they have conducted safety inspections and diagnoses on 55 non-coal mines, hazardous chemicals, industry and trade companies in Wengniute Qi, helping companies investigate more than 730 safety hazards, put forward more than 430 management recommendations.



安全检查现场  
Safety inspection site





## 产业扶贫，夯实脱贫根基

### Industrial Poverty Alleviation, Laying a Solid Foundation for Poverty Alleviation

中钢集团与地方携手合作打造“翁牛特旗矿产资源开发精准扶贫工程”。

Sinosteel and local governments work together to create the "Wengniute Qi Targeted Poverty Alleviation Project for Mineral Resources Development".

中钢积极帮助翁旗农牧业发展，实施“公司 + 合作社 + 贫困户”等扶贫模式，打造“中钢扶贫产业基地”。基地运营除吸纳贫困户就业外，也带动了土地流转，收益或租金归村集体公益事业使用，使农民有了稳定收入来源。

Sinosteel actively helped the development of Wengniute's agriculture and animal husbandry. It implemented poverty alleviation models such as "company + cooperative + poor households" to help fight poverty and created a "Sinosteel Poverty Alleviation Industrial Base". In addition to providing jobs for poor households, the operation of the base also promoted land circulation. The income or rent went to the village's collective public welfare undertakings, so that farmers could have a stable source of income.

帮扶建立圣泉养殖合作社实施联合育种项目，优先聘用易地搬迁贫困户务工，总计 20 人，常年用工，可使 20 户贫困户年增收 35000 元左右。

It helped establish the Shengquan Farming Cooperative to implement a joint breeding project. Priority was given to employing relocation of poverty-stricken households, with a total of 20 people. The perennial employment could increase the income of 20 poverty-stricken households by about 35,000 yuan.



调研明阳农业扶贫车间  
Investigation of agricultural poverty alleviation workshop in Mingyang

## 消费扶贫，爱心行远

### Love Goes Far in Poverty Alleviation Through Consumption

中钢集团将消费扶贫作为打赢脱贫攻坚战支撑保障工作之一。

Sinosteel Group regards consumption poverty alleviation as one of the support and guarantee work to win the fight against poverty.

疫情期间，充分利用食堂、工会、合作方等多种采购渠道，帮助解决了农民的燃眉之急。形成“人人关心扶贫、人人参与扶贫”的良好氛围。

During the epidemic Sinosteel made full use of the canteen, labor unions, partners, etc. multiple procurement channels to solve the urgent needs of farmers forming a good atmosphere of "everyone cares about poverty alleviation and everyone participates in poverty alleviation".

2020 年 6 月，中钢对全系统食堂进行了摸底调研，汇总分析 21 家职工食堂对农产品的具体需求情况，与翁牛特旗形成了为期三年的消费扶贫战略合作计划。

In June 2020, Sinosteel conducted a thorough investigation of the system-wide canteens, summarized and analyzed the specific needs of 21 staff canteens for agricultural products, and formed a three-year consumer poverty alleviation strategic cooperation plan with Wengniute Qi.

#### 走进扶贫直播间，帮销特色农产品

Walk into the poverty alleviation live broadcast room to help sell characteristic agricultural product



2020 年 9 月 5 日，中钢集团走进国资委“百县百品央字号”融媒体扶贫行动带货直播间，集中推介对口帮扶内蒙古自治区赤峰市翁牛特旗的特色农产品。两个多小时内，进场观看人数达 801 万，点赞量超过 892 万，“央企消费扶贫”电商平台、“快手”等各平台联动售出订单 8562 单，帮销金额近 468 万元，销售所得增加了翁牛特旗群众的经济收入。



带货直播  
Live broadcast with goods

On September 5, 2020, Sinosteel entered into the live broadcast room of the "Hundred Counties, hundred products, Central enterprises Brand" Financial Media Poverty Alleviation Action of the State-owned Assets Supervision and Administration Commission, and concentrated on promoting the special agricultural products of Wengniute Qi, Chifeng City, Inner Mongolia Autonomous Region. Within two hours, the number of visitors reached 8.01 million and the number of likes exceeded 8.92 million. The e-commerce platform of "Poverty Alleviation by Central Enterprises", "Kuaishou" and other platforms jointly sold 8,562 thousand orders, and the amount was nearly 4.68 million yuan. The sales increased the economic income of the people in Wengniute Qi.





## 传扶贫志向，扬少年宏图

Spread the aspirations of poverty alleviation, promote the youth ambition



2020年8月11日至16日，集团组织京内职工子弟赴翁牛特旗体验“少年中钢行”旅游扶贫夏令营活动。让他们从小树立扶危济困共同发展的精神，树立强烈的责任意识，激发了孩子们投身公益活动、助力脱贫奔小康的积极性。

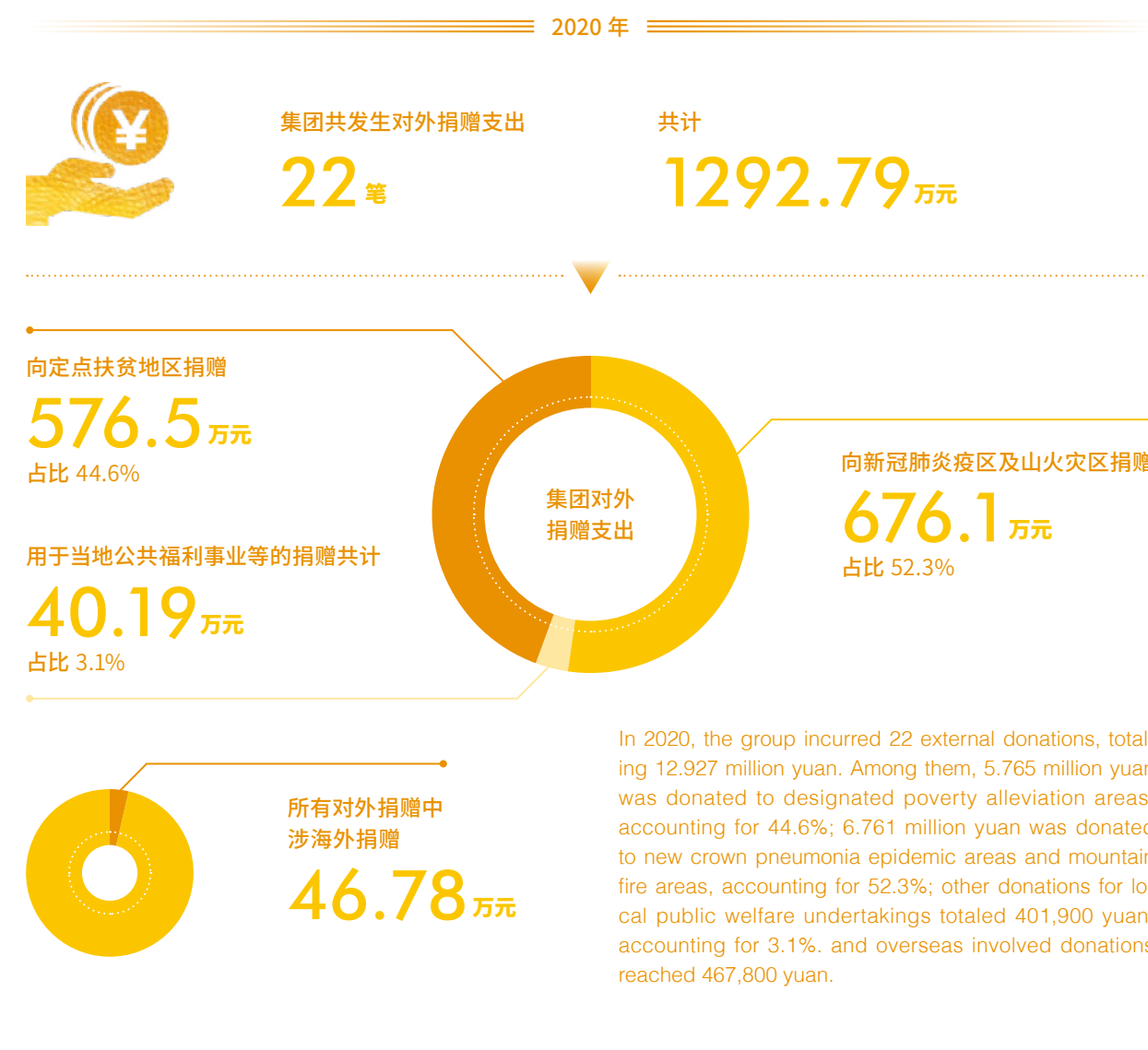
From August 11th to 16th, 2020, Sinosteel organized the children of employees in Beijing to go to Wengniute Qi to experience the "Sinosteel Juvenile Exploration" tourism poverty alleviation summer camp, which has allowed them to establish a spirit of common development in helping the poor from an early age, and establish a strong sense of responsibility, which inspires the children's enthusiasm to devote themselves to public welfare activities and help others alleviate from poverty.



“少年中钢行”旅游扶贫夏令营活动  
Sinosteel Juvenile Exploration poverty alleviation summer camp through consumption

## 殷殷情怀，献爱心共发展

Intensive Concern, Offering Love and Developing Together



集团还建立中钢爱心基金，开展“一日捐”活动，资助翁牛特旗。

The group also established the Sinosteel Charity Fund to carry out the "One Day Donation" activity to support Wengniute Qi.





中国中钢集团有限公司 2020 年度对外捐赠支出

序号 No.	捐赠单位 Donation organizations	受赠对象 Recipients	累计捐赠金额 (单位：万元) Cumulative donation amount(10000 yuan)	捐赠性质 / 内容 Nature / content of donation
1	中国中钢集团有限公司 Sinosteel Group Corporation Limited	内蒙古赤峰市翁牛特旗 Wengniute Qi, Chifeng City, Inner Mongolia	500.00	扶贫 Poverty alleviation
2	中国中钢集团有限公司 Sinosteel Group Corporation Limited	湖北省慈善总会 Hubei Charity Association	400.00	向新冠肺炎疫情区捐赠 Donation to COVID-19 pandemic-stricken areas
3	中钢集团安徽天源科技股份有限公司 Sinosteel Tianyuan Technology Co., Ltd.	湖北省慈善总会 Hubei Charity Association	200.00	向新冠肺炎疫情区捐赠 Donation to COVID-19 pandemic-stricken areas
4	中钢集团邢台机械轧辊有限公司 Sinosteel Xingtai Machinery & Mill Roll Co., Ltd.	河北省保定市易县高村镇柳林庄村 Liulinzhuang Villiage, Gaocun Town, Yi County, Baoding City, Hebei Province	55.00	扶贫 Poverty alleviation
5	中钢集团武汉安全环保研究院有限公司 Sinosteel Wuhan Safety & Environmental Protection Research Institute Co., Ltd.	武汉市青山区慈善会 (青山区政府) Wuhan Qingshan District Charity Association (Qingshan District Government)	39.31	抗疫防护用品 Anti-pandemic protective articles
6	中钢集团天澄环保科技股份有限公司 Sinosteel Tiancheng Environmental Protection Science & Technology Co., Ltd.	武汉东湖新技术开发区社会发展局 Social Development Bureau of Wuhan Donghu New Technology Development Zone	30.00	向新冠肺炎疫情区捐赠 Donation to COVID-19 pandemic-stricken areas
7	中钢国际工程技术股份(巴西)有限公司 SINOSTEEL PROJETOS E TECNOLOGIA (BRASIL) LTDA.	FUNDACAO BENJAMIN GUIMARAES	14.34	抗疫防护用品 Anti-pandemic protective articles
8	中钢设备有限公司 Sinosteel Equipment Engineering Co., Ltd.	OJSC MMK (Russia)	11.20	抗疫防护用品 Anti-pandemic protective articles
9	中钢集团武汉安全环保研究院有限公司 Sinosteel Wuhan Safety & Environmental Protection Research Institute Co., Ltd.	湖北省红安县杏花乡李西村 Lixi village, Xinghua Township, Hong'an County, Hubei Province	10.00	扶贫 Poverty alleviation
10	中钢澳大利亚有限公司 Sinosteel Australia Limited	力拓集团 Rio Tinto	9.70	抗疫防护用品 Anti-pandemic protective articles

序号 No.	捐赠单位 Donation organizations	受赠对象 Recipients	累计捐赠金额 (单位：万元) Cumulative donation amount(10000 yuan)	捐赠性质 / 内容 Nature / content of donation
11	中钢集团衡阳重机有限公司 Sinosteel Hengyang Heavy Machinery Co., Ltd.	湖南省衡阳市常宁市洋泉镇乐元村 Leyuan Village, Yangquan Town, Changning County, Hengyang City, Hu'nan Province	5.00	扶贫 Poverty alleviation
12	中钢集团衡阳机械有限公司 Sinosteel Hengyang Machinery Co., Ltd.	湖南省衡阳市常宁市洋泉镇乐元村 Leyuan Village, Yangquan Town, Changning County, Hengyang City, Hu'nan Province	5.00	扶贫 Poverty alleviation
13	中钢澳大利亚有限公司 Sinosteel Australia Limited	澳大利亚红十字会 Australian Red Cross	4.00	支援澳洲火灾灾区 Support fire disaster areas in Australia
14	中钢喀麦隆有限公司 Sinosteel Cameroon S.A.	武汉市黄陂区慈善会 Charity Association of Huangpi District, Wuhan	2.14	向新冠肺炎疫情区捐赠 Donation to COVID-19 pandemic-stricken areas
15	中钢集团洛阳耐火材料研究院有限公司 Sinosteel Luoyang Institute of Refractories Research Co., Ltd.	河南省汝阳县城关镇井沟村 Jinggou village, Chengguan Town, Ruyang County, Henan Province	1.50	扶贫 Poverty alleviation
16	中钢设备有限公司 Sinosteel Equipment Co., Ltd.	南非 SCAW 有限公司 SCAW, South Africa	1.33	抗疫防护用品 Anti-pandemic protective articles
17	中钢设备有限公司 Sinosteel Equipment Co., Ltd.	LLC Baikal Mining Company (Russia)	1.20	抗疫防护用品 Anti-pandemic protective articles
18	中钢设备有限公司 Sinosteel Equipment Co., Ltd.	Arcelor Mittal (France)	1.12	抗疫防护用品 Anti-pandemic protective articles
19	中钢设备有限公司 Sinosteel Equipment Co., Ltd.	约旦 EDGO 公司 Jordan EDGO company	1.10	抗疫防护用品 Anti-pandemic protective articles
20	中钢菲律宾汇洋矿业有限公司 Sinosteel Philippines Huiyang Mining Co., Ltd.	武汉市协和医院 Wuhan Union Hospital	0.65	抗疫防护用品 Anti-pandemic protective articles
21	中钢集团上海新型石墨材料有限公司 Sinosteel Shanghai Advanced Graphite Material Co., Ltd.	上海市闵行区梅陇镇 Meilong Town, Minhang District, Shanghai	0.20	救助困难群体和个人 Helping groups and individuals in need
合计			1,292.79	—





## 在防汛抗洪一线扛起央企责任

Take up the responsibility of central enterprises on the front line of flood prevention and flood fighting



2020 年 6 月以来，持续的强降水侵袭我国南方局部地区。在异常严峻且复杂多变的防汛形势下，中钢有关所属企业干部职工团结一心，发扬临危不惧、不怕牺牲、敢于胜利的精神，走向灾情严重的地方，在防汛抗洪一线扛起央企责任担当。

Since June 2020, continuous heavy rainfall has invaded partial southern areas. Under the extremely severe and complicated flood control situation, the cadres and employees of relevant subsidiaries of Sinosteel united as one, carried forward the spirit of not being afraid of danger, not afraid of sacrifice, and striving for victory. They went to places with serious disasters and took on the responsibility of central enterprises in the front line of flood prevention and flood fighting.



防洪巡堤工作队  
Flood control patrol team



工程技术人员摸排现场  
Engineers and technicians arrange the site



防汛预备队  
Flood control reserve



封堵堤坝现场  
Plugging dam site

## 谆谆劳心，伴员工共成长

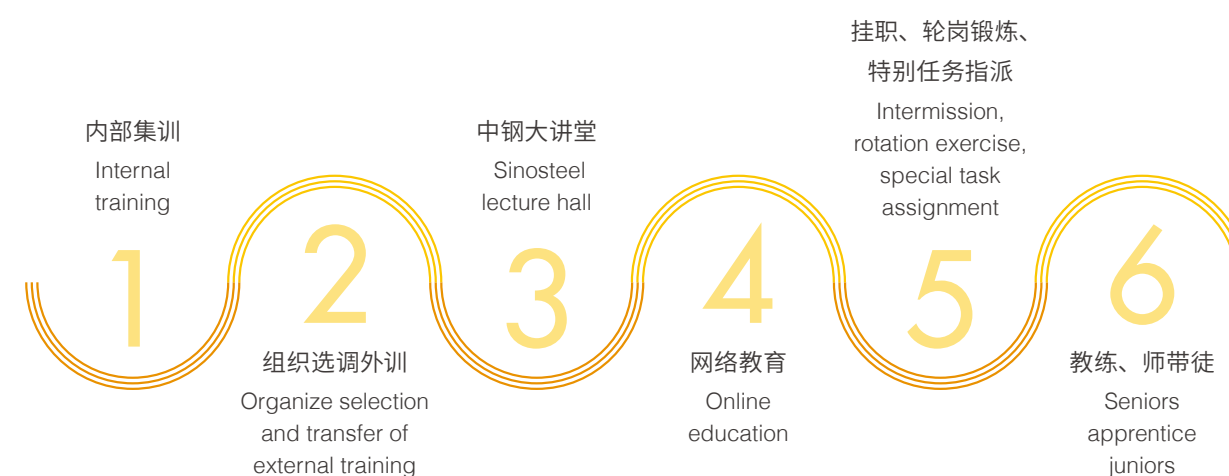
Growing with Employees Earnestly and Tirelessly

中钢集团始终以国家和集团政策为牵引，坚持以人为本，本着员工与企业共同发展、和谐发展的理念，持续推进员工发展机制、员工激励机制、员工沟通机制建设，打造高素质、专业化的集团人力资源队伍。

Sinosteel has always been guided by national and group policies, adheres to the human profile, and adheres to the concept of joint development and harmonious development of employees and the company, and continues to promote the construction of employee development mechanisms, employee incentive mechanisms, and employee communication mechanisms to create high-quality and professional human resources team.

### 员工培训六大方式

Six methods of employee training



### 截至 2020 年底

中钢员工总数为

18287人

外籍员工

2521人

劳动合同签订率

100%

社会保险缴纳率

100%



As of the end of 2020, Sinosteel has a total of 18,287 employees, including 2,521 foreign employees.

The labor contract signing rate is 100%, and the social insurance payment rate is 100%.





## “中钢集团青年读书会”借书香，促成长 "Sinosteel Youth Reading Club" promoting growth with the power of books



2020年9月为进一步促进中钢青年养成“爱读书、读好书”的阅读习惯，激励向上向善的成长力量，集团团委主办、中钢国贸承办了“中钢集团青年读书会”之“战疫期间，你悦读了吗？”主题分享活动。

活动中，来自集团总部和各子集团的青年员工以诵读精选片段、分享阅读心得的形式为大家推介了《习近平的七年知青岁月》《你当像鸟飞往你的山》《焦裕禄》《先生》《平凡的世界》《我曾走在崩溃边缘》《激荡三十年》《百年大变局：世界与中国》等8本书籍。集团党委副书记张经华为诵读和分享书籍的青年员工赠送了政经等类别的经典书籍，鼓励大家要“多读书、读好书”，从书中汲取智慧，为集团高质量发展贡献青春力量。



集团党委副书记张经华向诵读、分享书籍的青年员工赠书  
Zhang Jinghua, Deputy Secretary of the Group Party Committee, presented books to young employees who read and shared books

In September 2020, in order to further promote the youth of Sinosteel to develop the reading habit of "love to read and read good books", and to inspire young people to gain the strength to be good, the Group's Youth League Committee and Sinosteel International Trade Co., Ltd. hosted the "Sinosteel Youth Reading Club" theme sharing activity--- "Did you enjoy reading during the fight against epidemic?".

During the event, young employees from the Group headquarters and various sub-groups introduced 8 books as Xi Jinping's *Seven Years of Educated Youth*, *Educated*, *Jiao Yulu*, *Maters*, *World of Plainness*, *I Once Walked on the Edge of Collapse*, *Thirty Years of Surging*, *A Hundred Years of Great Changes: The World and China* in the form of reading selected clips and sharing reading experience. Zhang Jinghua, Deputy Secretary of the Group's Party Committee, presented young employees who read and shared books with classic books in political and economic categories, encouraging everyone to "read more and read good books", draw wisdom from the books, and contribute youth to the high-quality development of the group.



青年员工在读书会中诵读经典片段，分享读书心得  
Young employees read classic fragments and share reading experience in reading club

## 海外员工文体“云竞赛” Cultural and sports "cloud competition" for overseas employees



为促进海外员工身体和心理健康，中钢集团团委、工会联合组织海外员工文体“云竞赛”活动。

中钢国际工程、中钢海外资源所属海外企业、项目员工从沙特阿拉伯、阿尔及利亚、俄罗斯、菲律宾、津巴布韦等地发来参赛视频。参赛者们选择演唱、演奏、自弹自唱、快板等形式，使用抖音、快手、唱吧、K歌等进行创作，并通过“为健康打卡7天”健身活动，自主选定室内锻炼方式，录制视频记录健身过程。集团团委、工会通过组织线上投票方式产生“最难海外好声音”“最佳自我挑战奖”。

In order to promote the physical and mental health of overseas employees, the Sinosteel Youth League Committee and the Labour Union jointly organized a recreational and sports "cloud competition" for overseas employees.

Sinosteel International Engineering, overseas companies and project employees of Sinosteel Overseas Resources sent participating videos from Saudi Arabia, Algeria, Russia, the Philippines, Zimbabwe and other places. Participants choose to sing, perform, self-play and sing, allegro, etc., use Douyin, Kuaishou, Sing Bar, K song, etc. to create, and choose their own indoor exercise methods through the fitness activity "7 days for health", recording a video to record the fitness process. The Youth League Committee and the Labor Union of the group produced the "Most Difficult Voice Overseas" and "Best Self-Challenge Award" by organizing online voting.



各国员工因地制宜，积极参加“云竞赛”  
Employees in all over the world actively participate in the "cloud competition" according to local conditions





## 海外疫情下的心理压力应对培训

Psychological stress response training under overseas epidemics



按照海外所属企业及项目疫情防控工作领导小组的工作部署，为坚定集团海外员工战胜疫情的信心，切实关心职工心理健康，疏导因疫情可能引起的心理困惑，掌握疫情下的压力应对技巧，集团于2020年5月25日举办第40期“中钢大讲堂”。海外所属企业及项目疫情防控工作领导小组成员、海外人员派出管理单位负责人、防疫工作人员、海外所属企业及项目中方员工在主会场现场和分会场视频直播参会。

资深企业心理培训师熊汉忠教授以“海外员工疫情‘危机’下的压力应对”为题，讲授了心理危机的概念、疫情期间影响心理危机形成的主要因素、疫情下的常见消极情绪与处理应对技巧等内容，帮助海外员工更好地预防心理危机、处理负面情绪、应对心理压力。

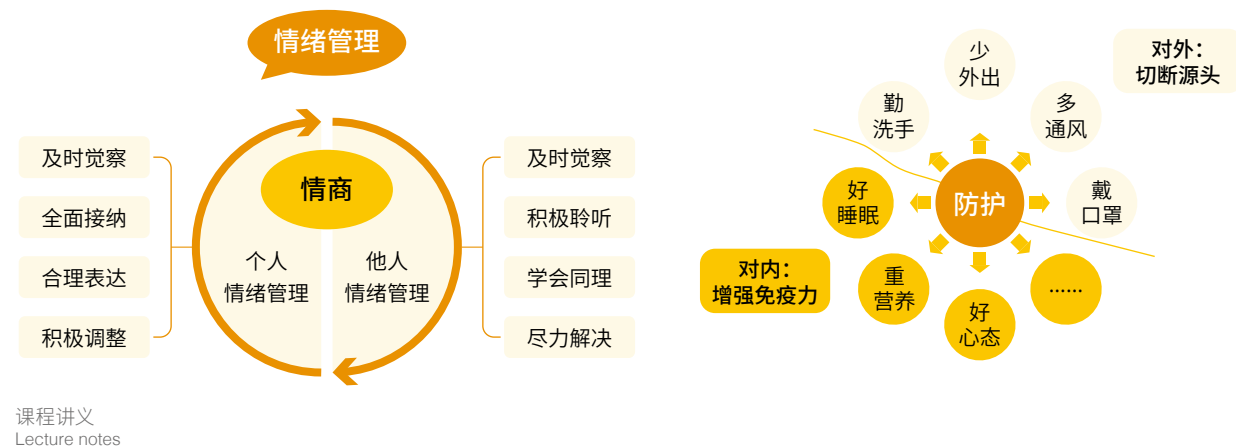
In accordance with the work deployment of the leading group for epidemic prevention and control of overseas affiliated companies and projects, in order to strengthen the confidence of overseas employees of the group to overcome the epidemic, ease the psychological confusion that may be caused by the epidemic, master the pressure response skills under the epidemic, the group held the 40th "Sinosteel Lecture Hall" on May 25, 2020. Members of the leading group for epidemic prevention and control of overseas affiliated companies and projects, heads of overseas personnel dispatched management units, epidemic prevention staff, overseas affiliated companies



培训现场  
Training scene

and Chinese employees of the project participated in the main venue and branch venues through live video broadcast.

Professor Xiong Hanzhong, a senior corporate psychology trainer, lectured on the concept of psychological crisis, the main factors affecting the formation of psychological crises during the epidemic, and the common negative emotions and handling skills in the epidemic with the topic of "Overseas employees' stress response under the crisis" Etc., to help overseas employees better prevent psychological crises, deal with negative emotions, and cope with psychological pressure.



课程讲义  
Lecture notes

## “印记中钢”文化品牌

"Imprint of Sinosteel" Cultural Brand

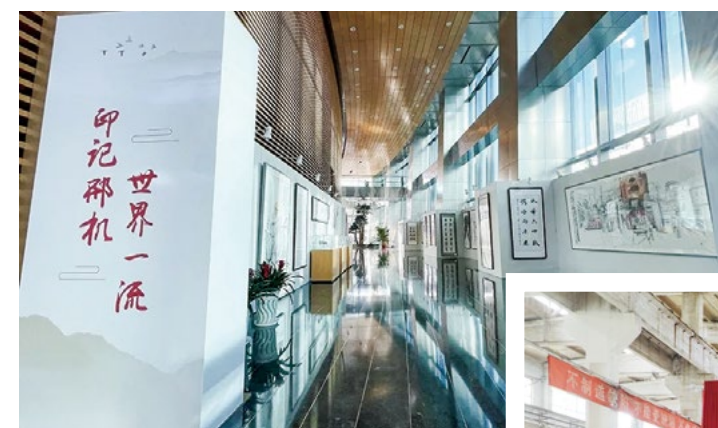
2020年，集团打造“印记中钢”文化品牌，在集团总部和中钢邢机、中钢天源等地举办“印记中钢·抗疫篇”主题展览，从文化的视角反映中钢人战疫情、保稳定的钢铁意志、坚定信念和同舟共济的拼搏姿态。

在“印记洛耐·信念永恒”和“印记邢机·世界一流”系列主题展览中，主题鲜明、风格多样的作品抒发了职工爱国爱企的情怀，展示了职工独具匠心的艺术作品，根植中国文化，传递真善美，进一步激发了大家干事创业的热情。



In 2020, the Group built the "Imprint of Sinosteel" cultural brand, and hold the theme exhibition "Imprint of Sinosteel Anti-epidemic" at the group headquarters, Sinosteel Xingtai Machinery, and Sinosteel Tianyuan, which clearly reflected the courage of Sinosteel from a cultural perspective --- a firm belief in fighting the epidemic and maintaining stability, and a fighting attitude of helping each other in the same boat.

In the series of theme exhibitions "Imprint Luoyang Refractory, Faith Eternal" and "Imprint Xingtai Machinery, World-Class" series of themed exhibitions, works with clear themes and diverse styles expressed the employees' patriotism and love for the enterprise. Those unique art works of the employees, rooted in Chinese culture, and conveyed the truth, goodness and beauty, further aroused everyone's enthusiasm for entrepreneurship.



“印记邢机·世界一流”系列主题展览  
"Imprint Xingtai Machinery, World Class" series of theme exhibitions



“印记洛耐·信念永恒”系列主题展览  
"Imprint Luoyang Refractories, Faith Eternal" series of theme exhibitions



# 未来展望

## FUTURE OUTLOOK

2020 年的新冠疫情，是二次世界大战以来世界面临的  
最大挑战，也是一场典型的全球性挑战，全球经济、文  
化所遭受的冲击，是前所未有的。人类的生命健康、经  
济增长、社会发展、文化创造、国家安全和国际关系等  
方方面面，都经受着一场全面的、综合性的挑战——疫  
情的影响远远超过疫情本身。

挑战与机遇共存，真正意义上的可持续发展，从来不存  
在妥协和舍弃，坚持以人为中心的可持续发展理念，在  
全世界各个国家防疫抗疫的举措当中得到了证实。

尽管疫情尚未结束，疫情带来的影响也将在很长一段时  
间内存在，但我们相信，只要我们不忘初心，牢记使命，  
继续发扬越是艰险越向前的斗争精神，就能危中寻机，  
致胜长远。

2021 年是“十四五” 开局之年，也是中钢迈入新阶段、  
开启新征程的起点。站在“两个一百年” 奋斗目标的历史  
交汇点上，我们将继续发挥行业优势和自身特长，使  
自身社会责任行为更具专业性、灵活性、创新性和战略  
性，将社会责任与中钢自身行业特征与经营战略相结合：

**关注合规管理** :开展专题培训，提升全员合规风险意识  
和能力，尤其是提升全员对遵守公约、协议、指南等软  
法重要性的认识；建章立制，积极参与建立和完善公司  
在合规管理方面的企业文化、组织架构、管理制度、运  
行机制等事项，为 ESG 风险管理创造良好的内外部环境。

**关注碳中和目标** :2020 年 12 月，中央经济工作会议首  
次将“做好碳达峰、碳中和 工作” 作为 2021 年重点任务。  
我们将在建设“零碳国家” 中承担央企责任。面对低碳  
转型浪潮，我们要做好自身能力建设，开展碳核算，制  
定科学的减排目标，在工艺、技术方面转型升级，实施  
节能减排行动。

**关注社区发展** :主动、全面将社区发展、社区沟通、社  
区影响纳入集团决策和运营管理流程；通过经验分享、  
技术交流、知识普及、资源共享等与所在社区共同推进  
社区发展；大力开展志愿者活动，发展壮大员工志愿者  
队伍，建立健全志愿者活动工作体系和服务机制。

**关注乡村振兴** :《乡村振兴战略规划（2018-2022 年）》  
对精准扶贫工作做了有效衔接，把打好精准脱贫攻坚战、  
防止返贫作为实施乡村振兴战略的优先任务，推动脱贫  
攻坚与乡村振兴有机结合、相互促进。除了延续和优化、  
升级原有的产业扶贫等措施、项目之外，我们还将在“三  
农” 相关的基础设施、公共服务、新产业培育及传统产  
业转型各级、农村创新、生态保护与环境治理、民生保  
障等领域发挥力量，有针对性的进行合作协同。

让我们携手向善而为，逐光而行！

COVID-19 in 2020 is the biggest challenge facing the world  
since the World War II. It is also a typical global challenge.  
The impact hitherto unknown on the global economy  
and culture is unprecedented. Human life and health,  
economic growth, social development, cultural creation,  
national security and international relations are all facing a  
comprehensive challenge — the impact of the epidemic  
far exceeds the epidemic itself.

Challenges and opportunities coexist. In the true sense  
of sustainable development, there is no compromise and  
abandonment. Adhering to the people-centered concept  
of sustainable development has been confirmed in the anti  
-epidemic measures of countries all over the world.

Although the epidemic is not yet over and the impact of  
the epidemic will exist for a long time, we believe that as  
long as we do not forget our original inspiration, bear in  
mind our mission, and continue to carry forward the spirit  
of struggle that the more difficult and dangerous the more  
forward, we can find opportunities in danger and win in the  
long run.

2021 is the first year of the 14th five year plan, and also  
the starting point for Sinosteel to enter a new stage and  
start a new journey. Standing at the historical intersection  
of the "two century" goals, we will continue to give full play  
to the advantages of the industry and our own strengths to  
make our social responsibility behavior more professional,  
flexible, innovative and strategic. We will combine social  
responsibility with Sinosteel's own industry characteristics  
and business strategy.

**Focus on compliance management**: carry out special  
training to enhance the compliance risk awareness  
and ability of all staff, especially the awareness of the  
importance of compliance with conventions, agreements,  
guidelines and other soft laws; Establish rules and  
regulations, actively participate in the establishment  
and improvement of the company's corporate culture,  
organizational structure, management system, operation  
mechanism and other matters in compliance management,  
so as to create a good internal and external environment  
for ESG risk management.

**Focus on the goal of carbon neutralization**: in December  
2020, the central economic work conference initially made  
"carbon peaking and carbon neutralization" a key task in  
2021. We will take the responsibility of central enterprises  
in building a "zero carbon country". Facing the wave of  
low-carbon transformation, we should do a good job in  
capacity building, carry out carbon accounting, formulate  
scientific emission reduction targets, transform and  
upgrade in process and technology, and implement energy  
conservation and emission reduction actions.

**Focus on community development**: actively and  
comprehensively integrate community development,  
community communication and community influence into  
the group's decision-making and operation management  
process; through experience sharing, technology  
exchange, knowledge popularization and resource sharing,  
we can promote community development together with  
our communities; vigorously carry out volunteer activities,  
develop and expand the staff volunteer team, and establish  
and improve the working system and service mechanism  
of volunteer activities.

**Focus on rural revitalization**: *The Strategic Plan for Rural  
Revitalization(2018-2022)* effectively links up the targeted  
poverty alleviation work, takes the fight of targeted poverty  
alleviation and prevention of poverty return as the priority  
task of implementing the Rural Revitalization Strategy, and  
promotes the organic combination and mutual promotion  
of poverty alleviation and Rural Revitalization. In addition to  
the continuation, optimization and upgrading of the original  
industrial poverty alleviation measures and projects, we  
will also play a role in the "three rural" related infrastructure,  
public services, new industry cultivation and transformation  
of traditional industries at all levels, rural innovation,  
ecological protection and environmental governance,  
livelihood security and other fields, and carry out targeted  
cooperation and coordination.

Let's work hand in hand for the good and pursue the light!



# 关键绩效指标

## KEY PERFORMANCE INDICATORS

市场 Market	单位	2018 年	2019 年	2020 年
营业收入 Operating revenue	亿元 / 100 million	623	662	591.20
净利润 Net Profit	亿元 / 100 million	1.81	2.54	6.52
资产负债率 Debt-to-assets ratio	%	98.3	97.01	95.02
纳税额 Tax paid	亿元 / 100 million	10.58	12.25	12.57
研发投入 R&D investment	亿元 / 100 million	3.36	4.15	6.44
研发人员数量 Number of R&D staff	人 / Person	3,499	3,419	2,482
研发人员比例 Ratio of R&D staff	%	16.5	18.42	15.08
当年申请专利数 Patent applications of the year	项 / Item	263	411	687
当年授权专利数 Authorized patents of the year	项 / Item	324	252	342
重要科技奖项 (国家 + 省部级) Major technological awards (National + Ministerial and provincial level)	项 / Item	50	38	52

环境 Environment	单位	2018 年	2019 年	2020 年
安全生产投入 Safe production investment	万元 / 10,000 RMB	9,268	10,480	10,045
安全培训次数 Number of safety training	次 / Times	450	600	907
安全培训人次 Person-time of safety training	人次 / Person-time	21,017	27,000	26,969
所属企业污染事件 Contamination accident	起 / Rise	0	1	0
环保投入 Environmental protection investment	亿元 / 100 million	0.4326	0.4942	0.5183

环境 Environment	单位	2018 年	2019 年	2020 年
碳强度 Carbon intensity	吨当量 CO2 / 万元 / Ton of carbon dioxide equivalent(CO2)/ 10,000 RMB	0.7436	0.128	0.1388
碳排放量 Carbon emissions	吨 / Ton	705,382	640,800	663,400
二氧化硫排放量 SO <sub>2</sub> emissions	吨 / Ton	200.41	274.06	240.53
化学需氧量排放量 Chemical oxygen demand emissions	吨 / Ton	54.89	169.34	160.46
氮氧化物排放量 Nitrogen oxides emissions	吨 / Ton	206.92	357.12	307.67
氨氮排放量 Ammonia emissions	吨 / Ton	28.87	46.95	44.69
安全检查 Security check	次 / Times	-	2,700	3,790
应急演练 Emergency drill	次 / Times	-	270	262
应急演练参演职工 Staff participating in emergency drill	人次 / Person-time	-	6,700	6,660

社会 Society	单位	2018 年	2019 年	2020 年
员工总数 Number of employees	人 / Person	21,193	20,942	18,287
外籍员工 Number of foreign employees	人 / Person	2,671	2,764	2,521
劳动合同号签订率 Signing rate of labor contract number	%	100	100	100
社会保险缴纳率 Social insurance contribution rate	%	100	100	100
境内公益捐赠 Domestic charity donation	万元 / 10,000 RMB	147.26	530.99	1292.79



# 报告评级

## REPORT RATING



### 《中钢集团 2020 可持续发展报告》评级报告

受中国中钢集团有限公司委托，“中国企业社会责任报告评级专家委员会”抽选专家组成评级小组，对《中钢集团 2020 可持续发展报告》（以下简称《报告》）进行评级。

#### 一、评级依据

中国社会科学院《中国企业社会责任报告指南（CASS-CSR 4.0）》暨“中国企业社会责任报告评级专家委员会”《中国企业社会责任报告评级标准（2020）》。

#### 二、评级过程

1. 评级小组审核确认《报告》编写组提交的《企业社会责任报告过程性资料确认书》及相关证明材料；
2. 评级小组对《报告》编写过程及内容进行评价，拟定评级报告；
3. 评级专家委员会副主席、评级小组组长、评级小组专家共同签审评级报告。

#### 三、评级结论

##### 过程性（★★★★☆）

集团成立社会责任工作领导小组，董事长、党委副书记分别担任组长和副组长，把控整体方向并负责报告终审，办公室牵头组建编写组，统筹具体编制工作；将报告定位为披露社会责任信息、强化利益相关方沟通、完善社会责任管理、提升企业品牌形象的重要工具，功能价值定位明确；结合国家宏观政策、国际国内社会责任标准、行业对标分析、公司重大事项、利益相关方调查等识别实质性议题；计划通过全球契约网站发布报告，并将以电子版、印刷品、中英文版的形式呈现报告，过程性表现领先。

##### 实质性（★★★★☆）

《报告》系统披露了贯彻宏观政策、深化改革、科技创新、安全生产、环保技术和设备的研发与应用、绿色制造等所在行业关键性议题，叙述详细充分，具有领先的实质性表现。

##### 完整性（★★★★）

《报告》主体内容从“以价值创造为核心 夯实发展根基”“以科技创新为驱动 践守绿色承诺”“以和谐共赢为主旨 不忘桑梓情深”等角度披露了所在行业核心指标的 68.29%，完整性表现有待提升。

##### 平衡性（★★★★）

《报告》披露了“污染事件数”“企业亏损面”“排查安全隐患”等负面数据信息，平衡性表现优秀。

##### 可比性（★★★★）

《报告》披露了“营业收入”“净利润”“劳动合同签订率”“境内公益捐赠”“安全生产投入”“碳排放量”等 26 个关键指标连续 3 年的对比数据，可比性表现优秀。

##### 可读性（★★★★☆）

《报告》以“三重底线理论”为依据，系统展示了企业履行经济责任、环境责任和社会责任的理念、行动与绩效，回应了相关方的期望与诉求；封面设计创意融合可持续发展责任模型元素，嵌入履责场景实景图，提升了报告的辨识度；设计风格清新简约，表达元素丰富多样，图文搭配相得益彰，可读性表现领先。

##### 创新性（★★★★）

《报告》各章开篇设置“乘势而上，变革开启新征程”“励精图治，各施所长争创新”“铮铮钢骨，同舟共济战疫情”特色版块，聚焦企业在产业改革、创新发展、疫情防控方面的履责行动与成效，彰显了中央企业的责任担当，创新性表现优秀。

#### 综合评级（★★★★☆）

经评级小组评价，《中钢集团 2020 可持续发展报告》为四星半级，是一份领先的企业社会责任报告。

#### 四、改进建议

1. 增加行业核心指标的披露，提高报告的完整性；
2. 增加履责不足之处的详细披露，提高报告的平衡性；
3. 增加企业历史关键绩效数据的披露，提高报告的可比性。

评级专家委员会副主席

评级小组组长

评级小组专家



出具时间：2021 年 7 月 28 日

扫码查看企业评级档案



# 指标索引

## INDEX OF INDICATORS

完全采用	部分采用	未采用	不适用
●	◉	◯	N/A

CASS-CA3.0 指标索引				
	指标编号	指标描述	披露位置	披露情况
第一部分：报告前言 (P 系列)				
报告规范	P1.1	报告信息说明	扉页	●
	P1.2	报告便捷	扉页	●
	P1.3	报告体系	扉页	●
	P1.4	联系方式	扉页	●
报告流程	P2.1	报告实质性议题选择程序	P16-17	●
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	P3.2	企业年度社会责任工作成绩与不足的概括总结	P04	●
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	P4.4	按产业、顾客类型和地域划分的服务市场	P06-07	●
	P4.5	按雇用合同（正式员工和非正式员工）和性别分别报告从业员工总数	P75	◉
年度进展	P5.1	年度社会责任重大工作	P12-13	●
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	G1.2	辨识企业的核心社会责任议题	P16-17	●
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	G2.2	企业内部社会责任的职责与分工	P14	●
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	G5.2	企业内部社会责任沟通机制	P15	●
	G5.3	企业外部社会责任沟通机制	P15	●
	G5.4	企业高层领导参与的社会责任沟通与交流活动	P22、25、62、66	●
责任能力	G6.1	通过培训等手段培育负责任的企业文化	P38、44、62、66	●
第三部分：市场绩效 (M 系列)				
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	M1.2	保护中小投资者利益	-	N/A
	M1.3	规范信息披露	扉页	●
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	指标编号	指标描述	披露位置	披露情况
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	M3.2	诚信经营的理念与制度保障	-	◯
	M3.3	公平竞争的理念及制度保障	-	◯
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第四部分：社会绩效 (S 系列)				
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	S2.11	员工职业发展通道	-	◯
	S2.12	员工培训体系	P75	●
	S2.13	员工培训绩效	P35	◉
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	S3.2	安全应急管理机制	P35	●
	S3.3	安全教育与培训	P35	●
	S3.4	安全培训绩效	P35	●



意见反馈  
FEEDBACK

中钢集团非常关心您对这份社会责任报告的意见，请就本报告提出您的意见和见解并反馈给我们，以便我们对报告持续改进。

Sinosteel is very concerned about your comments on this social responsibility report, so we would like you to provide us with your comments and opinions on this report and feedback to us, so that we can improve the report constantly.

请回答好以下问题后将表格传真到 8610-62689800，或寄到中国北京海淀区海淀大街 8 号中钢国际广场。

Please fax the following form to +8610-62689800 after answering the following questions, or mail it to Sinosteel International Plaza, No. 8 Haidian Street, Haidian District, Beijing

1. 在本报告中，您有没有找到您需要的内容？如果没有，请写下您想要的内容。  
Have you found what you need in this report? If no, please write down what you want to get.

2. 报告中哪一部分您最感兴趣？  
Which part interests you the most in the report?

如果愿意，请告诉我们关于您的信息：  
If available, please tell us your information:

姓名 Name	邮编 Post Code
机构 Institution	电话 Telephone
职业 Occupation	电子邮件 E-mail
联系地址 Address	传真 Fax

我们的联系方式如下：  
Our contact information is shown as follows:

部 门 Department	中钢集团办公室 Office of Sinosteel Group Corporation Limited	电 话 Tel	+8610-62689837
地 址 Address	中国北京海淀区海淀大街 8 号中钢国际广场 Sinosteel International Plaza, No. 8 Haidian Street, Haidian District, Beijing, China	传 真 Fax	+8610-62689800
邮 编 Post Code	100080	电子邮箱 Email	csr@sinosteel.com
		公司网址 Website	http://www.sinosteel.com

	指标编号	指标描述	披露位置	披露情况
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	S3.7	员工伤亡人数	-	◎
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	S4.2	企业公益方针或主要公益领域	P66	●
	S4.3	捐赠总额	P73	●
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	E2.7	废水排放量及减排量	-	◎
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	（A3）参考索引：对本指南要求披露指标的采用情况		P82-83、86-87	●
	（A4）意见反馈：读者意见调查表及读者意见反馈渠道		P88	●