

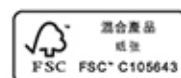


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报告出版环境考虑
Environmental considerations in publication of this report

纸张: 报告印刷用纸通过FSC认证和ECF认证。
油墨: 印刷油墨采用环保大豆油墨以减少空气污染。
Paper: The printing paper for this report was certified by FSC and ECF
Ink: 100% soy ink was used aiming to decrease air pollution

设计制作: 鹏图设计



2016 中钢集团
可持续发展报告
Sustainability Report

关于本报告 ABOUT THE REPORT

目录 CONTENTS

● 可靠性保证

中国中钢集团公司保证 2016 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：2016 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公司总部以及各分支机构、所属企业。为便于表述和方便阅读，“中国中钢集团公司”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 10 份年度可持续发展报告。

● 报告数据说明

此报告所引用的 2016 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》；
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-CSR3.0）》；
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；
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。

本报告以纸质版和网络版两种形式发布。若需索取纸质版报告，或浏览网络版报告，请登录公司社会责任网页：
<http://www.sinosteel.com/qyshzr>

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● Reliability assurance

Sinosteel ensures the authenticity, accuracy and completeness of 2015 sustainable development report, and tries to give consideration to the substantiality and balance of the contents. We look forward to strengthening communication with the stakeholders, building mutual trust and creating sustainable future jointly by issuing the report.

● Report scope

Time range: January 1—December 31, 2015, partial contents are beyond the scope.

Scope of organization: it includes the headquarters, branches and subsidiary enterprises of Sinosteel. For the convenience of expression and reading, Sinosteel is expressed in terms of "Sinosteel", "CSC", "Group", "Corporation" and "We".

Release cycle: Sinosteel has been releasing a sustainable development report every year since 2008. This is the 9th sustainable development report issued by it.

● Data specification

2015 financial data referenced in the Report may be slightly different from the final data, so it is subject to the audited financial report; other data are from the formal documents and statistical reports of the corporation.

● Reference standard

Guiding Opinion on Central Enterprises Fulfilling Social Responsibilities issued by State-owned Assets Supervision and Administration Commission of the State Council (SASAC);
Compilation Manual for Social Responsibility Report of Chinese Enterprises issued by Enterprise Social Responsibility Research Center of Economics Department, Chinese Academy of Social Sciences;
Guide for Sustainable Development Report issued by Global Reporting Initiative (GRI 4.0);
Ten principles of Global Compact issued by the United Nations;
International Standard Organization ISO26000 (2010)

● Language and form issued

The Report is issued in paper and online editions. Please log in corporate social responsibility webpage to browse online edition report:
<http://www.sinosteel.com/qyshzr>

● Contact information

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价值产业链 Value-added industry chain



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管理者致辞

FROM THE MANAGEMENT



徐思伟

中国中钢集团公司 董事长 党委书记

2016 年是中钢适应新常态，开创改革发展新局面的转折之年。这一年，我们风雨兼程，爬坡过坎，通过变革求生的艰苦保卫战，向变革新生的目标迈出了坚实的一步，开启了中钢集团凤凰涅槃、浴火重生的新征程。

这一年，我们认真贯彻国家供给侧结构性改革部署，加快瘦身健体、提质增效，统筹推进“四化举措”和“三个加快”的各项工作，生产经营企稳向好，经营绩效逐步改善。债务重组方案成功落地，为中钢改革发展创造了重要条件。

这一年，我们积极推进业务调整，部分“僵尸企业”、特困企业处置取得新成效，优势业务进一步拓展，资产证券化迈出新步伐。内部变革调整持续推进，集团董事会正式组建运行，管理层级实现有效压缩，三项制度改革进一步深化。

这一年，我们扎实开展“两学一做”学习教育，落实全面从严治党责任，坚定不移推进党风廉政建设和反腐败斗争。巡视整改稳步推进，党建保障促进作用进一步发挥。这些成绩的取得，凝聚着广大干部职工的辛勤汗水，体现了中钢人知难而进、迎难而上的坚定决心与意志。

这一年，我们贯彻创新驱动发展战略，开展“双创”工作，为适应科技产业的发展需要，中钢集团打造了基础研究、产业培育、融资服务、产业发展等子平台，形成了能够实现内外部资本、技术、管理相结合的创新体系。

无论市场环境如何变化，无论变革新生之路如何艰难，中钢始终坚持做负责任的企业公民，切实履行政治、经济和社会三重责任。中钢真诚希望与合作伙伴携手共进，开创合作共赢的美好未来。

Xu Siwei

Chairman and Party Secretary of Sinosteel Corporation

The year 2016 was a turning point for Sinosteel to adapt to new normal and initiate new change and development situation. In the year, we marched forward regardless of hardship and used the change to start the new journey of Sinosteel.

In the year, we earnestly implemented the structural reform deploy at the national supply side, quickened the organization adjustment, quality and efficiency improvement, promoted the "Four Modernizations" and "Three Speed-up" measures, stabilized the enterprise production and operation and gradually improved the enterprise performance. Also, the successful implementation of debt restructuring plan created an important condition for Sinosteel to change and develop.

In the year, we actively propelled the business adjustment, made new headway in the disposal of "zombie enterprises" and hardship enterprises, further expanded the superior enterprises and took new steps in asset securitization. Also, the internal change and adjustment was continuously implemented. The board of directors was formally established, the management was effectively reduced and the reform of three systems was further deepened.

In the year, we practically developed the education of "Two Studies One Action", implemented the responsibility of comprehensively strengthening Party discipline and unswervingly promoted the construction of the Party conduct and the struggle against corruption. The reform was stably promoted and the Party construction was guaranteed. Such achievements represented the hard sweat of cadres and workers and reflected the willpower and determination of Sinosteel people to advance despite difficulties.

In the year, we implemented the innovation-driven development strategy and developed the "mass entrepreneurship and innovation". In order to adapt to the development need of science and technology industry, Sinosteel built the fundamental research, industry cultivation, financing service, industrial development and other platforms to form into an innovative development system which can integrate internal and external capital, technology and management.

No matter how market circumstance changes and how difficult the reform road is, SINOSTEEL insists in being a responsible corporate citizenship and practically performing the political, economic and social responsibility. SINOSTEEL sincerely hopes work together with partners, creating the glorious future of cooperation and win-win.



刘安栋

中国中钢集团公司 总经理 党委副书记

2016年中钢坚持稳中求进的工作总基调,抓好当期经营和改革发展各项工作,为实现公司战略目标开好局、起好步。未来,业务重组和管理变革将是我们二次创业的核心和根本。中钢人将坚定信心和决心,勇担责任,狠抓落实,走好二次创业之路。

我们着力培育核心业务。找准中钢在央企布局调整中的功能定位,统筹考虑资源条件、业务基础和能力,聚焦集团核心业务,做强做优集团品牌,做大市场影响,打造中钢集团的核心能力和比较优势。

我们着力完善业务体系。坚定不移地推进落实“产业布局国际化”的各项措施,加大国际市场和非钢市场的开发力度。坚持实业化基础、专业化协作的产业布局和运营模式,提高业务延伸和辐射作用。建立以核心业务实业化为基础、以专业化协同为支撑的全球业务运营体系,提高运营能力和发展能力。

我们着力优化组织架构。强化并完善总部—平台公司—所属企业三级架构。做实平台公司,使每一个平台公司更加聚焦自身核心业务,更加均衡发展,形成以产品、渠道和市场为导向的组织运行模式,提升管控能力和运转效率。

我们着力抓好提质增效。重点关注利润和现金流,坚持“分类管理,区别对待”,制定可操作、可量化、可考核的提质增效工作方案,并抓好组织实施。深入开展对标挖潜、降本增效,实施精益化运营,加强成本管控。

今天,中钢已站在了二次创业的新起点。展望未来,我们不忘初心,将中钢之责任与中钢之梦想落实于每一步行动之中,愿与利益相关方一道,积极应对行业和企业发展中的困难与挑战,做大做强做优中钢集团,在发展中实现多方共赢。

刘安栋

Liu Andong

Chairman and Deputy Party Secretary of Sinosteel Corporation

In 2016, Sinosteel insisted in the general work keynote of seeking improvement in stability, made great efforts to current operation and reform development, establishing favorable start for realizing the company strategy. In future, the business restructuring and management change will be a core and foundation of our second development. Sinosteel people will proceed with confidence and determination, assume responsibility and guarantee implementation to complete the second development.

We will focus on the cultivation of core business. We will identify the functional orientation of Sinosteel in central enterprises adjustment, fully consider the resource condition, business base and ability, focus on the core business of the group, improve the group brand, extend the market effect of the group and forge the core ability and comparative advantage of Sinosteel.

We will focus on the improvement of business system. We will unswervingly promote and implement various measures of “internationalized layout of industry”, enhance the development efforts of international market and non-steel market, persist in the industry layout and operation mode of industry foundation and specialized cooperation, improve the business extension and radiation effect, establish a global business operation system based on core business industrialization and supported by specialized cooperation and improve our operational capability and development capability.

We will focus on the optimization of organization. We will enhance and improve the three-level structures of headquarters, platform company and subsidiary enterprise, do the platform company that each platform company can further focus on own core business and realize the balanced development, form into an organization and operation mode based on product, channel and market, and improve our management ability and operation efficiency.

We will focus on the quality and efficiency improvement. We will pay close attention to the profit and cash flow, persist in the “classified management and differential treatment”, establish and implement the quality and efficiency improvement plan which can be operated, quantified and examined, further develop the energy efficiency, cost reduction and efficiency increase, implement the lean operation and strengthen the cost control.

Today, Sinosteel has stood at a new start of second development. As we look to the future, we will stay true to the original self and implement the Sinosteel responsibility and dream in each action and will cooperate with the stakeholders to actively overcome any difficulty and challenge in industry and enterprise development, make Sinosteel better and stronger and realize all-win in development.

关于我们 ABOUT US

公司简介 Company profile

中国中钢集团公司（简称中钢集团，英文简称 Sinosteel）是国务院国资委监管的中央企业。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，是一家为冶金工业及相关产业提供资源、工程、装备、科技集成服务，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。

经过多年的发展，中钢集团凝聚了强大的前进动力。展望未来，中钢集团将充分发挥已有优势，借力资本市场和互联网+，加快推进发展方式转变和产业结构调整，提升投资服务能力及产融结合深度，由注重规模向注重质量效益转变，由以要素拉动向创新驱动转变，力争使中钢成为冶金工业及相关产业国际知名服务商。

Sinosteel Corporation (abbreviated as "Sinosteel") is a central enterprise under the administration of the State-Owned Assets Supervision and Administration Commission. It is mainly engaged in

developing and processing of metallurgical mineral resources, trading and logistics of metallurgical raw materials and products, and related engineering technical service and equipment manufacture. It is a large multi-national enterprise with clear-defined core businesses that integrate resources development, trade & logistics, engineering project and science & technology, equipment manufacturing and specialized service, providing comprehensive auxiliary service for steel industry, steel mills, and related strategic emerging industries.

After dozens of years of development, Sinosteel has accumulated strong driving force. Looking forward to the future, Sinosteel will fully exert its advantages, use the capital market and Internet+, quicken the development mode change and industrial structure adjustment, improve the investment service ability and the integration of industry and finance and change from scale to quality and from element driven to innovation driven so as to develop Sinosteel into an international famous service provider in metallurgical industry and related industry.

发展战略 Corporate Strategy

充分利用两种资源、两个市场，聚焦发展矿产资源、工程技术、高端装备、科技新材优势产业，优化提升贸易物流、投资服务增值能力，力争使中钢成为冶金工业及相关产业知名服务商。

Take full advantage of two resources and two markets, focus on the development of mineral resource, engineering technology, high-end equipment and new material, optimize the trade and logistics and improve the investment service so as to develop Sinosteel into an international famous service provider in metallurgical industry and related industry.

企业文化 Enterprise Culture

企业精神
Entrepreneurial spirit

团结 **UNITY**

务实 **PRACTICABILITY**

高效 **EFFICIENCY**

奋进 **ENDEAVOR**

核心价值观
core values

务实创新 **PRAGMATIC INNOVATION**

包容理解 **INCLUSIVE UNDERSTANDING**

公正守法 **FAIR AND LAW-ABIDING**

合作共赢 **WIN-WIN**

人才理念
Talent Concept

以人为本
PEOPLE-ORIENTED

德才兼备
EQUAL STRESS ON INTEGRITY AND ABILITY

事得其人
PUT THE RIGHT MAN IN THE RIGHT PLACE

人尽其才
PEOPLE DO THEIR BEST

企业形象
Corporate image

团结奋进
**FORGE AHEAD IN
UNITY**

争创一流
**STRIVING FOR
EXCELLENCE**

新时期
攻坚精神
The spirit of
the new era
of tackling

团结
UNITED

担当
RESPONSIBILITY

拼搏
HARD WORK

奉献
DEDICATION

经营理念
Business
philosophy

发展
DEVELOPMENT

双赢
WIN-WIN

友谊
FRIENDSHIP

合作
COOPERATION

发展战略 Corporate strategy

充分利用两种资源、两个市场，聚焦发展矿产资源、工程技术、高端装备、科技新材优势产业，优化提升贸易物流、投资服务增值能力，力争使中钢成为冶金工业及相关产业国际知名服务商。

Sinosteel strives to be a well-known international service provider in metallurgical industry and related industries by coordinating two resources and two markets, focusing on mineral resources, engineering equipment, high-end equipment, new high-tech materials and other advantageous industries, and optimizing trade& logistics and investment service.



- 探矿技术的研发与应用
- 矿山设计与总承包
- 采矿设备的研发与制造
- 矿山安全与环保技术

- 水运
- 陆运
- 空运
- 货代
- 船运
- 仓储
- 保险

- 铁矿
- 铬矿
- 锰矿
- 镍矿
- 焦炭
- 废钢
- 铁合金

- 烧结厂设计与工程总承包
- 烧结机的研发与制造
- 烧结环节的环保技术

- 炼铁原料供应
- 炼铁厂设计与工程总承包
- 高炉、直接还原设备的研发与制造
- 高炉用耐火材料的研发与制造
- 高炉节能技术与工程

- R&D and application of mine exploration technology
- Design and general contracting of the mine
- R&D and mining equipment manufacturing
- Mining safety and environmental protection technology

- Marine transport
- Land transport
- Air transport
- Freight forwarding
- Shipping
- Warehousing
- Insurance

- Iron ore
- Chrome ore
- Manganese ore
- Nickel ore
- Coke
- Steel scrap
- Ferroalloy

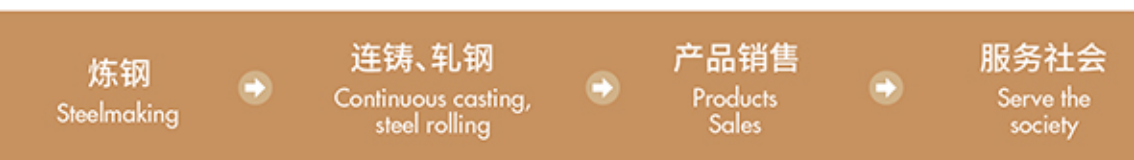
- Design and EPC of sintering plant
- R&D and manufacturing of sintering machine
- The environmental protection technology of sintering process

- Supply of raw materials for iron-making
- The design and engineering general contracting of iron-making plant
- R&D and manufacturing of blast furnace, direct reduction equipment
- R&D and manufacturing of refractories for blast furnace
- Energy saving technology and engineering of blast furnace

服务模式 Business model

通过推进战略转型，中钢逐步成长为现代生产性服务企业。其服务贯穿钢铁工业的多个环节，以客户为本，为客户创造更多价值并提供一站式服务。

Through its strategic transformation, Sinosteel gradually grows into a modern production-oriented service provider. Covering multiple links of iron and steel industry, its customer-oriented services aim to create more value for customers and provide one-stop service.



- 炼钢原料供应
- 炼钢厂设计与工程总承包
- 转炉、电炉设备的研发与制造
- 炉外精炼技术与设备
- 炼钢辅料

- 连铸工程设计与工程总承包
- 连铸设备的研发与制造
- 连铸用耐火材料的研发与制造
- 原料供应
- 轧钢厂的设计与工程总承包
- 轧钢设备研发与制造

- 钢材的营销网络
- 钢材的仓储、物流、剪切、配送

- 生产安全
- 环境保护
- 循环经济
- 节能减排
- 工程咨询
- 工程招标
- 军工科技
-

- Supply of raw materials for steelmaking
- Design and engineering general contracting of steelmaking plant
- R&D and manufacturing equipment for converter, electric furnace
- Refining technology and equipment outside the furnace
- Auxiliary materials for steelmaking

- Continuous casting engineering design and general contracting
- R&D and manufacturing of casting equipment
- R&D and manufacturing of refractory for continuous casting
- The supply of raw materials
- EPC contracting of rolling mill
- R&D and manufacturing of steel rolling equipment

- Marketing network of steel
- Warehousing, logistics, shear and distribution of steel

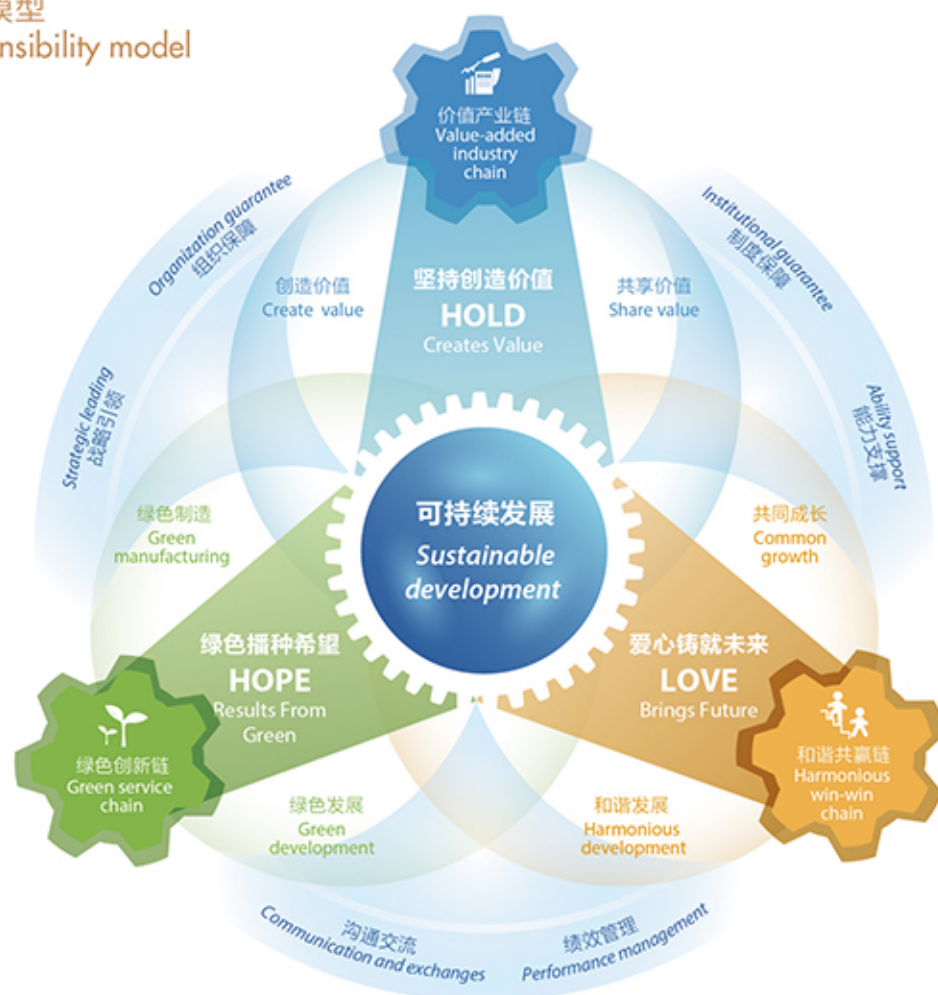
- Production safety
- Environmental protection
- Recycling economy
- Energy-saving and emission reduction
- Engineering consulting
- Project bidding
- Military science and technology
-

可持续发展理念 Concept of sustainable development

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，在服务于钢铁工业和钢铁生产企业的过程中，始终兼顾各利益相关方的利益，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 economy, environment and society triple bottom-line responsibility. According to industry and enterprise characteristics, Sinosteel gives consideration to the interests of every stakeholder all the time in the process of serving iron & steel industry and steel production enterprises, adheres to promoting value creation, strongly believes green development leading the future, and firmly contributes to the harmonious development of our society.

责任模型 Responsibility model



价值产业链
坚持创造价值

VALUE-ADDED
INDUSTRY CHAIN

这是中钢集团可持续发展的经济维度，指公司在发展过程中，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，以实现中钢集团的基业长青。

This is the economic dimension of sustainable development, which means, in the development process of Sinosteel, to pay attention to creating value for shareholders, while taking into account the interests of the banks, government, customers, suppliers and other stakeholders; it continues to enhance the value creation of the whole industry chain to make the course of Sinosteel last forever.



绿色创新链
绿色播种希望

GREEN
INNOVATION CHAIN

这是中钢集团可持续发展的环境和创新维度，指公司在发展过程中，注重环境保护，发展低碳经济，提升上下游企业的环保水平，并且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，以促进中钢的可持续发展。

This is the sustainable development of China Steel Group, the environment and innovation dimension, refers to the company in the development process, pay attention to environmental protection, the development of low-carbon economy, enhance the upstream and downstream enterprises in the level of environmental protection, and through continuous innovation and development of new impetus to expand the development of new space. Constantly committed to the steel industry chain of green manufacturing, innovation and development to promote the sustainable development of China Steel.



和谐共赢链
爱心铸就未来

HARMONIOUS
WIN-WIN CHAIN

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和谐共赢。

This is the social dimension of sustainable development, which means, in the development process, Sinosteel always pay close attention to the overall well-being enhancement of the business operations to employees, communities and other stakeholders to promote the harmonious development between Sinosteel and the community.

可持续发展维度 Governance dimensions of sustainable development

中钢集团基于战略目标实现和利益相关方关注度两个维度的综合考虑，将现阶段的社会责任工作主要聚焦“四个层面”。

Based on the overall consideration given to the two dimensions-- the realization of strategic objectives and attention to stakeholders, Sinosteel mainly focuses on "four levels" of the current social responsibility.



可持续发展推进 Promotion of sustainable development

责任管理 Responsibility management

公司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、平台公司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。

在行业形势严峻，当期经营遇到较大挑战的情况下，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。

The Company continued to improve the social responsibility management system. According to the adjustment and business promotion of the Group, the CSR responsibility was managed by the CSR Leading Group, and the office as the centralized management department, responsible for the overall work of social responsibility and And further clarified the various functions and subordinate enterprises in the process of social responsibility to promote the main duties and priorities.

In the event of operational difficulties, the Group is still planning to promote social responsibility management, social responsibility will continue to integrate into the daily operations, and timely release of sustainable development reports, and actively communicate with stakeholders to strengthen the capacity to build capacity.

责任能力提升 Responsibility to enhance

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。不断加强企业可持续发展能力建设，通过社会责任的方式指导企业经营模式转变，推动改革探索。

公司通过培训、调研、编制可持续发展报告等方式，不断提升所属企业的社会责任意识，挖掘社会责任价值，推动所属企业开展社会责任工作，让责任真正能落到实处。

The Company actively participated in the social responsibility training organized by the relevant departments of the SASAC, and promoted the management level and practice level of the advanced enterprises, promoted the social responsibility work, and continuously enhanced the social responsibility work ability to form operational experience and mode. In the case of business difficulties, strengthen the sustainable development of enterprise capacity building, through social responsibility to guide the business model changes, to promote reform and exploration.

Through the training, research, preparation of sustainable development reports, etc., and constantly enhance their corporate social responsibility awareness, tap the value of social responsibility, to promote their employees to carry out social responsibility work, so that responsibility can really be implemented.

可持续发展报告编写
Preparation of sustainable development reports

中钢集团自 2007 年起发布可持续发展报告，报告的编写已经成为中钢每年的社会责任管理的重点工作之一。通过本报告的编写，可以了解各所属企业的社会责任工作的推进情况，对标优秀企业的管理和实践，提升中钢的社会责任管理水平和实践水平。《2015 年中钢可持续发展报告》获得中国社科院企业社会责任研究中心四星半级评分。

Sinosteel started to release the sustainable development reports since 2008. The report compilation has become one of the important social responsibility management work every year. According to the compiled sustainable development reports, the promotion of social responsibility by all affiliated enterprises can be known, thereby improving the social responsibility management and practice levels of Sinosteel. 2015 Sinosteel Sustainable Development Report was awarded four and a half stars by the Enterprise Social Responsibility Research Center of CASS.

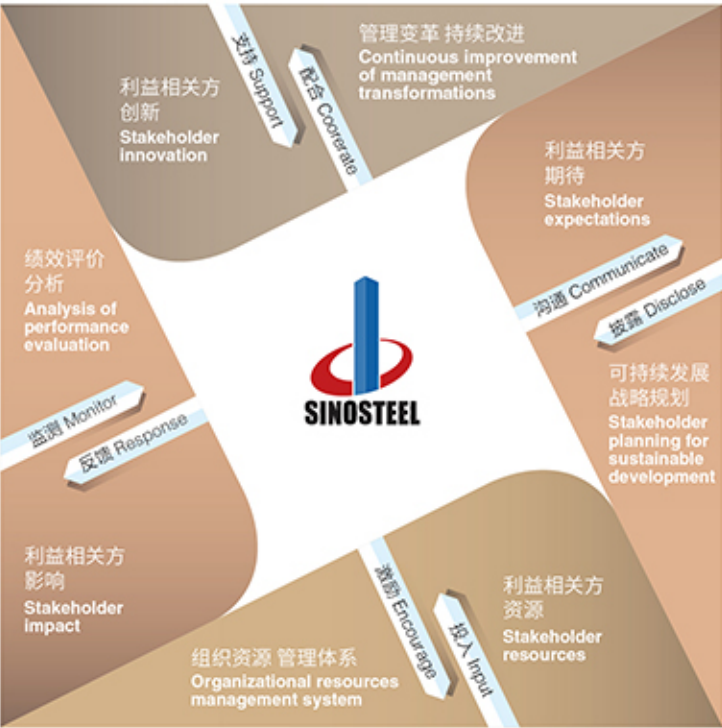


利益相关方管理
Stakeholder management

利益相关方管理模型
Stakeholder management model

我们将利益相关方观点充分融入到基于 PDCA 循环的可持续发展体系中，形成了具有中钢特色的利益相关方管理模型。

We sufficiently integrate stakeholder opinions in sustainable development system based on PDCA cycle, forming stakeholder management model with Sinosteel characteristics.



在制定可持续发展战略规划过程中，与利益相关方进行充分沟通，考虑和回应利益相关方的期望。

In the process of formulating sustainable development strategy planning, there shall be sufficient communication with stakeholders, and their expectations shall be considered and responded.

在组织资源管理体系中，充分运用和发挥利益相关方的资源优势，促进利益相关方参与公司决策和运营。

In the organizational resources management system, the resource superiority of the stakeholders shall be made full use of, thereby promoting stakeholders to participate in company policies and operation.

在绩效评价分析过程中，深入监测集团经营活动对利益相关方的影响，及时反馈利益相关方的意见和建议。

During the analysis of performance evaluation, the impact of group business activities on stakeholders shall be deeply monitored, and the opinions and suggestions of the stakeholders shall be responded timely.

在管理变革持续改进过程中，广泛吸纳利益相关方的创新思维，共同促进企业与社会的可持续发展。

During the continuous improvement of management transformations, the innovative thinking of the stakeholders shall be widely adopted to jointly promote the sustainable development of the enterprises and society.

利益相关方沟通 Stakeholder communication

中钢集团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，我们充分利用职工代表大会、建议箱、员工沟通会、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，准确地披露公司当年的经济、社会、环境的履责情况，让利益相关方更了解企业。中钢集团开设了官方微信，主动积极向内外利益相关方披露中钢集团的经营情况、履责情况，及时将中钢集团面临的挑战向利益相关方和公众说明，遵循透明办企业的原则。



Sinosteel attaches high importance to communications with all stakeholders, builds mutual trust, promotes cooperation, aims for a win-win outcome and jointly creates sustainable future. In the company, we make the best of workers' conference, suggestion box, employee communication meeting, training activities and other means to enhance the communication between leader and employee. Externally, the company releases the sustainable development report on a regular basis to correctly disclose the economic, social and environmental responsibility performance condition of the current year and to make the stakeholders know the enterprise in a better way. Also, the company establishes official WeChat to actively disclose the economic and responsibility performance condition of Sinosteel to the internal and external stakeholders and explain the challenge to the stakeholders and public on the principle of doing business in a transparent manner.

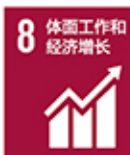


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SDG 目标回应 SDG TARGET RESPONSE

体面工作和经济增长 Decent work and economic growth



集团全年实现营业收入 547 亿元，盈利超过 2 亿元。

The group realizes the operating income of 54.7 billion Yuan and the profit of 0.2 billion Yuan above in the year.

产业、创新和基础设施 Industry, innovation and infrastructure



建设多层次“双创”服务平台，包括筹建中央企业创新创业中心，内部组建“中钢星火创新工场”、中钢科技天津滨海新区科技成果转化中心、中钢武汉安全环保科技领创园区等。

举办中钢集团创新大赛，并开展科研院所青年技术人才创业培训、中钢创新社群“中钢创新思享会”等活动。

牵头负责《中央企业创新创业模式与典型案例研究》课题。

Establish a service platform of "mass entrepreneurship and innovation" at many levels, including the construction of central enterprise innovation center, Sinosteel Xinghuo Innovation Plant, Sinosteel Technology Tianjin Binhai New Area Scientific and Technological Achievement Transformation Center, Sinosteel Wuhan Safety and Environmental Protection Technology Park, etc.

Hold Sinosteel innovation match, develop the young science and technology talent training activity of scientific research institutions, "Sinosteel innovation idea share meeting" and other activities.

Lead the topic of Study on Central Enterprise Innovation and Entrepreneurship Mode and Typical case.

负责任消费和生产 Responsible consumption and production



建设规范董事会试点，形成有效制衡的公司法人治理结构，灵活高效的市场化经营机制。

安全环保态势平稳，较大及以上安全环保事故为零。

Establish and specify the board of directors on a trial basis, improve the core business competitive power and resource allocation efficiency, form a legal person structure with effective balance and the flexible and efficient market-featured management mechanism.

Stabilize the safety and environmental protection situation, put an end to the major and above safety and environmental protection accident.

价值产业链 VALUE-ADDED INDUSTRY CHAIN





聚焦

FOCUS ON

深化改革 砥砺前行 INTENSIFY REFORM, FORGE AHEAD

2016 年，中钢集团积极应对挑战，着力推进“四化举措”和“三个加快”，扎实开展“两学一做”学习教育，当期经营稳中有进、稳中提质，止血瘦身、造血健体等各项工作取得积极成效。

In 2016, Sinosteel group met the challenge, actively implemented "Four Modernizations" and "Three speed-up" and practically developed the education of "Two Studies One Action" to obtain the positive results in operation and quality of the said period.

明确改革思路 Define Reform Thinking

● 总体思路 General Idea

转变发展理念，主动适应新常态，以提质增效为中心，以转型升级为重点，以改革创新为动力，着力发展“四大优势”产业，重塑生命基因，力争在“十三五”期间，把中钢发展成为具有较强创新能力和竞争力的国际化企业集团。

Change the development idea, actively adapt to new normal, focus on the development of four competitive industries by improving quality and efficiency and using transformation and upgrading, reform and innovation, remake the life gene to develop Sinosteel into a "small and excellent" international enterprise group.



以提质增效为中心
To improve quality and efficiency as the center



以转型升级为重点
Focus on transformation and upgrading



以改革创新为动力
To reform and innovation as a driving force

● 落实“四化举措”，激发内生活力 Four simultaneous, reshape the steel life gene

| 体制机制市场化 Marketization of system and mechanism | 产业布局国际化 Internationalization of industrial distribution | 资产业务证券化 Securitization of assets operation | 经理队伍职业化 Professionalization of manager team |
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加快企业公司制改造，发展混合所有制经济，引进各类投资者实现股权多元化，探索“央企市营”机制。推进三项制度改革，建立能上能下、能高能低、能进能出的市场化机制。逐步推行管理层和骨干员工持股，形成利益和命运共同体，实现股东增值、员工增收和企业增效。

accelerate corporation system reform, develop mixed ownership economy, introduce all kinds of investors to realize diversity of equities, and explore the mechanism of "central enterprises municipalization"; promote the reform of three systems, establish a flexible market mechanism; gradually implement the share holding by management and backbone employee, form the community of interests and destiny, realize the shareholder value added, employee income increase and enterprise efficiency improvement.

加快从面向国内钢铁行业向面向国内国际两个市场的转变，构建更加注重国际市场、更加注重出口、更加注重外贸、更加注重全方位宽领域企业布局。加快建设以产业发展为基础、以贸易物流为支持、以提升价值链为目标的中钢全球业务协同经营体系。

accelerate the change of from domestic iron and steel industry to both domestic and international markets, establish the industry layout focusing on international market, export, foreign trade and enterprise cooperation in a wider range, and speed up the construction of Sinosteel global business collaborative operation system which takes the industrial development as basis, the trade and logistics as support and the value chain improvement as target.

积极利用资本市场，实施优势资产业务整合重组，做好企业价值乘法。推动内部优势企业上市，强化市值管理，实现资产价值放大。充分发挥上市企业优势，持续借力资本市场，增强重组优化内部资源、整合聚集外部资源的能力，实现企业业务经营与资本经营良性互动。

actively utilize capital market, implement integrative recombination of advantageous assets operation, do well in the multiplication of enterprise value, promote internal strength enterprises to be listed, reinforce market value management and realize the amplification of asset value, make the best of the advantage of listed enterprises, continuously rely on the capital market, restructure and optimize the internal resource, integrate the external resource, realize the good communication between enterprise operation and capital operation.

加快建立职业经理人制度，在坚持党管干部原则的前提下，改进经理人选拔、任用和管理方式，建立经理人身份转换和退出通道，推行任期制和契约化管理，培养造就一支政治强、业务精、敢作为、作风正的职业经理人队伍。

quicken the establishment of professional manager system, persist in the principle of the Party assuming the responsibility for cadres' affairs to improve the manager selection, appointment and management mode, set up manager identity transformation and quit channel, carry out tenure system and contractual management and cultivate professional manager team with strong political competence, excellent professional skills and moral integrity.

转变发展理念 Change Development Concept

中钢深入研判内外环境、认真分析资源能力，形成了业务重整整体方案和发展理念，总体规划方案明确了由注重规模向注重效益转变，由以要素拉动向创新驱动转变的原则，体现了集约发展思想，体现了做强做优的要求；体现了坚持五大发展理念的要求，从本质上促进企业可持续发展，得到了利益相关方的高度认可。

Sinosteel deeply researches and judges internal and external environment and carefully analyzes resource capability, forming the general planning scheme and development concept of business reforming. The general planning scheme defines the change from paying attention to scale to quality benefit, and embodies intensive development thinking and the requirements in becoming a strong and excellent corporation in the principle of change from element-stimulated to innovation-driven; the requirements of adhering to five development concepts are reflected. It can essentially promote enterprise sustainable development, and is widely accepted by stakeholders.

加快转型升级 Business Transformation And Upgrading

2016 年，中钢着力培育发展四大优势产业 In 2016, Sinosteel focused on the cultivation of four strength industries

以现有矿产资源为基础，以拟打造的新上市公司为依托，培育矿产资源与贸易物流优势产业。

Rely on the existing mineral resource and new listed enterprise to cultivate the mineral resource and trade logistics strength industry.

以中钢国际工程为依托，培育工程技术优势产业；

Rely on Sinosteel international engineering to cultivate the engineering technology strength industry;

以国内装备制造企业为基础，以中钢邢机为依托，培育高端制造优势产业；

Rely on domestic equipment manufacturing enterprise and Sinosteel Xingtai Mechanical Roller Co., Ltd to cultivate the high-end manufacturing strength industry;

以中钢天源为依托，培育科技新材与金融优势产业；

Rely on Sinosteel Tianyuan to cultivate technological new material and finance strength industry;



进一步巩固和培育盈利增长点，从根本上化解产业基础薄弱的难题。

Further consolidated and cultivated the source of profit increase so as to fundamentally solve the difficulty in poor industrial base.

深化制度改革 Deepen The Institutional Reform

引入竞争机制，推行职业经理人制度，合理增加市场化选聘比例，加大责任追究，实现干部能上能下。实施分类差异化考核，建立健全与劳动力市场基本适应、与企业经济效益和劳动生产率挂钩的工资决定和正常增长机制，实现薪酬分配能高能低。建立市场化用工机制，畅通进出通道，优化人岗匹配，实现员工能进能出。

Introduce the competitive mechanism, implement the professional manager system, reasonably increase the selection and employment proportion,

increase the responsibility investigation, enable that the cadre can be ready to take a lower as well as a higher post, implement the classified and different examination, establish and improve the wage decision and normal growth mechanism which can adapt to labor market and be linked with enterprise economic benefit and labor productivity, enable that the wage can be high or low, establish the employment mechanism, smoothen the employment and dismissal channel, optimize the personnel allocation, enable that any employee can be hired or fired.

1 各级企业负责人实行“基薪 + 绩效薪”的薪酬结构，建立工资总额预算管理体系，将领导人薪酬和员工薪酬总额分开管理，按业绩进度动态调控薪酬水平。

For the enterprise leader at each level, implement the remuneration structure of "basic salary + performance salary"; establish the total wage budget management system to separate the leader's total salary from the employees' total salary for management, follow the actual performance to control the remuneration level.

2 针对生产、科技、贸易、海外等企业特点，分类制定考核指标和分配方案，向在境外等艰苦地区工作的员工适当倾斜。

Based on production, technology, trade, oversea and other enterprise features, classify and establish the appraisal index and allocation plan, and give appropriate inclination to those employees who work overseas and in difficult area.

3 各企业要结合自身实际，差异化制定内部薪酬分配政策，合理拉开差距，强化“业绩升、薪酬升，业绩降、薪酬降”的工资效益联动机制。

Each enterprise shall follow the above requirement and own actual condition to establish its internal remuneration distribution policy, reasonably widen the gap and intensify the wage-benefit linkage mechanism which changes the salary with performance.



严格落实薪酬考核改革方案

Strictly implement the remuneration and appraisal reform plan

创新发展机制

中钢集团积极推进管理创新，优化组织结构，探索管理新机制、运营新模式，积极创新内部机制。推进商业模式创新，以市场为核心、以客户需求为导向，借力“互联网+”，转变经营方式和盈利模式，以创新促进改革，充分发挥改革的突破性和先导性作用，加快形成有利于中钢发展的体制机制。

CASE 中钢邢机探索“互联网+制造” Sinosteel Xingtai Mechanical Roller Co., Ltd explores "Internet+ manufacturing"

中钢邢机依托信息化手段，将信息化建设触角延伸到企业每一个基层单元，使信息化技术综合集成水平明显提升。全力推进的全过程信息管控系统，实现了轧辊制造过程相关数据信息实时采集、实时监控、实时分析改进功能，有力地提升了轧辊制造过程管控能力，借助“互联网+”，使企业由产品生产商向产品生产服务商转变的“华丽变身”，为进一步提升产品质量，增强市场竞争能力，提升盈利能力提供了有力技术支撑。

Sinosteel Xingtai Mechanical Roller Co., Ltd relies on the information mean to extend the information construction to each basic unit of enterprise and to obviously improve the information integration level. It energetically promotes the full process information control system, realizes the real-time collection, monitoring and analysis of relevant data in roller manufacturing process and largely improves the control ability in roller manufacturing process. With "Internet +", the enterprise changes from product manufacturer to production service provider, which provides a powerful technical support for further improving product quality, enhancing market competitive power and increasing earning capacity.



Innovate The Development Mechanism

Sinosteel actively promotes management innovation, optimizes organization structure, explores new management mechanisms and new operation mode and innovates internal mechanism, improves the business mode innovation, focuses on market and customer demand and relies on "Internet+" to change operation mode and profit mode, uses innovation to promote reform, gives full play to the breakthrough and guidance role of reform, and quickens the establishment of system and mechanism in favor of Sinosteel development.



S 强化公司治理 Strengthen corporation governance

着力提升科学决策水平 Focus on promoting scientific decision-making level

中钢按照现代企业管理制度的要求，规范和完善公司的治理和管理模式，努力提升公司治理水平。经国资委批准，2016年中钢集团正式建设规范董事会试点。董事会试点工作启动以来，中钢从根本上着眼于制度建设，按照现代企业管理制度要求，不断规范和完善公司法人治理，建立了以董事会为决策机构、监事会为监督机构、经营层为日常经营管理机构的现代企业法人治理结构，科学决策质量和管理效率不断提升。

Sinosteel specifies and perfects the company's governance and management modes and attempts to improve the company's governance level on the basis of modern enterprise management system. Upon approval by SASAC, Sinosteel officially made a normative pilot on the board of directors in 2016. Since launching of the pilot on the board of directors, Sinosteel had basically aimed at institutional improvement, unceasingly specified and perfected the company's corporate governance on the basis of modern enterprise management system, established a modern enterprise corporate governance structure with the board of directors serving as the decision-making organization, board of supervisors serving as the supervision organization and operation level serving as routine operation management organization and unceasingly improved the scientific decision-making quality and management efficiency.

2016年，多位董事深入企业，开展调研指导工作，为企业改革发展出谋划策。针对中钢重点难点问题，协调各方资源。董事会认真审议涉及战略规划、风险防范、考核薪酬等议题，为促进公司经营管理工作发挥了重要作用。

In 2016, many directors made a deep investigation and instruction on the site of Sinosteel Maanshan

Institute of Mining Research Co., Ltd. and other enterprises to give advice on reform and development of the enterprise and coordinate with various resources to solve key difficulties and problems in Sinosteel. The board of directors made careful consideration on strategic planning, risk prevention and evaluation and remuneration and other themes and played a vital role in operation management of the company.



2016年，中钢将党建总体要求纳入集团公司章程，明确党委研究是董事会决策重大经营管理事项的前置程序，完善了党委会议事规则，进一步理顺了党的领导体制，规范了公司法人治理结构。

In 2016, Sinosteel got the general requirement for party construction incorporated into articles of association of the Group, specified that review by the Party Committee is a pre-positive procedure in the board of directors' making decision on major operation management matters, perfected the rules for discussion of the Party Committee, further rationalized the leading system of the Party and specified the company's corporate governance structure.

着力优化管控架构

2016年，中钢集团以建设规范董事会试点为契机，以提高核心业务竞争力和资源分配效率为目标，加快形成有效制衡的公司法人治理结构，灵活高效的市场化经营机制。加大对优势业务和重点企业简政放权力度，激发企业经营活力和内在动力。

公司以业务规划为指引，与核心业务发展相衔接，进一步强化并完善总部—平台公司—所属企业三级管控架构。

加大总部简政放权力度，将审批事项由74项精简到43项。与干部分类管理相适应，重新修订管控界面清单，总部人员进一步精干。

不断加大业务板块和平台公司整合力度，做实平台公司，助力每个平台公司聚焦自身核心业务，形成以产品、渠道和市场为导向的组织运行模式。2016年，集团组建运行装备及贸易两个新设平台。

Focus on optimizing management and control architecture

In 2016, taking the chance of making a normative pilot on board of directors and targeted to improve its core business competitiveness and resource allocation efficiency, Sinosteel sped up to form into an effectively-counterbalanced company corporate governance structure and flexible and efficient marketing operation mechanism, enlarged the extent of delegating powers to lower levels on advantageous business and key enterprise streamline administration and stimulated the operation vitality and internal motivation of the enterprise.

The company further enhanced and perfected a three-level framework (headquarters—platform company—subsidiary) on the basis of business planning and connection with development of core business, enlarged the extent of delegating powers to lower levels and streamline administration of the headquarters.

The quantity of approval items is reduced from 74 to 43. The company adapted to systematic management on leaders, revised the list of control interfaces and further improved the quality of personnel in the headquarters.

The company also unceasingly enlarged the integration extent between its business sector and platform company, consolidated the platform company and assisted each platform company focusing on its respective core business and formed into a product, channel and market oriented organization operation mode. In 2016, the Group established two new platforms such as operation equipment and trading platforms.

进一步强化并完善
三级管控架构
To further
strengthen and
improve the
three-level
framework



着力加强风险管控 Strengthen risk management and control

中钢集团坚持“事前防范、事中控制、事后处理”的风险管控原则，实施全面风险管理，加强内控体系建设，建立风险预警机制，从战略、运营、财务、法律等多方面、多维度对关键的风险因素进行识别、分析和评估，排查风险隐患，最大程度减少风险发生、降低风险对各方利益造成伤害。

Sinosteel keeps on the risk control principle of “to prevent beforehand, control in the process and dispose afterward”, executes an overall risk management, enhances the construction of internal control system, establishes a early risk warning mechanism, makes recognition, analysis and assessment on key risk factors in aspects and dimensions of strategy, operation, finance and law, eliminates hidden risk and reduces the occurrence of risk to the largest extent and reduces the risks' impair on benefits of each party.

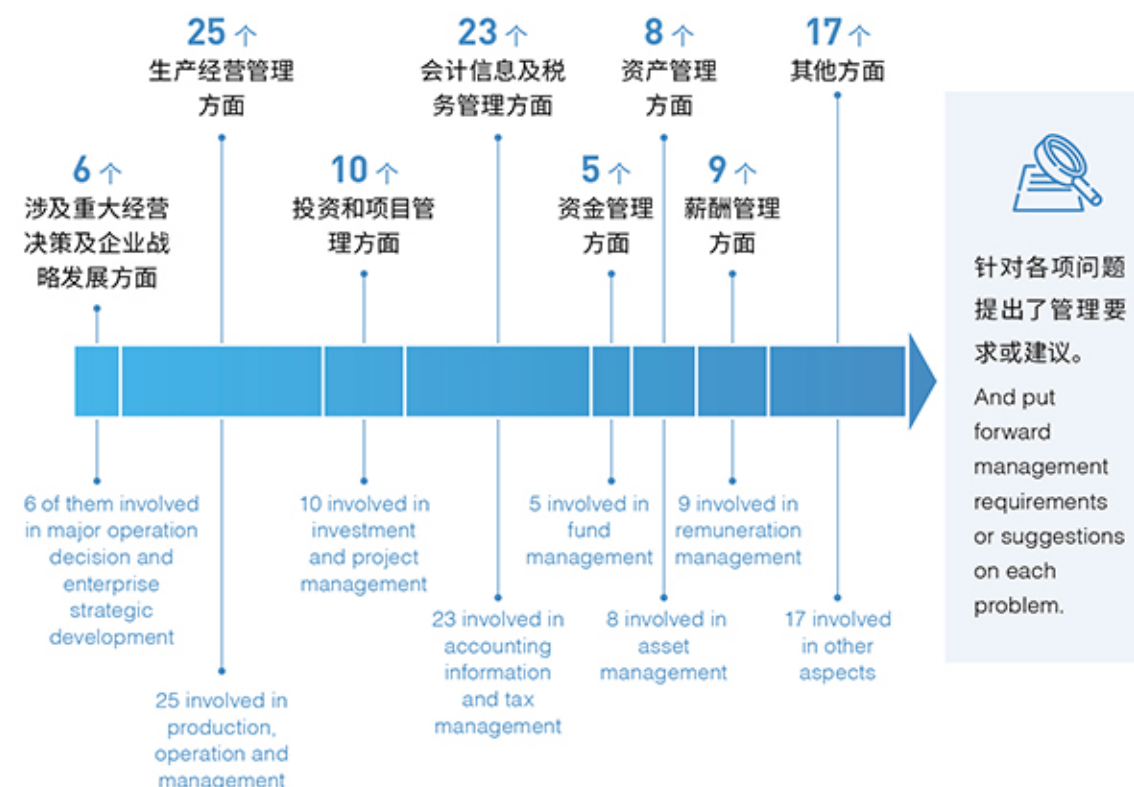


2016年，中钢集团完成年度《全面风险管理报告》，根据调查问卷绘制风险坐标图。开展重点企业和重点事项风险排查和监控，并完成了金融投资业务、存货状况、融资性业务、不良债权等专项调查。

In 2016, Sinosteel finished the annual Overall risk management report and drew a risk coordinate graphs on the basis of questionnaire, made risk troubleshooting and monitoring on key enterprises and key items and finished special investigation on financial investment business, inventory, financing business and distressed debt.

2016年10月，国家审计署进驻中钢集团开展任中经济责任审计。中钢坚持对发现的问题进行“边审边改”，以“纵到底、横到边”为架构，编制专项整改报告，对七大类百余项问题逐一落实了整改要求。

In Oct., 2016, the state auditing administration entered and garrisoned in Sinosteel to make middle term accountability audit. Sinosteel kept on finding out problems and making rectification while auditing, compiling special rectification report on the basis of framework “longitudinal to bottom and horizontal to edge” and gradually putting into practice the rectification requirement for seven categories of and more than hundred items of problems.



CASE 推进不良债权清收工作 Boost the clearing and receiving of distressed debt

根据《中钢集团不良债权清收暂行办法》，公司积极开展不良债权的确认、审批、分解、清理工作。法律合规部与信息管理中心联合上线“不良债权清收管理系统”，完善风险管理日常监控分析，动态监控集团所属企业不良债权每月清收金额及清收进展，并编制了首份《中钢集团不良债权清收工作情况》。

According to the Sinosteel's Interim Measure for Clearing and Receiving Distressed Debt, the company actively carried out the confirmation, review and approval, breakdown and clearing works on distressed debt. The law department and information management center perfected the routine monitoring and analysis on risk management in combination with the superior level of “Distressed debt clearing and receiving management system” to make a dynamic monitoring on monthly clearing and receiving amount and progress of distressed debt of affiliated enterprise and compiled the first Sinosteel's Interim Measure for Clearing and Receiving Work Status.

不断夯实党建责任 Constantly laying party construction responsibility

中钢集团党委
所属党组织现有
The Party
organization
governing the party
committee of
Sinosteel has



36 ↑
党委
36 party
committees

548 ↑
党总支（支部）
548 general
Party branches

11059 名
党员
11059 party
members



中钢集团党委高度重视企业党建工作，2016 年，集团组织各级干部认真开展“两学一做”学习教育。宣贯党的十八届六中全会和国企党建工作会精神，深入开展专题研讨，不断强化“四个意识”。集团领导带头上党课，召开专题民主生活会，规范党内政治生活，努力发挥以上率下作用。各级党组织深入开展“践行攻坚精神、争做改革先锋”等主题活动，扎实推进“两学一做”学习教育，教育引导全体党员争做“四讲四有”合格党员。

集团党委高度重视巡视整改，根据国资委巡视反馈意见和经济责任审计意见，制订整改任务清单，明确责任单位、责任人和完成时限，扎扎实实推进针对 29 个问题的 79 项整改措施的落实。建立并实施了集团领导党建联系点制度，全面推行所属党组织向集团党委报告工作制度，推动党组织书记、副书记纪委书记述职评议考核工作，进一步强化了从严治党意识、一岗双责意识，聚焦主业，推动党建责任落地落实。

The party committee of Sinosteel paid high attention to party construction in the enterprise. In 2016, the Group arranged each level of leaders to

develop a careful learning on the "Two Studies, One Action" spirit, putted into practice the spirits of the sixth plenary session of the 18th CPC central committee and the party construction working meeting in state-owned enterprise and made deepened special discussion to unceasingly enhance the "Four consciousnesses". Sinosteel's leader took the lead to have Party class, hold special meeting of democratic life, specified political life in the Party and try to play a leading role to basic level. Each level of Party organization further developed "practically solve problems and to be the reform pioneer" themed activities and practically promoted the learning on the "Two Studies, One Action" spirit and guided all party members striving to be qualified party members adhered to Four Principles and Four Requirements.

The party committee of Sinosteel paid high attention to making inspection tour and rectification, formulated into a list of rectification tasks as per the SASAC's inspection tour feedback and economic responsibility auditing opinion, made clear the responsible unit and person and the period of completion and practically boosted the implementation of 79 rectification measures for 29 problems. The party committee also established and executed a Group leaders' party construction contact point system, fully carried out a work system to have affiliated party organization reporting to party committee of the Group, boosted the report, appraisal and evaluation to be made by secretary and deputy secretary of the party organization and secretary of committee for discipline inspection, further enhanced the consciousness of strengthening Party self-discipline and two duties for one post, focused on the owner and boosted detailed implementation of the party construction responsibility.

CASE

所属企业开展“两学一做”学习教育动员会
affiliated enterprise developed a mobilization
meeting on learning the "Two Studies, One
Action" spirit

2016 年 5 月—6 月，中钢矿业、中钢衡重、中钢安环院、中钢制品院、中钢投资等十余家所属企业开展了“两学一做”学习动员会。各单位一是学习了党的建设新成果，确保让“两学一做”在每个党员心里落地生根、开花结果；二是立足企业的实际，以学习教育促进全年重点工作的扎实推进。

From May to June, 2016, more than ten affiliated enterprises such as Sinosteel Mining



Development Co., Ltd, Sinosteel Hengyang Machinery Co., Ltd, Sinosteel Shijiazhuang Design Institute, Sinosteel Security and Environment Protection Research Institute, Sinosteel Zhengzhou Research Institute of Steel Wire Products Co., Ltd, and Sinosteel Investment Co., Ltd developed a mobilization meeting on learning the "Two Studies, One Action" spirit. Each unit firstly learnt the new achievement in party construction and ensured that this spirit is rooted into the mind of each party member and secondly promoted the practical implementation of key works in the whole year by learning and education on the basis of actual conditions of the enterprise.

P 提升价值创造 Promote value creation

确保稳健经营

Steady operation assurance

中钢人坚信：发展是第一要务，是解决一切问题的根本。中钢集团吸取以往教训，坚持实事求是，一切从实际出发，坚持中钢发展与自身资源能力相匹配，处理好规模与效益、速度与质量的关系，发展要有规模和速度，更要有效益和质量。

2016 年，中钢集团妥善应对各种困难和挑战，迎难而上，负重前行，主动作为，保持了集团运行总体平稳。中钢债务重组获得国务院批准，成为按市场化、法治化原则，实施整体债务重组的央企首个成功案例。在实体经济比较困难、行业去产能力度不断加大，企业长期负资产、运营处于债务重组过渡期的不利形势下，顺利完成全年主要经营目标，经营活动现金流和资金链保持稳定。

Sinosteel always believes that development shall take the first priority and is the foundation to solve all problems. On the basis of experience, Sinosteel keeps his feet on the ground, proceeds from reality in everything one does and always kept its development in matching with its resources and capacity to deal with the relation among scale and benefit, speed and quality as development shall be in certain scale and speed but more have benefit and quality.

In 2016, Sinosteel properly and actively coped with various difficulties and challenges and thus maintained the Group in stable operation as a whole. Approved by the State Council, Sinosteel's debt restructuring became the first successful case in central enterprises to make overall debt restructuring on the principle of marketing and legalization. Sinosteel successfully reached the major operation objective for the whole year and had business activities cash flow and capital chain maintained in stable condition under the disadvantageous circumstance of hard real economy, unceasingly-enlarged cut overcapacity extent in the industry, long-term negative asset in the enterprise and transition of debt restructuring in operation.

中钢与力拓怡那合营项目顺利延期 CASE Smooth extension of Channar joint venturing project between SINOSTEEL and Rio Tinto

2016年,在中国国务院总理李克强和澳大利亚总理马尔科姆·特恩布尔的共同见证下,中钢集团与力拓集团再次延续怡那铁矿合营项目。

本次的再延期将怡那合营项目延长至2019年,并将以较低成本继续控制1000万吨/年高品位铁矿石产量,将项目累计产量提升至2.8亿吨。这有利于确保我国资源供给,支持冶金行业健康发展。还为进一步扩大我国在澳铁矿石业务的影响力,为日后国家统筹开发在澳铁矿项目奠定了坚实基础。



In 2016, under the common witness of Keqiang Li, prime minister of State Council of China and Malcolm Turnbull, prime minister of Australia.

SINOSTEEL and Rio Tinto continued the Channar joint venturing project again to 2019, and SINOSTEEL will continue controlling the 10,000,000T/year high-grade iron ore output with lower cost, enhancing the accumulated output to 280,000,000T, which will be in favour of guaranteeing resource supply and supporting the healthy development of metallurgical industry of our country, in addition, it also laid solid foundation for expanding our influence of iron ore business in Australia and integrated development of iron ore in Australia in the future.



加强提质增效

Enhance quality improvement and efficiency increase

中钢集团紧扣改革发展实际,明确了提质增效的各项任务目标和具体工作措施,建立推进的组织体系和保障机制。各平台公司逐级签订经营责任书,层层分解目标任务,确保目标到人、任务到岗、责有人负、事有人做。各经营单元按“一企一策”的原则,制定了可操作、可量化、可考核的提质增效工作方案,并抓好组织实施。

Sinosteel Group closely reform and development of the actual, clear the quality and efficiency of the various

objectives and specific measures, the establishment of the promotion of the organizational system and security mechanism. The platform company signed a business responsibility letter, layers of decomposition of the objectives and tasks to ensure that the target to the people, the task to the post, responsible for the negative, some people do. The operating units according to the "one enterprise one policy" principle, developed a operational, quantifiable, assessable quality improvement work program, and do a good job of organization and implementation.

2016年,面对错综复杂的经营环境;

In 2016, confronting with the complicated operation environment

各平台公司 The platform company

组织经营单元深入开展对标挖潜、降本增效活动,实施精益化运营,优化调整组织机构,严格定岗定编,加强人工成本管控,确保成本费用增幅低于营业收入增幅。

arranged operation unit to carry out activities such as tapping latent power of enterprises and enhancing efficiency, carry out lean operation, optimize and adjust the institutional framework, strictly fix work posts and define personnel quota, enhance labor cost control and ensure that the amplification in cost is lower than that in operation revenue

所属企业 Affiliated enterprise

立足自身实际,紧紧围绕年度目标任务,采取扎实有效措施,积极应对挑战,主动作为,抢抓市场。

took practical and effective measures on the basis of actual condition of itself and with close respect to the annual objective task, actively coped with many challenges and initiatively occupied market

中钢邢机调整生产结构竞争优势持续增强 CASE SINOSTEEL Xingtai Machinery & Mill Roll Co., Ltd adjusted production structure, constantly enhancing the competitive advantages

中钢邢机紧密围绕钢铁行业结构调整,培育竞争新优势,为企业生产经营稳定运行提供了市场支撑和保障。按照调结构的总体要求,继续将高速钢轧辊、冷轧辊和锻钢支承辊作为调结构的重中之重。制定整体实施方案,建立风险抵押承包激励机制,将目标分解到轧线,指标落实到个人,逐月落实进度,系统协调推进,产品结构优化幅度进一步提高。高速钢轧辊订货量同比增长 21%,其中海外市场增长 86%;锻钢支承辊同比增长 55%,进一步提升了产品整体盈利空间。



By tightly surrounding iron and steel industry structure adjustment and cultivating new competitive advantages, SINOSTEEL Xingtai Machinery & Mill Roll Co., Ltd provided market support and guarantee for stable production and operation of enterprise. According to the general requirement of structure adjustment, it continued focusing on high speed steel rolls, cold roll and forged steel bearing roll. Overall implementation scheme is prepared as well as risk mortgage contract incentive mechanism is established, and target is decomposed to roll line, index is appointed to people, progress is put into practice each month, with system coordinated growth, product structure optimizing range is further improved. Order quantity of high speed steel roll was with year-on-year growth of 21%, of which the overseas market increased for 86%; order quantity of forged steel bearing roll was with year-on-year growth of 55%, thus the overall profitability was further improved.

CASE

中钢国际工程狠抓项目执行,提升市场盈利 Sinosteel International took serious measures for project execution to improve market profit

2016 年,中钢国际工程努力提升项目精细化管理水平,释放项目执行风险,确保公司收益,实现公司与客户共赢,不断提升公司知名度和市场影响力。

其中,中钢国际工程承包建设的澳洲 Cudoco 公司 Rocklands 铜矿选矿项目全流程贯通,顺利产出铜精矿粉,成为在发达国家承建完成的第一个完整的矿业工程总承包项目,对公司立足并深入拓展国际矿业工程建设领域市场具有重要的里程碑意义。

承建的马鞍山钢铁 5# 焦炉大修工程提前 20 天顺利装煤出焦投产,进一步展现了公司优秀的总承包管理能力。公司承建的印度 JSW 南方钢厂 650m³ 高炉扩容大修项目,在业主规划的休风期限内完成安装、调试工作,如期顺利投产,得到业主的高度好评。

In 2016, Sinosteel International strived to improve lean management level on project, release project execution risk, ensure the



corporate income, realize win-win with customer and unceasingly improve the company's popularity and market influence.

Wherein, the Australia Cudoco's copper ore dressing plant project contracted by Sinosteel MECC run through in the whole process and successfully output copper ore concentrate fines and became the first complete mining project EPC project completed by Sinosteel in developed countries, having important milestone meaning for the company to keep a foothold on and make further development in mining work construction field and market.

Maanshan Steel's coking furnace #5 major repair project contracted by Sinosteel MECC was successfully put into production by coal charging and coke discharging in 20-day advance, which further shows the excellent EPC management capacity of the company. India JSW's 650m³ blast furnace expansion and major repair project contracted by the company was installed and debugged within the damping down period scheduled by the owner and was successfully put into production as scheduled, obtained highly appraisal by the owner.

CASE

中钢刘塘坊矿业创新生产经营模式 Innovative production and operation mode in Sinosteel Liutangfang Mining Industrial Co., Ltd

中钢刘塘坊矿业彻底改变原有生产模式,采取采矿与选矿生产总承包模式,制定了承包费用与铁精矿销售价格联动机制,根据不同的销售价格区间来确定多档次的承包费用,规定结算周期,明确各自的责任和义务,最大程度保证矿山企业利益,降低经营风险。这种生产经营模式使中钢刘塘坊矿业成功复产,破茧重生,减少亏损 1700 余万元。



Sinosteel Liutangfang Mining Industrial Co., Ltd completely changed the original production mode but adopted a mode to have mining and dressing process generally contracted, created a mechanism to have contract price linked with sale price of iron ore concentrate. Contract price has many levels depending on different range of sale price. This mechanism specifies the settlement cycle and respective responsibilities and obligations, ensures the benefits of the mine enterprise and reduces operation risk to the largest extent. This production and operation mode gets Sinosteel Liutangfang Mining Industrial Co., Ltd successfully restored production and reduced a loss of more than 17million Yuan.

保障安全生产 Assurance of safety production

夯实管理基础

Solid management foundation

2016 年,中钢集团坚持“盯住重点部位,强化过程管控,实施分级管理,推动互检互学,考核安全绩效,严守安全红线,确保‘三个落实’”的总体工作思路,制定下发了《中钢集团安全生产“党政同责、一岗双责、失职追责”暂行规定》。集团安全生产管理制度体系进一步完善。

In 2016, Sinosteel adhered to the general work idea of “keeping a close watch on important parts, strengthening process control, implementing level-to-level management, promoting mutual inspection and mutual learning, assessing safety performance, observing safety red line strictly and ensuring “three fulfillments”, and formulated, issued the Provisional Regulations on Joint Responsibilities of Government and Party Committee, Double Duties for One Post, Liabilities Supplemented for Breach of Duty” in Safety Production of Sinosteel. The safety production management system of the group needs further improvement.



根据企业检修作业安全管理问题突出、事故事件易发、多发的特点,集团制定下发了《中钢集团检修作业安全管理指南》,指导企业做好检修作业分级管理,加强危险性较大作业的安全管控,有效预防和控制检修作业事故。

According to the prominent problem in corporate overhaul and safety management and the characteristics of accidents prone to happen, the group laid down and issued the Guidance for Safety Management in Overhaul Operation of Sinosteel to guide enterprises to make level-to-level management in overhaul, strengthen safety control over operations with greater danger, and prevent, control the overhaul accidents effectively.

中钢矿业 SINOSTEEL MINING

组织开展“双体系”达标建设，着力推进安全风险分级管控与隐患排查治理双重预防工作机制建设；

organizes its subsidiary enterprises to carry out the “double-system” construction, and promote the dual prevention mechanism construction of all-risk hierarchical control and potential risk identification and treatment;

中钢邢机 SINOSTEEL XINGTAI MECHANICALROLLER CO., LTD

对部分高危作业进行专题攻关，用技术手段解决作业风险问题；建立评价标准，推动各级管理人员安全生产履职评价和岗位操作人员安全指数评价工作；

tackles the key problems in the special topics of a part of high-risk operations and solve the operation risk problems by virtue of technical means; establish the evaluation criteria and make evaluation on the safety production and performance of the managerial personnel at all levels and on the safety indexes of the operating personnel in the posts;

中钢西重 SINOSTEEL XI' AN MACHINERY CO., LTD COLLATES

对 17 个工艺，51 项场所、环节、部位的较大危险因素进行梳理、分析，列出 16 类较大危险因素管控清单和《告知卡》，加强较大危险因素的管控；

analyzes the greater danger factors of 51 places, links and parts in 17 processes, makes a list of controlling over 16 categories of greater danger factors and A Notice Card to reinforce the control over greater danger factors;

中钢耐火 SINOSTEEL REFRACTORY CO., LTD

建立四级五类网格化隐患排查治理模式和专家组定期检查工作机制，安全检查与隐患排查的效率和效力显著提高；

sets up the governance pattern of four-level five-category grid potential risk identification and the working mechanism of regular inspection by expert groups, apparently improving the efficiency and potency of safety inspection and potential risk identification;

中钢天源 SINOSTEEL TIANYUAN TECHNOLOGY CO., LTD

坚持开展班前“三分钟安全宣导”和“现场安全一月一改进”等专项治理活动，不断强化员工安全意识，不断改进现场本质安全水平。

adheres to carrying out the special governance activities such as pre-shift “3min safety propaganda” and “monthly safety improvement of site” to continuously intensify the safety consciousness of the employees and constantly improve the safety level of the site.

打造安全文化 Construction of safety culture

组织开展了 2016 年“安全生产月”活动，并将安全生产诚信体系、企业安全文化、班组安全等建设工作纳入“安全生产月”活动，丰富活动内容，充分发挥安全文化对企业安全生产的引领作用。

The group organized to carry out the activity of “safety production months” in 2016, and incorporated the construction of safety production integrity system, enterprise safety culture and team safety etc into the activity, enriching the activity contents and giving full play to the leading role of safety culture in the safety production of enterprises.



推进安全实践 Promotion of safety practice

为了全面改善安全管理工作, 2016年, 中钢集团制定下发了《中钢集团2016年安全生产工作要点》、《安全管理隐患对照检查整改表》、《关于切实加强检修作业安全风险管控的通知》, 组织开展了安全管理隐患整改专项活动, 持续强化现场安全检查和隐患排查治理工作, 并进一步健全检修作业、临时性作业、危险性较大作业的安全管理程序, 强化过程管控, 坚决遏制作业过程事故、事件多发的势头。

2016年, 集团所属各企业全年共排查安全隐患1750余项, 集团安全部门先后赴10家企业, 进行了13批次的现场检查和指导, 并借助检查纪要、微信群、《安全环保简报》等, 全方位、多渠道监督、指导企业安全生产工作。

To comprehensively improve safety management, the group in 2016 formulated and issued 2016 Main Safety Production of Sinosteel, List of Inspection and Rectification of Hidden Danger in Safety Management, and the Notice on Strengthening Safety Risk Management Control in Overhaul Operation, carried out the special rectification activities about the hidden danger of safety management, intensified continuously site safety inspection and hidden danger checking and solution, further improved the safety management procedures of overhaul operation, provisional operation and greater danger operation, strengthened process management & control and resolutely restrained the momentum of more accidents and events during the operation.

More than 1750 potential safety hazards were found out in all subsidiary enterprises of the group in 2016. The safety department of the group successively made 13-batch site checking and guidance in 10 enterprises such as Sinosteel Xingtai Machinery & Mill Roll Co., Ltd etc, and supervised, guided the safety production of enterprises in a comprehensive and multi-channel way with the help of inspection records, WeChat group and Bulletin of Safe Environmental Protection etc.



1750

余项

2016年, 集团所属各企业全年共排查安全隐患

In 2016, the Group of enterprises throughout the year to detect a total of more than 1750 security risks



| | 2014 | 2015 | 2016 |
|---|------|------|------|
| 工亡人数 (人) Number of the dead caused by work | 2 | 1 | 1 |
| 重伤人数 (人) Number of the severe wound | 2 | 0 | 0 |
| 轻伤人数 (人) Number of the slight wound | 4 | 0 | 0 |

CASE

中钢耐火开展冬防演练 增强职工消防意识
Sinosteel Refractory Co., Ltd carried out winter precaution drilling to enhance fire control awareness of employees

为确保公司冬季防火安全, 增强职工防火安全意识, 掌握防火、灭火安全知识, 提高消防安全“四个能力”, 中钢耐火开展了 2016 年冬季防火应急演练, 通过讲解消防安全知识、演练报警、水带连接、麻袋灭火、干粉灭火、干粉车灭火等实战演练, 提升了职工消防安全技能。

To ensure the fire safety of company in winter, raise the fire safety awareness of the employees, grasp the fire prevention and extinguishment safety knowledge and improve the “four abilities” in fire safety, Sinosteel Refractory Co., Ltd recently carried out 2016 winter fire prevention emergency drilling. The fire safety skills of the employees are enhanced through actual practices such as explanation for fire safety knowledge, exercise fire alarm call, water hose connection, jute bag extinguishment, dry powder extinguishment and dry-agent fire tender etc.



SDG 目标回应 SDG TARGET RESPONSE

廉价和清洁能源 Cheap and clean energy

7 经济适用的
清洁能源



集团将水资源管理、水资源科学合理应用作为应对气候变化的重要举措，发展水资源循环经济，提高水资源使用效率。

The group takes water resource management and its reasonable application as an important means to tackle climate changes, develops the cyclic economy of water resource and improves its service efficiency.

负责任的消费和生产 Responsible consumption and production

12 负责任消费和
生产



集团所属各企业根据自身特点，从细微处入手，引进新工艺、新技术，成功提升了生产工艺和设备水平，节能降耗增效成果显著。

All subsidiary enterprises of the group introduce new process and technology according to their own characteristics and successfully improve the production process and equipment level, obviously saving energy, reducing cost and increasing efficiency.



绿色创新链 GREEN INNOVATION CHAIN



聚焦

FOCUS ON

创新引领发展 改革支撑梦想

INNOVATION GUIDES DEVELOPMENT, REFORMATION SUPPORTS DREAM

优化创新机制 Optimize The Innovation Mechanism

● 研发决策体系 R & D Decision System

中钢集团设有科技创新委员会和技术专家委员会，两个委员会是企业科技创新决策机构和专业技术咨询、评价机构。自成立以来，两个委员会按照既定的工作职责和任务，有效推动了集团科技规划的制定、科技创新基金项目评审、科技奖励评审以及科技骨干人才的评选等各项工作的顺利开展。

Sinosteel sets up the Scientific and Technology Innovation Committee and Technical Expert Committee. The two committees are the decision-making bodies of enterprise technological innovation and the professional technical consulting, evaluation agency. Since the establishment, the two committees, according to the established work responsibilities and tasks, effectively promote the formulation of technology planning of the group, review the fund programs of technical innovation and technological awards, and appraise, elect the science and technology backbone talents.

● 人才队伍建设 Construction of talent team

中钢集团把企业科技人才的培养和使用作为关系企业生存与发展的大事，积极创造和争取各种有利条件，不断改善人员结构，提高综合素质，努力建设一支涵盖业务领域各专业，布局合理，高、中、初级技术人员比例协调的专业技术队伍。无论是用人制度、选拔制度、培养制度和评价制度，还是分配制度、福利待遇，中钢集团都对科技人才进行一定程度的倾斜，不断总结、改革和完善对科技人才的激励措施。

Sinosteel takes the cultivation and use of enterprise technological talents as a great event regarding enterprise survival and development. Therefore, the group actively creates and strives for various favorable conditions, continuously improves the personnel structure, enhances the comprehensive quality, and tries to build a professional technical team with all business areas, reasonable layout and structure and the harmonious proportion of senior, intermediate and junior technicians. No matter whether it is a talent recruitment system, selection system, cultivation & evaluation system or the distribution system, social benefits, Sinosteel is somewhat partial to the technological talents, and keeps summarizing, reforming and improving the incentive measures of the technological talents.



● 科技管理制度 Technological management system

中钢集团已陆续制定出台了《中国中钢集团公司科技创新基金管理办法》、《中国中钢集团公司科技奖励管理办法》等数十项科技管理制度，规范各级企业的科技创新管理方式、激励制度，调动广大科技人员的积极性、主动性和创造性，不断推动企业科技进步，实现创新发展。

Sinosteel has successively set out and issued over ten technological management systems such as Management Method of Scientific and Technological Innovation Funds in China Sinosteel Co., Ltd and Management Method of Science and Technology Awards in China Sinosteel Co., Ltd, standardizes the technological innovation management style and incentive system of the enterprises at all levels, and arouses the enthusiasm, initiative and creativity of numerous scientific and technical personnel, thereby continuously promoting the scientific and technological progress and achieving innovative development.

完善创新平台 Improve The Innovation Platform

截至 2016 年末，依托中钢集团所属企业建立的现有各类国家级研发机构和服务平台包括：
By the end of 2016, all kinds of national level R&D institutions and service platforms established based on the subsidiary enterprises of Sinosteel include:



2016 年，中钢安环院顺利入选首批工信部“工业节能与绿色发展评价中心”，依托其建立的“中国煤矿尘肺病防治基金会工程技术研究中心”也成功获批，有效推进了企业科研成果向工程应用转化；中钢洛耐院被认定为首批河南省创新龙头企业。

In 2016, Sinosteel Security and Environment Protection Research Institute was smoothly selected in the first batch of "Industrial Energy Conservation and Green Development Evaluation Center" of the Ministry of Industry and Information Technology of the P.R.C, and the "Engineering and Technological Research Center of China Coal Mine Pneumoconiosis Prevention and Cure Foundation" was also successfully approved, effectively facilitating the transformation of corporate scientific payoffs to engineering application; Sinosteel Luoyang Institute of Refractories Research Co., Ltd was accredited as the first batch of innovation leading enterprises in Henan.

创新基地建设 Construction of innovation base

为积极响应国家“大众创业、万众创新”的号召，公司积极引导并支持所属企业探索和完善技术创新服务和科研成果转化工作，总结企业创新创业工作进展，取得一定成效。

To actively respond to the national call of "popular entrepreneurship and innovation", the group positively guides and supports the exploration of the subsidiary enterprises, improves the transformation of technical innovation service and scientific payoffs, summarizes the work progress of enterprise innovation and entrepreneurship and achieves a certain result.



加强成果转化 Reinforce achievement transformation

中钢集团积极鼓励并支持企业推动成果产业化建设，提高科技成果转化，扩大产业化规模，以具有经济规模的自主创新成果产业化为手段，支撑中钢集团的长远发展。多项成果已经实现产业化或正在向实施产业化的方向努力，取得良好的业绩。

Sinosteel actively encourages and supports the enterprises to promote the construction of

achievement industrialization, increases the conversion rate of scientific and technological achievements, expands the industrialization scale and utilizes independently innovated achievement industrialization with economic scale as a means to achieve its long-term development. Many achievements have realized industrialization or have been on the way to realize industrialization, with great performance obtained.

CASE

创新引导，中钢邢机科技领先开创新时代
innovation guidance, the leading technology of Sinosteel Xingtai Mechanical Roller Co., Ltd initiates a new era

中钢邢机充分发挥“3C”科研平台整体优势，全面提升企业自主创新能力，保持了轧辊首研首发的领先地位，开创了冷热带轧辊的全新时代，企业科技创新已从“瞄准、跟踪”向“引导、领跑”转变。

Sinosteel Xingtai Mechanical Roller Co., Ltd gives full play to the overall advantage of "3C" scientific research platform, comprehensively promotes the capability of independent innovation, keeps the leading position in the first research and first development of rollers, and initiates a new era of cold, hot strip roller. The technological innovation of the enterprise has converted to "guidance, take the lead in race" from collimation, tracking.



在科研新产品开发与推广上
In the development and popularization of new scientific and technological products

深入开展颗粒增强金属基复合材料、整体感应淬火等课题的基础与应用研究，相继研发了精轧后段高碳高速钢轧辊、高速钢组合立辊、ER 高铬钢轧辊、P20H 模具钢产品等一批高性能、新概念产品。特别是今年重点推介的等硬度无落差锻钢支承辊、TC100 锻造高速钢轧辊等八项重点新产品，以其较强的技术前瞻性和良好的上机实轧表现，获得市场广泛认可。

the company makes a deeper base and application research in the issues such as particle-reinforced metal matrix composite materials and overall induction quenching etc, and successively develops a batch of high performance, new concept products such as finishing roll high carbon high speed steel rolls, high-speed steel composite vertical roll, ER high chrome roll and P20H die steel products etc, particularly the mainly recommended 8 kinds of new products such as forged steel bearing rolls with no difference in equal hardness and TC100 forged high-speed steel rolls etc. They are widely recognized on the market depending on the stronger technical foresight and great rolling performance in the machines.



在工艺技术管控上
In the management and control of process technology

有效利用轧辊设计依据评价体系，持续优化工艺设计和工艺成本，不断推进轧辊工艺编制和工艺成本控制的科学化、规范化。通过持续优化工艺流程，冷轧辊产品优化比例达 64%；离心产品反蚀控制合格率由 60% 提高到 91.7%；高速钢产品吨钢降本 770 元；钢系产品实现近终型铸造，吨钢降本 460 元以上。

the company effectively utilizes the roll design basis evaluation system to continuously optimize process design and costs, making roll process preparation and process cost control scientific and normalized. Based on the continuously optimized process flow, the optimization proportion of the cold rolls is 64%; the qualification rate of controlling over the anti-corrosion of the centrifugal products is increased to 91.7% from 60%; the cost of the high-speed per ton steel is reduced 770 yuan; the steel series of products realize near-net-shape casting, and the cost of per ton steel is reduced over 460 yuan.



在市场技术服务上
In the technical services of market

开发了功能计价运行平台，建立了现场资产月盘点反馈机制。深入挖掘轧辊使用潜能，持续推进各轧线轧辊弹性磨削制度，优化控制各轧线的轧辊制造节奏、现场周转、上机计划和使用周期，促进了承包效益的不断提高。围绕功能计价轧线，大力推广一系列高端、高附加值新产品，为公司新产品推广拓宽了路径，提供了业绩支撑。

the company develops function evaluation operation platform, establishes the monthly feedback mechanism of the assets, taps the potential of roller use, continuously promotes the elastic grinding system of all rolling lines and rollers, optimizes, controls roller manufacturing pace, site turnover, computer plan and use cycle of all rolling lines, and constantly increases the contracting profits. Around the function evaluation rolling lines, the company energetically popularizes a series of high-end, high value-added new products, expanding paths for the promotion of new products and providing performance.





2016 年,《新型高速钢粗轧工作辊的研制》等多项科研成果分获河北省科技进步奖。

In 2016, the several scientific payoffs such as Development of New High-Speed Steel Rough Rolling Roller etc was awarded Hebei Science and Technology Progress Prize

42 项

新获授权专利
newly
obtained 42
authorized
patents

16 项

其中发明专利
of which there
are 16 patents
for invention

194 项

累计获得授权专利
194 authorized
patents

100 项

在审专利
100 patents
pending

中钢衡重成功研发首台国产高原钻机

CASE Sinosteel Hengyang Machinery Co., Ltd successfully researched and developed the first domestic plateau drilling rig

2016年由中钢衡重研制的“YZ55D 型高原牙轮钻机”,经现场技术人员、操作人员 完成调试后,一次穿孔成功。完成一个标准孔位穿孔只需36分钟,整个穿孔作业过程中排渣顺畅、各项性能指标稳定。这标志着国产首台310 孔径高原牙轮钻机研发成功。

After the field technicians and operators complete debugging, “YZ55D plateau rotary drilling rig” developed by Sinosteel Hengyang Machinery Co., Ltd successfully bored a hole at a time. It only takes 36 minutes to finish a standard hole excavation. In the whole penetration process, the residues are drained smoothly, and all performance indexes are stable, marking the successful research and development of the first domestic 310 bore diameter plateau rotary drilling rig.



中钢科德孵化器在天津滨海新区正式启动

CASE Sinosteel Kede Incubator was officially launched in Tianjin Binhai New Area

中钢集团创新创业基地——中钢科德孵化器在滨海新区中心商务区正式启动,包括全国最大的肿瘤大数据平台零氟科技、全国最大的 3D 打印设备研发企业多巴科技等在内的首批 4 家入驻企业集体签约,此举拉开了中钢集团实现京津冀协同发展战略布局的序幕。

中钢科德孵化器具有科技资源与央企通道两大优势。

科技资源优势,借助拥有 12 家国家级重点实验室等雄厚科技资源,打造一个优质资源共享平台,让中小企业分享。在业态规划上重科研、偏后台,重点引入高端产业领军企业和有发展前景的科技型中小企业;在服务模式上,提供涵盖法律、税务、高端设计、网络开发、科技咨询的“五位一体”服务,协助企业创新。

央企通道优势,不仅是科技平台,还将成为通道,充分引入中钢集团贸易物流、技术检测等资源,计划在三年内培育 5 至 10 家行业领军企业,并带动上百家上下游产业链企业协同发展。

随着首批优质企业入驻,中钢科德孵化器入驻率达到 80%。



The innovation and entrepreneurship base of Sinosteel-- Sinosteel Kede Incubator was officially launched in the business district of Binhai New Area, and the first batch of 4 settled enterprises signed collectively, including the largest tumor big data platform nationwide LinkDoc and the largest 3D printing equipment R&D enterprise nationwide Duobate Technology etc, which made Sinosteel achieve the strategic layout of Beijing-Tianjin-Hebei coordinated development.

The company has two advantages: scientific and technological resources, and central enterprise channel.

Scientific and technological resources: the company builds a high-quality resource sharing platform with the help of abundant technological resources such as 12 national level key laboratories etc, making the small and medium-sized enterprises share. The company pays attention to scientific research in the industrial state planning, and mainly introduces the leading enterprises in the high-end industry and the scientific type small and medium-sized enterprises with development prospect; in the service mode, the company provides the “five-in-one” service covering law, tax, high-end design, network development and scientific and technical consultation, and assists the enterprises to innovate.

Central enterprise channel: the advantage is not only a scientific and technological platform, but becomes a channel. The resources of Sinosteel such as trade logistics and technical detection etc are introduced abundantly. The company plans to cultivate 5~10 industrial leading enterprises within 3 years, and promotes the coordinated development of more than hundred of enterprises with upstream and downstream industrial chains.

With the settlement of the first batch of high-quality enterprises, the settlement rate of Sinosteel Kede Incubator is 80%.

支持战略性新兴产业 Support the strategic and emerging industries

中钢洛耐院

Sinosteel Luoyang Institute of Refractories Research Co., Ltd

构筑面向高温工业需求、行业技术进步和自身良性发展三个层面的先进耐火材料技术创新体系,加大力度推进现有耐火材料的更新换代,对我国耐火材料工业产品结构向高档耐火材料产品调整起到了积极的促进推动作用;

Facing the advanced technology innovation system of refractory materials of high temperature industrial demand, technical progress of industries and self benign development, intensifies to promote the upgrading of the modern refractory materials, playing an active and promoting effect in regulating the industrial product structure of the refractory materials in our country toward the top-grade refractory materials

中钢马矿院

Sinosteel Maanshan Institute of Mining Research Co., Ltd

做大做强战略新兴材料空心玻璃微珠产业,加强新产品开发力度,推动研发微珠下游产业产品,大力拓展国外石油、固体浮力材料、国内汽车胶黏剂、拓宽复合材料、玩具和涂料等行业,取得了明显效果;

Makes the emerging material hollow glass microsphere industry bigger and stronger, strengthens product development, promotes to research and develop the products of microsphere downstream industry, energetically expands the fields such as foreign petroleum, solid buoyancy material, domestic automobile adhesive, broadening composite materials, toys and coating etc and obtains obvious effects;

中钢制品院

Sinosteel Zhengzhou Research Institute of Steel Wire Products Co., Ltd

2016 年共计开发减速机用精密异形钢丝、笼式弹片用 631 不锈钢精密扁钢丝、大规格 631 不锈钢弹簧钢丝 (11mm) 等五项新产品;

Totally developed 5 new products in 2016, including the precision shaped wire for speed reducer, 631 stainless steel precision flat wire for cage shrapnel and large-sized 631 stainless steel spring steel wire (11mm) etc;

中钢热能院

Sinosteel Anshan Research Institute of Thermo-Energy Co., Ltd

将传统的焦化与热能工程两大专业领域调整为节能减排、煤焦油基新材料、工业废水处理、煤转化以及核心装备制造五大专业方向,重点培育节能减排、节能环保、煤焦油基新材料等国家战略性新兴产业;

Regulates the traditional coking and thermal engineering professional fields as five major fields: energy conservation and emission reduction, new materials for coal tar based oils, industrial wastewater treatment, coal conversion and core equipment manufacturing, and pays attention to cultivating the national strategic emerging industries such as energy conservation and emission reduction, environmental protection and new materials for coal tar based oils etc;

中钢天源

Sinosteel Tianyuan Technology Co., Ltd

涉足高性能的稀土永磁材料、电池材料和高效冶金矿山装备等领域,其电池材料方面自主研发生产的电池级四氧化三锰已实现市场销售;

Engaged in the fields such as high performance rare earth permanent magnetic materials, battery materials and high efficiency metallurgical mining equipment etc. The sales of the battery level manganous-manganic oxide developed independently by the company has been achieved;

中钢邢机

Sinosteel Xingtai Machinery & Mill Roll Co., Ltd

充分发挥“3C”科研平台整体优势,保持了轧辊首研首发的领先地位,开创了冷热带轧辊的全新时代,企业科技创新已从“跟踪、跟踪”向“引导、领跑”转变。

Gave full play to overall advantage of 3C scientific research platform, kept the leading position in first research and development of roll, created the new generation of cold and hot belt roll, and the enterprise's scientific innovation is changing to Guiding and Leading from Trageting and Tracking.

S 强化绿色管理 Strengthen green management

完善环境管理 Improve environmental management

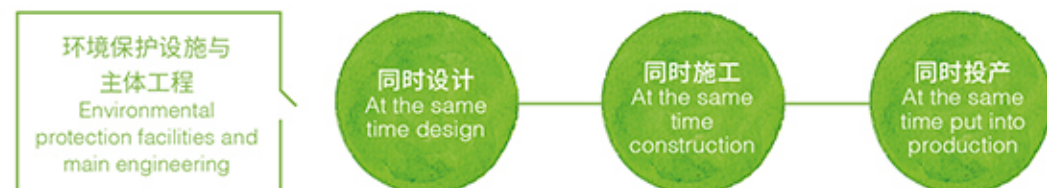
集团坚持绿色发展、安全发展的理念，严格遵守国家有关环境保护与节能减排的法律法规，不断完善节能减排管理体系，修订《中钢集团节能减排统计管理办法》，组织开展节能环保目标责任考核，压实节能减排责任，持续调整产业结构和淘汰落后产能，积极实施节能减排技术改造，努力降低产品生产过程中的资源消耗，消除和减少生产经营过程中的环境污染，在创造一流经营业绩的同时，建设资源节约型和环境友好型企业。

The group adheres to the concept of green and safe development, follows strictly the relevant laws and regulations on environmental protection, energy conservation and emission reduction, improves continuously the energy conservation & emission reduction management system, and revises the Statistical Management Method of Energy Conservation and Emission Reduction of China Sinosteel Co., Ltd. Moreover, the group organizes to carry out environmental protection target responsibility assessment, implements relevant responsibilities, adjusts industry institution and backward production capacity, implements actively energy-saving and emission reduction technical transformation, tries to reduce resource consumption during the production of products, and eliminates, decreases environmental pollution during the production and management. While the great business performance is created, the group makes efforts to build a resource-saving and environment-friendly enterprise.

严守环保底线 Observe environmental protection baseline strictly

公司坚守“达标排放”地点，组织开展环保专项督查，形成环保隐患排查治理常态化机制，着力化解基层企业环保风险。集团各级企业严格执行国家产业政策和节能环保标准，依照有关政策，开展环境影响评价、节能量和减排量的评估审查等工作；做到环境保护设施与主体工程同时设计、同时施工、同时投产使用。

The company sticks to the “standardized discharge” site, organizes to make special environmental protection supervision, builds a normalization mechanism of environmental hazard control and puts forth efforts to dissolve environmental protection risk of the grass-roots enterprises. The enterprises at all levels of the group execute strictly national industrial policies and energy-saving & environmental protection standards, and conduct environment influence evaluation and the investigation, assessment of energy-saving amount and emission reductions etc in accordance with relevant policies; the environmental protection facilities and the main works shall be designed, constructed and put into production at the same time.



CASE 中钢邢机建立无组织烟尘外排预警体系 Sinosteel Xingtai Mechanical Roller Co., Ltd builds an unorganized dust emission pre-warning system

中钢邢机对无组织烟尘排放实施预警管理，全面建立无组织烟尘外排预警体系。这是中钢邢机持续提升综合环境质量的新举措。多年来，中钢邢机在生产经营效益和生产规模成倍扩张同时，始终把建设资源节约型、环境友好型企业放在工业化、现代化发展战略的突出位置。2016年，中钢邢机深入开展烟粉尘、噪声等专项整治工作，污染物综合排放合格率达到100%。2016年实施的无组织烟尘外排预警体系主要包括划分预警级别、明确管控责任、开展检查与考核等内容。通过定期对基层单位进行专项检查，对未按要求落实烟尘预警及落实不到位的单位，予以经济责任制考核及环保问责制追究等形式，确保企业环保管理要求做到位、落到底，助推环保工作取得显著效果。

Sinosteel Xingtai Mechanical Roller Co., Ltd makes pre-warning management to the unorganized dust emission and comprehensively builds relevant pre-warning system, which is a new measure to continuously enhance the integrated environment quality by the company. Over the years, the company has always put the construction of a resource-saving, environment-friendly enterprise in a prominent industrialized, modernized development strategy position while double expanding the production management efficiency and the scale of production. In 2016, the company conducted special rectification to smoke, dust and noise etc, and the general discharge yield of the pollutants was 100%. The unorganized dust emission pre-warning system implemented this year mainly includes such contents as the division of pre-warning levels, determination of management and control responsibilities, inspection and assessment etc. The special inspection shall be made to the grassroots units periodically. For the units failing to implement dust pre-warning system, they shall be held accountable for it in the way of economic responsibility system and environmental protection accountability system etc, ensuring that the environmental protection management of the enterprise is made and implemented, making environmental protection obtain a remarkable result.

2016年实施的无组织烟尘外排预警体系主要包括
The unorganized dust emission pre-warning system implemented in 2016 mainly includes

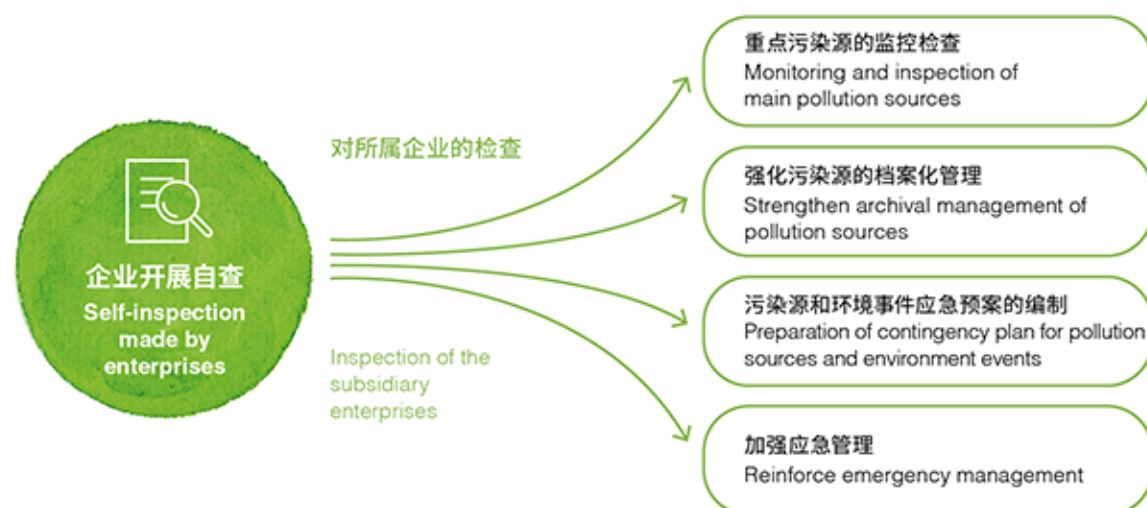


加强应急管理

集团不断推进所属企业搭建防范有礼、指挥有序、快速高效和统一协调的环境事故应急处置体系，编制完善环境事件应急预案。通过应急机制建设，提高公司应对环境公共危机能力。

Reinforce emergency management

The group continuously promotes its subsidiary enterprises to establish an emergency disposal system for environmental accidents with courteous precaution, orderly command, fast efficiency and unified coordination and develop a contingency plan for environment events. The public crisis capability of the company against environment is improved by the establishment of the emergency mechanism.



中钢锡林浩特萤石组织尾矿库漫坝事故应急演练

CASE Sinosteel Xilinhot Fluorite Limited Company organizes emergency drill for dam overtopping accident of tailing pond

2016年10月,中钢锡林浩特萤石公司组织开展了尾矿库漫坝事故应急演练。中钢锡林浩特萤石公司及外委施工单位共70多人参加了演练。本次应急演练模拟场景是由于持续的降雨,导致溢洪道的排洪能力达到极限,尾矿库库内水位上升接近水位警戒线,即将漫过坝顶,存在漫坝风险。一旦发生险情,将严重威胁坝下矿区及牧民群众生命财产安全。应急演练过程中,现场指挥部决策果断,指挥有方,协调到位,处置高效;应急救援队伍集结有序,行动迅速,分工明确,配合紧密,救援现场紧张有序,措施正确得当,达到了检验预案、强化职责、锻炼队伍、磨合机制及提高事故防范和处置能力的预期目标和效果。

In October, Sinosteel Xilinhot Fluorite Limited Company carried out emergency drill for dam



overtopping accident of tailing pond. The responsible person of Sinosteel Mining inspected, learned and guided the drill on the spot. The company and over 70 outsourced construction units participated in the drill. The simulation scene in the emergency drill was dam overtopping risk because of continuous rainfall making the flood discharge capacity of the spillway reach the limit and the rising water level in the tailing pond approaching the water level warning line and being about to spill over the dam crest. Once the dangerous circumstance took place, the life and property safety of the diggings and herdsmen under the dam would be seriously threatened. During the emergency drill, the site command post made a decisive decision, directed with proper methods, coordinated in place and handled efficiently; the emergency rescue team gathered in order, act rapidly, divided labor clearly and cooperated closely. The rescue site was nervous and well-aligned, and the measures were correct and proper, achieving the expected target and effect of inspecting the plan, intensifying responsibility, training team, running in mechanism and improving the accident precaution and disposal capability.

宣贯环保文化

Publicize and implement environmental protection culture

集团积极学习和宣传国家有关环境保护和节能减排的法律法规、集团管理制度等,不断加强与环保组织、协会沟通与交流。提高各级节能减排管理人员的管理水平、专业能力及全员节能环保意识,积极倡导节约、绿色、低碳的生产和办公方式,改变不良的消费模式和生活习惯,杜绝浪费。

The group actively learns and publicizes national relevant laws and regulations on environmental protection, energy conservation and emission reduction, as well as group management systems etc, and continuously strengthens communication and exchange with the environmental protection organizations and associations. Besides, the group raises the management level and professional competence of the managerial personnel at all levels in charge of energy conservation and emission reduction, and their awareness of energy conservation and environmental protection. Meanwhile, the group positively advocates saving, green, low-carbon production and office working way, changes the undesirable consumption pattern and living habit and puts an end to waste.

推进绿色运营

重视生态保护

Pay attention to ecological protection

集团重视生态保护,积极开发环保节能的新技术、新工艺、新设备,发展循环经济,努力节约能源,实现企业良好经营与环境保护、资源节约的协同发展。2016年,集团所属企业无重度污染事件发生。

The group pays attention to ecological protection, positively develops new technology, process and equipment of energy conservation and environmental protection and circular economy, and strives to save energy, achieving the coordinated development of enterprise great operation and environmental protection, resource saving. In 2016, no pollution case happened to the subsidiary enterprises of the group.





CASE

工业灰渣“变废为宝” Industrial residues “turn waste into wealth”

中钢天澄首条烧结灰提取氯化钾生产线顺利投产
The first production line of potassium chloride extracted from sintered ash developed by Sinosteel Tiancheng is put into production successfully

2016年，中钢天澄在河北沧州建设的烧结机电除灰资源化利用项目顺利投产，这也是中钢天澄首条烧结灰提取氯化钾生产线。该项目采用中钢天澄自主研发的专利技术，实现了生产工艺流程不产生任何固、液、气态废弃物的全循环，彻底实现了烧结灰无害化处理的零排放、无污染。生产线正式投产后，烧结灰年处理能力为16000吨，可年生产富铁粉11000吨、氯化钾5800吨，产品经国家化肥产品质量监督检验中心检测，氯化钾品位达到农业优等品标准。

In 2016, the resource utilization project of sintering machine head electrostatic precipitator of Sinosteel Tiancheng built in Cangzhou of Hebei was put into production smoothly. It was also the first production line of potassium chloride extracted from sintered ash developed by Sinosteel Tiancheng. The project achieved complete cycle of producing no solid, liquid, gaseous wastes during the production technology process with the patented technology developed independently by the company, thoroughly realizing zero release and no pollution of innocent treatment of sintered ash. After the production line was put into production formally, the annual handling capacity of sintered ash was 16000t, and the annual output of iron-rich powder and potassium chloride was 11000t and 5800t, respectively. The products were tested in the national quality supervision and inspection center of chemical fertilizer products, and the grade of potassium chloride reaches to the standard of agricultural superior products.



CASE

中钢邢机以“绿色铸造、现代化生产”享誉国内外行业市场

Sinosteel Xingtai Mechanical Roller Co., Ltd has a great reputation of domestic and foreign industry market as “China green casting, modern production”

2016年5月28-29日，2016中国轧辊制造及应用前沿技术研讨会在河北隆重召开。会上，中钢邢机举行了国家“3C”（国家轧辊研究所、国家轧辊技术中心、国家轧辊材料重点实验室）轧辊科研成就发布。与会代表参观了国家轧辊研究所、国家轧辊技术中心、国家轧辊材料重点实验室“3C”科研平台和现代化轧辊生产现场，亲身感受到了企业现代化制造水平。



During May 28-29, the “Advanced Technical Seminar of 2016 China Roll Manufacturing and Application” sponsored jointly by the Chinese Society for Metals and China Foundry Association was solemnly held in Xingtai, Hebei Province. In the seminar, Sinosteel Xingtai Mechanical Roller Co., Ltd released national “3C” (National Roll Research Institution, National Roll Technical Center, Key Laboratory of National Roll Materials) roll scientific research. The representatives present in the seminar visited the “3C” scientific research platform and modernized roll production site of National Roll Research Institution, National Roll Technical Center and Key Laboratory of National Roll Materials, and felt personally the modernized manufacturing level of enterprise.



节能降耗增效

Energy conservation, cost reduction and efficiency increase

集团所属各企业根据自身特点，从细微处入手，引进新工艺、新技术，成功提升了生产工艺和设备水平，节能降耗增效成果显著。

All subsidiary enterprises of the group introduce new process and technology according to their own characteristics and successfully improve the production process and equipment level, obviously saving energy, reducing cost and increasing efficiency.

CASE

中钢耐火玻璃窑炉用优质节能环保新材料通过鉴定

the high-quality energy-saving and environment-friendly new materials for glass kiln in Sinosteel Refractory Co., Ltd pass appraisal

中钢耐火研发生产的玻璃窑炉用“高纯低钙优质硅砖”、“无钙硅砖”、“零膨胀硅砖”、“微孔新型环保轻质材料”、“同质同相火泥”等优质节能环保新材料硅铝系列产品，顺利通过中国节能协会玻璃窑炉专业委员会专家的鉴定并荣获“玻璃窑炉行业节能环保信得过产品”奖牌和证书。

The high-quality energy-saving and environment-friendly new materials silica alumina series of products researched and developed by Sinosteel Refractory Co., Ltd, including “high-purity low-calcium superior-quality silica bricks” for glass kiln, “calcium-silicon unavailable bricks”, “zero expansion silica bricks”, “microporous new environment-friendly light materials” and “homogeneous co-phase fire clay” etc, successfully passed the appraisal by glass kiln professional committee experts of China Energy Conservation Association and were awarded the medal and certificate of “Energy-saving and Environmental Protection Trustworthy Products in Glass Kiln Industry”.



CASE 中钢天源矿用跳汰机研制成功 Sinosteel Tianyuan successfully develops mine jigging machines

由中钢天源自主研发的水力鼓动跳汰试验机已完成制造并进行试运转，经检测，各项运转指标正常，标志着跳汰机的研制进入突破性阶段，为矿山节能降耗提供了一条新的工业思路。水力鼓动跳汰机的研制成功，标志着中钢天源在矿山领域进一步发展，开创了一条新的工艺选矿方案，完善了矿山设备产业链。



The hydraulic jigging testing machines developed independently by Sinosteel Tianyuan Machinery Works have been manufactured and in test run. All operation indexes are normal upon detection, marking that the development of jigging machines enters a breakthrough stage, providing a new industrial thinking for energy conservation and cost reduction of mines. The successful invention of the machines symbolizes the further development of Sinosteel Tianyuan in the mine field, giving a new process beneficiation scheme and improving the industry chain of the mining equipment.



| 指标 / Index | 单位 / Unit | 2014 | 2015 | 2016 |
|---|---|--------|--------|--------|
| 万元产值综合能耗 Comprehensive energy consumption per unit output value of ten thousand yuan | 吨标煤 / 万元 ton of standard coal equivalent/ten thousand yuan | 0.4316 | 0.3436 | 0.3652 |
| SO ₂ 排放量 SO ₂ Emission | 千克 / 万元 kg/ten thousand yuan | 8.1983 | 6.5376 | 9.1509 |
| COD 排放量 COD Emission | 千克 / 万元 kg/ten thousand yuan | 4.6533 | 4.1117 | 5.5545 |



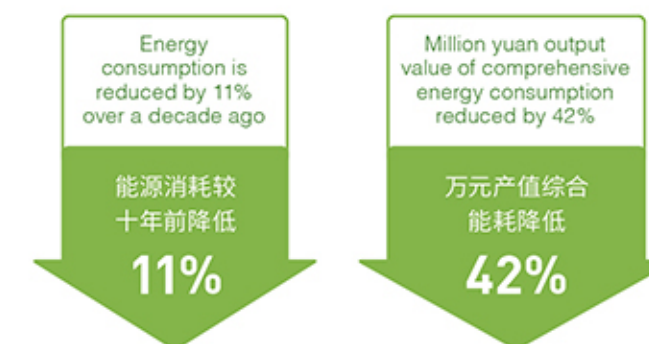
CASE 中钢邢机再次荣获中国绿色铸造示范企业称号 Sinosteel Xingtai Mechanical Roller Co., Ltd is again titled the demonstration enterprise of China green casting

在“第二届中国铸造节”暨中国铸造协会成立三十周年行业表彰与授牌仪式上，中钢邢机凭借突出业绩，再次荣获“中国绿色铸造示范企业”称号。中钢邢机长期以来始终坚持绿色生产和节能减排，走出了一条依靠质量和效益提升的内涵式发展道路，取得了良好的经济和社会效益。企业在生产总量成倍增长的情况下，能源消耗较十年前降低 11%，万元产值综合能耗降低 42%，COD、粉尘、二氧化硫年排放量分别为十年前的 7%、17.5% 和 8.5%。

In the commendation and awarding ceremony of "the Second China Foundry Festival" and the 30th anniversary of the establishment of China Foundry Association, Sinosteel Xingtai Mechanical Roller Co., Ltd was again titled "Demonstration Enterprise of China Green Casting" relying on its outstanding performance. The company has always been adhering to green production, energy conservation and emission reduction, creates a connotative development road depending on the increased quality and benefit, and attains great economic and social benefits. In the circumstance of the gross production increasing double, energy consumption

decreases 11% compared with the previous 10 years, the comprehensive energy consumption per unit output value of ten thousand yuan reduces 42%, and the annual emissions of COD, dust and sulfur dioxide are lowered 7%, 17.5% and 8.5% compared with the previous 10 years. During the "12th Five-Year Plan", the company finished the commitment objective of energy conservation and emission reduction of Hebei 2 years in advance and was titled double excellence unit in Hebei "double thirty" energy-saving and emission reduction objective assessment and Hebei green manufacturing enterprise in the traditional industries.

企业在生产总量成倍增长的情况下
Enterprises in the total production doubled
the case of growth



■ 2016 □ 2006



应对气候变化 Tackle climate change

集团将水资源管理、水资源科学合理应用作为应对气候变化的重要举措，发展水资源循环经济，提高水资源使用效率。

The group takes water resource management and its reasonable application as an important means to tackle climate changes, develops the cyclic economy of water resource and improves its service efficiency.

CASE 中钢安环院与美国荷瑞然公司签署海绵城市技术合作协议 Sinosteel Security and Environment Protection Research Institute and Herrera Environmental Consultant, Inc. USA sign a technical cooperation agreement on sponge cities

2016 年，中钢安环院与美国荷瑞然环境咨询公司海绵城市举行技术合作签字仪式。近年来，海绵城市建设在中国发展迅速，安环院把握与荷瑞然公司的合作机会，大力发展海绵城市规划、设计、咨询服务、海绵材料技术研发、工程承包等业务；要将荷瑞然公司先进技术与安环院自身优势相结合，创造出针对中国各地方特色的、符合地方资源禀赋的海绵城市建设模式；通过合作要力争在湖北省内开展海绵城市 1-2 项示范工程。

In 2016, Sinosteel Security and Environment Protection Research Institute and Herrera Environmental Consultant, Inc. USA held a signing ceremony for the technical cooperation on sponge cities. In recent years, the construction of the sponge cities develops fast in China. The research institute seizes the opportunity to cooperate with Herrera to vigorously develop such business as sponge city planning, design, consultation service, technical research and development of sponge materials, engineering contract etc; the research institute combines the advanced technology of Herrera with its own advantages to create the construction model of sponge cities aimed at the local characteristics of China and conforming to the local resource endowment; strive to carry out 1-2 demonstration projects regarding sponge cities in Hubei based on cooperation.



小知识 TIPS

什么是海绵城市? What's sponge city?

海绵城市是指城市能够像海绵一样，在适应环境变化和应对自然灾害等方面具有良好的“弹性”，海绵城市建设应遵循生态优先等原则，将自然途径与人工措施相结合，在确保城市排水防涝安全的前提下，最大限度地实现雨水在城市区域的积存、渗透和净化，促进雨水资源的利用和生态环境保护。在海绵城市建设过程中，应统筹自然降水、地表水和地下水的系统性，协调给水、排水等水循环利用各环节，并考虑其复杂性和长期性。

Sponge city means that a city is like a sponge, with great “elasticity” in adapting to environmental changes and tackling natural disasters etc. The construction of sponge cities shall follow the principle of ecology first, combine natural approaches with artificial measures, and furthest realize the storage, permeation and purification of rain in urban regions at the premise of ensuring the safety of municipal drainage and waterlogging prevention, thereby facilitating the utilization of rain resource and ecological environmental protection. During the construction of the sponge cities, the systematization of the natural rainfall, surface water and underground water shall be planned as a whole, all links of water circulation use such as water supply and water drainage etc shall be coordinated, and its complexity and persistence shall be taken into account.

推进绿色办公 Propel green office

集团全面推进绿色办公理念，开展办公楼节能改造，推广无纸办公，采用视频会议形式，减少出差旅程。通过内网、内部刊物、微信微博等宣传低碳环保理念，号召员工积极投身环保活动中。

The group propels green office concept actively, makes energy conservation transformation for office buildings, popularizes paperless office and reduces business trips in the way of videoconferencing. The group publicizes low carbon and environmental protection idea via network, house journals, WeChat and microblog etc, and calls upon its employees to throw themselves into environmental protection activities actively.



公司通过改造温控设备，全面实现由人工调控变成自动调控，解决了大厦 3F-39F 的由于设计原因、气温变化等原因造成的温度失控的问题，减低房间温度波动，提高舒适度。

The company comprehensively realizes automatic control from artificial control by transforming the temperature control equipment, and solves the problem of temperature runaway of 3F-39F in the building caused by the reasons such as design, temperature change etc, consequently reducing room temperature fluctuation and improving the degree of comfort.



结合 8 层连廊改造，将 8 层连廊空调机组和风机盘管改为自动调控，并将照明和排风机等设备接入自控，进行统一调控。

According to the secondary decoration and transformation of the corridor on the 8th floor, the air conditioning unit and fan coil in the corridor on the 8th floor are changed into automatic regulation and control. Moreover, the equipment such as lighting and exhaust fan etc is accessed for unified regulation and control.



根据保障冷站提供的冷量够用又不浪费要求，进行设备改造，自动调节流量，有效解决了水泵流量不能根据回水温度变化而调整的问题，同时节省电能。

Equipment transformation is made according to the requirement on sufficient cooling capacity provided by the cold station, and the flow is adjusted automatically, effectively solving the problem that the flow of water pump cannot be adjusted according to the change of return water temperature. Meanwhile, electric energy is also saved.



对大厦玻璃幕墙、侧翼边缘及楼内柱边进行全面封堵，保证室内合理温度，有效节约办公楼内冷热能量。

Complete blockage is made to the glass curtain wall of the building, flank edge and columns on the floors, ensuring indoor reasonable temperature and effectively saving the cold and hot energy in the office building.

践行绿色发展 fulfill green development

引领行业绿色发展 Guide green development of the industry

集团努力开发并率先应用行业先进技术，推动行业标准制定，积极开展行业交流活动，搭建行业交流共享平台，推动和引领行业绿色发展。

The group strives to develop and takes the lead in using the advanced technology in the industry, promotes the establishment of industrial standard, carries out actively the exchange activities in the industry, sets up an exchange sharing platform, propels and guides green development of the industry.

CASE 中钢科德孵化器在天津滨海新区正式启动 Sinosteel Kede Incubator formally started in Binhai New District, Tianjin

2016年11月8日，中钢集团创新创业基地——中钢科德孵化器在天津滨海新区中心商务区正式启动，此举同时拉开了中钢集团京津冀一体化战略布局的序幕。

中钢集团作为国务院国资委管理的中央企业，积极响应党中央、国务院的号召，认真贯彻落实创新驱动发展战略，努力推进企业转型升级，积极发展科技创新服务业务，促进集团内外科技成果转化，为全社会创新创业服务，探索央企转型发展的新路径，为中钢集团的改革创新和滨海新区的繁荣发展作出积极的贡献。

中钢科德孵化器是中钢集团在天津战略布局的重要窗口，是中钢集团产业转型升级的重要基地。在集团股份及中心商务管委会领导的见证下，中钢科德孵化器与包括全国最大的肿瘤大数据平台、全国最大的3D打印设备研发公司、国内领先的创客教育机构等在内的首批入驻企业集体签约。随着首批优质企业入驻，中钢科德孵化器入驻率达到80%。

On November 8, 2016, sinosteel Innovation and Imbark base-sinosteel Kede Incubator formally started in Central Business Area of Binhai New District, Tianjin, which, at the same time, began the

Beijing-Tianjin-Hebei integration strategic layout of sinosteel.

As a central enterprise under the management of SASAC (State-owned Assets Supervision and Administration Commission of the State Council), sinosteel actively responds to the call of the Party Central Committee and the State Council, sincerely implements the innovation-driven development strategy, tries to push the transformation and upgrading of enterprises, actively develop scientific innovation service business, promotes the commercialization of research findings within and out of group, serves for innovation and imbark of the whole society, explores the new path for transformation and development of central enterprises, making active contributions for the reform and innovation of sinosteel as well as prosperity and development of Binhai New District.

sinosteel Kede Incubator is an important strategic layout window of sinosteel in Tianjin and also important base for industrial transformation and upgrading of sinosteel group. Under the witness of leaders from group shares and central business administration committee, sinosteel Kede Incubator uniformly signed with first batch of enterprises including China's largest tumour big data platform, China's biggest 3D print device R&D company as well as domestic leading Maker Education Institute. Along with the entry of first batch of high-quality enterprises, the entry rate of sinosteel Kede Incubator has achieved 80%.



CASE 中钢安环院被确定为首批“工业节能与绿色发展评价中心” Sinosteel Security and Environment Protection Research Institute is determined as the first batch of "Industrial Energy Conservation and Green Development Evaluation Center"

2016年，工业和信息化部公布了工业节能与绿色发展评价中心名单，中钢集团武汉安全环保研究院被确定为首批“工业节能与绿色发展评价中心”。由武汉市人民政府依托中钢安环院设立的武汉循环经济研究院近年来在绿色技术创新与服务、循环经济规划与咨询、清洁生产审核与节能量审核等方面做了大量工作，得到工信部节能与综合利用司及湖北省经信委的充分肯定。

中钢集团武汉安全环保研究院有限公司一直致力于推动科技创新、促进成果转化和科技服务提档升级。2008年获授科技部“安全环保生产力促进中心”，2009年获授“科技部技术转移示范机构”，2016年获授工信部首批“工业节能与绿色发展评价中心”。公司“无起爆药雷管”专利转让世界著名爆破公司—瑞典诺贝尔公司，已在23个国家和地区获得专利权，在瑞典已建成年生产能力2500万发无起爆药雷管的自动化生产线，被誉为“21世纪的高技术生产线”。

In 2016, the Ministry of Industry and Information Technology published the list of industrial energy conservation and green development evaluation center, and Wuhan Security and Environment Protection Research Institute of Sinosteel Group was determined as the first batch of "Industrial Energy Conservation and Green Development Evaluation Center". Wuhan Municipal People's Government depends on Wuhan Circular Economy Research Institute established by Sinosteel Security and Environment Protection Research Institute to do a great deal of work in green technological innovation & service, circular economic planning and consultation, cleaning production and energy-saving amount review etc, highly appreciated by the Energy Conservation and Integrated Utilization Department of the Ministry of Industry and Information Technology of the P.R.C and Hubei Commission of Economy and Information Technology.

SINOSTEEL Corporation Wuhan Safety & Environmental Protection Research Institute has been engaging in driving scientific and technological innovation as well as promoting achievement transformation and scientific service upgrade. It was awarded with Safe and Environmental Productivity Center by MOST in 2008 and Technical Transfer Demonstration Institute of MOST in 2009, first batch of Industry Energy Saving and Green Development Evaluation Center by MIIT in 2016. Non-primary Explosive Detonator patent of the company has been transferred to world's famous blasting company-Sweden Nobel AB, with patent right acquired in 23 countries and regions, in addition, automatic production line for annual 25,000,000 non-primary explosive detonator has been established in Sweden, which was called as 21st century high-technology production line.



CASE 中钢洛耐院成功主办 2016 年耐火材料国家（行业）标准计划项目进度协调会
Sinosteel Luoyang Institute of Refractories Research Co., Ltd successfully sponsors the coordination meeting of national (industrial) standard plan project progress of 2016 refractory materials

2016年3月21-22日，中钢洛耐院主办的全国耐标委2016年国家标准和行业标准计划项目进度协调会顺利召开。来自全国耐标委和基础、产品、试验方法三个分技术委员会委员，以及标准计划项目的承担单位等58家单位的80余名代表参加此次会议。会议中，对GB/T3003《耐火材料陶瓷纤维及制品》标准修订、《不定形耐火材料第2部分取样》标准与GB/T17617《不定形耐火制品和散装耐火原料验收抽样检验规则》标准的适用范围和主要技术内容进行讨论。

During March 21-22, the coordination meeting regarding 2016 national and industrial standard plan project progress of National Technical Committee for Refractory Standardization was smoothly held in Luoyang of Henan. The members from the National Technical Committee for Refractory Standardization and foundation, products, test method technical committees, along with over 80 representatives of 58 units undertaking the standard plan project, participated in the meeting. The main discussion contents in the meeting were the amendment of GB/T3003 Ceramic Fiber and Products for Refractory Materials, the scope of application and main technical contents of the Standard Unshaped Refractory—Part 2: Sampling and GB/T17617 Inspection Rules on Acceptance and Sampling of Unshaped Refractory Products and Raw Refractory Materials in Bulk.



58 家
单位的
80 余名
代表参加此次会议
58 units of more
than 80
representatives
attended the
meeting



提供绿色专业服务
Provide green professional services

我们努力将提高能源效率融入到产品的设计和开发过程中，努力减少对资源的依赖和对环境的影响，致力于为钢铁工业和相关战略型新兴产业提供绿色专业服务。

We strive to integrate the increased energy efficiency into produce design and development, try to reduce dependence on resources and impact on environment, and devote ourselves to providing green professional service for iron & steel industry and relevant strategic emerging industry.

上海造漆厂
VOC 治理项目

Treatment project of VOC (Volatile Organic Compounds) generated by Shanghai Paint Works

中钢天澄对上海造漆厂多个污染源分别设置抽风点，通过管网系统集中导引至移动吸附罐，对会发性有机物实施吸附，待吸附剂饱和之后将移动吸附罐运送至集团脱附区域再生，实现循环利用。

Sinosteel Tiancheng sets up exhaust points respectively for multiple pollution sources of Shanghai Paint Works, leads the pollution sources to the mobile adsorption tanks via the pipe network system and makes the tanks adsorb VOC. After the adsorbent is saturated, the mobile adsorption tanks are carried to the desorption area of the group for regeneration, thereby realizing cyclic utilization.

为宝钢提供
环保工程配套
和产品服务

Provide Baosteel with the supporting and product services of environmental protection project

中钢天澄为宝钢原料系统大修改造工程配套多台除尘系统及设备，除尘系统采用高效节能的低压脉袋式除尘技术，目前已经投运两套，在建两套，还有两套待建。电炉烟气余热利用是宝钢2016年重点项目，电炉厂150t双炉座直流电弧炉在冶炼过程中产生大量的高温烟气，中钢天澄设计采用耐高温、高效低阻脉冲袋式除尘器，出口排放浓度小于15mg/Nm³。

Sinosteel Tiancheng provides multiple dust pelletizing systems and equipment for the overhaul modification works of raw material system in Baosteel. The energy-efficient low-pressure pulse bag type dust removal technology is adopted for the dust pelletizing system. There have been 2 sets put into operation now, 2 sets are under construction and 2 sets are to be built. The utilization of flue gas waste heat generated by electric furnace is the major project in 2016. The 150t double-vessel DC electric arc furnace in the electric furnace plant generates a great deal of high temperature flue gas during smelting. Sinosteel Tiancheng designs and adopts the high temperature resistant, efficient and low resistance pulse-jet bag dust collector, and the emission concentration of its outlet is less than 15mg/Nm³.



SDG 目标回应 SDG TARGET RESPONSE

消除贫困 Eliminate poverty



中钢集团从 2010 年定点扶贫内蒙古自治区翁牛特旗，多年来一直高度关注支持翁牛特旗的脱贫发展工作，2010 年至今，中钢集团累计投入 250 万元。

Sinosteel Group mainly helps Wengniuteqi of Inner Mongolia Autonomous Region eliminate poverty from 2010. Over the years, the group has been paying high attention to its poverty alleviation development. From 2010 to today, the group has accumulatively invested RMB 2,500,000.

促进目标实现的伙伴关系 Promote the partnership of realizing objectives

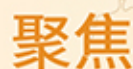


中钢集团充分发挥在资源、技术、人才、服务等方面的优势，积极响应国家政策号召，与银行，地方企业，国内外科研机构等各行各业的伙伴展开合作、实现多方互利互信、合作共赢。

Sinosteel Group gives full play to the advantages in resources, technology, talent and service etc, actively responds to the call of national policies, cooperates with the partners in all walks of life such as banks, local enterprises and domestic & overseas scientific research institutions etc, and achieves mutual benefit, mutual trust and win-win cooperation of many parties.



和谐共赢链 HARMONY AND WIN-WIN CHAIN



FOCUS ON

2016年，中钢集团积极把握国家“一带一路”、国际产能合作、中国装备走出去重大战略机遇，在持续巩固和深度挖掘土耳其、印度等海外传统市场的基础上，继续加大对俄罗斯、东南亚、中东等“一带一路”沿线国家新兴、成长性市场的开拓力度。

In 2016, Sinosteel Group actively seized the significant strategic opportunity of national "the Belt and Road" , international capacity cooperation and Chinese equipment sold out, and continuously expanded the emerging and growth markets in the countries along "the Belt and Road" line such as Russia, Southeast Asia and the Middle East etc, on the basis of constantly consolidating and deeply exploiting overseas traditional markets such as Turkey and India etc.

中钢国际工程的境外业务占比持续提升
The proportion of the overseas business in the international projects of Sinosteel continuously increased

截至 2016 年底，中钢集团境外资产总额约
By the end of 2016, the total foreign asset amount of Sinosteel had been about \$ 2.205 billion

实现境外营业收入
同比增长 23.47%




the overseas operation
revenues were \$ 2.735
billion, with year-on-yea
growth of 23.47%.
Moreover,

境外利润总额
the total foreign profit
amount was \$ 38
million

俄罗斯 CHEK-SU 公司电解锰项目是在中俄两国领导人的见证下签署的中俄之间大型国际产能合作项目，也是中钢集团在俄罗斯签署的第一个大型工程总承包合同，合同金额 46.2 亿元人民币。该项目建设内容包括：75 万吨 / 年采锰厂、锰精矿 35 万吨 / 年选矿厂、8 万吨 / 年电解锰厂及配套基础设施。项目总工期为 45 个月，目前正处于融资推进阶段。

Electrolytic Manganese Project of Russia CHEK-SU Company is the large-scale international production capacity cooperation project signed by China and Russia under witness of leaders of two countries, as well as the first Russian large-scale engineering general contract signed by Sinosteel. Contractual amount is RMB 4.62 billion. Construction contents include mining plant with capability of 750,000t/year, manganic concentrate mining plant with capability of 350,000t/year, electrolytic manganese plant with capability of 80,000t/year and matched infrastructure. Total construction period of the project is 45 months. It is in financing promotion stage now.



| | | |
|---|------|---|
|  | 中钢设备 | Sinosteel Equipment&Engineering Co., Ltd. |
|  | 中钢邢机 | Sinosteel Xingtai Machinery & Mill Roll Co., Ltd. |
|  | 中钢科技 | Sinosteel Scie-Tech Development Co., Ltd. |

CASE 中钢国际工程与柬埔寨西哈努克港450MW火力发电站签署议定书
Sinosteel Equipment & Engineering Co., Ltd and 450MW Heat Power Station in Sihanoukville Port of Cambodia sign a protocol



2016年10月13日，中钢国际工程与柬埔寨皇家集团（RG）就柬埔寨西哈努克港450MW火力发电站BOO项目签署了项目议定书，该项目议定书是在国家主席习近平和柬埔寨首相洪森的共同见证下签署的。

根据项目议定书约定，中钢国际工程将与柬埔寨皇家集团共同投资建设运营该项目，中钢国际工程担任该项目EPC总承包商和运营商。在柬埔寨能矿部及国家电力公司的支持下，该项目已完成现场勘探、可研报告以及环评报告等工作。

柬埔寨西哈努克港经济特区是中柬共建“一带一路”的样板工程，该项目是中柬双方对接“一带一路”和柬埔寨第三阶段“四角战略”、深化扩大产能合作的重要项目之一，也是公司国际化、多元化经营的又一项重要成果。

On October 13, 2016, Sinosteel Equipment & Engineering Co., Ltd and Royal Group (RG) signed a protocol on 450MW heat power station BOO project in Sihanoukville Port of Cambodia. The Protocol was signed in the joint witness of President Xi Jinping and Cambodian Prime Minister Hun Sen.

According to the provisions in the Protocol, Sinosteel Equipment & Engineering Co., Ltd and RG jointly invest in the construction and operation of the project. Sinosteel holds the post of the general EPC contractor and operator of the project. With the support of the Minerals & Energy Department of Cambodia and the State Power Corporation, the site exploration, feasibility study report and environment impact assessment report etc of the project have been completed.

The special economic zone in Sihanoukville Port of Cambodia is a sample project of "The Belt and Road" jointly built by China and Cambodia, which is one of the important projects that both parties connect "The Belt and Road" and "Four-Corner Strategy" in Phase III and expand capacity cooperation. Moreover, it is also another important achievement of corporate internationalized, diversified operation.



CASE 中钢国际工程成功签署VALE 年度最大设备采购订单
Sinosteel Brazil successfully signs the largest equipment purchasing order of VALE

中钢国际工程成功签约巴西 VALE 公司位于巴西 MINAS 州 CAUE 矿山的长距离皮带运输机项目，合同内容包括总长 3 公里的 4 条皮带运输机的设计、制造及安装调试技术服务等，交货期 10 个月。这是中钢国际工程在世界主要矿业国家巴西开展本地化经营的第一单，也是全球第一大铁矿石生产商 VALE 公司 2016 年度最大的设备采购订单。

Sinosteel Engineering & Technology Co., Ltd (Brazil) (hereinafter referred to as Sinosteel Brazil), the wholly-owned subsidiary of Sinosteel Equipment & Engineering Co., Ltd, successfully signed the long-distance belt conveyor project of CAUE mine in MINAS of Brazil VALE Company. The contract content includes the design, manufacturing, installation, debugging and technical services etc of 4 belt conveyors with the total length of 3km, and the delivery date is 10 months. This is the first order of Sinosteel Brazil to make localization operation in the main mining industry country (Brazil) in the world, and it is also the largest equipment purchasing order of VALE Company (the first largest iron ore manufacturer in the world) in 2016.



本次长距离皮带运输机项目，VALE 公司邀请了包括 ThyssenKrupp、METSO 在内的来自欧美、巴西当地以及中国的多家知名散状料处理设备供应商参与竞标，竞争异常激烈。经过多轮技术和商务谈判，中钢巴西凭借其突出的技术优势、经验丰富的属地化团队、良好的行业声誉在竞争中最终胜出。

With regard to the project, VALE Company invited lots of famous bulk material processing equipment suppliers from Europe and America, local Brazil and China, including ThyssenKrupp and METSO, to participate in the tender, so the competition is rather intense. Through many rounds of technical and business negotiation, Sinosteel Brazil finally won the bid depending on its outstanding technical advantages, local team with rich experience and great industry reputation.

这次合同的签订使得中钢巴西向最有竞争力的散状物料处理设备供应商的目标迈出了坚实的第一步，标志着“Sinosteel MECC”品牌散料处理设备进入世界一流矿业企业市场，为中钢国际工程的国际化、多元化经营拓展了一条新路。

The signing of the contract makes Sinosteel Brazil take the solid first step toward the objective of the most competitive bulk material processing equipment supplier, symbolizing that the bulk material processing equipment with "Sinosteel MECC" brand enters the world's first-class mining enterprise market, expanding a new road for the internationalized and diversified operation of Sinosteel Equipment & Engineering Co., Ltd.





C 关怀员工发展 aring for employees' development

保障员工权益 Guarantee of employee rights

员工是中钢宝贵的财富，也是我们所向披靡、战胜一切困难险阻的“传家宝”。中钢集团坚持以人为本，积极开展劳动关系和谐企业创建活动。依法规范劳动关系，自觉履行社会责任，不断完善劳动关系协调机制和劳动关系矛盾调处机制，不断加强企业民主管理制度建设，切实维护好职工的根本权益，切实把解决职工最关心、最直接、最现实的利益问题作为构建和谐劳动关系的根本出发点和落脚点，极大保证了职工合法权益的有效维护和单位利益的有效保障。

Employees are valuable treasures of Sinosteel, and they are also the "heirlooms" for we are to sweep away all obstacles and overcome all difficulties and obstacles. Sinosteel adheres to the concept of "people-oriented", and implements activities actively about harmonious labor relations and enterprises creation. Sinosteel legally regulates the labor relations and consciously fulfills social responsibilities, constantly improves the mechanisms of coordinating labor relations and mediating labor contradictions, and strengthens the constructions of democratic management system of enterprise, to safeguard fundamental rights and interests of workers, and considers the resolving of the most realistic problems and interests which are concerned by and directly related to employees as the fundamental start and foothold of building harmonious labor relations for effective guarantee of legal rights and interests of the workers and the interests of the units.

● 平等雇佣 Equal employment

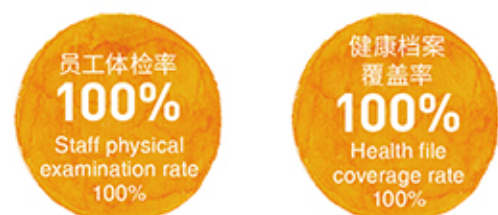
公司遵守劳动法律法规、实施平等雇佣的举措，努力打造员工的成长发展平台。截至 2016 年底，中钢员工总数为 24062 人，其中外籍员工 2151 人。

Sinosteel follows the labor laws and regulations, implements the equal employment measures, and tries to build a development platform of employees. By the end of 2016, the total number of Sinosteel employees is 24,062, including 2,151 foreign employees.

● 薪酬福利 Salary and welfare

集团积极打造科学、合理的薪酬福利体系制度，坚持同工同酬，为员工提供全面的保障。2016 年，员工体检率 100%，健康档案覆盖率 100%。

Sinosteel actively builds a scientific and logical system of salary and welfare, insists on equal pay for work and provides comprehensive security for employees. In 2016, the rate of physical examination is 100% and the coverage rate of health records is 100%.



● 文化活动 Cultural activities

我与中钢共奋进、同成长—中钢青年先进表彰大会暨主题演讲比赛圆满结束

为纪念“五四”运动97周年，充分展示集团改革脱困过程中青年职工立足本职、拼搏向上的精神风貌，进一步激发广大员工爱岗敬业、积极奉献的热情，5月24日下午，第二届中钢青年先进表彰大会暨“我与中钢共奋进、同成长”主题演讲比赛在公司总部成功举行。

活动包括《青年力量》、《青年强企》、《青春筑梦》三个篇章，以视频方式展现了优秀青年集体及个人爱岗敬业、勇于开拓的先进事迹，集团及股份领导对29家获得“中钢集团青年文明号”、21家“中钢集团五四红旗团委（支

部）”、91位“中钢集团杰出青年”及21位“中钢优秀共青团干部”荣誉称号的先进集体及个人代表进行了现场颁奖。活动现场，来自总部及京内外所属企业的13位的演讲决赛选手围绕“我与中钢共奋进、同成长”这一主题，进行了精彩纷呈的演讲，充分展示了集团各单位青年立足岗位、脚踏实地的青春风采，诠释了中钢青年员工对集团以及“中钢梦”的真切情感，更展示了中钢青年对集团攻坚克难、改革脱困的坚定信心及青春力量。13位参赛选手的精彩演讲赢得了现场观众的掌声与喝彩，经过激烈的角逐及投票，集团党委书记刘安栋宣读了本次演讲比赛获奖名单。

Improve and grow together with SINOSTEEL-SINOSTEEL advanced youth commendation conference and theme speech contest come to a successful conclusion

For memory of the 97th anniversary of May 4th Movement and fully demonstrate the positive spirituality of youth staff based on own work and during reform process of the Group, further motivate the dedication and contribution enthusiasm of staff, in the afternoon of May 24, the second SINOSTEEL Advanced Youth Commendation Conference as well as Improving and Growing together with SINOSTEEL Theme Speech Contest was successfully held in headquarter of the Company.

The activity totally includes 3 parts of Youth Force, Youth Make Enterprise Strong and Youth Dream Building, showing the advanced events in dedication and forging ahead of excellent youth personnel and group through video, leaders from group and company awarded to representative of advanced group and personnel, including 29 SINOSTEEL Youth Civilization winners, 21 SINOSTEEL May 4 Red Flag Youth League Committee (Branch), 91 SINOSTEEL Excellent Youth and 21 SINOSTEEL Excellent Communist Youth League Cadre winners. At the site of activity, 13 speech final match competitors from headquarter and enterprises inside and out of Beijing contributed with wonderful speech based on the theme of Improving and growing together with SINOSTEEL, fully demonstrating the youth mien of each youth from each unit of the group, interpreting the feeling of youth staff to the Group and SINOSTEEL Dream, also demonstrating the SINOSTEEL youth's stable confidence and youth force for trouble-shooting and reform of the Group. Wonder speech of 13 competitors won enthusiastic applause and acclaim from local audience. Through drastic competition and voting, Liu Andong, Party Secretary of the group, declared the winner list of this speed competition.



CASE 集团党委召开先进青年集体和个人代表座谈会
The Party Committee of Sinosteel convened a forum on the advanced youth collective and individual representatives

2016年5月24日上午,集团公司党委在总部召开了中钢“青年文明号”、“杰出青年”、“优秀团组织”和“优秀团干部”获奖代表座谈会。来自中钢设备、中钢德远、中钢投资、中钢锡林浩特萤石等单位的十位获奖代表参加了会议。集团领导广泛听取了各位代表的意见和建议,进一步畅通了青年员工的沟通与交流渠道。



On the morning of May 24, the Party Committee held a forum on the winning representatives of "youth civilization", "outstanding youth", "excellent league organization" and "excellent league cadres" at headquarters. Ten award-winning representatives from Sinosteel MECC, Sinosteel Deyuan, Sinosteel Investment, and Sinosteel Xilinhote Fluorite Co., Ltd., etc. were participating in the meeting. The leadership of Sinosteel widely listened to the opinions and suggestions of every representative and further unblocked the channels of communication and exchange.

助力职业发展 Assisting career development

集团将干部队伍建设和人才培养作为中钢变革新生、实现可持续发展的重要举措,重点抓好中层领导人员、后备人才、青年人才三支人才队伍的建设工作。

Sinosteel takes management construction and talents cultivation as the main measures to make reformation and realize sustainable development, especially the construction of the three talents teams of middle management, backup talents, and youth talents.



● 员工发展 Staff development

集团高度重视员工培养与发展,不断推进集团培训工作更加规范化、科学化、系统化。2016年,集团积极培养更符合集团发展需求的人才队伍,不断完善集团内部讲师和课程体系。

Sinosteel attaches great importance to staff training and development and is dedicated to create more standard, scientific, and systematic training. In 2016, Sinosteel actively cultivated talent team more suitable for its development and continuously perfected internal lecturer and course system.

CASE 英才培训,助力成才 Talents Training, Helping to Success

集团“英才一期”结业典礼在廊坊京津花园举行,标志着“英才一期”2016年集训顺利完成。“英才一期”培训分三年实施,2016年集训分两个班进行,共计121人参训。集团“英才一期”的学员包括2016年新任职的中层副职领导人员以及中层副职后备人才。

在三年培养期间,集团、股份领导全程担任导师,关注和辅导学员的成长。三年集训课程以领导力发展为主线,以管理知识和技能的学习为支撑,以深化对集团的文化认同为牵引,采用深入浅出、由微观到宏观递进式的培养模式,注重与集团实际工作的紧密结合,不断提升与强化领导力和管理知识。2016年集训安排了偏重于文化认同、管理知识和技能、领导力的管理自我和管理团队方面的课程,以及提升团队合作的联欢会、长途越野拓展活动。多位集团、股份公司领导亲临授课,理论结合实际传授企业文化、二次创业、贸易转型、廉洁教育、创新创业等方面课程。在学员案例分享环节,导师们对优秀案例进行了点评及经营管理经验分享。



在集训过程中,学员完成了既定的学习任务,展示出中层干部及后备人才良好的能力素质和饱满的精神风貌,学习中孜孜以求,活动中思维活跃,进一步树立了对集团未来发展的信心,激发了干事创业的热情。



Sinosteel "First Batch Talents" training completion ceremony was held at Jingjin Park, Langfang, which marked the successful completion of 2016 "First Batch Talents" intensified training. "First Batch Talents" training is to be conducted in three years as planned, and 2016 intensified training was divided into two classes including 121 persons in total. Trainees of Sinosteel "First Batch Talents" training include 2016 new middle level deputy leadership and middle-level deputy leadership's reserve talents.

During the three-year training, Sinosteel and joint-stock company leaders act as trainer and regard and assist the growth of trainee. Centering on leadership development, supported by management knowledge and skill learning, and led by accepting Sinosteel culture, the three-year intensified training explain complicated issues in an easily understandable way and uses from microscopic view to macroscopic view progressive cultivation mode and regards close integration with real conditions, constantly improving and enhancing leadership and management knowledge. In 2016 intensified training, courses emphasizing culture acceptance, management knowledge and skill, and individual/team leadership management as well as party and long distance cross-country development activities aiming to improve team cooperation are arranged. Multiple Sinosteel and joint-stock company leaders attend the training class and give lessons, combining theory with real conditions they giving lectures in terms enterprise culture, second pioneering work, trade transition, integrity education, and innovation and entrepreneurship. At trainee case sharing step, mentors assess excellent case and share operation management experience.

Amid the intensified training, trainees completed predetermined tasks, displayed good capability and quality and rich spirituality of middle management and reserve talents, diligently strive after knowledge and think actively in activities, further building confidence in Sinosteel future development and motivating the enthusiasm of executive officer to start a business.

● 畅通发展渠道 Make smooth development channel

中钢集团尊重每一位员工，以极高的多元文化包容性，为来自不同民族、不同性别、不同教育背景的员工不断拓宽职业发展空间，为员工提供管理、专业技术等多种发展序列，搭建广阔的成长平台。为员工提供多元化的职业发展机会，健全人才激励考核机制，探索构建中层领导人员胜任力模型；推进中层领导人员后备人才选拔和培养，加速青年人才成长；加强人员流动。

Sinosteel respects every employee and has very high cultural inclusion, expands vocational development spaces for employees of different nationality, sex and education background, provides employees with management, special skill etc. multiple development sequence, and erects broad growing platform for them. Sinosteel provides diversified career development activities, perfect talent incentive and assessment mechanism, and explores and builds middle level management competency model; boosts middle management reserve talents promotion and cultivation and speeds up growth of youth talents; and enhances staff mobility.

CASE 不拘一格，提拔青年优秀人才 promote excellent youth talents without limitation to type

2016年，公司新提拔了一批中层干部，其中不乏很多八零后青年骨干人才。公司对此高度重视，召开了新任职中层领导人员集体谈话会，徐思伟董事长，刘安栋总经理、邵殿祥书记等公司领导纷纷对新任职中层领导人员进行了集体廉洁谈话，并提出了任职要求和希望。此次青年骨干人才充实到中层领导岗位，正是贯彻落实集团加强干部队伍建设、大力提拔使用年轻骨干人才的重要举措之一。在中钢转型发展的关键时期，提拔一批素质高、业务精、能力强的干部队伍不仅是公司对青年员工多年勤奋奉献、不断自我提升的肯定，更是当前中钢改革调整、变革新生的内在需要。

In 2016, Sinosteel promoted a new big batch of middle-level management, wherein there are many post-80s young personnel. Sinosteel attached great importance to the promotion and held new middle management collective conversion meeting, president Xu Siwei, general manager Liu Andong, secretary Shao Dianxiang and other leaders provided collective honest conversion with new management and put forward job requirements and expectation. This promotion to fill middle management with young backbone talents is just the implementation of one of Sinosteel's major measures to enhance management team construction and widely promote and use young backbone talents. At the key time for Sinosteel's transformation development, to promote a batch of management with high quality, excellent professional skill and strong capacity is not only the affirmation by the company to young employees who have diligently made contribution and constantly improved themselves for many years, but also the internal demand of current Sinosteel to make reformation and regulation and bring new life to itself.

随着越来越多的年轻骨干人才走上领导岗位，中钢人才队伍结构将进一步优化，能力素质将进一步提升，整个干部队伍将更加充满朝气与冲击力，将为中钢改革发展提供更加坚实的人才保障。

With increasingly more young talents taking leadership positions, Sinosteel talent team structure will be further optimized and capacity&quality further improved, the whole management team will be full of vitality and impact force, creating solid talent guarantee for Sinosteel reform and development.



CASE 中钢澳大利亚女员工入职 30 年体会 Experience of Australia female employee entry in SINOSTEEL for 30 years

中钢澳大利亚公司的人事经理米歇尔女士迎来了她加入中钢 20 年的入职纪念日。她动情的说道：我非常感谢中钢，我热爱中钢，回想起刚入职时，我还是个懵懂的小女孩，现在我已经是一个孩子的妈妈，我非常期待我的入职 30 周年纪念。



Ms. Michelle, HR manager of SINOSTEEL Australia Company, welcomed her 20-year entry memorial day in SINOSTEEL. She said with emotion: Thanks to SINOSTEEL very much, I love SINOSTEEL. I was a innocent girl when I entered SINOSTEEL, and now I am the mother of two babies, and I am very expecting my 30-year entry memorial day.



CASE 中钢锡林浩特萤石化验女工展风采 Presence of female workers from SINOSTEEL Xilinhot Fluorite Lab



点燃“四自”火花，展示巾帼风采。地处祖国北部边陲的中钢锡林浩特萤石公司化验室女工不怕苦累，爱岗敬业，即使在零下30多度的漫长严寒冬季，她们也坚持定期到现场取样质检，认真对原矿和精矿进行品位检测分析。她们以提质增效为目标，紧紧围绕生产需求，通过多种渠道努力促进化验技术和理论水平的提升；密切关注公司每天生产调度会质量信息，按照精心、精细、精品的要求，从化验工作的准备、操作、结果计算到数据统计，严格按规程操作，确保化验数据快、准、精，让每项化验结果都能客观反映产品质量的真实情况，对产品质量的变化给予快速反应，为公司合理组织生产，做好原矿、精矿质量控制，便利产品销售，实现提质增效做出了积极的贡献。

Light the spark of Four-strategy, show the mien of women. Female workers from SINOSTEEL Xilinhot Fluorite Lab at north frontier are not afraid of hardship and love their jobs, even in the lengthy Winter under 30 degree, they insisted in regular sampling and quality inspection at site, sincerely carrying out grade inspection and analysis to raw and fine ores. By taking quality and efficiency improvement as their target, tightly based on production demand, they tried hard to promote their test technology and theory level through multiple channels. They paid close attention to quality information on production dispatching meeting each day, according to the requirement of elaboration, fine and excellence, they carry out operation strictly according to regulations from preparation, operation, result calculation to data statistics of test work, guaranteeing quick, exact and excellent test data, so that each test result may truly reflect the quality of product, in addition, they give quick response to change in product quality, making active contribution for reasonable production organization, quality control of raw and fine ore, product sales convenience as well as quality and efficiency improvement of the company.



● 保障职业健康与安全 Ensuring occupational health and safety

集团大力推行安全标准化、“两基一现”、隐患排查治理、安全绩效考核等专项工作，切实加强重要部位、主要设施和关键环节的风险管控，切实保障每一位员工的职业健康与安全。

Sinosteel strongly promote safety standardization, "two basics and one demonstration" hidden danger check and solving, and safety performance assessment etc. special works, practically strengthen risk control over main parts, significant facilities and key links, and guarantee the occupational health and safety of every employee.

CASE “中国煤矿尘肺病防治基金会工程技术研究中心” "China Coal Miner Pneumoconiosis Treatment Foundation engineering technical research center"

2016年3月29日，中国煤矿尘肺病防治基金会正式批准中钢安环院设立“中国煤矿尘肺病防治基金会工程技术研究中心”。该中心的设立为中钢安环院进一步做好粉尘危害防治工程技术和咨询服务，推进安全环保奠定坚实了理论基础。

On Mar. 29, China Coal Miner Pneumoconiosis Treatment Foundation officially approved

Sinosteel Wuhan Safety and Environmental Protection Institute to set up "China Coal Miner Pneumoconiosis Treatment Foundation engineering technical research center". Setting up of the center lays a solid foundation for Sinosteel Wuhan Safety and Environmental Protection Institute to further make dust hazard prevention and treatment engineering technical research and consultation services.



CASE 加强烟气环保治理 优化生产作业环境 enhance flue gas environmental friendly treatment and optimize production environment

中钢耐火给职工提供良好的作业环境，在生产安保部的工作组织下，设备安环分厂铆焊工作对镁质分厂一号窑排烟管道系统进行烟气环保治理。

Sinosteel Refractory provides employees with good operation environment. Under the organization by production security department, the fume exhaust ductwork of No.1 kiln of magnesium branch is provided with flue gas environmental friendly treatment by rivet welding works of equipment security inspection branch.



注重人文关怀 Regard humanistic care

中钢集团继续推进员工关爱工程，针对不同员工的不同需求，给予员工个性化的关爱，营造温馨和谐的氛围，让员工感受集团的人文关怀，增强员工归属感与认同感。

Sinosteel continued to advance employee care project, specific to different employee needs provide personalized care and create warm and harmonious atmosphere so that employees may feel humanistic care of Sinosteel and have stronger sense of belonging and identity.

● 平衡工作生活 Balance work and life

中钢集团鼓励员工强健体魄、提升修养、高效工作、快乐生活，通过组织各种文化活动，丰富员工的业余生活。

Sinosteel encourages employees to do physical exercise, improve cultivation, work efficiently, and live happily, and enriches the spare time lives of employees by organizing various cultural activities.

CASE 第三届在京职工运动会顺利举行 smooth running of the third session of sports meet for employees in Beijing

2016年9月18日，中钢集团京内单位第三届职工运动会在北京大学五四体育场隆重举行。本届运动会以“激发能量，逐梦钢”为主题，广大在京员工纷纷化身运动健儿，以高昂的斗志、顽强的作风、精湛的技能，诠释着中钢“团结、担当、拼搏、奉献”的新时期攻坚精神，展现出永不放弃、奋勇拼搏的精神风貌。集团、股份公司领导，公司总部和京内单位11支代表队、近500名运动员参与各项角逐。



On Sept. 18, the flags flew high and the drums were loud at May Fourth Stadium of Beijing University for the third session of employees' sports meet of Sinosteel Beijing units was ceremoniously held here. This sports meet is themed by "motivating energy and pursuing Sinosteel dream", employees in Beijing incarnated as athletes one after another and with high morale, dogged style, and exquisite

skill interpret Sinosteel new period spirit to solve problems in difficult areas of "unity, taking on responsibilities, struggling, and dedication", and exhibit such spirituality that "never give up and fight bravely". 11 representative teams, nearly 500 athletes from Sinosteel and joint-stock company leaders, corporate HQ and Beijing units participated in the competition of different items.



CASE 中钢西重举办职工越野赛暨健步走活动 Sinosteel Xi'an Heavy Machinery Co., Ltd held employees cross-country race and brisk walking activity

为进一步促进职工冬季健身活动的开展，活跃和丰富企业文化生活，中钢西重举行2016年职工越野赛暨“我运动我健康”健步走活动，350余名职工踊跃报名参加了活动，激励大家以饱满的热情迎接工作的挑战。

To further promote employee winter body-building activities, activate and enrich enterprise culture life, a few days ago, Sinosteel Xi'an Heavy Machinery held 2016 employees cross-country race and "I do exercise and I will be healthy" brisk walking activity, more than 350 employees actively signed up and took part in the activity, stimulating all personnel to head for hopeful 2016 with full of enthusiasm.



CASE “我与中钢 共奋进、同成长” 主题演讲比赛
"I will advance bravely and grow with Sinosteel together" keynote speech competition

适逢“五四”运动 97 周年，中钢集团组织开展“我与中钢共奋进、同成长”主题演讲比赛活动。比赛分初赛、复赛两个环节。初赛阶段采用视频方式进行选拔，对视频作品进行评审，评选确定进入复赛的选手。在复赛现场进行评审打分，确定最终获奖作品。演讲比赛设优秀组织单位 3 个，一等奖 3 名、二等奖 3 名、三等奖 4 名、优秀奖若干。本次活动激发了各位员工的参与热情，营造了浓郁的文化氛围。

At the 97 anniversary of "May Fourth" movement, Sinosteel CCYL committee a few days ago issued the notice that "I will advance bravely and grow with Sinosteel together" keynote speech competition before or after May Fourth Youth Day. The competition is divided into the two steps of preliminary contest and secondary contest. At preliminary contest phase, video is selected as the mode to select. By reviewing video products assess and determine contestants entering the secondary contest. At secondary contest phase, on-site assessment and scoring are used to determine the final award-winning works. The speech contest is provided with 3 winners of excellent organization unit award, 3 winners of first prize, 3 winners of second prize, 4 winners of third prize, and several winners of excellent award. The activity motivated the participation enthusiasm of employees and created dense cultural atmosphere.



CASE 中钢耐火举办软式排球比赛 丰富职工文化生活
Sinosteel Refractory organized soft volleyball competition to enrich employees' cultural life

中钢耐火工会为落实全民健身计划，每年坚持开展群众性文体活动，2016 年 3 月份组织开展了软式排球比赛，进一步凝聚了职工队伍力量，丰富了职工的文化生活。

In order to implement the nationwide fitness program, Sinosteel Refractory every year carries out mass recreational and sports activities. In Mar. 2016, it organized soft volleyball competition, further gathering employee team strength and enriching employees' cultural life.



团结拼搏“乒”动我心——“中钢投资杯”在京单位员工乒乓球比赛圆满落幕
Unite and strive, "ping-pong" moving my heart--"Sinosteel Investment Cup" Beijing employees ping-pong ball competition was successfully finished

● 用心关怀员工 Sincerely care for employees

公司开展多层次开展针对女员工、困难员工以及离退休员工关爱活动，真正做到政治上尊重、思想上关心、生活上照顾、精神上关怀。

The company carried out multi-level activities caring for female employees, employees with difficult problems, and retired employees to provide respect and care in life and spirit practically.

CASE 中钢集团举办 2016 年在北京离退休人员春节团拜
Sinosteel held 2016 Chinese New Year mass congratulations to Beijing retired personnel

2016 年 1 月 27 日下午，中钢集团在京离退休人员 2016 年春节团拜会在离退休服务中心举行。集团领导及近 350 名离退休老同志参加了团拜会，欢聚一堂，共贺新春。集团表示将继续全心全意办实事，尽心尽力做好事，把大家照顾好，为大家服务好，确保老同志老有所养、老有所依、老有所学、老有所为、老有所乐。

At afternoon of Jan. 27, Sinosteel 2016 Chinese New Year mass congratulation to retired personnel in Beijing was held in retirement service center. Sinosteel leaders and almost 350 retired old comrades took part in the mass congratulation; they merrily gather and celebrate the new year together. Sinosteel expressed to continue to do practical works wholeheartedly, try best to care for and serve everybody, and ensure old comrades are looked after properly, have something to depend on, may learn and do something, and may live happily.



CASE 改革在路上，我们在路上 Reform is on road, so are we

为庆祝第 106 个“三·八”国际劳动妇女节，3 月 7 日，中钢女职工委员会组织的第四届户外健步走活动在奥林匹克森林公园成功举办。京内单位广大女职工积极踊跃参加，参与人数创历届健步走活动新高。“改革在路上，我们在路上。”大家一路上，纷纷交流生活体会，畅谈工作心声，相互关心，互致问候，与企业发展同行，为美好明天加油。



To celebrate the 106th "March Eighth" International Working Women's Day, Sinosteel female employees committee organized the 4th outdoor brisk walking activity, which was successfully finished in Olympic Forest Park. Vast Beijing female employees actively took part in the activity, number of participants reached a new high level, "Reform is on road, so are we." On the road, many people exchanged life experiences, spoke glowingly of heartfelt wishes in work, cared for and greeted one another, determined to fight for enterprise development and bright future.

CASE 中钢马矿院党委慰问 生活困难党员 Party committee of Sinosteel Maanshan Institute of Mining Research Co., Ltd. consoled Party members living hard lives

7 月 6 日，中钢马矿院党委副书记到院困难党员家中进行慰问。详细询问老人的生活和健康状况，了解其存在的生活困难，叮嘱他们保重身体，并送上慰问金。



On July 6th, Party committee deputy secretary of Sinosteel Maanshan Institute of Mining Research went to families of Party members living difficult lives and console them. Ask in detail the life and healthy conditions of the aged, understand their living problems, urge them to take good care of themselves and provide solatium.



7 月 18 日，中钢天源领导代表 公司深入到生产一线送清凉

On Jul. 18, leaders of Sinosteel Anhui Tianyuan Technology Co., Ltd. on behalf of the company went to first production line to deliver coolness

W 携手伙伴共赢 Work together with partners and reach win-win cooperation

推进行业持续发展 Propel industry sustainable development

作为一家大型跨国企业集团，中钢集团有责任和义务担负起对客户、伙伴、同行等具有合作关系的利益相关方的责任。中钢集团充分发挥在资源、技术、人才、服务等方面的优势，积极响应国家政策号召，与银行，地方企业，国内外科研机构等各行各业的伙伴展开合作、实现多方互利互信、合作共赢。

As one large-scale transnational enterprise, Sinosteel has the responsibility and obligation to be liable to interested parties having cooperation relationship, including customer, partner and peers etc. Sinosteel gave full play to advantages in terms of resource, technology, talents, and service etc., actively respond to national policy calls, cooperate with bank, local enterprise, domestic and foreign scientific research institutions etc. partners from different industries.

CASE 中钢冶金当选印度中国企业商会为新一届会长单位 Sinosteel is elected the new president company of Indian chamber of commerce of China enterprises

2016 年 4 月 1 日，印度中国企业商会成立十周年庆典、2016 届理事会及全体会员大会在中国驻印度大使馆召开，印度中国企业商会 会员单位代表等 100 余人参会。在印度中国企业商会 2016 届理事会上，经全体理事会成员选举，中钢冶金资源有限公司当选为新一届会长单位，王洪森总经理再次当选印度中国企业商会会长。王洪森会长在大会发言时表示，中钢作为新任会长单位将带领全体商会成员进一步建设好商会，通过商会平台维护印度中资企业的合法权益，加强商会与印度政府及印度商协会组织的联系，促进中印间经济合作和文化交流，推动中印两国关系健康发展。

On Apr. 1, the 10th anniversary celebration of Indian chamber of commerce of China enterprises and 2016 council and membership assembly was held in Chinese embassy in India, over 100 representatives from member companies of Indian chamber of commerce of China enterprises participated in it. At the 2016 council assembly of India chamber of commerce of China enterprises, upon election by all council members, Sinosteel Metals & Resources Co. Ltd. was elected the new president company, and general manager Wang Hongsen was elected the president again. President Wang Hongsen at the conference address expressed that as the new president company, Sinosteel will lead all members to further build the chamber of commerce, maintain legal interest of China enterprises in India through platform of the chamber of commerce, enhance relationship with Indian government and India business association, promote economic cooperation and cultural exchange between China and India, and promote the healthy development of China-India relationship.



搭建战略合作平台

Build a strategic cooperation platform

合作共赢、分享价值已经成为中钢集团实现转型和发展的的重要途径。中钢集团积极搭建战略合作平台，更好地发挥公司在资源开发、科技创新、产品营销、人才培养等方面的核心竞争力，为企业的发展注入更多的活力，与利益相关方实现合作共赢。

Win-win cooperation and value share have become the significant path to realize transformation and development by Sinosteel. Sinosteel actively erect strategic cooperation platform, better give play to core competitions in terms of resource development, technical innovation, product marketing, and talent cultivation etc., inject more energies for enterprise development, and reach win-win cooperation with interested parties.

CASE 中钢新型与核建高温堆战略合作

Strategic cooperation between sinosteel New-Style and CNEC High Temperature Reactor Holding Co., Ltd

2016 年，中钢新型与核建高温堆控股有限公司举行战略合作协议签字仪式。这标志着双方合作进入新的阶段。核建高温堆是中核建设集团核能产业化的投资运营平台，重点推进以球床—模块式高温气冷堆和一体化壳式核供热堆为代表的先进核能技术产业化工作。根据协议，核建高温堆将借助中钢新型在核级石墨材料方面的生产、技术优势，加强合作，进一步推进高温气冷堆核能产业化及相关技术在高温气冷堆中的国产化应用，为中国核电事业发展及“走出去”战略保驾护航。

Sinosteel New-Style and CNEC High Temperature Reactor Holding Co., Ltd held strategic cooperation signature ceremony in 2016, which marked the new stage for their cooperation. CNEC High Temperature

Reactor is the nuclear energy industrialization investment operation platform of China Nuclear Engineering & Construction Group Corporation Limited, which focuses on promoting the industrialization of advanced nuclear energy technologies such as pebble bed-module type high-temperature gas cooled reactor and integrated shell type nuclear heating reactor. According to the agreement, with the production and technical advantages in nuclear-level graphite material of sinosteel New-Style, CNEC High Temperature Reactor will strengthen cooperation and further develop the nuclear energy industrialization of high-temperature gas gas cooled reactor and domestic application of related technologies in high-temperature gas cooled reactor, assisting the development and Going-out strategy of China's nuclear industry.



CASE 中钢矿业公司与山东石横特钢集团有限公司签订战略合作协议

Sinosteel Mining Company signed strategic cooperation agreement with Shandong Shiheng Special Steel Group Co., Ltd.

2016 年 8 月 9 日，中钢矿业公司与山东石横特钢集团有限公司签订了战略合作协议，建立长期战略合作伙伴关系。在共同签署长期购销合同的基础上，双方本着“互惠互利，共同发展”的原则，建立长期战略合作伙伴关系，实现增进交流、优势互补、信息共享、稳定购销渠道，进一步共同抵御市场风险，谋求企业长远利益最大化。合作期内，中钢矿业公司将向山东石横特钢集团有限公司供应 100 万吨铁精粉。

On August 9, 2016, sinosteel Mining Company signed strategic cooperation agreement with Shandong Shiheng Special Steel Group Co.,

Ltd., establishing long-term strategic cooperation partnership. Based on long-term purchase and sales contract, both Parties establish long-term strategic cooperation partnership based on the principle of Mutual Benefit and Common Development, realizing communication improvement, advantages complementation, information share as well as purchase and sales channel stabilization, further resisting the market risk and seeking for long-term benefit maximization. During the operation period, sinosteel Mining Company will supply 1 million tons of fine iron powder to Shandong Shiheng Special Steel Group Co., Ltd.



CASE 中钢德远与埃赫曼康密劳签署年度合作协议

Sinosteel Deyuan signed annual cooperation agreement with Eramet Comilog

2016 年 11 月 28 日上午，中钢德远矿产品有限公司与 Eramet Comilog Maganese (埃赫曼康密劳锰业) 合作签字仪式举行。埃赫曼康密劳锰业副总裁 Arnaud、中钢德远矿产品有限公司副总经理刘宏泉分别代表双方签署了 2017 年年度合作协议。埃赫曼康密劳锰业年产高品位氧化锰矿 400 万吨，其中出口到中国 170 万吨 / 年，此次签约，代表着埃赫曼康密劳锰业将对华销售近 15% 的份额稳定供应给中钢，实现与中钢的共同发展。

In the morning of November 28, 2016, cooperation signing ceremony between

sinosteel Deyuan Minerals Co., Ltd and Eramet Comilog Maganese was held. Arnaud, deputy president of Eramet Comilog Maganese and Liu Hongquan, member of the Party standing committee and vice general manager of sinosteel Deyuan Minerals Co., Ltd, signed the 2017 cooperation agreement. Eramet Comilog Maganese has an annual high-grade manganese oxide ore output of 4 million tons, of which 1.7 million tons were exported to China each year, signature this time means that Eramet Comilog Maganese will supply 15% of its exports to China to sinosteel, realizing common development with sinosteel.



中钢冶金与北京桑梁签署合作协议

CASE Sinosteel Metals & Resources Co. Ltd signed cooperation agreement with Beijing Sweet Sorghum Technology Development Co., Ltd

7月27日，中钢冶金资源有限公司与北京桑梁技术发展中心举行合作协议签约仪式。中钢冶金与北京桑梁将在山东德州合作建设“集种植、养殖、加工、沼气为一体的生态村庄”示范基地，响应“联合国人人享有可持续能源”的倡议和我国“新城镇、新能源、新生活”行动计划，建立将科研成果转化为生产力的商业运营模式并在国内外加以推广。本次合作是中钢冶金开展跨界经营的探索和实践。双方的合作特别注重四个有效结合：一是将核心专有技术与商业价值开发相结合；二是将经济效益实现与社会责任承担相结合；三是将国内科研成果与国外市场开发相结合；四是将企业自身努力与利用国家政策支持相结合。

On Jul. 27, Sinosteel Metals & Resources Co. Ltd and Beijing Sweet Sorghum Technology Development Co., Ltd held cooperation agreement signing ceremony. The two companies will cooperate to build "planting, breeding, processing, and marsh gas integrated eco-village" demonstration base in Dezhou, Shandong, respond to the UN initiative of "Sustainable Energy" and Chinese action plan of "new town, new energy, and new life", create the commercial operation pattern by which scientific achievements are converted to productive forces and spread it abroad. The cooperation is the exploration and practice for Sinosteel Metals & Resources to carry out cross-boundary operation. Cooperation of the two parties put a special emphasis on the following four effective combinations: 1. core proprietary technology and commercial value development; 2. economic benefits realization and social responsibility taking; 3. domestic research achievements and foreign market development; 4. enterprise efforts and national policy supports.



H 真情回馈社会

honestly feedback the society

精准扶贫 慈心为民

Provide targeted poverty alleviation, serve for people with compassion

中钢集团从 2010 年定点扶贫内蒙古自治区翁牛特旗，多年来一直高度关注支持翁牛特旗的脱贫发展工作，以实实在在的行动帮困扶贫，为当地带来了可喜变化。

Since 2010 Sinosteel provided targeted poverty alleviation in Ongniud Banner, Inner Mongolia Autonomous Region, it has highly regarded poverty alleviation and development of Ongniud Banner for many years, helped poverty alleviation with down-to-earth actions and brought gratifying change to local area.

翁牛特旗位于内蒙古赤峰市中部，属于国家级贫困县。当地自然条件较差，沙化土地面积占总土地面积的 40.8%；地处偏远，水电路等基础设施较差；一些地区农牧业生产条件落后，抵御自然灾害能力弱。在与地方多次沟通、充分调研论证的基础上，2010 年至今，中钢集团从当地老百姓最现实、最困难的实际问题入手，累计投入 250 万元支持翁牛特旗，为当地群众生产生活提供了便利：

Ongniud Banner lies at the middle part of Chifeng City, Inner Mongolia Autonomous Region, and is one of national-level poverty-stricken county. With sandy land area accounting to 40.8% total land area, natural conditions here are poor. The place is remote and lacks water and electricity etc. infrastructures; some areas have backward husbandry production conditions and weak ability to resist natural disasters. After multiple times of communication with local government and based on adequate research and argument, from 2010 to now, from the most practical and difficult real problems of local people, Sinosteel input 2.5 million Yuan in aggregate to support Ongniud Banner, providing convenience to local people for production and living:





2016 年，集团相关部门和企业负责人三次赴翁牛特旗实地考察，启动了“扶贫爱心专柜”计划，通过员工自愿购买当地土特产献爱心，力所能及支持扶贫县发展。

集团团委向对口支持的新疆和田地区墨玉县普恰克乡巴什库都克拉村、和田地区皮山县木吉镇兰干村的青年之家项目支援 84042 元。

向大兴区农民工子弟学校“蒲公英中学”捐助了 6 套乒乓球台及部分职工捐献的书籍、体育和生活用品。

the relevant Sinosteel department and enterprise leaders went to Ongniud Banner for field study for three times. They initiated "special cabinet representing love in poverty alleviation" plan at the end of the year, by which employees may voluntarily buy local special products to make donation and support development of the impoverished county within their power.

CCYL committee of Sinosteel donated 84042 Yuan to the youth hotel program of Bashikudukela Village of Puqiak Town, Moyu County, Hotan District, and Langan Village of Muji Town, Pishan County, Hotan district, Xinjiang.

It also donated 6 table tennis tables and part of books, sports and living goods donated by employees to peasant laborer dependent's school in Daxing District "Pugongying Middle School".

84042
元
青年之家项目支援
Youth House project
support 84042 yuan



抢险救灾 支援一线

Do rescue and relief work and go to first line to provide help

一方有难，八方支援。在遇到自然灾害时，集团牢记央企责任，积极投身抗灾救援第一线。

When disaster struck, help came from all sides. When natural disaster happens, Sinosteel bear in mind central enterprise responsibilities and actively go to the first line of disaster area for relief.

CASE 中钢邢机组织力量支援灾区
Sinosteel Xingtai Machinery&Mill Roll Co., Ltd organized strength to go to disaster area for help provision

7月26日下午，满载着 5000 余名中钢邢机干部职工深情厚谊的“中钢邢机抗洪抢险机械队”来到了遭受“7.19”特大强降雨袭击重灾区的大贤村、景家屯、郝麻村，帮助当地群众开展灾后重建工作。



In the afternoon of Jul. 26, "machinery team for flood-fighting and emergency rescues of Sinosteel Xingtai Machinery&Mill Roll Co., Ltd", which filled with profound sentiments of friendship of more than 5000 employees, arrived at Daxian Village, Jingjiatun Village, and Haoma Village- severely afflicted area of "7.19" heavy rain attacks to help local development carry out post-disaster reconstruction.



“7.19”特大强降雨属于百年一遇，使邢台市相关区域遭受严重损失。中钢邢机在开展生产自救的同时，迅速成立抗洪救灾机械化队，全力以赴支援灾后重建。企业积极协调，组织钩机、铲车、翻斗车、拖拉机、客货车、洒水车等 50 多辆，奔赴灾区，开展清淤，26 日晚工作到次日凌晨 1 点多。同时，企业组织了 100 余名身强力壮的青年志愿者，从 25 日开始，每天到开发区王快、南市、南市屯、河会等村庄，与当地受灾群众共同开展清淤和装沙袋护堤等工作。据了解，此次中钢邢机投入的救灾力量，是邢台市企业参与救灾工作中安排车辆最多、组织最严密、效率最高的企业。



"7.19" heavy rain is the once-in-a-century rain, the affected areas of Xingtai suffered severe loss therefrom. At the same time of making self-help production, Sinosteel Xingtai Machinery&Mill Roll Co., Ltd fast set up machinery team for flood-fighting and emergency rescues to spare no effort to support post-disaster reconstruction. Sinosteel actively coordinate and organize more than 50 excavators, forklifts, tilting carts, tractors, trucks and passenger cars, and sprinklers, etc. to go to the disaster for dredging, all of which worked from night of Jul. 26 to after 1:00 am the second day. Meanwhile, Sinosteel organized 100 plus sturdy young volunteers to go to Wangkuai, Nanshi, Nanshitun, and Hehui etc. villages in the development zone everyday from Jul. 25 to carry out dredging and sandbag embankment etc. works with local people together. It is known that disaster relief forces input by Sinosteel Xingtai Machinery&Mill Roll Co., Ltd this time made it be the enterprise arranging most vehicles and boasting most careful organization and highest efficiency in all Xingtai enterprises participating in the relief work.



志愿服务 爱心传递 Voluntary service, and love transmission

集团积极倡导“平等、博爱、奉献”的志愿者精神，号召广大员工积极参与多种形式的志愿服务活动中。

Sinosteel actively proposed "equal, caritas, and dedication" volunteer spirit and called upon all employees to actively participate in different forms of volunteer service activities.

CASE 爱心无价，献血光荣 Love is priceless and blood donation is glorious

为纪念“5.12”汶川大地震，弘扬大灾面前的志愿精神，中钢马矿院团委组织青年员工开展无偿献血活动，以实际行动传递爱心、弘扬志愿精神、履行央企社会责任。本次现场献血总计达 4300 毫升。

To commemorate "5.12" Wenchuan great earthquake and carry forward volunteerism in front of big disaster, CCYL committee of Sinosteel Maanshan Institute of Mining Research organized young employees to carry out blood donation activity, pass love using practical actions, carry forward the spirit of volunteerism, and implement central enterprise social responsibilities. Blood donation this time reach 4300 ml in aggregate.



CASE 中钢集团郭明义爱心团队走进蒲公英中学 Sinosteel Guo Mingyi loving team entered Pugongying Middle School

蒲公英中学是北京一所专门为农民工子女开办的非营利、公益性平民学校。该校成立于 2005 年，实现了 2000 余名外来务工人员子女的梦想，并成功培养出多名优秀学子。

2016 年起，中钢集团积极组织员工为蒲公英中学进行捐赠活动，号召大家将子女不用的相关书籍、资料捐出来，为在京务工农民子女健康成长尽一份力量。此外，中钢集团郭明义爱心团队的志愿者们来到蒲公英中学，将募集的物资交给学校，并与一些班级进行了主题为“钢铁是怎样炼成的”的科普交流。交流中同学们踊跃参与讨论，积极开拓思维，面对神奇的钢铁世界，同学们都表现出非常浓厚的兴趣，一时间欢声笑语填满整个课堂。



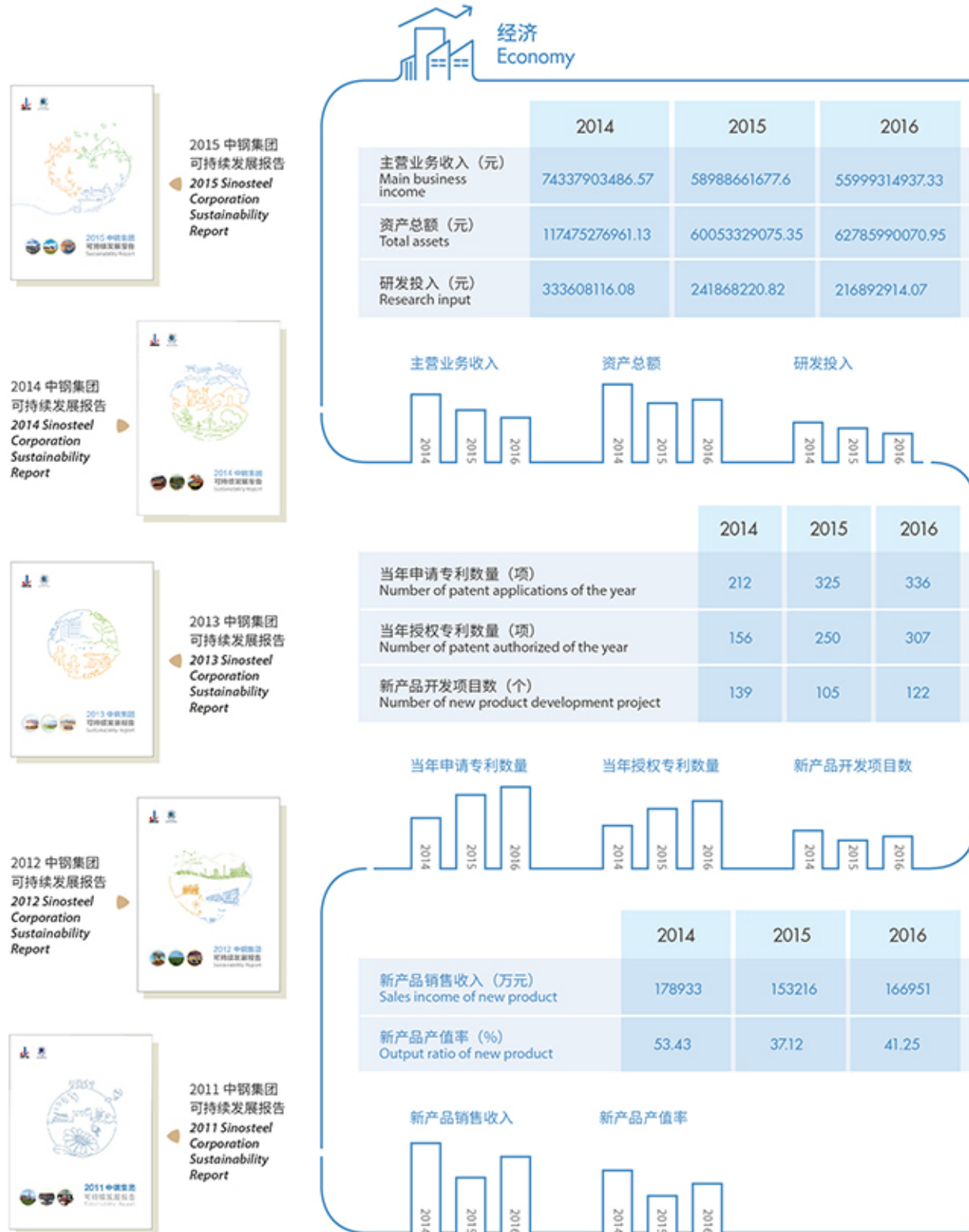
Pugongying Middle School is one non-profit, public welfare school in Beijing specially opened for peasant laborers' children. The school was built in 2005, has helped 2000 plus peasant laborers' children to get study in school, and has cultivated many excellent students.

From 2016, Sinosteel actively organized employees to make donation to Pugongying Middle School, called on them to donate the relevant books not used any more by their children and make their contribution to the healthy growth of Beijing peasant laborers' children. In addition, volunteers of Sinosteel Guo Mingyi loving team went to Pugongying Middle School to provide to the school collected articles by donation and make science dissemination communication themed by "How the Steel Was Tempered" with some classes. Amid the communication, students actively took part in discussion and expanded thoughts, facing amazing steel world, they showed very thick interest and a whole classroom was filled with happy laughters and cheerful voices then.

实现了 **2000** 余名
外来务工人员子女的梦想
Helped 2000 plus peasant
laborers' children to get
study in school



关键绩效表 KEY PERFORMANCE TABLE



2015 中钢集团
可持续发展报告
2015 Sinosteel
Corporation
Sustainability
Report



2014 中钢集团
可持续发展报告
2014 Sinosteel
Corporation
Sustainability
Report



2013 中钢集团
可持续发展报告
2013 Sinosteel
Corporation
Sustainability
Report

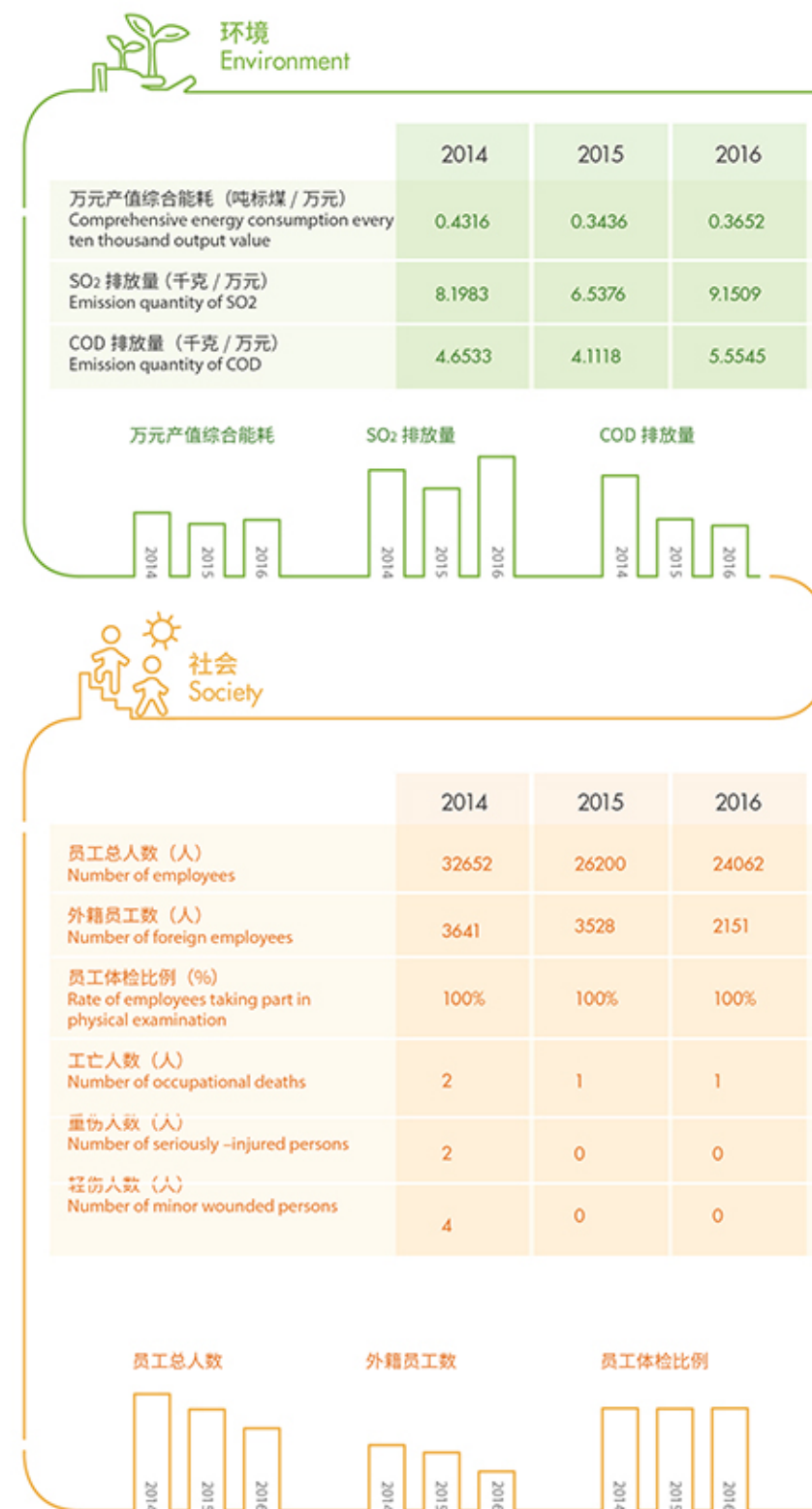


2012 中钢集团
可持续发展报告
2012 Sinosteel
Corporation
Sustainability
Report



2011 中钢集团
可持续发展报告
2011 Sinosteel
Corporation
Sustainability
Report

2016 中钢集团可持续发展报告
Sinosteel Corporation Sustainability Report



2009 中钢集团
可持续发展报告
2009 Sinosteel
Corporation
Sustainability
Report



2008 中钢集团
可持续发展报告
(中文版)
2008 Sinosteel
Corporation
Sustainability
Report (Chinese
Version)



2005-2007 中
钢集团可持续发展
报告 (中文版)
2005-2007
Sinosteel
Corporation
Sustainability
Report (Chinese
Version)



中国中钢集团
可持续发展非洲
报告
Sinosteel
Corporation
Sustainability
Africa Report
(Chinese
Version)



非洲报告
(英文版)
Sinosteel
Corporation
Sustainability
Report
(English)

报告评级 REPORT RATING

报告指标索引

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意见反馈表
FEEDBACK FORM

尊敬的读者：

非常感谢您阅读《2016 中钢集团可持续发展报告》。
为了提高我们社会责任的工作水平，恳请您对我们的
报告就以下几方面提出宝贵意见和建议。

Respected readers

We want to express out gratitude to your time in reading
Sinosteel Corporation Sustainability Report 2016.
Considering the intention of improving our working level
in aspect of social responsibility, we earnestly request you
to put forward your valuable opinions and suggestions
on our report in the following aspect.

● 报告整体评价（请在相应位置打“√”）

Overall evaluation report (please "√" in the appropriate location)

1、本报告全面、准确地反映了中钢集团的社会责任工作现状

This report fully and accurately reflects the status of social responsibility Steel Group

☐ 很好 / very good ☐ 较好 / good ☐ 一般 / General ☐ 较差 / poor ☐ 很差 / general

2、本报告对利益相关方所关心的问题进行了回应和披露

This report on the issues of concern to stakeholders to respond and disclosure

☐ 很好 / very good ☐ 较好 / good ☐ 一般 / General ☐ 较差 / poor ☐ 很差 / general

3、本报告披露的信息数据清晰、准确、完整

Information and data disclosed in this report cleaning, accurate and complete

☐ 很好 / very good ☐ 较好 / good ☐ 一般 / General ☐ 较差 / poor ☐ 很差 / general

4、本报告的可读性，即报告的逻辑主线、内容设计、语言文字和版式设计

Readability of the report, that the logic of the main report, content design, and layout design language

☐ 很好 / very good ☐ 较好 / good ☐ 一般 / General ☐ 较差 / poor ☐ 很差 / general

● 您认为还有哪些您需要的信息在本报告中没有反映？

What other information do you think you need is not reflected in this report?

● 您对我们今后的社会责任工作及社会责任报告发布有何建议？

You are the future of our social responsibility and social responsibility report released any suggestions?

如果方便，请告诉我们关于您的信息：

If convenient, please tell us about your:

姓名 / Name:

职业 / Occupation:

机构 / Zip Code:

联系地址 / Address:

邮编 / Zip Code:

E-mail:

电话 / Tel:

传真 / Fax:

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