



中国中铁股份有限公司
CHINA RAILWAY GROUP LIMITED

永远的
开路先锋

2023年度

Environmental, Social and Governance Report
and Social Responsibility Report of CREC
环境、社会与管治报告暨社会责任报告

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报告编制说明

Preparation of This Report

报告范围

本报告为公司第16份社会责任报告，披露范围涵盖了
中国中铁股份有限公司及全级次控股实体子公司在履
行经济、环境、社会和公司治理方面责任的信息。典
型案例均来自所属企业。报告时间跨度为2023年1月1
日至12月31日，适当关注了2023年以前公司履行社会
责任的情况。

发布周期

年度报告。

参考依据

- 报告编写参照联合国全球契约颁布的“十大原则”
- 全球报告倡议组织《可持续发展报告标准》
- 中国国家标准GB/T36000-2015《社会责任指南》
- GB/T36001-2015《社会责任报告编写指南》
- GB/T36002-2015《社会责任绩效分类指引》
- 国务院国资委《关于中央企业履行社会责任的指导意见》
- 上海证券交易所《上市公司环境信息披露指引》
- 香港联合交易所《环境、社会及管治报告指引》

数据说明

报告披露的财务数据来自公司财务报告，如与公司
年度报告有出入，以年度报告为准，其他数据来自
公司内部统计。

称谓说明

为便于您的阅读，中国中铁股份有限公司在本报告中
以“中国中铁”“公司”“我们”等方式进行表述。

Reporting scope

This is CREC's 16th social responsibility report with the disclosure scope covering information on performance of responsibilities in economy, environment, society and corporate governance by China Railway Group Limited and its holding entities at all levels. All cases are from enterprises under CREC. With the time span of 1st January to 31st December of 2023, this report pays due attention to how the CREC fulfilled its social responsibility before 2023.

Reporting frequency

Yearly report.

References

- “The Ten Principles” promulgated by the UN Global Compact
- GRI (Global Reporting Initiative) Standards
- Chinese National Standard GB/T36000-2015: Guidance on Social Responsibility
- GB/T36001-2015: Guidance on Social Responsibility Reporting
- GB/T36002-2015: Guidance on Social Responsibility Performance Classification
- SASAC of the State Council's Guiding Opinions on Performance of Social Responsibilities by Central Enterprises
- Guidelines on Environmental Information Disclosure by Companies Listed on the Shanghai Stock Exchange
- The Environmental, Social and Governance Reporting Guide of the Stock Exchange of Hong Kong Limited

Explanation of the information

The financial information disclosed in this report is derived from the Company's financial statements. In case of discrepancy between this report and the Company's annual report, the latter shall prevail. Other information is derived from the Company's internal statistics.

Title description

To facilitate your reading, China Railway Group Limited is described as “CREC”, “the Company” and “We/us” in this report.



改进说明

本报告依据香港联合交易所发布的《香港联合交易所有限公司证券上市规则》附录二十七《环境、社会及管治报告指引》编制，并以其载列的四项汇报原则——重要性、量化、平衡及一致性，作为本报告的撰写基础。

重要性原则：我们按照香港联合交易所《环境、社会及管治报告指引》要求，已开展利益相关方参与及重要议题识别，并参考识别结果界定报告内容与范围。具体内容参见本报告“利益相关方沟通和关键议题重要性评估”。

平衡性原则：本报告客观披露正面与负面信息，确保内容不偏不倚地呈报本报告期内公司的ESG表现。

一致性原则：除另有注明外，本报告与公司往年ESG报告披露范围一致，所使用的披露统计方法与往年一致。

本报告根据利益相关方的反馈和当前国内外ESG领域热点议题，根据公司发展实际，分“管治篇”“环境篇”“社会篇”对公司ESG各主要议题的绩效及履行企业社会责任进行汇报。

本报告增设了“践行‘三个转变’重要指示”“助力乡村振兴”“高质量共建‘一带一路’”3个专题，充分展示公司积极担当央企责任，在国家可持续发展和构建人类命运共同体中发挥的作用。

报告承诺

本公司董事会及全体董事保证本报告内容不存在任何虚假记载、误导性陈述或重大遗漏，并对其内容的真实性、准确性和完整性承担个别及连带责任。

Explanation of improvement

This report is compiled in accordance with Appendix 27 the Environmental, Social and Governance Reporting Guidelines of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited issued by Hong Kong Stock Exchange, and is based on the four reporting principles thereof—Materiality, quantification, balance and consistency.

Materiality: In accordance with the requirements of the Environmental, Social and Governance Reporting Guidelines of the Stock Exchange of Hong Kong, we have conducted stakeholder engagement and identification of key issues, and defined the content and scope of the report with reference to the results of the identification. For details, please refer to “Communication with stakeholders and materiality evaluation” in this report.

Balance: This report objectively discloses both positive and negative information to ensure that it presents the ESG performance of the Company during the Reporting Period in an unbiased manner.

Consistency: Unless otherwise stated, the scope of disclosure in this report is consistent with that of previous ESG reports, and the statistical methods used are consistent with those used in previous years.

Based on the feedback from our stakeholders and the hot topics of different ESG areas in China and abroad, and in line with the status of development of the Company, we prepared this report in three chapters, the “governance section”, “environment section” and “society section” to illustrate the performance of major ESG topics and the Company’s corporate social responsibility.

Three special sections are added in this report, i.e., “Implementing the important instructions of ‘Three Transformations’”, “Help Rural Revitalization”, “Joint construction of the ‘Belt and Road’ with high quality”, and, fully demonstrating that the Company has fulfilled its responsibilities as a central enterprise and the role it has played in the sustainable development of China and the construction of community of shared future for mankind.

Undertakings in this report

The Board of Directors and all directors of the Company ensure that there is no false record, misleading statement or major omission in this report and they will bear individual and joint liabilities for the authenticity, accuracy and integrity of the contents.



董事长致辞

Chairman's Statement



2023年是全面贯彻党的二十大精神开局之年，是中国中铁发展承上启下、继往开来的关键一年。一年来，我们以习近平新时代中国特色社会主义思想为指导，认真学习贯彻党的二十大精神，聚焦新时代新征程中央企业新使命新定位，不断提高核心竞争力、增强核心功能，切实发挥在建设现代化产业体系、构建新发展格局中的科技创新、产业控制、安全支撑作用，各项经济指标再次刷新历史最好成绩，开创了公司加快建设世界一流企业的新局面。

一年来，我们胸怀“国之大者”，高举中国中铁“开路先锋”大旗，积极服务国家战略，聚焦重点领域和关键项目，高质量建成深中通道、京雄高速公路、贵南高铁、沿江高铁等一大批标志性工程。积极响应高质量共建“一带一路”倡议，参与建设

2023 marked the first year of the implementation of the guiding principles of the 20th CPC National Congress, and was a crucial year for the development of China Railway on the way to continue the past and move ahead. In the past year, we, guided by the Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, learned the essences of the 20th CPC National Congress, and focused on the new mission and new position as a central enterprise in the new era and on the new expedition. We continued to enhance the core competitiveness and strengthen core functions, and gave a full play to the roles of technological innovation, industrial control and security support in constructing the modern industrial system and building a new development pattern. We made the history-ever best records for various economic indicators and drew a picture for the Company to build a world-class enterprise at a faster pace.

Over the past year, we cherished the mission of “building a power nation”, held high the flag of China Railway as an “industry pioneer” and actively served national strategies. We focused on key fields and major projects and completed a cluster of landmark projects, including Shenzhen-Zhongshan Bridge, Beijing-Xiongan Expressway, Guiyang-Nanning High-speed Railway and Shanghai-Chongqing-Chengdu High-speed Railway, with high quality. We



的雅万高铁、孟加拉帕德玛大桥铁路连接线、刚果（金）布桑加水电站、柬埔寨暹粒吴哥国际机场等一批海外代表性工程相继投入使用。不断拓展水利水电、清洁能源、生态环保、城市运营等“新赛道”，“第二曲线”发展势头强劲，形成企业增长新支撑。认真落实“绿水青山就是金山银山”理念，加快发展方式绿色转型、落实全面节能减排战略，参与建成全国首座综合性、示范性、集成性的智能化大型现代生态海洋牧场综合体平台“耕海1号”二期项目；参与完成国家重大水利工程——引汉济渭工程，助力长江黄河在关中“牵手”；在长江大保护、黄河流域生态保护、推广绿色建筑等方面作出积极贡献。在京津冀抗洪抢险、积石山6.2级地震抗震救灾等行动中，充分体现了央企责任担当。全力推进定点帮扶地区乡村振兴和援疆援藏工作，开展“央企消费帮扶迎春行动”，相关案例获国家发改委推介，获得中央企业定点帮扶工作成效考核评价最高等次。

2023年，中国中铁在世界500强排名39位，34项工程荣获鲁班奖，111项工程荣获国家优质工程奖，16项工程荣获詹天佑奖，18项工程荣获李春奖，彰显了企业雄厚实力。

2024年，中国中铁将一如既往地忠实履行企业使命，以高质量发展的实际行动和成效，为全面推进强国建设、民族复兴伟业作出新的更大贡献！

董事长：陈云
2024年3月

actively echoed the strategy of implementing “the Belt and Road” Initiative with high quality, and participated in a batch of foreign representative projects that have successively come in use, such as the Jakarta-Bandung high-speed railway, the railway connection project of the Padma Bridge in Bangladesh, the Busanga hydropower station in the Democratic Republic of the Congo and the Siem Reap Angkor International Airport in Cambodia. We continuously marched into “new racetracks” like water conservancy, hydropower, clean energy, ecology and environmental protection and urban operation, and the “second curve” displayed a strong momentum of development and constituted a new growth support of the Company. We carefully carried out the concept of “lucid waters and lush mountains are invaluable assets”, accelerated the green transformation of the development pattern and implemented the comprehensive energy saving and emission reduction strategy and participated in the implementation of phase II of “Genghai 1”, the first comprehensive, demonstrative, integrated, intelligent large-sized modern ecological ocean farm complex platform. We participated in the Hanjiang-Weihe Water Conversion Project, a major water conservancy project of the state that has helped the Yangtze River and the Yellow River to “join hands” in the Guanzhong Plain. Also, we made a positive contribution to the overall conservation of the Yangtze River, the ecological conservation in the Yellow River basin and promotion of clean building. We fully demonstrated the responsibility and mission as a central enterprise in the flood control and relief in Beijing, Tianjin and Hebei, the disaster relief and combat against the 6.2-magnitude earthquake hitting Jishishan, and other actions. We made every possible effort to aid the rural revitalization in the designated region, Xinjiang and Tibet, and carried out the “Central Enterprise’s Consumption Support & Spring Welcome Action”. The related cases have been promoted by the National Development and Reform Commission, and we were awarded the highest level in the effect assessment of the designated region support by a central enterprise.

In 2023, China Railway ranked the 39th among the Fortune Global 500 and highlighted the great strengths with 34 projects that have won the Luban Prize, 111 projects that have won the National Quality Project Award, 16 projects that have won the Zhan Tianyou Prize and 18 projects that have won the Li Chun Prize.

In 2024, China Railway will as usual perform the corporate mission and make new greater contributions to the great cause of carrying forward the power nation construction and national revitalization.

Chairman: Chen Yun
March 2024

关于我们

About Us

公司简介

Company profile

中国中铁拥有120多年的历史渊源。以1894年山海关机器厂的成立为标志，中国中铁成为中国民族工业的先行者和铁路建设的开拓者。1909年参与建成了京张铁路，开启了中国铁路建设事业的先河。1950年6月，在新中国第一条铁路成渝铁路的开工典礼上，邓小平、贺龙等授予中国中铁建设者“开路先锋”旗帜。此后，中国中铁勇做“开路先锋”，逢山开路、遇水架桥，累积参建的工程占中国铁路总里程的2/3，占中国电气化铁路总里程的90%，占高铁总里程的55%，占中国城市轨道交通总里程的3/5，建造跨江跨海大桥1万多座，建造长大隧道2万多公里，20次赴南极承担建设维护任务。

中国中铁于2007年分别在上海、香港两地上市。目前已发展成为集勘察设计、施工安装、房地产开发、工业制造、科研咨询、工程监理、资本经营、金融信托、资源开发和外经外贸于一体的多功能、特大型企业集团，全球最大的建筑工程承包商之一。公司总资产18,294.39亿元，净资产4,599.02亿元。

公司经营范围覆盖到基础设施建设的全产业链，工程项目遍布中国除台湾省以外的各省市自治区以及全球90多个国家和地区，科技水平在诸多领域达到世界先进水平。

CREC has over 120 years of historical origin. With the establishment of the Shanhaiguan Machinery Plant in 1894 as a milestone, CREC has since become the forerunner of national industry and the pioneer of railway construction in China. We participated in and completed construction of the Beijing-Zhangjiakou Railway in 1909, setting the precedent for China's railway construction. In June 1950, Deng Xiaoping and He Long conferred the construction workers of CREC the flag of "Trailblazer" at the commissioning ceremony of Chengdu-Chongqing Railway, the first railway in New China. Since then, to live up to that title, CREC has been committed to cutting a way through when confronted by mountains and building a bridge when blocked by a river. The projects it has participated in cumulatively account for 2/3 of the total mileage of Chinese railways, 90% of the total mileage of Chinese electrified railways, 55% of the total mileage of high-speed railways, and 3/5 of the total mileage of Chinese urban rail projects. We also built more than 10,000 river – and sea-crossing bridges, over 20,000 kilometers of tunnels, and made 20 trips to Antarctica for construction and maintenance tasks.

CREC went listing respectively in Shanghai and Hong Kong in 2007. Currently it has developed into an extremely large multi-functional enterprise group engaged in survey and design, construction and installation, real estate development, industrial manufacturing, scientific research and consulting, engineering supervision, capital management, financial trust, resource development and foreign economy and trade. It is one of the largest construction contractors in the world with total assets of RMB1,829.439 billion and net assets of RMB459.902 billion.

CREC's business scope covers the whole industrial chain of infrastructure construction, with projects spreading all over China's provinces and autonomous regions except for Taiwan and more than 90 countries and regions in the world. The technological level in many areas has reached the world's advanced level.





企业价值观 Corporate values

企业使命
Corporate Mission

中国建造 铁肩担当
China Build and Iron Shouldering

企业愿景
Corporate Vision

具有全球竞争力的世界一流
综合型建筑产业集团
A world-class comprehensive
construction industry group
with global competitiveness

企业核心价值观
Corporate Core Value

守正创新 行稳致远
向上向善 勇争一流
Building upon core businesses while
continuing to innovate Maintaining
steady growth in a far reaching way
Upward for good and improvement
and Bravely striving for first-class

企业精神
Corporate Spirit

勇于跨越 追求卓越
Brave to Overcome Difficulties and Pursuit for Excellence

永远的
开路先锋



社会评价

Assessment by the society

连续**18**年进入《财富》**世界500强**排名，
列第**39**位

Being named in "Fortune" for 18 consecutive years,
ranked 39th among the Fortune Global 500

连续**10**年

被国务院国资委评定为业绩考核**A**类企业

Accredited class A enterprises for performance
appraisal by the SASAC of the State Council for
10 consecutive years

连续**10**年

获上交所信息披露工作评价**A**级

Accredited class A enterprises for evaluation of
information disclosure by SSE for 10 consecutive years

《工程新闻记录》(ENR) **“全球承包商250强”**

排名，列第**2**位

Ranked No. 2 among ENR's "Top 250"

“中国企业500强” 排名列第**10**位

Ranked No. 10 among "Top 500 Enterprises of China"

首次入选国务院国资委

“中央企业品牌建设TOP30排行榜”

First shortlisted in the SASAC's

"Top 30 Chinese Central State-owned Enterprises by Brand Building"

连续**5**年蝉联《新财富》

“最佳IR港股公司（A+H股）”

Being the "Best IR Hong Kong Listed Company (A+H)"
by New Fortune for five consecutive years

社会责任规划

Planning of social responsibilities

作为建筑行业的领军企业，中国中铁始终以成为企业社会责任的实践者、推动者和引领者为己任。自2008年起，开始着手建立科学、规范、系统、有效的企业社会责任管理体系，从公司总部到各子公司全面开展了一系列社会责任管理实践活动，以实现全面覆盖、充分履行、日臻完善、行业领先的社会责任目标，为社会持续提供不可替代的杰出贡献。

As a leader in the construction industry, CREC never forgets its mission of becoming a practitioner, promoter and pioneer of corporate social responsibility. CREC started to construct a scientific, standardized, systematic and effective management system of corporate social responsibilities in 2008, rolling out a series of social responsibility management activities covering its headquarters and subsidiaries in order to achieve the goals of comprehensive coverage, down-to-earth implementation, steady perfection and industrial leading, and make continuous and irreplaceable contributions to the society.

入选中国上市公司协会“**ESG**最佳实践奖”

Won the China Association for Public Companies' "ESG Best Practice Award"

中国上市公司协会以及北京上市公司协会

“上市公司**ESG**最佳实践2023”

Won the "ESG Best Practice Cases of Listed Companies 2023" of the China Association for Public Companies (CAPCO) and the Listed Companies Association of Beijing (LCAB)

入选中国企业改革与发展研究会

“中国企业**ESG**优秀案例”

China Enterprise Reform and Development Society "ESG Excellent Cases of Chinese Enterprises"

入选国务院国资委

“央企**ESG·先锋100**指数”

Selected in the "State-owned Enterprises ESG Pioneer 100 Index" by the SASAC of the State Council

大公文汇“最佳上市公司**ESG**实践奖”

Won the "ESG Practice Award for Listed Companies" of HKTKWW

《证券时报》“中国上市公司**ESG100**强”

Won the Securities Times – "Top 100 ESG Listed Companies"

《财经》杂志长青奖“**可持续发展普惠奖**”

Won the "Sustainable Development Exclusive Award" of Caijing Evergreen Award

中证ESG评级“**AAA**”

CSI ESG rating "AAA"

MSCI ESG评级“**B**”

MCSI ESG rating "B"



利益相关方沟通和关键议题重要性评估

Communication with stakeholders and materiality evaluation

中国中铁通过与各利益相关方多渠道的沟通，积极了解其对公司履行企业社会责任的期望和要求，力求在提升自身ESG表现的同时，切实回应和满足利益相关方需求。

Through multi-channel communications with its stakeholders, CREC carefully listens to their expectations and requirements on its fulfillment of corporate social responsibilities, aiming to quickly respond to and meet their needs while actively improving our performance.

	利益相关方说明 Description of Stakeholders	沟通方式或渠道 Communication Channels
政府及监管机构 Government and regulatory authorities	税务、环保、安全等部门、地方政府、证监会等监管机构 Tax, environmental and security authorities, local government, CSRC	政策执行、公文往来、信息报送、机构考察、参加相关会议、专题会议、日常工作会议、信息披露等 Implementation of policies, official documents, reporting, inspection, participating in relevant meetings, dedicated meetings, routine meetings, information disclosure
股东及投资者 Shareholders and investors	对中国中铁进行合法股权、债券投资的投资人 Investors with legal investments in the equity interests and securities of CREC	股东大会、企业年报、业绩发布、公司网站、信息披露、日常接待、电话答疑等 Shareholders' meeting, annual reports, results announcement, corporate website, information disclosure, visit reception, telephone inquiry
客户 Customers	通过购买中国中铁的产品或服务，与中国中铁有直接的经济关系的企业或个人 Enterprises and individuals with direct economic connections with CREC through buying its products or services	服务热线、售后服务、座谈与走访等 Service hotline, after-sales services, meetings and visits
供应商 Suppliers	向中国中铁合法提供产品或服务的企业或个人 Enterprises and individuals legally providing products or services to CREC	公开招标程序、合同谈判、日常业务交流等 Public tenders, contract negotiation, daily business exchanges
合作伙伴 Partners	与中国中铁达成合作共识的企业或机构 Enterprises and individuals entering into cooperation with CREC	合作谈判、日常工作会议等 Cooperation negotiations, regular meetings
员工 Employees	与中国中铁签订正式劳动合同及常年服务于中国中铁业务的人员 Individuals entering into formal labor contracts with CREC and serving it full-time	工会、职工代表大会、员工手册、员工活动、员工培训等 Trade union, employee representatives' meeting, staff manual, staff activities, staff training
社区及公众 Community and public	运营所在地社区、社会公众、非营利组织等 Communities in which CREC operates, social public and non-profitable organizations	社区活动、员工志愿者活动、公益活动、社会事业支持等 Community activities, voluntary activities, public welfare activities, social cause support
高校及科研机构 Colleges and R&D institutes	与中国中铁建立合作关系的大学、学院、科研机构等 Colleges and R&D institutes in cooperation with CREC	公司招聘宣讲、员工进修、研讨会、学术交流等 Recruitment sessions, staff training, seminars, academic exchanges

在与利益相关方沟通的基础上，中国中铁对ESG实质性议题及行业热点议题进行了识别和重要性评估，将评估结果以关键议题重要性评估矩阵的方式呈现，并据此结果在本报告中对各项重要议题予以回应。

During the communication with its stakeholders, CREC has identified material issues of ESG and hot topics in the industry and evaluated their materiality, with the results presented in a matrix of materiality assessment and responded to all issues in this report based on the results.



董事会声明

Statement of the Board of Directors

中国中铁全面落实中共中央、国务院印发的《关于完整准确全面贯彻新发展理念做好碳达峰碳中和工作的意见》，国务院印发的《2030年前碳达峰行动方案》（国发〔2021〕23号），以及国务院国资委印发的《关于推进中央企业高质量发展做好碳达峰碳中和工作的指导意见》（国资发科创〔2021〕93号）等低碳发展有关文件精神，将绿色低碳高质量发展可持续发展放在企业发展战略目标的重要位置，从中长期发展战略高度谋划碳达峰、碳中和目标路径，并将环境、社会和管治元素纳入可持续发展、治理水平提升、业务发展策略的中长期规划当中。

董事会作为公司重要的领导角色，全面地负责督导、直接管理及监管公司的环境、社会和管治议题、风险及机会，并于批准ESG报告前了解及遵守最新监管要求。董事会认为，管理环境、社会和管治相关风险及机会对公司高质量可持续发展至关重要，董事会战略委员会及安全健康环保委员会亦定期审查相关制度体系运行成效，及是否涵盖重大环境、社会和管治问题的主要控制措施。同时，有效

CREC has fully implemented the Opinions on Completely, Accurately and Comprehensively Implementing the New development Concept and Doing a Good Job in Carbon Peak and Carbon Neutralization (《关于完整准确全面贯彻新发展理念做好碳达峰碳中和工作的意见》) issued by the Central Committee of the CPC and the State Council, and the Carbon Peaking Action Plan before 2030 issued by the State Council (《2030年前碳达峰行动方案》) (Guofa [2021] No. 23), and the Guiding Opinions on Promoting the High-quality Development of Central Enterprises and Doing a Good Job in Carbon Peak and Carbon Neutralization (《关于推进中央企业高质量发展做好碳达峰碳中和工作的指导意见》) (SASAC faKechuang [2021] No. 93) issued by the SASAC of the State Council and other documents related to low-carbon development. The Company puts green, low-carbon, high-quality sustainable development at an important position in the corporate development strategy, plans the path to carbon peaking and carbon neutrality from a medium and long-term development strategy, and incorporates environmental, social and governance elements into sustainable development in the medium and long-term planning for the improvement of governance level and business development strategy.

As an important leading role of the Company, the Board of Directors is fully responsible for supervising, directly managing and supervising the Company's environmental, social and governance issues, risks and opportunities, and understands and complies with the latest regulatory requirements before approving the ESG report. The Board of Directors believes that managing ESG-related risks and opportunities is critical to the Company's high quality and sustainable development. The Strategy Committee and Safety, Health and Environmental Committee of the Board





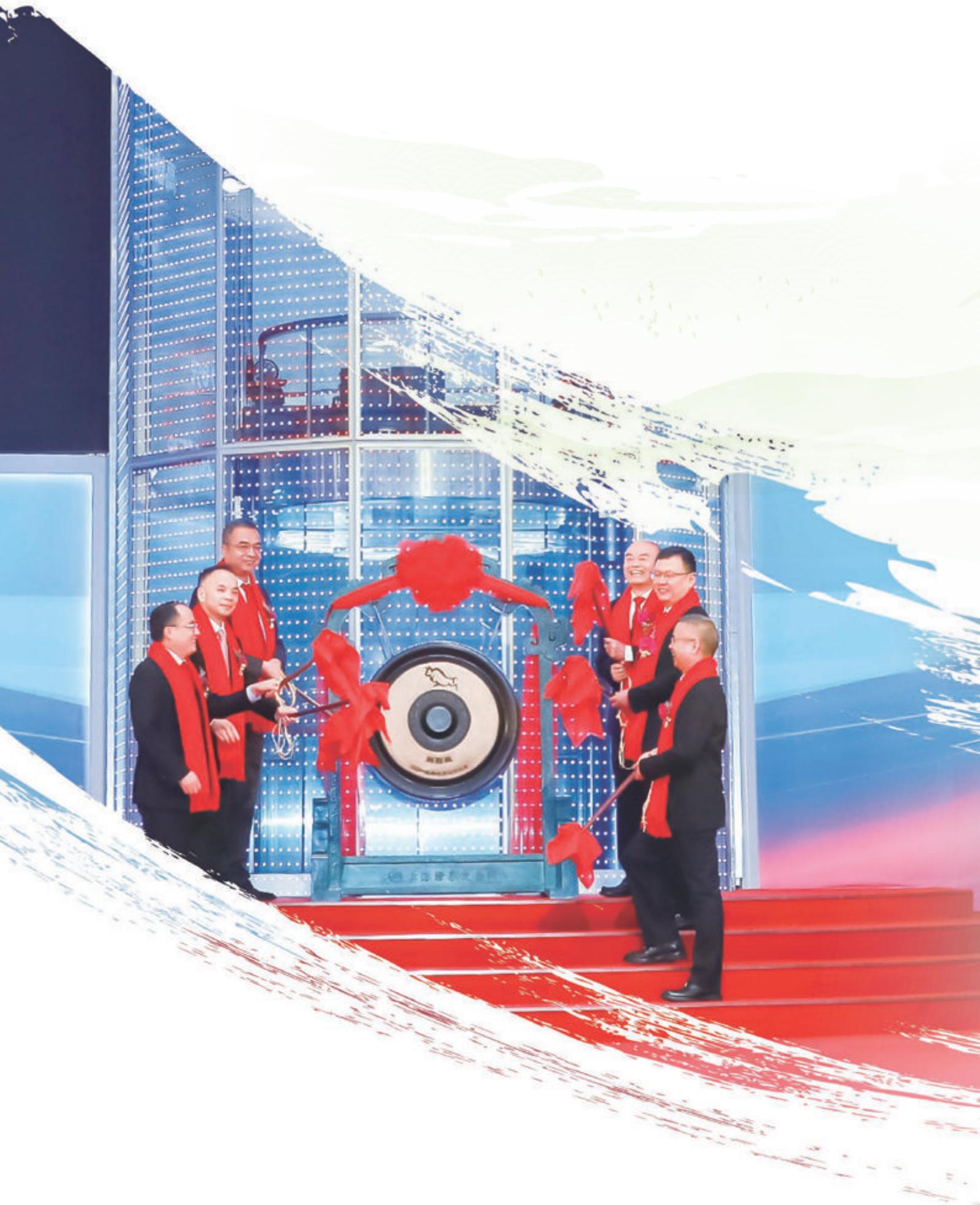
的环境、社会和管治政策实施有赖于不同部门的充分合作，依据《相关职能部门服务董事会专门委员会工作制度》，公司建立跨部门合作机制，并深入开展风险内控法律合规一体化建设，确保了所呈列数据及可持续发展措施的准确性、可靠性和及时性。此外，公司十分重视与投资者的沟通，定期检视与投资者间的沟通渠道和平台，并通过《市值管理情况报告》《资本市场观点汇总及管理建议》等，将收集到的主要投资者所关注的对公司业务有重大影响的议题向董事会反馈，确保公司能够实现合乎市场各主体所期望的表现。

展望未来，董事会将持续检讨及监督公司在环境、社会和管治方面的表现，继续为投资者提供可靠、一致、可作比较的重要环境、社会和管治资料，共同为实现绿色低碳高质量可持续发展的环境不断努力。

of Directors also review the effectiveness of the systems in place on a regular basis to see whether they cover the key controls for significant ESG issues. At the same time, the effective implementation of environmental, social and governance policies depends on the full cooperation of different departments. According to the Working System of Relevant Functional Departments Serving the Special Committee of the Board of Directors (《相关职能部门服务董事会专门委员会工作制度》), the Company has established a cross departmental cooperation mechanism and deeply carried out the integration of risk internal control and legal compliance to ensure the accuracy, reliability and timeliness of the data and sustainability measures presented. In addition, the Company attaches great importance to the communication with investors, regularly examines the communication channels and platforms with investors, and feeds back the collected issues of major investors that have a significant impact on the Company's business to the Board of Directors through the Report on Market Value Management (《市值管理情况报告》), Summary of Capital Market Views and Management Suggestions (《资本市场观点汇总及管理建议》), so as to ensure that the Company can achieve the performance expected by all market subjects.

Looking ahead, the Board of Directors will continue to review and supervise the Company's performance in environmental, social and governance, continue to provide investors with reliable, consistent and comparable important environmental, social and governance information, and work together to achieve a green, low-carbon, high-quality and sustainable development environment.







Governance

管治篇

公司治理
Corporate Governance

合规管理
Compliance Management

反腐倡廉
Anti-corruption

审计监督
Audit Supervision

规范关联方交易
Regulating Related Party
Transactions



公司治理

Corporate Governance

公司依据法律法规和国资监管、证券监管要求，构建并不断完善权责法定、权责透明、协调运转、有效制衡的公司治理机制。

治理架构

Governance structure

股东大会是公司的权力机构，是出资人行使股东权利的重要手段。公司董事会按照证券监管要求，全面、及时、准确公告股东大会通知、议案和决议，并报监管部门备案。公司股东大会会议的召集、提案、召开、表决和决议均由律师现场见证，并出具合法合规的法律意见。报告期内，公司召开股东大会会议1次，审议通过了与定期报告、利润分配等相关的13项议案。

董事会是公司的决策机构，对股东大会负责。截至报告期末，公司董事会由7名董事组成，其中执行董事3名，分别为董事长、执行董事、党委书记陈云，执行董事、党委副书记、总裁陈文健，执行董事、党委副书记、工会主席王士奇；非执行董事4名，分别为文利民、钟瑞明、张诚、修龙。董事会下设战略与投资、审计与风险管理、薪酬与考核、提名、安全健康环保5个专门委员会，其中战略与投资委员会、提名委员会和安全健康环保委员会委员外部董事占多数、审计与风险管理委员会和薪酬与考核委员会委员全部由外部董事担任。报告期内，董事会围绕“定战略、作决策、防风险”职能，召开董事会会议13次，审议通过议案及报告事项110项，作出决议78项。董事会各专门委员会通过认真研究审议专业性议题，为董事会决策提供智力支持和决策参谋。其中董事会战略与投资委员会召开会议7次，针对25项议案进行审议并提出意见建议，尤其是在主责主业调整、“十四五”总体发展规划及各专项业务发展规划中期评估与修编、ESG管理、市值管理、投资项目决策等方面发挥了积极作用；董事会审计与风险管理委员会充分发挥监督作用，召开会议6次，针对37项议案进行审议并提出意见建议，并重点对基础设施投资业务、房地产业务、现金流、

According to laws and regulations and the requirements of state-owned asset and security supervision, the Company builds and makes constant improvements to a corporate governance mechanism characterized by statutory and transparent powers and responsibilities, coordinated operation, and effective checks and balances.

The general meeting is the organ of power of the Company and the important means for investors to exercise the rights of shareholders. Pursuant to the requirements of security supervision, the Board of Directors of the Company announces the notices, proposals and resolutions to the general meeting comprehensively, promptly and accurately, and reports them to the regulatory authorities for the record. Lawyers witness the proposal, convening, voting, and resolution of the general meeting of the Company on the spot and put forward legal and compliant opinions. During the reporting period, the Company held 1 general meetings and considered and adopted 13 proposals relating to periodic reports, distribution of profits, etc.

The Board of Directors is the Company's decision-making body and is responsible for the general meeting. As of the end of the reporting period, the Board of Directors consists of 7 directors, including 3 executive directors, namely Chen Yun, Chairman, executive director and Party Secretary, Chen Wenjian, executive director, deputy Party Secretary and President and Wang Shiqi, executive director, deputy Party Secretary and Chairperson of the Labour Union, and 4 non-executive directors, namely Wen Limin, Chung Shui Ming, Zhang Cheng, Xiu Long. There are 5 special committees of strategy and investment, audit and risk management, remuneration and assessment, nomination as well as safety, health and environment under the Board of Directors, among which the majority of members of the strategy and investment committee, the nomination committee and the safety, health and environment committee are external directors, and all the members of the audit and risk management committee and the remuneration and assessment committee are external directors. During the reporting period, centering on the functions of "developing strategies, making decisions, and forestalling risks", the Board of Directors held 13 Board meetings, considered and adopted 110 proposals and reports, and made 78 resolutions. The special committees provide intellectual support and decision-making counsel to the Board of Directors through deliberations on professional issues. The Strategy and Investment Committee of the Board of Directors held 7 meetings and considered 25 proposals, and provided suggestions and opinions thereon, especially playing an active role in the adjustment of the main responsibility and main business, the "14th Five-Year" overall development plan and the medium-term evaluation and revision of each special business development plan, ESG management, market value management, investment project decision-making, etc.. The Audit and Risk Management Committee of the Board of Directors held 6 meetings and considered 37 proposals, and provided suggestions and opinions thereon to play its supervisory role, especially the suggestions and opinions on issues related

国际化经营等方面风险提出了意见建议，在强化公司财务管理和风险管理方面发挥了积极作用；董事会薪酬与考核委员会召开会议4次，针对10项议案进行审议并提出意见建议，并重点对高管绩效考核方案、限制性股票激励第一批次解除限售、收入分配制度等方面提出了意见建议，在加强公司薪酬管理与业绩考核工作方面发挥了积极作用；董事会安全健康环保委员会召开会议2次，针对3项议案进行审议并提出意见建议，在强化公司安全、质量、职业健康、环境保护工作方面发挥了积极作用。

监事会是公司的监督机构，本着对股东负责的态度，认真对公司财务和公司董事、高级管理人员履行职责的合法合规性进行监督。截至报告期末，公

to risks in infrastructure investment business, real estate business, cash flow, international operation and other aspects, exerting an active role in strengthening the Company's finance and risk management. The Remuneration and Assessment Committee of the Board of Directors held 4 meetings and considered 10 proposals, and provided suggestions and opinions thereon, especially the suggestions and opinions on executive performance evaluation plan, and the unlocking of the first batch of the restricted stock incentives and the income distribution system, playing an active role in strengthening the Company's compensation management and performance evaluation. The safety, health and environment committee of the Board of Directors held 2 meetings and considered 3 proposals, and provided suggestions and opinions thereon, playing an active role in strengthening the Company's performance in safety, quality, occupational health and environmental protection.

The Supervisory Committee is the Company's supervisory body, and in a responsible manner to shareholders, carefully monitors the Company's finance and the legal compliance of the Company's directors and senior management in performing their duties. As of the end of the reporting



2023年6月28日，中国中铁召开2022年年度股东大会，审议董事会工作报告、年度利润分配方案等议案
On 28 June 2023, CREC held its 2022 Annual General Meeting and considered and approved the report on the work of the Board, the annual profit distribution plan and other proposals

司监事会由4名监事组成，其中股东代表监事1名，为监事会主席贾惠平，职工代表监事3名，分别为李晓声、王新华、万明。报告期内，监事会根据《公司法》《证券法》《上市公司监事会工作指引》以及《公司章程》赋予的职责勤勉履职，召开监事会会议8次，审议通过了与定期报告、内部控制、利润分配等相关的48项议案。

公司经理层是公司的执行机构，组织生产经营日常工作，执行董事会决议和行使董事会授权事项决策权，定期向董事会报告生产经营情况、反馈决议执行情况。截至报告期末，公司设总裁1名、副总裁5名、总会计师1名、总工程师1名（由副总裁兼任）、总经济师1名、总裁助理1名。报告期内，公司经理层围绕“谋经营、抓落实、强管理”职能，构建大经营格局，推动经营工作高质量发展，积极应对挑战，不断抢抓机遇，纵深推进改革创新，持续加强风险防范，不断推动企业高质量发展迈上新台阶。

公司始终注重实现董事会成员多元化，以提升董事会决策效率和企业管治水平。根据沪港两地上市规则和监管规定，公司制定了《董事会成员多元化政策》并遵照执行。公司董事会现任7名董事中，3名执行董事具有丰富的建筑行业从业及管理经验，4名非执行董事分别在财务、建筑工程、设计等领域有着丰富的从业及管理经验，董事会成员的设置与组成符合多元化政策要求，也满足企业发展需要。在董事会成员多元化背景下，公司董事会积极构建民主议事氛围，严格落实议案票决制，充分发挥董事会成员结构多元化的优势，保障每位董事能够积极利用各自丰富的专业知识和管理经验参与公司治理，并对重大事项独立发表意见、进行决策。董事会成员多元化为提高公司治理水平，提高董事会决策科学性和有效性，维护公司整体利益和全体股东的合法权益，特别是保护中小股东利益发挥了重要作用。

period, the Company's Supervisory Committee is composed of 4 supervisors, including 1 shareholder representative supervisor, namely Jia Huiping, Chairman of the Supervisory Committee, and 3 employees' representative supervisors, including Li Xiaosheng, Wang Xinhua, and Wan Ming. During the reporting period, within the scope of the responsibilities conferred by the Company Law (《公司法》), the Securities Law (《证券法》), Work Guidelines for Supervisory Committees of Listed Companies (《上市公司监事会工作指引》), and the Articles of Association, the Supervisory Committee diligently fulfilled its duties, held 8 meetings, and considered and adopted 48 proposals relating to periodic reports, internal control, profit distribution, etc.

As the Company's executive body, the Management organizes the daily work of production and operation, implements the resolutions of the Board of Directors, exercises the decision-making power authorized by the Board of Directors, regularly reports the production and operation to the Board of Directors, and feeds back the implementation of resolutions. As of the end of the reporting period, the Company has 1 president, 5 vice presidents, 1 general accountant, 1 chief engineer (concurrently serving as the Company's vice president), 1 chief economist, and 1 assistant to the president. During the reporting period, focusing on "seeking to operate, ensuring implementation and strengthening management", the Company's Management promoted high-quality development of operation with a big picture in mind, addressed challenges and seized opportunities, promoted reform and innovation in depth, continuously strengthened risk prevention, and pushed high-quality development of the enterprise to a new level.

The Company always pays attention to the diversity of Board members to improve Board decision-making efficiency and corporate governance. According to the listing rules and regulatory requirements of Shanghai and Hong Kong, the Company has formulated and implemented a "Board Diversity Policy". The Company's Board of Directors currently has 7 directors, of which 3 executive directors have extensive experience in the construction industry and management, and 4 non-executive directors have extensive experience in practice and management in finance, construction engineering, design, and other fields. The establishment and composition of Board members meet the requirements of the Board Diversity Policy as well as the needs for corporate development. Under the background of the diversification of Board members, the Company's Board of Directors actively builds a democratic deliberative atmosphere, strictly implements the voting system, and fully utilizes the advantages of the diversified Board members' structure. This aims to ensure that each director can actively make use of his or her rich professional knowledge and management experience to participate in corporate governance, and express opinions and make decisions on major issues independently. The diversification of Board members plays an important role in improving the level of corporate governance, enhancing the scientific and effective decision-making of the Board of Directors, and safeguarding the overall interests of the Company, the legitimate rights and interests of shareholders as a whole, and particularly protecting the interests of minority shareholders.

决策程序

Decision-making process

公司各治理主体谨遵法度、勤勉尽责，权责法定、权责透明、协调运转、有效制衡的公司治理机制不断完善，被国务院国资委评为国有企业公司治理示范企业，董事会连续三年获评国资委“中央企业优秀董事会”。为保障各治理主体决策程序依法合规有效开展，公司在充分发挥《公司章程》在企业治理中基础作用的同时，制定了《股东大会议事规则》《董事会议事规则》《董事会战略与投资委员会议事规则》《董事会审计与风险管理委员会议事规则》《董事会薪酬与考核委员会议事规则》《董事会提名委员会议事规则》《董事会安全健康环保委员会议事规则》以及《监事会议事规则》《党委会议事规则》《总裁办公会议规则》等制度，为明确股东大会、董事会、监事会、经理层权责和保障各治理主体科学决策提供了有效的制度依据。公司始终尊重决策程序严肃性，规范会议安排、规范议案征集、规范议案格式、规范前置程序、规范审议与表决程序、规范信息保密和信息披露，做到各治理主体对重大事项应议尽议，确保决策程序规范有序。

报告期内，公司结合法律法规、监管要求和公司实际情况，修订了《董事会向经理层授权权限清单》，进一步厘清党委、董事会、经理层权责边界，提升决策效率。

效果评估

Effective evaluation

公司制定有《董事会决议执行跟踪检查与评价办法》，对董事会决议执行跟踪检查与评价工作的组织机构和职责、信息反馈、检查、评价及结果运用进行了明确，同时建立了董事会决议执行情况报告机制，为董事会充分了解决议执行情况、及时发现决策难点重点，提供了重要保障。

All corporate governance organs of the Company conscientiously abide by laws and diligently fulfill their duties. Constant improvements have been made to the corporate governance mechanism characterized by division of functions and duties, coordinated operation, and effective checks and balances, which enables the Company to be awarded as a model enterprise of corporate governance for state-owned enterprises by the SASAC of the State Council and the Board to be awarded as "Excellent Board of Central Enterprises" by the SASAC for three consecutive years. In order to ensure the effective implementation of the decision-making procedures of various governance entities in accordance with laws and regulations, the Company, while giving full play to the fundamental role of the Articles of Association in corporate governance, has formulated the Rules of Procedure for Shareholders' General Meetings (《股东大会议事规则》), Rules of Procedure for the Board of Directors (《董事会议事规则》), Rules of Procedure for the Strategy and Investment Committee of the Board (《董事会战略与投资委员会议事规则》), Rules of Procedure for the Audit and Risk Management Committee of the Board (《董事会审计与风险管理委员会议事规则》), Rules of Procedure for the Remuneration and Assessment Committee of the Board (《董事会薪酬与考核委员会议事规则》), Rules of Procedure for the Nomination Committee of the Board (《董事会提名委员会议事规则》), Rules of Procedure for the Safety, Health and Environment Committee of the Board (《董事会安全健康环保委员会议事规则》), Rules of Procedure for the Supervisory Committee (《监事会议事规则》), Rules of Procedure for Party Committee (《党委会议事规则》), and Rules for President Office Meetings (《总裁办公会议规则》). These rules provide an effective institutional basis for clarifying power and responsibilities of general meetings, the Board of Directors, the Supervisory Committee, and senior management, and ensure scientific decision-making of the corporate governance organs. The Company always attaches importance to the seriousness of decision-making procedures, and regulates meeting arrangements, proposal collection, proposal formats, prepositive procedures, deliberation and voting procedures, and confidentiality and disclosure of information. This aims to ensure that all governance organs discuss the major issues that should be discussed and that the decision-making process is standardized and orderly.

During the reporting period, the Company amended the List of Authority Delegated by the Board of Directors to the Management (《董事会向经理层授权权限清单》) to further clarify the boundary of power and responsibilities of the Party Committee, the Board of Directors and the management, and to enhance the efficiency of decision-making.

The Company has formulated the Measures for Follow-up Inspection and Evaluation of the Implementation of Resolutions of the Board Meeting (《董事会决议执行跟踪检查与评价办法》), clarifying the organizational structure and responsibilities, information feedback, inspection, evaluation, and application of results of the follow-up inspection and evaluation of the implementation of the Board of Directors' resolutions. Meanwhile, the Company has established a mechanism of reporting on the implementation of resolutions of Board meetings, which provides an important guarantee for the Board of Directors to fully understand the implementation of the resolutions and discover the important and difficult points of decision-making in time.

合规管理 Compliance Management

中国中铁以“心中有法、行必依法、决策问法、治理靠法”为原则，全面推进“法治中铁、合规中铁”建设。2023年公司聚焦重大合规风险防控、完善组织体系、落实合规管理责任、强化境外合规，全面推进合规管理各项工作，持续提升合规管理有效性和重大风险防控能力，为公司高质量发展和建设世界一流企业提供有力的支撑和保障。

2023年，公司印发实施《中国中铁合规管理实施办法》，研究制定《关于落实〈中国中铁合规管理实施办法〉的工作意见》，对公司合规管理工作从总体目标、机构职责、运行机制、考核评价、监督问责等方面作出具体安排，全力推动合规管理各项要求有效落实。公司设立合规委员会，统筹推进合规管理工作，研究解决重点难点问题；在各业务部门设立部门合规官和合规员，牵头负责本业务部门合规工作，统筹推进合规管理制度及合规管理重点工作在本部门及业务系统内的落实落地；在各工程项目设立项目合规员，负责建立健全项目合规管理体系，完善项目合规制度机制。公司始终将制度建设作为强化合规管理的基础性工作，完善规章制度评审管理机制和评审质量，优化完善制度评审范围和流程，改进制度评审形式，进一步加强对制度的合规性、体系性和规范性的审核把关，加大对新制度的宣贯和执行落实检查。

2023年，公司聚焦合规重点领域，制定或修订完善了《总部采购管理规定》《境内基础设施投资项目评审管理规定》等合规专项管理制度。在全面梳理识别重大合规风险基础上，研究制定合规管理“三个清单”，将合规要求嵌入关键岗位职责和具体业务流程，进一步增强合规管理的刚性约束。组织开展合规管理体系有效性评价，重点对投资业务、涉外业务、招标采购、安全质量环保等业务领域的合规体系有效性进行评价，推动合规管理体系有效实施。



2023年5月，中国中铁总部聘任首批部门合规官和合规员，进一步完善了公司合规管理的组织体系

In May 2023, the headquarters of CREC appointed the first batch of department compliance officers and compliance specialists, which further improved the organisational system of the Company's compliance management

China Railway has propelled the work to construct a “Legitimate CR, Compliant CR”, following the principle of “bearing laws in mind, acting by law, making decision by law and governance by law”. In 2023, the Company focused on material compliance risk control, refinement of the organizational system, performance of compliance management responsibility and reinforcement of compliance in overseas operation. We did the compliance work in every aspect, continuously enhanced the compliance management effectiveness and material risk control capability to provide a mighty support for the quality development of the Company and the mission to build a world-class enterprise.

In 2023, the Company issued and implemented the Implementation Measures of China Railway for Compliance Management, and formulated the Action Plan for the Implementation Measures of China Railway for Compliance Management after deliberation, which will make specific arrangements for the compliance management of the Company from the perspectives of overall objective, institutional responsibility, operation mechanism, evaluation, assessment, supervision and accountability. We spared no effort to carry forward the effective implementation of various compliance management requirements. The Company set up the Compliance Committee, which bears the responsibility to coordinate compliance management and study and resolve various difficulties and challenges. At the business department level, we appoint the compliance officer and the compliance specialist, who coordinate the compliance management of respective department and coordinate and carry forward the implementation of compliance management policies and major work of compliance management at respective department and business line. At the project level, we designate the project compliance specialist, who is responsible for establishing and perfecting the project compliance management system and refining the project compliance policy and mechanism. The Company always sees policy building as the fundamental work to reinforce compliance management, refines the policy review management mechanism and review quality, optimizes and perfects the policy review scope and flow. Also, we improve the policy review form, further strengthens the compliance, system and compliance review of policies, and reinforces the communication of new policies and implementation review.

In 2023, the Company focused on major fields of compliance, and formulated, revised or refined the Headquarters’ Procurement Management Policy, the Review Management Provision for Domestic Infrastructure Investment Project and other special compliance management policies. After combing and identifying material compliance risks in an all-round manner, the Company studied and formulated the “three lists” for compliance management, and embedded compliance requirements into key position responsibilities and specific business flows to further strengthen the rigid constraint of compliance management. We organized the effectiveness assessment of compliance management systems, mainly investment business, foreign-related business, tendering, procurement, safety, quality, environmental protection and other business fields, and promoted their effective implementation.

反腐倡廉 Anti-corruption



中国中铁召开2023年党风廉政建设和反腐败工作会议暨警示教育大会
CREC held the 2023 meeting on improving Party conduct, anti-corruption and warning education

公司严格遵守《中华人民共和国刑法》《中华人民共和国反不正当竞争法》《中华人民共和国反洗钱法》《中央纪委关于严格禁止利用职务上的便利谋取不正当利益的若干规定》《中国共产党领导干部廉洁从政若干准则》和《中国共产党廉洁自律准则》等中国及海外业务所在国家或地区的法律法规，坚决禁止贿赂、勒索、欺诈及洗黑钱等行为以及收受“加速费”“通融费”的行为。公司制定有《纪检组织处理信访举报和案件监督管理工作实施办法》，坚决做到依规依纪依法处理信访举报和开展案件监督管理工作。公司从总部到所属各级企业都设有纪检组织，负责反腐败方面的信访举报工作。各级纪检组织设有信访举报问题线索处置台账，对每一条问题线索都严格按照相关规定进行办理。严格坚持信访举报处置审批程序，要求相关工作人员严格遵守保密制度，坚决保护举报人隐私和安全，对于隐瞒问题线索或失密泄密的，将追究相关人员责任。

The Company strictly abides by the laws and regulations of countries and regions where Chinese and overseas businesses are located such as the Criminal Law of the People's Republic of China (《中华人民共和国刑法》), Anti-Unfair Competition Law of the People's Republic of China (《中华人民共和国反不正当竞争法》), Anti-Money Laundering Law of the People's Republic of China (《中华人民共和国反洗钱法》), Several Provisions of the CPC Central Committee for Discipline Inspection on Strictly Forbidding Seeking of Illegal Benefits by Taking Advantage of Duty (《中央纪委关于严格禁止利用职务上的便利谋取不正当利益的若干规定》), Rules for Clean Governance of CPC Officials (《中国共产党领导干部廉洁从政若干准则》), and CPC's Code of Integrity and Self-discipline (《中国共产党廉洁自律准则》), and resolutely prohibits bribery, extortion, fraud and money laundering, as well as accepting "fees for acceleration" and "fees for accommodation". The Company has formulated the Implementation Measures for Discipline Inspection Organizations to Handle Complaints and Reports and Supervise Cases of Violations (《纪检组织处理信访举报和案件监督管理工作实施办法》) to handle complaints and reports and supervise cases of violations in accordance with rules and regulations resolutely. The Company has discipline inspection organizations from its headquarters to its subordinate enterprises at all levels, which are responsible for the reporting through letters and visits in the field of anti-corruption. Discipline inspection organizations at all levels set up accounts for the handling of cases and clues reported through letters and visits, and handle each case and clue in strict accordance with relevant regulations. The Company strictly adheres to the approval procedures for reporting through letters and visits, and the relevant staff are required to strictly abide by the confidentiality system to protect the privacy and safety of whistleblowers. For those who conceal any case and clues or lose secrets, the relevant personnel will be held accountable.

完善廉洁制度

Integrity system improvement

公司不断加强廉洁制度建设。坚持每季度召开一次反腐败协调小组工作例会，加强定期会商，落实职能部门责任。修订了《公司纪委关于进一步规范综合管理工作的规定》，进一步提升纪委综合管理水平，持续改进工作作风，不断提高监督执纪问责履职能力。制定了《公司纪委干部监督办法》，进一步加强全公司纪检干部监督工作，督促纪检干部强化自我约束，主动接受监督，模范遵守党规党纪和国家法律法规，推动建设忠诚干净担当的纪检铁军。印发《公司总部及派出机构大兴“简朴之风”的通知》《总部及派出机构党员干部队伍作风提升行动方案》等文件，监督推动公司领导班子成员及总部党员干部带头转变作风，监督督促总部各部门精文简会，为基层减负松绑成效明显。

加强廉洁督导

Enhancing integrity supervision

公司纪检组织在监督执纪问责过程中，既严肃追究有关责任人责任，更注重实施“再监督”，强化廉洁督导。2023年，根据监督发现问题，向有关企业、职能部门及时印发了监督建议书，提出监督建议。积极构建党委巡视、纪委监督、审计监督、法律合规监督贯通协同“四位一体”大监督格局，扎紧“不能腐”的笼子。进一步完善项目物资采购、招标投标、验工计价、废旧物资处理等关键环节的监管措施，督促严格执行“三重一大”决策制度，切实加强收尾项目管理。严肃查处违规招投标、违规选人用人、违规选用劳务队伍（供应商）、超合同结算等突出问题，有力推动各级领导干部转变工作作风、扎实履职尽责、堵塞管理漏洞。2023年，地方纪委监委审结所属企业相关人员贪污案件8件，相关人员被依法追究刑事责任。

公司不断加大对协作队伍、分包商的监督管理，切实加强廉洁教育，督促依规依纪依法开展合作，大力营造风清气正的营商环境。

The Company has continuously strengthened the construction of the integrity system. The Company holds meetings of the anti-corruption coordination group once a quarter to facilitate regular consultations and implement the responsibilities of functional departments. We revised the Provisions of the Discipline Inspection Commission of the Company on Further Regulating Comprehensive Management, further improved the comprehensive management level of the Discipline Inspection Commission, and continuously improved the working style. Also, we kept enhancing the capacity for supervision, discipline enforcement, accountability and performance. We formulated the Measures of Supervising Discipline Inspection Cadres of the Company, urged them to reinforce self-discipline, actively accept supervision, abide by rules and disciplines of the Party as well as laws and regulations of the state by example, and carried forward the work to construct a self-regulated discipline inspection team that is loyal, clean and responsible. We issued the Circular on Promoting the “Simple Style” at the Headquarters and Branches of the Company, the Working Plan for the Enhancement Action to Improve the Working Style of the Party Cadre Team of the Headquarters and Branches and other documents, supervised the senior management members of the Company and Party cadres of the Headquarters to reshape their working style, and supervised the headquarters and all departments to simplify documentations and meetings. We also made an evident difference in alleviating the work load of the grassroots level.

Throughout supervision and disciplinary accountability, the Company's discipline inspection organization not only held the responsible parties accountable, but also highlighted “re-supervision” to strengthen integrity supervision. In 2023, the Company issued timely supervision proposals to relevant enterprises and functional departments based on the problems found, and made supervision recommendations. We actively built a big coordinated “four-pronged” supervision pattern comprising inspection by Party Committee, supervision by Commission for Discipline Inspection, audit-based oversight and legal compliance supervision to strengthen the cage of institutions that “prevents corruption”. The Company further improved the supervisory measures of key links such as procurement of materials, bidding and tendering, work inspection and pricing, and disposal of waste materials, urged the strict implementation of the “Three Major and One Big” decision-making mechanism, and strengthened the management of project closing. The Company investigated and prosecuted such prominent problems as illegal bidding, illegal selection and employment of personnel and labor force (suppliers), and over contract price of completion settlement, and procured leaders at all levels to change their work style, perform their duties in a down-to-earth manner, and plug management loopholes. In 2023, the local commission for Discipline Inspection and Supervision concluded eight cases of corruption by the personnel of affiliated enterprises, and the relevant personnel were held criminally responsible according to the law.

By enhancing the supervision and management of collaborating teams and subcontractors, and strengthening integrity education, the Company promoted cooperation in accordance with rules and regulations, and vigorously created a clean and upright business environment.

重视廉洁教育

Emphasis on integrity education

为确保公司董事、监事、广大员工熟悉反贪腐制度和要求，公司坚持常态化开展分层级、分类别的反贪污反贿赂教育，在领导人员培训班、董事监事董秘培训班、新员工入职培训班等不同职务的培训中均设置了反贪腐培训课程，通过开展党纪国法教育、企业反腐倡廉制度培训、案例警示教育、廉洁文化教育等多种方式，增强董事、监事及广大员工不想腐的思想自觉。

2023年，公司认真梳理分析巡视、执纪审查、配合监察调查发现的典型案例，先后召开警示教育大会两次。持续加强新时代廉洁文化建设，面向全公司征集廉洁文化标识，建设“清廉中铁”网络栏目，设置“信息动态”“纪法学堂”等子板块，发布各类文章信息190余篇，成为廉洁文化传播新阵地；纪检组织带头弘扬廉洁文化，各级纪检干部踊跃参加“笔墨书廉”活动，优选158幅作品编印成册，营造崇廉尚廉氛围。

2023年，公司组织外部董事参加国资委、证券监管机构举办相关培训9次，内容涉及反贪污反贿赂等多个方面。

In order to ensure that directors, supervisors and employees are familiar with the anti-corruption system and requirements, the Company insists on carrying out regular anti-corruption and anti-bribery education at different levels and categories. Anti-corruption training courses are set up in the training courses for different positions such as training courses for leading personnel, training courses for directors, supervisors, secretaries of the board, and training courses for new employees, etc. By carrying out education on Party discipline and national law, training on the anti-corruption system of enterprises, case warning education, and education on integrity culture, the Company enhances the ideological consciousness of directors, supervisors and employees not wanting to be corrupted.

In 2023, the Company sorted out and analyzed typical cases found in inspections, disciplinary reviews, and cooperation with supervision and investigation, and held two warning education meetings. We continuously strengthened the development of the clean culture in the new era, and solicited the clean culture logo from across the Company. We launched the “Clean CR” Internet column, which includes the “Information Dynamics”, “Discipline & Law Studio” and other subsegments, which have published more than 190 articles and messages of different types and become a new position of communicating the clean culture. The Discipline Inspection carried forward the clean culture by example, and discipline inspection cadres at various levels actively took part in the “Writing Clean Practice with Pen and Ink” event. We selected 158 works, compiled them into a brochure and created an atmosphere of aspiring and respecting clean practice.

In 2023, the Company organized external directors to participate in 9 relevant trainings held by SASAC and securities regulatory authorities, covering anti-corruption, anti-bribery and other aspects.



审计监督 Audit Supervision

优化审计制度

Audit system optimization

公司现行有关审计的有效制度共计34项，包括《审计工作管理办法》等审计制度22项，《违规经营投资责任追究实施办法》等追责制度8项，《监事会议事规则》等监事会工作制度3项，《审计中心管理规定》等机构管理制度1项，建立了较为完善的审计制度体系。

2023年，公司结合实际持续优化审计制度体系，制定、修订了《工程项目竣工审计实施细则》《审计中心管理规定》《经济责任审计规定》等3项规章制度。

完善审计工作机制

Audit mechanism improvement

2023年，公司加强党对审计工作领导，落实董事会对审计工作的指导和监督，推动审计管理改革落地，坚持全公司审计工作一盘棋，积极构建集中统一、全面覆盖、权威高效的审计管理体系。各级企业成立了审计工作领导小组；严格执行审计工作向董事会负责的工作机制，接受董事会审计与风险管理委员会的监督和评估；坚持审计工作统一协调制度，所属企业审计计划均由上级审计机构审定、审计工作负责人任用均报上级审计机构批准；持续深化审计管理体系改革，形成审计部门主“管”、审计中心主“审”的一体化审计管理机制；实施审计机构差异化考核，被审计对象和同级业务部门不参与对内部审计机构及其负责人的绩效考评，内部审计机构及其负责人由上级审计机构和本级审计工作领导小组共同考核。

持续提升审计信息化水平

Continuous improvement to audit informatization

公司落实科技强审要求，以智能升级赋能智慧审计，发挥审计信息系统2.0作用，实现与公司财务共享、成本管理、物资管理、投资管理等信息系统的全面贯通，推动“多专业融合、多角度分析、多方式结合”数字化审计模式。

The Company has a total of 34 effective systems related to auditing, including 22 auditing systems such as the Administrative Measures for Auditing (《审计工作管理办法》), 8 accountability systems such as the Implementation Measures for the Accountability for Illegal Operations and Investments (《违规经营投资责任追究实施办法》), 3 working systems of the Supervisory Committee such as Rules of Procedure for Supervisory Committee (《监事会议事规则》), and 1 institutional management system such as the Audit Center Management Regulations (《审计中心管理规定》) and established a relatively perfect audit system.

In 2023, the Company continuously optimized the audit policy framework based on the actual condition, and formulated or revised 3 policy documents, including the Implementation Rules for Completion Audit of Construction Project, the Audit Center Management Regulations and the Economic Liability Audit Regulations.

In 2023, the Company strengthened the leadership of the Party on audit work, implemented the guidance and supervision of the Board on audit work, promoted the implementation of audit management reform, adhered to the whole-company audit work, and built a centralized and unified audit management system with full coverage, authority and efficiency. Enterprises at all levels set up a leading group of audit, strictly implemented the working mechanism of reporting to the Board of Directors and accepted the supervision and evaluation of the audit and risk management committee. Adhering to the unified coordination system of audits, the affiliated enterprises had all their audit plans reviewed and approved by higher audit organizations, and reported the appointment of the person in charge of audit to the higher audit organization for approval. Continuously deepen the reform of the audit management system, an integrated audit management mechanism was established, with the audit department in charge of “management” and the audit center in charge of “auditing”. The Company implement differential assessment of audit agencies. The audited entities and peer business departments do not participate in the performance evaluation of the internal audit agencies and their principals. The internal audit agencies and their principals are jointly evaluated by the superior audit agency and the audit work leading group at the same level.

The Company implemented the requirements of technology-based auditing, empowered smart auditing through intelligent upgrading and gave full play to the role of audit information system 2.0, enabling full connection with the Company's information systems, such as financial sharing, cost management, material management and investment management, and promoting a digitized auditing mode that “features integration of multiple professions, analysis from multiple perspectives, and use of combined methods”.

规范关联方交易 Regulating Related Party Transactions

公司严格执行证券监管机构的关联交易管理规定，遵循《公司章程》《关联交易管理办法》以及有关议事规则要求，持续规范关联交易行为，对公司关联交易事项进行审议，并定期对公司关联人名单、半年度和全年度的关联交易情况进行审查，坚持从交易的必要性、定价的公允性、程序的合法性、是否符合股东利益等多角度进行考量。根据上海证券交易所和香港联交所关于关联交易管理要求，公司下设董事会审计与风险管理委员会，负责关联交易控制和日常管理，定期审查关联人名单和重大关联交易。同时，公司认真把握好证券监管机构关联交易与会计准则界定下的关联交易、香港联交所上市规则下的关联交易的差异，严格履行关联交易的决策程序和披露义务，确保公司关联交易事项规范公允，有效提高上市公司规范运作水平，保护上市公司和全体股东的合法权益。

In strict accordance with the regulations of the securities regulatory authorities on the management of related party transactions, the Articles of Association, the Measures for the Management of Related Party Transactions (《关联交易管理办法》), and relevant procedural rules, the Company continuously regulates the acts of related party transactions, considers the Company's related party transactions, and regularly reviews the list of related parties and the interim and annual related party transactions of the Company. In doing so, the Company considers the necessity for transactions, fairness of pricing, legality of procedures, and compliance with shareholders' interests. According to the requirements of the Shanghai Stock Exchange and the Hong Kong Stock Exchange on related party transaction management, the Company's audit and risk management committee under the Board of Directors is responsible for the control and daily management of related transactions, and reviews the list of related parties and major related transactions on a regular basis. At the same time, the Company carefully grasps the differences between connected transactions with securities regulatory authorities and connected transactions as defined by accounting standards plus those under the Hong Kong Stock Exchange Listing Rules, and strictly handles the decision-making procedures and fulfills the disclosure obligations of connected transactions. This aims to ensure that the Company's connected transactions are regulated and fair, effectively improve the standard operation of listed companies, and safeguard the legitimate rights and interests of listed companies and all shareholders.



Environment

环境篇

环境机遇
Environmental Opportunity

自然资源使用及保护
Use and Protection of Natural Resources

排放物管理
Emission Management

环境风险管控
Environmental Risk Management

环境管理架构
Environmental Management Structure





环境管理架构 Environmental Management Structure

公司坚持绿水青山就是金山银山理念，落实“3060”双碳目标，助力推动碳达峰、碳中和进程，加强生态环境保护、提倡绿色低碳生活方式，加快企业绿色转型升级。持续完善环境管理工作体系，坚持“属地管理”“预防为主，防治结合”“谁污染谁治理”的原则，实行公司统一领导，各子、分公司逐级负责的管理模式，确保环境保护工作有序可控。

Holding that lucid waters and lush mountains are invaluable assets, the Company works to boost the realization of the “3060” targets of carbon peaking and neutrality. In strengthening ecological environmental protection, the Company advocates the green and low-carbon lifestyle and accelerates the green transformation and upgrading of enterprises. The Company makes continuous improvements to the environmental management system. With regards to environmental management, the Company upholds the principles of “Territorial Management”, “Prevention First, Combined with Prevention and Control” and “Who Pollutes, Who Controls”. As for the management mode, the Company implements unified leadership while subsidiaries and branches at each level are responsible, to ensure the orderly and controllable environmental protection.

环境风险管控 Environmental Risk Management

节约资源和保护环境是我国的基本国策。《中华人民共和国环境保护法》规定，一切单位和个人都有保护环境的义务，企业应当防止、减少环境污染和生态破坏；《中华人民共和国节约能源法》规定，任何单位和个人都应当依法履行节能义务；《建设项目环境保护管理条例》规定工业建设项目应当采用能耗物耗小、污染物产生量少的清洁生产工艺，合理利用自然资源，防止环境污染和生态破坏。上述法律法规对公司的环境风险管控方面提出要求，也明确了我们的工作重点和努力方向。

It is the fundamental policy of our country to conserve resources and protect the environment. According to the Environmental Protection Law of the People's Republic of China (《中华人民共和国环境保护法》), all units and individuals shall have the obligation to protect the environment, and enterprises shall prevent and reduce pollution and damage to the environment; according to the Energy Conservation Law of the People's Republic of China (《中华人民共和国节约能源法》), all organizations and individuals shall fulfill their obligation to conserve energy; and according to the Regulations on the Administration of Construction Project Environmental Protection (《建设项目环境保护管理条例》), industrial construction projects should adopt clean production techniques with low energy consumption, low materials consumption and low pollutants generation, and rationally exploit natural resources to prevent environmental pollution and ecological damage. The above-mentioned laws and regulations put forward requirements for the Company in environmental risk control and clarify our work priorities and directions.

2023年，公司严格遵守《中华人民共和国环境保护法》《中华人民共和国节约能源法》《建设项目环境保护管理条例》等对公司运营有重大影响的法律法规，扎实推进生态文明建设，努力克服碳达峰、碳中和带来的挑战，把绿色发展理念融入公司发展的各方面和全过程，以节能技术创新为支撑，以节能管理、能源资源利用为中心，提升风险防范和污染应急响应能力，坚定不移走生态优先、绿色低碳的高质量发展道路。

In 2023, the Company strictly abode by laws and regulations that have significant impact on its operation, such as the Environmental Protection Law of the People's Republic of China (《中华人民共和国环境保护法》), the Energy Conservation Law of the People's Republic of China (《中华人民共和国节约能源法》), and the Regulations on the Administration of Construction Project Environmental Protection (《建设项目环境保护管理条例》). The Company steadily advanced the construction of ecological civilization and strove to overcome the challenges brought by carbon peaking and neutrality, by integrating the concept of green development into all aspects its work and the whole process. With the support of energy-saving technological innovation and focusing on energy-saving management and energy resource utilization, the Company improved its emergency response capabilities in risk prevention and pollution, to unswervingly embark on the path of green, low-carbon, and high-quality development that prioritized ecology.

在考核目标上，公司制定了《中国中铁股份有限公司碳达峰行动方案》，确定总体目标为：到2025年，适应生态文明建设要求的绿色中铁体系建设取得显著进展；能源利用效率不断提高，能源消费结构得到明显改善；万元产值CO₂排放量与万元营业收入综合能耗实现同步下降，万元营业收入综合能耗在2020年的基础上下降15%，万元产值二氧化碳排在2020年的基础上下降15%。基于系统化的环境管理，公司获得华夏认证中心有限公司颁发的ISO14001环境管理体系认证。

In terms of assessment objectives, the Company formulated the Carbon Peak Action Plan of China Railway Group Limited, setting the overall targets: by 2025, significant progress shall be made in the construction of a green CREC system that aligns with ecological civilization; improvements shall be made to energy utilization efficiency and the energy consumption structure; CO₂ emissions per RMB ten-thousand output value and comprehensive energy consumption per RMB ten-thousand operating income shall be reduced. The comprehensive energy consumption per RMB ten-thousand of operating income reduced by 15% on the basis of 2020, and the carbon dioxide emissions per RMB ten-thousand of output value reduced by 15% on the basis of 2020. In terms of systematic environmental management, the Company has obtained the ISO14001 environmental management system certification from China Certification Center Inc.

排放物管理 Emission Management

公司制定并落实《生态环境保护与能源节约监督管理规定》《施工安装现场环保管理办法》《建筑施工环保管理办法》《锅炉房环保管理规定》《废旧物资回收利用管理办法》《金属焊接与气割作业环保管理规定》《机械设备环保管理办法》《库房环保管理规定》《危险废物管理规定》《生产现场定置环境卫生管理规定》等规章制度，形成规范化的工作模式，采取有效措施，对排放物进行控制。

废气管理

Exhaust gas management

公司废气排放主要来自于所属项目的锅炉燃烧以及钢结构加工过程中的冶炼、板材处理、喷砂、打磨及喷涂等工序，主要污染物为二氧化碳、氮氧化物、烟（粉）尘和挥发性有机物（VOCs），主要为工业类企业排放。公司为国资委关注类建筑企业，废气排放量较少。

2023年，公司结合中国中铁碳达峰行动方案，定立万元营业收入综合能耗和万元营业收入二氧化碳排放同比2022年下降3.2%的目标，万元营业收入氮氧化物、烟（粉）尘、挥发性有机物排放逐年下降的目标。为达到以上目标，公司通过调整产能结构，并通过低氮改造燃气锅炉等方式，减少二氧化碳、氮氧化物的排放。在治理烟（粉）尘方面，公司在运输、存储、施工、生产等方面采取控制措施，通过覆盖、洒水、增加除尘设备、封闭作业等方式有效减少烟（粉）尘。公司加大了用于污染治理的资金投入力度和工业改造力度，多个工业生产基地完成全封闭作业车间专项改造。为治理VOCs，公司在生产线加装活性炭和过滤棉漆雾过滤系统，并按照VOCs治理标准对车间整体进行改造。2023年，公司各主要废气污染物均在许可证排污范围内，实现达标排放。

The Company formulates and implements the Regulations on Supervision and Management of Ecological Environmental Protection and Energy Conservation (《生态环境保护与能源节约监督管理规定》), Administrative Measures for Environmental Protection on Construction and Installation Sites (《施工安装现场环保管理办法》), Administrative Measures for Environmental Protection on Construction (《建筑施工环保管理办法》), Regulations on Environmental Management for Boiler Houses (《锅炉房环保管理规定》), Administrative Measures for Recovery and Utilization of Waste Materials (《废旧物资回收利用管理办法》), Regulations on Environmental Management of Metal Welding and Gas Cutting Operations (《金属焊接与气割作业环保管理规定》), Administrative Measures for Environmental Management for Machinery and Equipment (《机械设备环保管理办法》), Regulations on Environmental Management of Warehouses (《库房环保管理规定》), Regulations on Management of Hazardous Wastes (《危险废物管理规定》), Regulations on Environmental Sanitation Management on Production Sites (《生产现场定置环境卫生管理规定》) and other rules and regulations to form a standardized working mode combined with measures for controlling emissions.

The Company's exhaust emissions mainly come from the boiler gas combustion, smelting in the processing of steel structures, sheet processing, abrasive blasting, polishing and spraying and other processes. The main pollutants are carbon dioxide, nitrogen oxides, smoke (powder) and volatile organic compounds (VOCs), which are emissions from industrial enterprises. The Company is a construction enterprise of concern to the SASAC, with low emissions of exhaust gas.

In 2023, combined with the Carbon Peaking Action Plan of China Railway, the company set the goal of reducing the comprehensive energy consumption RMB ten-thousand of operating income and carbon dioxide emissions RMB ten-thousand of operating income by 3.2% compared with 2022 on a year-on-year basis, and the emissions per RMB ten-thousand of nitrogen oxides, smoke (powder) and volatile organic compounds decreased year by year. During the period, the Company reduces emissions of carbon dioxide and nitrogen oxides by adjusting the structure of production capacity and renovating gas boilers with low nitrogen. In terms of controlling smoke (powder), the Company adopts control measures in transportation, storage, construction, production, etc., and reduces smoke (powder) by covering, watering, adding dust removal equipment, and shutting down operations. The Company increased the capital investment in pollution control and industrial transformation, and its industrial production bases completed the special renovation of the fully enclosed workshops. In order to control VOCs, the Company installed activated carbon and filter cotton paint mist filtration systems on the production line, and rebuilt the workshops in accordance with the VOCs treatment standard. In 2023, all major waste gas pollutants of the Company were discharged up to the standard within the discharge scope of the permit.



● 中国中铁武汉电气化局和西南交通大学联合研制的国内首台氢能源地铁施工作业车

The first hydrogen-powered subway construction vehicle in China jointly developed by China Railway Wuhan Electrification Engineering Group Co., Ltd. and Southwest Jiaotong University

案例 Case

中国中铁十局承建的温州市瓯江引水岭西TBM隧洞全长3.7公里，洞碴约30万吨，使用纯电变频驱动水平连续皮带机运输出渣，采用变频控制、速度平衡等技术，相对于传统内燃机有轨运输出碴的形式，能够降低能耗28%，施工工效提高32%，有毒有害气体及二氧化碳实现零排放。

China Railway No. 10 Engineering Group Co., Ltd. has undertaken the west TBM tunnel of the Wenzhou Oujiang Water Division Ridge, which involves a total length of 3.7km and approximate 300,000 tons of ballast. The project has introduced the pure electric variable-frequency horizontal continuous belt conveyor that adopts the variable frequency control, speed balance and other technologies to convey the ballast. Compared to the trolleyed ballast transport with the traditional internal combustion engine, the new technology can reduce the energy consumption by 28%, increase the working efficiency by 32%, and realize the zero emission of hazardous gases and carbon dioxide.

废弃物管理

Waste management

公司高度重视废弃物的综合利用。2023年，公司订立了在企业规模不断扩大情况下万元单位无害废弃物和有害废弃物排放逐年下降，且处置率为100%的目标。为达到以上目标，公司对于无害废弃物，以优化施工组织方案为主要措施，推行“四节一环保”的标准化、规范化项目建设要求，加大资金及环保设备投入力度，加强无害废弃物的循环使用，无害废弃物综合利用率达99.4%，处置率为100%。对于危险废弃物，公司严格按照《危险废物管理规定》，聘用有危废处置资质的机构对危险废弃物，如工程设备产生的废机油等，进行统一回收处理，有害废弃物处置率为100%。

公司作为建筑类企业，主营板块不包含物流及相关物料包装服务，不涉及包装物料。

The Company attaches great importance to the comprehensive recycling of waste. In 2023, the Company set a goal that, with the continuous expansion of the enterprise scale, the emission per RMB ten-thousand of non-hazardous waste and hazardous waste decreased year by year, with a 100% disposal rate of non-hazardous waste and hazardous waste. To meet the above goal, in respect of non-hazardous waste, with optimizing the construction organization scheme as the main measure, the Company promotes the standardization of the "Four Conservations and One Environmental Protection" policy, increases investment in capital and environmental protection equipment, and strengthens the recycling of non-hazardous waste. Thanks to these efforts, a recycling rate of 99.4% with a disposal rate of 100% is achieved. In strict accordance with the Regulations on Management of Hazardous Waste (《危险废物管理规定》), the Company entrusts qualified agencies to conduct centralized recycling and treatment of hazardous waste, such as waste oil generated by engineering equipment, and achieves a disposal rate of 100% for hazardous waste.

As a construction company, the Company's major business segment does not include logistics and related material packaging services or involve packaging materials.

废水管理

Wastewater management

公司重视施工废水管理，设置三级沉淀池，对施工废水进行处理。公司不断加强施工现场的环保监管，定期对施工产生的废水生态环境污染源、风险点进行排查，每月对污染源和风险点进行台账更新，并对相关部门和人员进行全过程监控、常态化监督。

The Company takes the management of construction wastewater seriously, and sets up a three-stage sedimentation tank to treat the construction wastewater. The Company keeps strengthening environmental protection supervision at the construction site, regularly troubleshoots the ecological and environmental pollution sources and risk points of wastewater generated during construction, updates the ledger of pollution sources and risk points on a monthly basis, and designates relevant departments and personnel to carry out full-process monitoring and normalized supervision.

噪声管理

Noise management

公司在工程项目噪声管理方面，要求所属工程项目现场必须配备噪声监控设备，对项目所产生的噪声进行实时监控，噪声控制情况符合国家有关标准。

The Company requires that its own project site must be equipped with noise monitoring equipment to monitor the noise generated by projects in real time, and the noise control shall conform to relevant national standards.

生态环境管理

Ecological environment management

公司对在建工程项目、作业场所进行环境因素识别和评估，建立生态环保监控监测体系，加强生产过程中生态环境污染风险源及污染物排放控制，并加强对项目部生态环保工作的过程管控，规避环境风险。

The Company identifies and evaluates environmental factors of projects under construction and in the workplace, establishes a system for monitoring environmental protection, strengthens the control over risk sources of ecological environmental pollution and pollutant emissions in the production process, and strengthens the process control over the ecological environmental protection work of the project department, to guard against environmental risks.



● 中国中铁参与的马鞍山向山地区生态修复EOD项目
EOD project of ecological restoration in Xiangshan area of Ma'anshan participated by CREC

排放物及废弃物关键绩效指标 Key performance indicators on emissions and waste

指标 Indicators	2023年数据 Data in 2023	同比增减 Year-on-year increase or decrease
二氧化碳总排放量(万吨) Total amount of CO ₂ emission (ten-thousand tonnes)	1,727.7111	5.8%
二氧化碳排放密度(吨/万元) CO ₂ emission density (ton/RMB ten-thousand)	0.1453	-3.26%
氮氧化物排放量(吨) NOx emission (ton)	4.24	1.89%
烟(粉)尘排放量(吨) Smoke (powder) emission (ton)	52.87	-14.73%
挥发性有机物排放量(吨) VOC emission (ton)	27.93	-35.89%
二氧化硫(吨) SO ₂ (ton)	0.31	10.71%
有害废弃物总量(吨) Total amount of hazardous waste (ton)	1,400	4.47%
万元单位有害废弃物排放量(公斤/万元) Discharge of hazardous waste per RMB ten-thousand (kg/RMB ten-thousand)	0.011	-6.1%
无害废弃物总量(万吨) Total amount of non-hazardous waste (ten-thousand tonnes)	515.78	1.96%
万元单位无害废弃物排放量(公斤/万元) Discharge of non-hazardous waste per RMB ten-thousand (kg/RMB ten-thousand)	0.041	-17%

注：1.公司为建筑类企业，所排放二氧化碳为能源间接温室气体排放。

2.氮氧化物、二氧化硫、烟(粉)尘和挥发性有机物排放量均按排污许可证排放量计算。

3.由于四舍五入关系，个别项目数字可能与总数略有出入。

Notes: 1. The Company is a construction enterprise, and the carbon dioxide emissions are indirect greenhouse gas emissions from energy.

2. Emissions of NOx, SO₂, smoke (powder) and VOC are calculated based on the emissions permits.

3. Due to rounding, individual item figures may differ slightly from the total.

自然资源使用及保护

Use and Protection of Natural Resources



“绿水青山就是金山银山”，公司坚持节约资源和保护环境并重，努力建设“环境友好型、资源节约型”工程。公司制定了《节能减排监督管理办法》《环境保护管理办法》等一系列规章制度，开展节能减排与生态环境保护工作，提倡绿色办公理念，优化资源使用效率。

能源管理

Energy management

公司消耗的主要能源为施工及办公过程中的电力、汽油、柴油、天然气等。

2023年，公司订立了万元营业收入综合能耗在2022年的基础上下降3.2%的目标。期间，公司强化落实节能减排责任制，扎实推进节能增效工作，根据国资委对中央企业能源节约与生态环境保护工作的最新要求，从调整管理组织架构、升级监测体系、下达考核奖惩指标、开展技术研发等方面推动相关工作，修订并落实《生态环境保护与能源节约监督管理规定》。

2023年，公司万元营业收入综合能耗（可比价）0.0415吨标煤/万元，比去年同期下降3.26%，二氧化碳排放0.1453吨/万元，比去年同期下降3.26%，完成年度节能环保既定工作目标。

- **夯实节能环保管理体系，提升节能环保管理能力：**公司按照国资委要求和行业管理常态，优化管理资源配置，将生态环保、节能减排业务统一整合至安全质量环保监督部；动态修订完善节能环保管理办法，保障能源节约与生态环境保护工作全面开展。
- **不断升级统计监测体系：**根据中央企业能源节约与生态环境保护工作最新要求，公司启用并动态升级新版能源节约与生态环境保护统计系统，实现节能环保数据常态化线上填报。

“Lucid waters and lush mountains are invaluable assets”. The Company attaches equal importance to resource conservation and environment protection, striving to build “resource-conserving and environment-friendly” projects. The Company has formulated a series of rules and regulations, such as the Administrative Measures for Supervision and Management on Energy Conservation and Emission Reduction (《节能减排监督管理办法》) and Administrative Measures for Environmental Protection (《环境保护管理办法》), to carry out energy conservation, emission reduction and ecological environmental protection. The Company advocates the concept of green office and optimizes the efficiency of resource use.

The main energy consumed by the Company is electricity, gasoline, diesel fuel and natural gas in the construction and office process.

In 2023, the Company set a goal of reducing the comprehensive energy consumption per RMB ten-thousand of operating income by 3.2% on the basis of 2022. During the period, the Company strengthens the implementation of the responsibility system for energy conservation and emission reduction, and makes solid progress in energy conservation and efficiency improvement. According to the latest requirements of the SASAC on energy conservation and ecological environmental protection of central enterprises, the Company promotes relevant work by adjusting the management organizational structure, upgrading the monitoring system, issuing evaluation, reward and punishment indicators, and conducting technology research and development. Meanwhile, the Company formulates and implements the Supervision and Management Regulations on Ecological Environmental Protection and Energy Conservation.

In 2023, the comprehensive energy consumption (comparable price) per RMB ten-thousand operating income was 0.0415 tons of standard coal/RMB ten-thousand, down 3.26% from the same period of last year; the CO₂ emission was 0.1453 tons/RMB ten-thousand, down 3.26% from the same period of last year, accomplishing the annual target of energy conservation and environmental protection.

- **Consolidating the system for the management of energy conservation and environmental protection and enhancing its capability in this respect:** in accordance with the requirements of the SASAC and the industry management norm, the Company optimizes management resource allocation, and integrates and hands over the business of ecological environmental protection, energy conservation and emission reduction to the Safety, Quality and Environmental Protection Supervision Department; dynamically revises and improves measures for the management of energy conservation and environmental protection for the work to be conducted on all fronts.
- **Constantly upgrading the statistical monitoring system:** according to the latest requirements of energy conservation and ecological environmental protection of central enterprises, the Company launches and upgrades the new statistical system of energy conservation and ecological environmental protection, to realize the regular online filling of energy conservation and environmental protection data.

- **严格落实节能减排考核奖惩机制：**2023年下达节能减排工作指标，要求所属二级企业对指标进行分解并下达至各所属三级企业、项目部，以考核促管理，并采取奖惩措施，提升节能减排工作积极性。
- **强化节能环保管理目标考核奖惩：**公司依据2023年下达的量化考核指标，对所属各企业实行严格的业绩考核，圆满完成了年度能源节约考核目标。
- **重视生态环保问题过程监督：**公司定期对所属企业因生态环保问题，受属地政府、行业主管部门处罚事项进行统计分析，并在公司安全环保季度视频会议上进行通报问责。
- **Strictly implementing the evaluation, reward and punishment mechanism for energy conservation and emission reduction:** the Company issued the indicators of energy conservation and emission reduction in 2023, requiring all second-tier units to decompose the indicators and release them to their third-tier companies and project departments to promote management through evaluation. The Company also adopted reward and punishment measures to promote energy conservation and emission reduction.
- **Strengthening the evaluation, reward and punishment of the energy conservation and environmental protection management targets:** the Company implements strict performance evaluation of the affiliated companies based on the quantitative assessment index issued in 2023, and completed the annual energy saving assessment targets.
- **Emphasis on the process supervision over ecological environmental protection:** the Company makes a regular statistical analysis of the penalties imposed on the affiliated companies by the local government and the competent authority of industry for ecological environmental protection problems, and notifies them on the quarterly video conference on safety and environmental protection and holds them accountable.

水资源管理

Water management

根据国务院国资委印发的《中央企业能源节约与生态环境保护统计报表》，公司不断完善统计监测体系，规范用耗水量统计核算口径，加强水资源循环使用。2023年，公司订立了单位用新水量在2022年的基础上下降8%的目标，实际用新水量46,050万吨，较去年同期下降0.12%，单位用新水量3.705吨/万元，较去年同期下降9.27%。

公司在求取适用水源方面不存在任何问题，水源供应方面主要由工程项目属地的自来水公司负责提供。

为达到年度订立的单位用新水量的下降目标，公司高度重视施工用水措施，收集使用天然降水或经回收处理的废水等措施已成为项目节水管理常态。普遍推广使用节水型自动喷淋系统、沉淀池等，用于混凝土养护、车辆冲洗以及抑制扬尘，从而加强对水资源的循环利用，提高废水回收利用效率，有效节约水资源。



• 中国中铁建设的枞阳县农村自来水并网工程项目，总供水规模13万吨每日
Zongyang County Rural Water Supply Grid Connexion Project constructed by CREC, with a total water supply capacity of 130,000 tonnes per day

According to the Statistical Statement on Energy Conservation and Ecological Environment Protection of Central Enterprises (《中央企业能源节约与生态环境保护统计报表》) issued by the SASAC of the State Council, the Company has improved its statistical monitoring system, standardized the statistical calculation of water consumption, and strengthened the recycling of water resources. In 2023, the Company set a target to reduce the amount of new water used per unit by 8% on the basis of 2022, and actually used 460.50 million tons of new water, down 0.12% from the same period of last year, and 3.705 tons of new water per unit per RMB ten-thousand, down 9.27% from the same period of last year.

The Company does not have any problems in obtaining suitable water sources, and the water supply is mainly provided by the water supply company in the area where the project is located.

To meet the annual target for reduction of new water consumption per unit, the Company stresses measures to use construction water. As a part of water conservation and management, the Company collects and uses natural precipitation or wastewater treated by recycling. Automatic water-saving sprinkler systems and sedimentation ponds are promoted and used commonly for concrete maintenance, vehicle washing and dust suppression. They have strengthened the recycling of water resources and improved the recycling rate of wastewater, thereby effectively saving water resources.



• 中国中铁建设的沈阳南部污水处理厂，为东北地区规模最大，获评全国市政金杯示范工程
Shenyang South Sewage Treatment Plant constructed by CREC, the largest sewage treatment plant in Northeast China, won the National Municipal Golden Cup Demonstration Project

绿色办公 Green office

2023年，公司持续开展总部无纸化会议系统的应用推广工作。总部无纸化系统支持计算机终端、手机及平板电脑等硬件设备的并行接入，以屏幕同屏、手写签批、资料分发共享等技术手段支撑无纸化会议的召开，实现了会前准备、会中管控、会后归档及统计分析等全流程数字化的建设目标。2023年，公司总部共召开无纸化会议169次，参会人数共计4,783人，会议用文件累计3,813份，共节省纸张1,644,002张，相当于2,740棵大树。

In 2023, the Company continued to carry out the application and promotion of the paperless conference system at the headquarters. The paperless system at the headquarters supports the parallel access of hardware devices such as computer terminals, mobile phones, and tablets. It supports the holding of paperless meetings with technical methods such as display on the same screen, handwritten signing and approval, and data distribution and sharing. With the paper system, the Company achieves the goal of full-process digitization that enables preparation before meetings, control during meetings, and filing and statistical analysis after meetings. In 2023, the Company's headquarters held a total of 169 paperless meetings, with a total of 4,783 attendees, and kept 3,813 meeting documents on file, which saving 1,644,002 paper in total, equaling to 2,740 trees.

能源及资源消耗关键绩效指标
Key performance indicators for energy and resource consumption

能源/资源类型 Energy/resource type	指标 Indicators	2023年数据 Data in 2023	同比增减 Year-on-year increase or decrease
直接能源消耗 Direct energy consumption	汽油(万吨) Gasoline (ten-thousand tonnes)	53.8165	7.62%
	汽油(吨/万元) Gasoline (ton/RMB ten-thousand)	0.0043	-5.9%
	柴油(万吨) Diesel (ten-thousand tonnes)	177.0350	5.68%
	柴油(吨/万元) Diesel (ton/RMB ten-thousand)	0.0142	-5.1%
	天然气(万标立方米) Natural gas (ten-thousand standard m ³)	6,875.5	-8.98%
	天然气(立方米/万元) Natural gas (m ³ /RMB ten-thousand)	0.55	-16%
间接能源消耗 Indirect energy consumption	电力(万千瓦时) Electricity (ten-thousand kwh)	1,185,613	4.9%
	电力(万千瓦时/万元) Electricity (ten-thousand kwh/RMB ten-thousand)	0.0095	-8.2%
综合能源消耗 Comprehensive energy consumption	综合能源消耗(万吨标准煤) Comprehensive energy consumption (ten-thousand tonnes of standard coal)	507.557	5.2%
	综合能源消耗(吨标准煤/万元收入) Comprehensive energy consumption (ton of standard coal/RMB ten-thousand income)	0.0415	-3.26%
	综合能源消耗(万千瓦时) Comprehensive energy consumption (ten-thousand kwh)	4,129,874	5.2%
	综合能源消耗(千瓦时/万元收入) Comprehensive energy consumption (kwh/RMB ten-thousand income)	332	-7.9%
水 Water	消耗新水总量(万立方米) Total new water consumption (ten-thousand m ³)	46,050.65	-0.12%
	消耗新水总量(立方米/万元收入) Total new water consumption (m ³ /RMB ten-thousand income)	3.71	-12.4%

注：基于本公司业务性质，不适用于以每产量单位或每项设施计算能耗密度，采用万元营业收入（可比价）综合能耗计算和披露能耗密度。

Note: Based on business characteristic of the Company, it is not applicable to calculate energy consumption density using unit of production (UOP) or per facility. Therefore, the Company adopts comprehensive energy consumption (comparable price) per RMB ten-thousand operating income to calculate and disclose energy consumption density.

生态保护

Ecological protection

公司作为建筑类企业，业务活动不会对环境和天然资源产生重大影响。公司高度重视对环境及天然资源的保护，制定并认真落实《节能减排监督管理办法》《环境保护管理办法》等制度。在施工前期，公司组织专业机构开展环境影响评价，依据评估结果制定切实有效的保护方案，开展水土保持、生物多样性保护、植被保护等措施，做到生态环境保护与工程建设同步规划与同步实施。在施工过程中，公司注重生态保护的持续投入，使用环保设备，改进施工工艺和优化施工方案，减少对水、大气、植被和生物的影响。公司能源节约与生态环境保护信息系统定期采集生态环境监测数据，提升生态环保信息直观性和真实性。2023年，公司已竣工项目环评通过率达100%。

在土地利用方面，公司认真贯彻《土壤污染防治法》，在工程项目施工初期就将生态恢复纳入项目管理，做好科学选址、规范弃碴、事先防护、积极消纳。每一个工点施工完后，确保用合适的土料覆盖地表，清理便道两侧施工弃物，恢复地面天然状态。对于施工过程中涉及的临时用地，公司严格编制、实施用地及复垦规划，注意对居民稠密区、自然保护区等环境敏感区域的保护，并在工程竣工后按照规定对土地进行恢复，最大限度保护生态环境。

在生物多样性保护方面，公司持续监测生物多样性影响，并采取有效措施，努力降低施工生产对生物种群造成的影响。

As a construction enterprise, the Company's operations will not have a significant impact on the environment and natural resources. The Company attaches great importance to the protection of the environment and natural resources, and has formulated and conscientiously implemented the Measures for Supervision and Management of Energy Conservation and Emission Reduction, the Environmental Protection Management Measures and other systems. In the early stage of construction, the Company organizes professional organizations to carry out environmental impact evaluation, and based on the evaluation results, to formulate feasible and effective protection programs, implement measures relating to soil and water conservation, biodiversity protection and vegetation protection, so as to achieve simultaneous planning and implementation of ecological environmental protection and engineering. During the construction, the Company continuously invests in ecological protection by using environmental protection equipment, improving the construction process and optimizing the construction plan, so as to reduce the impact on water, atmosphere, vegetation and organisms. The Company's information system for energy conservation and ecological protection regularly collects ecological monitoring data to improve the intuitiveness and authenticity of ecological protection information. In 2023, the rate of the Company's completed projects that passed the environmental impact evaluation was 100%.

In terms of land use, the Company seriously implements the Law on the Prevention and Control of Soil Pollution (《土壤污染防治法》). It incorporates ecological restoration into project management in the early stages of construction, by upholding the principles of scientific site selection, standardized abandonment, prior protection, and active consumption. We ensure that, after the construction at each construction site is completed, the earth's surface is covered with suitable soil, construction waste on both sides of the road is removed, and the ground is restored to its natural state. For the temporary land involved in the construction, the Company strictly prepares and implements land use and reclamation plans for protecting environmentally sensitive areas such as densely populated areas and nature reserves, and restores the land according to relevant regulations after project completion to maximize the protection of ecological environment.

In terms of biodiversity protection, the Company continuously monitors the biodiversity impact and manages to reduce the impact of construction and production on biological populations.

案例 Case

中国中铁大桥局在承建G3铜陵长江公铁两用大桥过程中，致力于守护江豚的生存环境，开展长江珍稀生物知识培训，配备智能识别系统和救护设备，组织发现受伤江豚应对演练，定期对江域进行巡逻，使得消失已久的江豚再次出现在大桥施工现场，它们不时跃出水面嬉戏追逐。

When undertaking the G3 Tongling Yangtze River Highway-Railway Dual-purpose Bridge, China Railway Major Bridge Engineering Group Co., Ltd. was committed to conserving the living environment of neophocaena phocaenoides asiaeorientalis, educated its employees as to the knowledge on rare creatures in the Yangtze River, and prepared the intelligent identification system and rescue equipment. Moreover, the company drilled how to respond when finding neophocaena phocaenoides asiaeorientalis, regularly patrolled the local river basin. Benefiting from these measures, neophocaena phocaenoides asiaeorientalis, which had disappeared for a long time, have appeared on the construction site of the major bridge again, jumping out of water, playing and chasing one another.

环境机遇 Environmental Opportunity

公司将绿色发展理念融入经营流程，对相关机遇时刻保持敏锐洞察，通过系统化的识别，在绿色规划与施工，清洁能源开发和环保产业建设方面不遗余力，为建设生态文明增砖添瓦。

绿色规划与施工 Green planning and construction

- **绿色规划：**公司贯彻落实国家节能减排方针、政策，深入贯彻绿色发展理念，引入全生命周期绿色设计模式，宣贯《中国中铁股份有限公司碳达峰行动方案》，督导二级企业编制形成《碳达峰行动细则》，将绿色、低碳理念融入到工程规划设计的全过程，从源头上控制能耗。
- **绿色施工：**公司高度重视工程项目绿色施工科技攻关及示范引领，全面开展绿色施工技术、低碳评估技术、低碳能源运行管理系统等关键技术研究，推广节能低碳技术应用。全面开展绿色施工科技示范工程和节能低碳技术评比工作，以评促建，绿色低碳施工成效显著。

The Company has integrated the concept of green development into its business, and remains keenly aware of relevant opportunities. Through systematic identification, the Company spares no effort in green planning and construction, clean energy development and construction of the environmental protection industry, contributing to the construction of ecological civilization.

- **Green planning:** The Company implements the national guidelines and policies regarding energy conservation and emission reduction, and thoroughly practices the concept of green development. In addition to introducing a full life cycle green design mode, the Company publicises and implements the Carbon Peak Action Plan of China Railway Group Limited, supervises the secondary enterprises to prepare and form the Carbon Peaking Action Rules and integrates the concept of green and low carbon throughout engineering planning and design, to control energy consumption at the source.
- **Green construction:** The Company puts a high value on tackling hard-nut problems and playing a role of pilot in green science and technology of construction projects. It carries out research on key technologies such as green construction technology, low-carbon assessment technology and low-carbon energy operation management system, and promotes the application of energy-saving and low-carbon technology. The Company evaluates demonstration projects of green construction technology and energy-saving and low-carbon technology, and promotes construction through the evaluation. As a result, remarkable results are achieved in green and low-carbon construction.



清洁能源开发

Clean energy development

公司一贯积极参与清洁能源开发项目，在各施工项目上积极研发推广使用地源热泵、光伏发电、热电冷三联供、空气能使用等清洁能源技术。在工程项目开发运营和房地产开发业务中，实现清洁能源技术和资源使用平台的优势互补，确保开发的工程项目在清洁能源开发利用、能源节约、生态环境保护、集中供暖供冷等领域达到先进水平。

The Company has participated in the development clean energy, and researched and promoted the use of clean energy technologies such as ground source heat pumps (GSHPs), photovoltaic power generation, combined cooling, heating and power (CCHP), and air energy in construction projects. In the development and operation of construction projects and real estate development, we enable clean energy technologies and resource use platforms to complement each other with their respective strengths. We work to see that the developed construction projects reach advanced levels in the fields of clean energy development and utilization, energy conservation, ecological environmental protection, central heating and cooling, etc.

案例 Case

中国中铁在广州铁路枢纽新建广州白云站项目屋面工程中，大量采用太阳能光伏技术，采用国产碲化镉110瓦光伏组件，以“自发自用，余电上网”发电模式，在金属屋面建设1.85万平米，2.5兆瓦光伏电站，可实现25年年平均发电量245万千瓦时。按2022年度全国电网平均排放因子0.5703t CO₂/MWh计算，年约减排二氧化碳1,397吨。

When building the roof work of the Guangzhou Baiyun Station Project in the Guangzhou Railway Hub, CREC adopted a lot of solar photovoltaic technologies, and deployed the Chinese cadmium telluride-based 110W photovoltaic component. Under the generation mode of “generating power for own use and selling remaining power to grid”, we built a metal roof covering an area of 18,500 square meters and 2.5MW photovoltaic station, which can realize an annual average power output of 2.45 million kWh for 25 years. It can reduce the carbon dioxide emission by about 1,397 tons based on the average emission factor of the national power grid at 0.5703t CO₂/MWh of the national power grid in 2022.



参与环保产业

Participation in environmental protection industry

公司认为在全球低碳经济转型的背景下，清洁技术和环保产业将具有良好的发展前景和商业机会。中国中铁为此成立的水务环保行业的综合企业——中国铁工投资建设集团有限公司，下设水务、市政环保建设、智慧城市、生态环境、绿色资源开发五个子专业公司。2023年，该公司承建了成武县污水处理厂及提标改造工程、昆明市第十五水质净化厂特许经营项目；主导总承包了沙尔沁工业区污水处理厂一期改造工程、通渭县污水处理厂管理运营服务项目、贡嘎县空港新区污水处理厂及配套管网建设项目、定安县水资源利用及水环境治理项目等水务工程；投入运营了徐水区域东污水处理厂综合利用项目、合肥西部再生资源综合利用配套临时堆场项目；投资研发“自来水厂余泥制作为海绵土介质颗粒的制备系统”“自来水厂余泥制作的颗粒状生物滞留设施介质层填料”，为绿色环保项目提供技术方案支持。未来，公司将继续扩大在该领域的投入，为生态环保治理和基础设施建设添砖加瓦。

The Company believes that in the context of the global low-carbon economic transformation, clean technology and environmental protection industries will have favorable development prospects and business opportunities. China Railway Construction Group Co., Ltd., CREC's conglomerate in the water and environmental protection industry, has five sub-professional companies in water, municipal environmental protection construction, smart cities, ecological environment, and green resource development. In 2023, the company undertook the construction and upgrading of Chengwu County Sewage Treatment Plant and the franchise project of Kunming 15th Water Purification Plant. It led the general contracting of phase I renovation project of the Shaerqin Industrial Zone Sewage Treatment Plant, the management and operation service project of the Tongwei County Sewage Treatment Plant, the construction project of the Gongga County Airport New Area Sewage Treatment Plant and supporting pipeline network, and the water resource utilization and water environment treatment project in Ding'an County. It has put into operation the Comprehensive Utilization Project of Xushui District Chengdong Sewage Treatment Plant and the Temporary Storage Yard Project for Comprehensive Utilization of Regenerated Resources in the West of Hefei. We invested in the research and development of "a preparation system for sponge soil medium particles made from water plant residue sludge" and "a granular biological medium layer filler for the retention facility made from water plant residue sludge", providing technical solution support for green environmental protection projects. Going forward, we will continue to expand our investment in this sector, to contribute our share to ecological environmental protection and infrastructure construction.



应对气候变化

Tackling climate change

公司密切关注全球气候变化趋势和对公司业务所带来的影响，积极采取节能减排措施，投资利用清洁能源，减少自身温室气体排放。

针对突发环境事件，如地震、台风、泥石流、洪水等已经或可能给公司施工造成影响的自然灾害或重大气候变化，公司制定有《安全质量、生态环境及灾害事故（事件）应急预案》，对危险源识别、危险性分析、预防与预警、应急响应、善后处置、应急保障、培训演练等有明确且规范的指引。

针对长期气候变化，公司大力拓展以“生态修复、城市修补”为主要内容的城市双修、海绵城市、海域岸线综合治理等业务领域，积极适应因气候变化可能带来的城市环境变化等问题。

Paying close attention to global climate change trends and the impact on business, the Company actively adopts measures relating to energy conservation and emission reduction and invests in the use of clean energy, to reduce its own greenhouse gas emissions.

For environmental emergencies, such as earthquakes, typhoons, mudslides, floods and other natural disasters or significant climate change that have affected or may affect the Company's construction, the Company has formulated the Emergency Plan for Safety, Quality, Ecological Environment and Disaster Accidents (Events). There are clear and standardized guidelines for danger source identification, risk analysis, prevention, early warning, emergency response, aftercare, emergency support, training and drills, etc.

For long-term climate change, the Company vigorously expands business areas such as urban renovation with "ecological restoration and urban repair" as its main content, sponge cities and comprehensive management of seashore coastlines, and adapts to problems including urban environment changes possibly caused by climate change.

案例 Case

中国中铁积极推进矿山复垦绿化工程，同时提高生态修复过程中固碳能力。2023年，公司完成复垦绿化面积16.29公顷，其中排土场栽树（松树）2.5公顷（25,587棵）、播草6.15公顷，尾矿库播草5.34公顷，表土堆场播草2.3公顷。经测算矿山修复固碳能力约7450吨二氧化碳当量（tCO₂e）。

CREC was active to carry forward mine reclamation and landscaping. At the same time, we enhanced the carbon sequestration capacity in the ecological restoration. In 2023, we completed a reclamation and landscaping area of 16.29 hectares, including planting trees (pine) covering an area of 2.5 hectares (25,587 trees), sowing weed seeds covering an area of 6.15 hectares, sowing weed seeds covering an area of 5.34 hectares on the tailing pond, and sowing weed seeds covering an area of 2.3 hectares on the top soil pond. It is estimated that the carbon fixation capacity of mine restoration is approximately 7,450 tons of carbon dioxide equivalent (tCO₂e).





Society

社会篇

创造价值
Value Creation

人力资本管理
Human Capital Management

维护员工权益
Safeguarding of Staff's Rights and Interests

保障员工健康与安全
Employee Health and Safety Protection

关注员工成长与发展
Focusing on the Growth and Development of Employees

产品责任
Product Responsibility

供应商管理
Supplier Management

社区投资
Community Investment



创造价值 Value Creation

经济绩效

Economic performance

中国中铁致力成为国民经济发展的支柱。2023年，公司通过完成全球市场，特别是中国市场的铁路、公路、轨道交通、港口、市政、机场等基础设施建设，拉动了全球和地方经济增长，促进了经济发展和社会进步，不断为社会创造和积累优质物质财富。

2023年，公司新签合同额31,006亿元，同比增长2.2%；公司营业总收入12,634.8亿元，同比增长9.45%；实现归属母公司净利润334.83亿元，同比增长7.07%，成为社会财富的重要创造者和社会经济发展的重要推动力量。

推动就业

Employment promotion

公司始终把促进就业作为履行企业社会责任的一项关键内容。2023年，公司积按照国务院国资委关于高校毕业生招收工作的安排部署，结合企业自身发展战略，持续加强高校毕业生人才引进工作。2023年，公司共签约高校毕业生19,000余人。同时，公司严格遵守《劳动合同法》等有关法律法规，及人力资源与社会保障部、教育部、国务院国资委等有关要求，并制定有《人才引进管理规定》，明确载明坚决杜绝一切针对民族、地域、宗教、性别、家庭等方面的歧视及恶性竞争行为，为所有员工提供平等就业与晋升机会，建立了人才市场化引入、与企业共同发展、依法依规退出的管理机制。

2023年，公司持续为稳定农民工就业创收提供机遇，推进农民工实名制管理、工资专用账户、工资保证金和银行代发工资等措施，保证农民工工资按时且足额发放。同时，公司严格做好农民工岗前安全教育培训和现场操作技能培训，并对特殊工种全部进行岗前强化培训，不断提高农民工作业技能。

CREC is committed to becoming the pillar of national economic development. In 2023, the Company completed the infrastructure construction in railways, highways, rail transit, ports, municipal works and airports in the global market, particularly in the Chinese market. This stimulated global and local economic growth, bolstered economic development and social progress, and continuously created and accumulated high-quality material wealth for society.

In 2023, the Company recorded total value of newly-signed contracts of RMB3,100.6 billion, up 2.2% year on year; total revenues of RMB1,263.48 billion, up 9.45% year on year; realized net profit attributable to the parent company of RMB334.83 billion, up 7.07% year on year. These increases demonstrate that CREC has become the major creator of social wealth and an important driving force for social and economic development.

The Company has regarded promoting employment as a key element to fulfill corporate social responsibilities. In 2023, in accordance with the arrangement and deployment of the SASAC of the State Council on the recruitment of college graduates, the Company continued to strengthen the introduction of college graduates in combination with its own development strategy. In 2023, the Company introduced a total of more than 19,000 college graduates. At the same time, the Company strictly abides by the Labor Contract Law and other relevant laws and regulations, and the relevant requirements of the Ministry of Human Resources and Social Security, the Ministry of Education, the SASAC of the State Council, etc., and formulates Talent Recruitment Management Regulations, which clearly requires resolute elimination of all actions of discrimination and vicious competition against ethnicity, region, religion, gender, family, etc., provides equal employment and promotion opportunities for all employees, and has established a management mechanism for talents of market-oriented introduction, common development with enterprises, and legal and compliant exit.

In 2023, the Company continued providing opportunities for stabilizing the employment and income of migrant workers and promoted the implementation of measures such as real-name management of migrant workers, special wage accounts, wage deposits and payroll credit, to see that their wages are paid on time and in full. Meanwhile, the Company strictly provided pre-job safety education and training and on-site operation skill training to peasant workers, and provided intensive pre-job training for workers involved in special types of work to improve their skills.

合作共赢

Win-win cooperation

中国中铁十分重视与国内外各类组织和大型企业的战略合作，2023年共签署战略合作协议17项。公司在人才培养、资金管理、施工生产、材料供应、文化构建、科技创新、战略发展等方面，与各级政府、高校、社会组织、金融机构及其他相关企业等建立了稳固的战略联盟和密切的合作关系，促进了多方优势互补，实现了资源共享与协同发展。

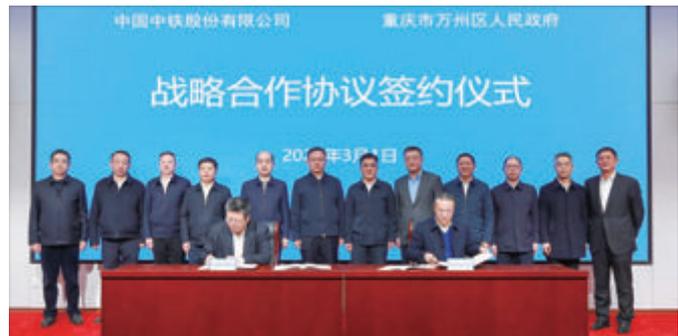
2023年，公司充分利用在资金、技术、管理及人才等方面的优势，与云南省、吉林省、辽宁省、河北省、贵州省、山东省、甘肃省、广东省、湖南省、海南省、福建省、西藏自治区、新疆维吾尔自治区、广西壮族自治区、内蒙古自治区、北京市、重庆市等地方政府，以及中林集团、中国建材、中国建科、中国广核集团、中国三峡集团等企业进行了高层交流，为之后的深入合作奠定了良好基础。

CREC places considerable value on strategic cooperation with domestic and overseas organizations and large-scale enterprises, and signed 17 strategic cooperation agreements in 2023. The Company has established stable strategic alliances and close cooperative relationships with governments at all levels, colleges and universities, social organizations, financial institutions and relevant enterprises in talent training, fund management, construction and production, material supply, culture construction, technological innovation and strategic development, and promoted all-round complementary advantages to achieve resource sharing and collaborative development.

In 2023, the Company fully utilized its advantages in funding, technology, management, and talent to engage in high-level exchanges with Yunnan Province, Jilin Province, Liaoning Province, Hebei Province, Guizhou Province, Shandong Province, Gansu Province, Guangdong Province, Hunan Province, Hainan Province, Fujian Province, Xizang Autonomous Region, Xinjiang Uygur Autonomous Region, Guangxi Zhuang Autonomous Region, Inner Mongolia Autonomous Region, Beijing City, Chongqing City and other local governments, as well as China Forestry Group Corporation, China National Building Material, CCTC, CGN Group, China Three Gorges Corporation and other enterprises. This laid a solid foundation for in-depth cooperation in the future.



中国中铁与中国建材签订战略合作协议
CREC signed a strategic cooperation agreement with China National Building Material



中国中铁与重庆市万州区签订战略合作协议
CREC signed a strategic cooperation agreement with Wanzhou District, Chongqing City



人力资本管理 Human Capital Management

公司秉持“以人为本、平等公正，团结协作、开放包容，追求企业与员工、与股东、与社会的共同发展、和谐共赢”的核心价值观，深入贯彻人才强企战略，坚持人才资源是第一资源理念，推动人才发展和企业发展协同并进，配套制定有《人才引进管理规定》《国际化人才队伍建设的实施意见》《高技能人才评价实施办法》《职业经理人市场化选聘契约化管理办法》等系列制度。以三项制度改革为切入点，不断健全完善人才市场化经营机制，有效盘活人才资源，激发各类人才队伍活力。

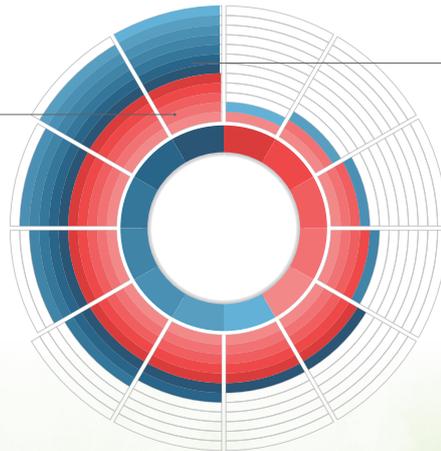
公司领导人员队伍结构更加优化。2023年，公司通过调整选拔，本科以上学历领导人员占比达到99.8%，高级及以上职称领导人员占比达到98.2%，队伍梯次配置更加合理均衡，履职经历更加丰富，年龄结构更加科学。

Adhering to the core values of “people orientation, equality and justice, unity and cooperation, openness and tolerance, pursuit of common development, harmony and win-win situation between the Company and employees, shareholders and society”, the Company thoroughly implements the strategy of strengthening enterprises with talents. Upholding the concept of viewing talents as the first resource, the Company promotes the synergy of talent and enterprise development. To this end, the Company formulates a series of systems, such as Talent Recruitment Management Regulations, Implementation Opinions on the Building of Internationalized Talent Team, Implementation Measures for the Evaluation of Highly Skilled Talents and Contractual Management Measures for the Market-based Selection and Recruitment of Professional Managers. Taking the reform of three systems as the entry point, the Company keeps improving the market-oriented operation mechanism of talents, revitalizes the talent resources, and energizes various talent teams.

The structure of the Company's leadership team is more optimized. In 2023, through adjustment and selection, the proportion of leaders with a bachelor's degree or above reached 99.8%, and that of leaders with senior and above titles reached 98.2%. The figures show that the echelon configuration is more rational and balanced, the experience in performing duties is richer, and the age structure is more scientific.

本科以上学历领导人员占比达到
99.8%

the proportion of leaders with a bachelor's degree or above reached
99.8%



高级及以上职称领导人员
占比达到 **98.2%**

leaders with senior and above titles reached **98.2%**



公司高层次专家人才队伍建设获突破。2023年，2个团队荣获“国家卓越工程师团队”称号；15名高层次专业技术人才获批享受政府特殊津贴；1个团队荣获首届中央企业优秀创新团队、1名个人荣获中央企业优秀青年科技人才；1人荣获茅以升铁道科学技术奖、11人荣获茅以升建造师奖；2人荣获工程建设科学技术杰出成就奖、1人荣获工程建设科学技术青年创新奖；2人入选第八届中国科协青年人才托举工程。

公司高技能人才培养成效显著。2023年，8名高技能人才获批享受政府特殊津贴、1人获评国资委中央企业技术能手、2人获评全国交通技术能手。

公司“双一流”高校毕业生引进力度进一步加大。结合公司业务特点和发展需求，2023年共招收“双一流”高校毕业生4,600余人，约占全年招收毕业生总数的24%，较上年增长3个百分点。



● 中国中铁举办第五届职业技能竞赛盾构机操作工决赛，进一步加强技能人才队伍建设
CREC held the final of the 5th Vocational Skills Competition for shield operators to further strengthen the construction of a skilled talent team

The Company made a breakthrough in building a high-level expert team. In 2023, 2 teams won the title of the “National Excellent Engineer Team”, 15 high-level technological professionals were approved to receive the special government subsidy, 1 team won the title of the first excellent innovation team of the central state-owned enterprise, 1 person won the title of the excellent young technological talent of central state-owned enterprise, 1 person won the Mao Yisheng Award for Railway Science and Technology, 11 persons won the Mao Yisheng Award for Builders, 2 persons won the Outstanding Achievement Award for Engineering Construction Science and Technology, 1 person won the Youth Innovation Award for Engineering Construction Science and Technology, and 2 persons were shortlisted in the Eighth Youth Talent Support Project of China Association for Science and Technology.

The Company made an evident effect in cultivating high-skill talents. In 2023, 8 high-skill talents were approved to receive the special government subsidy, 1 person was awarded the Technological Master of Central State-owned Enterprise by the SASAC, and 2 persons were honored the National Traffic Technology Master.

The Company intensifies efforts to introduce the graduates of “Double First-rate” universities. In light of the business characteristics and development needs, the Company introduced more than 4,600 graduates from “Double First-rate” universities in 2023, accounting for approximately 24% of the total number of graduates recruited throughout the year, up 3 percentage points year on year.



● 中国中铁开展2023年度职称评审工作，有效充实了企业专业技术人才队伍
CREC carried out the 2023 title evaluation work, which effectively replenished the professional and technical talent team of the Company

案例 Case

中国中铁在全公司建立了三级专家体系，分为专家、高级专家、首席科学家，并施行年度履职考核制度，形成了统一管理、分级负责、上下贯通、逐级晋升的专家人才成长通道，高端专家人才的引领作用和头雁效应日益显现。

CREC established a three-level expert system throughout the Company, divided them into experts, senior experts, and chief scientists, and implemented an annual performance evaluation system. The Company formed a unified management, hierarchical responsibility, top-down communication, and step-by-step promotion channel for expert talent growth. The leading role and pioneer effect of high-end expert talents are increasingly evident.

中国中铁2023年员工总数及分类数据
The total number of employees and classification data of CREC in 2023

截至本报告期末，公司共有在册员工299,652人。
As of the end of the reporting period, the Company has 299,652 registered employees.

员工类型 Employee type	数量(人) Quantity (person)	比例 Ratio to total number of employees
全职员工 Full-time employees	299,652	100%
兼职员工 Part-time employees	0	0%
男性员工 Male employees	250,540	83.6%
女性员工 Female employees	49,112	16.4%
35岁及以下员工 Employees at or under 35 years old	132,893	44.3%
35岁至50岁员工 Employees between 35 and 50 years old	113,588	37.9%
50岁及以上员工 Employees aged 50 years old and above	53,171	17.7%
境内员工 Domestic employees	294,703	98.3%
境外员工 Overseas employees	4,949	1.7%
大专及以上学历员工 Employees with college education or below	106,121	35.4%
本科学历员工 Employees with a bachelor's degree	177,620	59.3%
硕士学位员工 Employees with a master's degree	15,539	5.2%
博士学位员工 Employees with a doctorate degree	372	0.1%
高级职称员工(含正高级) Employees with senior titles (including: those with professorate senior titles)	46,349 (4,049)	15.5%
中级职称员工 Employees with intermediate titles	74,976	25%
助理级职称员工 Employees with assistant titles	78,013	26%
员级及以下 Employees with junior titles or below	20,917	7%
其他 Others	79,397	26.5%
专家 Experts	720	0.2%
有国家执业资格员工 Employees with national vocational qualifications	17,887	6%

1.比例=该类型员工数量/员工总数；
2.由于四舍五入关系，个别项目数字可能与总数略有出入。

1. Percentage = number of employees of such classification/total number of employees;
2. The figures for certain items may not add up due to rounding.

流失员工类型 Types of employees lost	员工流失比率 Turnover Rate of employees	流失员工类型 Types of employees lost	员工流失比率 Turnover Rate of employees
男性员工 Male employees	2.1%	35岁及以下员工 Employees at or under 35 years old	3.7%
女性员工 Female employees	1.2%	35-50岁员工 Employees between 35 and 50 years old	0.8%
境内员工 Domestic employees	2%	50岁及以上员工 Employees aged 50 years old and above	0.2%
境外员工 Overseas employees	1.8%		

1.2023年，公司员工流失比率为2%；
2.流失率=主动离职/同时期人数。

1. In 2023, the employee turnover rate of the Company was 2%;
2. Turnover Rate = the number of voluntary resignation/concurrent employees.

维护员工权益 Safeguarding of Staff's Rights and Interests

公司严格遵守《中华人民共和国劳动法》《中华人民共和国劳动合同法》《禁止使用童工规定》《女职工劳动保护特别规定》和运营所在地所在国的其它对公司员工管理有重大影响的法律法规，不断强化契约化管理，制定了《人才引进管理规定》《劳动合同管理指导意见》《员工薪酬管理办法》《员工薪酬及休假管理指导意见》等制度。公司坚决抵制和反对任何形式的雇佣童工和强制劳动行为，在签订劳动合同过程中，严格核查应聘者身份信息，明确禁止雇佣童工，并在合同中详细载列双方的权利义务，强调依法按时支付员工薪酬，保障劳动者休息休假的权利，坚决维护广大员工合法权益。公司制定有《女职工权益保护专项集体合同》，致力于减少和解决女职工在劳动中因生理特点造成的特殊困难，从而保护女职工健康。本报告期内，未发现使用童工及强制劳工的事件。

公司各级企业每年都召开一次职工代表大会，持续推进四级职代会规范化建设。2023年，公司召开了四届一次职代会，按程序圆满完成了审议行政工作报告、提案征集处理报告、集体合同履行情况报告，以及民主评议领导人员、职工董监事、签订集体合同等议程。对职代会征集审定立项的93项提案实现“一案一复”，提案办结率100%。推进民主管理制度体系建设，指导8家企业完成了职代会新建和换届工作，指导46家企业召开了职代会，履行了民主程序，落实了职代会职权。

The Company strictly abides by the Labor Law of the People's Republic of China (《中华人民共和国劳动法》), Labor Contract Law of the People's Republic of China (《中华人民共和国劳动合同法》), Provisions on the Prohibition of Using Child Labor (《禁止使用童工规定》), Special Rules on the Labor Protection of Female Employees (《女职工劳动保护特别规定》) and other relevant laws and regulations that have significant impact on the employee management of the Company in countries where the Company conduct operations. The Company constantly strengthens contractual management and formulates systems such as Regulations on the Management of Talent Introduction (《人才引进管理规定》), Guidance on Labor Contract Management (《劳动合同管理指导意见》), Employee Salary Management Measures (《员工薪酬管理办法》), and Guidance on Salary and Attendance Management for Employees (《员工薪酬及休假管理指导意见》). The Company resolutely resisted and opposed any form of child labor and forced labor practices. In the process of signing labor contracts, the Company strictly verifies the identity information of candidates, clearly prohibits the employment of child labor, and sets out in detail the rights and obligations of both parties in the contract, emphasizing the timely payment of employees' salaries in accordance with the law, safeguarding employees' rights to rest, and firmly safeguarding the legitimate rights and interests of the employees. The Company has a Special Collective Contract for the Protection of Rights and Interests of Female Employees, which is dedicated to reducing and solving the special difficulties of female employees due to their physiological characteristics in labor, thereby protecting the health of female employees. During the reporting period, no incidents of child labor and forced labor were found.

Enterprises at all levels of the Company hold the workers' congress annually and continue to promote the standardized construction of the four-level workers' congress. In 2023, the Company held the 1st session of the fourth workers' congress, and in accordance with the procedures, completed the review of the administrative work report, the proposal solicitation and processing report, the collective contract performance report, and the democratic evaluation of leaders, employees, directors and supervisors, and the signing of the collective contract. The Company achieved the "review of proposals one by one" for the 93 proposals solicited through the workers' congress, and the rate of representative's satisfaction with the review of proposals is 100%. We promoted the development of democratic management systems, guided 8 enterprises to complete the establishment and replacement of their workers' congresses and guided 46 enterprises to convene their workers' congresses to perform democratic procedures and implement the power of the workers' congress.

中国中铁制定有《女职工劳动保护特别规定》，维护女职工合法权益
CREC has a Special Rules on the Labor Protection of Female Employees (《女职工劳动保护特别规定》) to Safeguard the legitimate rights and interests of the female employees



招聘与劳动合同管理

Recruitment and labor contract management

公司深入贯彻落实《改革深化提升行动实施方案（2023-2025年）》要求，持续推动改革走向深入，健全完善市场化用工机制，坚持依法用工、规范管理，构建和谐的企业用工关系，为公司高质量发展提供人力资源保障。

在人才招聘方面，公司修订印发《人才引进管理规定》，不断调整人才引进标准，对各类人才引进设置基本条件要求，从源头控制人才引进质量，对企业所需的高层次人才、特殊紧缺人才放宽引进条件限制，畅通引进渠道。在引进方式方面，明确通过公开招聘等市场化方式优化引进渠道，公开公平开展人才招聘工作。

在劳动合同管理方面，公司认真贯彻落实《劳动法》和《劳动合同法》，坚持依法合规、协商一致、防范风险、创新发展的原则加强合同管理，与所有受聘者均依法签订劳动合同，明确在劳动保护、劳动报酬、保险福利、职业道德等方面的权利和义务，以及合同变更、解除、终止、续订的标准和程序，并严格执行合同条款，不断加强劳动合同全过程管理。

公司境外机构和项目按照当地劳动法和社保法等，制定属地化的劳工管理制度，规范当地员工招聘、合同签订、社保交纳、出勤管理、请假制度、薪酬标准、解聘流程等各环节要求。

在员工晋升方面，公司制定有工程、会计、经济等各系列人员任职资格的评审和晋级的管理规定，明确了晋升标准和评审程序，并成立了相应的任职资格评审机构，为员工晋升畅通了渠道。

薪酬与福利

Remuneration and benefits

公司按照现代企业制度要求，持续健全市场化薪酬分配机制。进一步优化工资总额管理，落实“工资效益联动、效率对标调整、工资水平调控”要求，在精准考核的基础上，各单位工资总额与经营业绩、投入产出效率、劳动生产率挂钩。持续强化负责人薪酬管理，坚持“业绩升、薪酬升，业绩降、薪酬降”原则，按照制度办法、企业与负责人签订

The Company earnestly implemented the requirements of the Implementation Plan for Deepening and Upgrading Reform (2023-2025), continued to push forward the reform, improved the market-oriented employment mechanism, and insisted on legal employment and standardized management, so as to build a harmonious employment relationship, and maintain sound human resources guarantee for the high-quality development of the Company.

In terms of talent recruitment, the Company has revised and issued the "Regulations on Talent Introduction Management", continuously adjusted the standards for talent introduction and set basic conditions and requirements for various types of talent introduction. Also, the Company controlled the quality of talent introduction from the source, and relaxed the restrictions on introduction conditions for high-level talents and special scarce talents needed by enterprises to smooth the introduction channels. As to the introduction mode, the Company optimized introduction channels by defining open recruitment and other market-oriented methods and conducted talent recruitment in an open and fair manner.

In terms of labor contract management, the Company conscientiously implements the Labor Law (《劳动法》) and the Labor Contract Law (《劳动合同法》). We adhere to the principles of compliance with the law, consensus, risk prevention and innovative development to strengthen contract management, and sign labor contracts with all employed persons in accordance with the law to clarify the rights and obligations in labor protection, labor compensation, insurance and welfare, professional ethics, etc., as well as criteria and procedures for contract changes, cancellation, termination and renewal, strictly perform the contract terms, and continuously strengthen the whole process management of labor contracts.

For the overseas entities and projects of the Company, we have formulated localized labor management systems in accordance with the local labor laws and social security laws to standardize local employee recruitment, contract signing, social security payment, attendance management, leave system, salary standards, and dismissal process.

In terms of staff promotion, the Company has formulated management regulations on the evaluation and promotion of personnel qualifications in various series of engineering, accounting and economics, clearly defined promotion standards and evaluation procedures, and set up a corresponding qualification evaluation organization, which has opened up channels for staff promotion.

The Company continued to improve the market-oriented salary distribution mechanism in accordance with the requirements of the modern enterprise system. We further optimized the total salary management, implemented the requirements of "salary-benefit linkage, efficiency-benchmarked adjustment, and salary level regulation", and linked the total salary of each institution with business performance, input-output efficiency, and labor productivity on the basis of precise assessment. We continuously strengthened the compensation management for senior officers, adhered to the principle of "salary increase

的《经营业绩责任书》等，根据考核结果确定负责人绩效薪酬。积极推进中长期激励工作，统筹运用上市公司股权激励、科技型企业股权和分红激励、超额利润分享、跟投等激励工具，努力实现扩面提质。进一步规范薪酬分配秩序，深化收入能增能减改革，加强津贴补贴福利规范管理，严肃薪酬分配纪律。保障职工工资支付，建立长效机制，健全和谐劳动关系。

公司切实保障职工合法社保权益，及时为职工参加基本养老保险、基本医疗保险、工伤保险、失业保险及生育保险。建立企业职工终身重疾保障体系，在全公司推行团体长期重大疾病补充医疗保险，最大限度为广大员工提供全生命周期的健康保障。

公司落实国家及国资委政策规定，建立了企业年金缴费水平与企业运行质量挂钩及动态调整机制，合理确定缴费水平，发挥年金保障与激励作用。规范年金企业缴费分配，强化年金投资运作管理，加强年金基金投管人绩效考核。加大日常管理力度，督导所属企业提高年金覆盖率，增强投资风险防控，保障员工权益。



● 中国中铁广泛开展“职工之家”建设
CREC extensively carried out the construction of “workers’ homes” projects at construction sites

with performance increase, salary decrease with performance decrease”, and determined the performance compensation for senior officers based on the assessment results in accordance with policies and measures, the Business Performance Responsibility Agreement signed between the enterprise and the senior officers. We actively promoted the medium – and long-term incentive plan, coordinated the use of incentive tools such as equity incentives for listed companies, equity and dividend incentives for technology-based enterprises, excess profit sharing, and follow-up investment, and tried to achieve expansion and quality improvement. We further standardized the salary distribution order, deepened the reform towards income fluctuation, strengthened the standardized management of allowances, subsidies and benefits, and strictly enforced the discipline of salary distribution. We ensured the payment of employee wages, established a long-term mechanism, and improved harmonious labor relations.

The Company earnestly protects employees’ legitimate social security rights and urges member companies to promptly pay basic endowment insurance, basic medical insurance, work injury insurance, unemployment insurance and maternity insurance. We have established a lifelong serious illness insurance system for employees, and implemented group supplementary medical insurance for long-term serious diseases throughout the Company, so as to provide full life cycle health insurance for employees to the maximum extent.

According to the requirements of State and SASAC policies the Company has established a mechanism where the level of annuity payment is linked to the quality of enterprise operation and where dynamic adjustments are permitted. The mechanism enables the reasonable determination of payment level and gives play to the role of annuity protection and incentives. We have standardized the allocation of annuity contributions among enterprises, strengthened the operation and management of annuity investment, and enhanced the performance evaluation of annuity fund investors and managers. We have strengthened daily management, supervised affiliated enterprises to improve annuity coverage, and enhanced investment risk prevention and control, in order to protect the rights and interests of employees.



● 中国中铁四局市政公司积极打造精品职工书屋，满足职工求知启智、休闲放松的阅读需求
The Municipal Engineering Co., Ltd. of CTCE Group actively builds boutique staff bookstores to meet the needs of employees for knowledge, intelligence, leisure and relaxation

关爱员工身心健康

Caring for employees' physical and psychological health

公司确保全体员工每年至少进行一次健康体检，不断提高检查标准和检查质量。推广应用大数据技术对员工体检结果进行分析评估，对群体性、普遍性问题实施有效预防。2023年，精准帮困基金帮扶救助困难职工和大病职工453人次，发放救助金329.45万元，切实增强了员工抵御重大疾病、意外事故能力。

公司推广实施员工健康关爱计划，加强内部专员队伍建设，指导有条件的项目部积极建设员工心灵驿站，设置心理咨询室、放松室、健身房、健康体检仪等专属空间和设施，依托心理咨询、心理援助(EAP)和健康管理技术，对员工身心健康、职业发展、人际关系、婚姻家庭、压力管理、灾难事件应对等方面提供咨询帮助，有效促进员工身心健康。成立员工心理关爱(EAP)协会并召开首次年会，举办EAP团辅大赛和健康委员、内训师培训班，共计培训380余人次。

The Company ensures that all employees undergo at least one physical examination a year while continuing to improve examination standards and quality. The Company promotes the application of big data technologies in the analysis and evaluation of the physical examinations, and implements effective prevention of group and universal problems. In 2023, we granted RMB3.2945 million to 453 employees with difficulties and serious illness by the Special Fund for Targeted Poverty Relief, which effectively strengthened employees' ability to resist major diseases and accidents.

The Company popularizes the implementation of the employee health care plan, strengthens the construction of the team of internal specialists, guides qualified project departments to actively build employees' mental stations, and sets up exclusive spaces and facilities such as psychological consultation rooms, relaxation rooms, gyms, and physical examination instruments. By relying on psychological consultation, employee assistance program (EAP) and health management technologies, the Company provides counseling assistance to employees in terms of psychological health, career development, interpersonal relationship, marriage and family, stress management, and disaster response, to effectively boost the physical and psychological health of employees. We established the EAP Association and held the first annual meeting, and held the EAP group counseling competition and training courses for health members and internal trainers, with a total of more than 380 participants.



2023年5月25日，中国中铁员工健康关爱心理协会揭牌，进一步推动员工健康关爱工作落落实地
On 25 May 2023, CREC Employee Health Care Association was inaugurated to further promote the implementation of employee health care work



中国中铁大桥局甬舟铁路项目部开展“送清凉”活动
The Ningbo-Zhoushan Railway Project Department of China Railway Major Bridge Engineering Group Co., Ltd. carried out the activity of "sending coolness"

案例 Case

2023年12月18日23时59分，甘肃省临夏州积石山县发生6.2级地震。中国中铁职工积极奔赴现场参与了抗震救灾工作，所属个别项目受到地震影响并产生经济损失。公司工会紧急下拨86.9万元，支援抗震救灾工作。

A 6.2-magnitude earthquake struck Jishishan County, Linxia Prefecture, Gansu Province, at 23:59, 18 December 2023. CREC's staff actively rushed to the site to participate in earthquake relief, and some of their projects were affected by the earthquake and caused economic losses. The Company's Trade Union urgently allocated RMB869,000 to support the earthquake relief.

保障工作与生活平衡

Work-life balance guarantee

公司严格遵守国家劳动相关法律法规，认真执行《职工带薪年休假条例》及其他各类假期规定，制定有《劳动合同管理规定》等制度，员工依法享受年休假、病假、婚假、丧假等权利。针对生产经营特别是一线项目部实际，采取轮休、调休、反探亲、发放补贴、重大节日延长放假时间等灵活多样的形式和措施，统筹安排员工休息休假，实行休假天数通报和年度清算制度。制定并落实《境外员工薪酬及休假管理指导意见》，保障境外员工休假权益。贯彻人力资源与社会保障部关于实行特殊工时制度的相关要求，认真执行《工作时间及假期管理办法》，依法合规加强工时管理，大多实行8小时标准工时制度，对符合规定条件的岗位申请实行特殊工时制度，切实维护劳动者权益。

The Company strictly abides by related national labor laws and regulations, and earnestly implements the Regulation on Paid Annual Leave for Employees (《职工带薪年休假条例》) and various other vacation regulations and has various systems in place, such as the Labor Contract Management Regulations. Pursuant to these laws and regulations, employees are entitled to the annual leave, sick leave, marriage leave, funeral leave and other rights. With regard to production and operation, particularly the actual situation of front-line project departments, the Company makes an overall plan for employees' rest and vacation by adopting flexible and diverse forms and measures, such as having holidays by turns, having holidays for working an extra shift, leaving home to visit the workers, granting subsidies, and extending vacation time on major festivals. The Company also implements the system of notifying the number of vacation days and performing the annual settlement. The Company formulates and implements the Guidelines for Remuneration and Vacation Management of Overseas Employees to protect their vacation rights. The Company implements the relevant requirements of the Ministry of Human Resources and Social Security on the implementation of the special working hour system, and conscientiously implements Management Measures for Working Hours and Vacation to strengthen the management of working hours according to laws and regulations, with practicing 8-hour standard working hour system mostly, and applies for implementing a special working hour system for posts satisfying the prescribed conditions, to earnestly safeguard the rights and interests of employees.

加强以“工地文化、工地生活、工地卫生”为基础的“三工”建设，开展项目部“幸福之家十个一工程”创建活动，落实“幸福之家”建设资金，在美化劳动工作环境、搭建建功立业平台、丰富工地文化生活、关爱员工身心健康、维护员工合法权益、构筑员工精神家园等多方面改善一线员工的工作环境和生活水平。制定《加强新时代职工文化建设的实施意见》，组建了文学、书法、摄影、漫画、桥牌、乒乓球、新媒体、音乐、朗诵、舞蹈、篆刻等职工兴趣协会。

The Company strengthens the “three-site” construction of “site culture, site life, and site hygiene”, carries out the activity of creating “a happy family through 10 key projects”, and puts the funds for creating “a happy family” into use. The Company works to improve the working environment and living standards of front-line employees from various aspects including beautifying the working environment, building a platform for making achievements, enriching the cultural life of the construction site, caring for the physical and psychological health of employees, safeguarding the legitimate rights and interests of employees, and building a spiritual home for employees. The Company formulates the Implementation Opinions on Strengthening the Construction of Employee Culture in the New Era, and set up interest associations such as literature, calligraphy, photography, cartoons, bridge, table tennis, new media, music, recitation, dance and seal cutting.



中国中铁二局五公司广泛开展“与心灵相约 与健康同行”员工健康关爱月系列活动

The Fifth Company of China Railway No. 2 Engineering (中铁二局五公司) widely carried out a series of activities of “Meeting with the Soul and Walking with Health” for employees’ health care month



中国中铁四局举办“同心喜结百年缘，携手奋进新征程”中式集体婚礼

China Railway No. 4 Engineering Group Co., Ltd. held a Chinese-style collective wedding themed “Joining Hands for 100 Years and Working Together for a New Journey” (同心喜结百年缘，携手奋进新征程)

案例 Case

2023年，公司举办了职工文化“五个一”优秀作品征集表彰活动；全年荣获火车头体协成立70周年先进单位和先进个人20个，有5人获“火车头职工艺术家”称号。1项艺术作品入选第十九届群星奖决赛职工原创文艺作品。

In 2023, the Company held a solicitation and commendation event for outstanding works under the “Five Ones” project as part of the employee culture. In the whole year, 20 exemplary organizations and individuals won the award at the 70th anniversary of the Locomotive Sports Association, and 5 people were awarded the title of “Locomotive Staff Artists”. 1 work was shortlisted for the creative artistic works at the final game of the 19th Stars Award.

保障员工健康与安全 Employee Health and Safety Protection

中国中铁作为工程施工类企业，保证安全生产、降低工伤事故是公司最为关注的领域之一，我们认为在生产运营中严格遵守法律法规对公司可持续发展至关重要。一直以来，公司严格遵守《中华人民共和国安全生产法》《中华人民共和国职业病防治法》《中华人民共和国消防法》《工伤保险条例》等相关法律法规，以及运营所在地、所在国的其它对公司员工健康与安全有重大影响的法律法规，制定了《职业安全健康管理规定》《职工生活保障工作的指导意见》等制度，不断在此领域强化管理，努力为员工提供健康安全的工作环境，减少工伤事故，保护劳动者的合法权益。

2023年，公司坚持生命至上、安全第一，树牢安全发展理念，强化红线意识和底线思维，始终把员工的生命安全和身体健康放在第一位，继续推动“管”“监”系统责任落实，持续强化安全生产管控，全面加强和规范安全生产教育培训，严格落实安全生产述职机制，促进自控体系有效运行。

Production safety and reduction of industrial accidents are one of the major concerns of CREC that engages in engineering construction. We consider that strictly abiding by the laws and regulations during production and operation is utterly important for the Company's sustainable development. All along, the Company strictly abides by the relevant laws and regulations, such as the Production Safety Law of the People's Republic of China (《中华人民共和国安全生产法》), the Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases (《中华人民共和国职业病防治法》), the Fire Control Law of the People's Republic of China (《中华人民共和国消防法》) and the Regulation on Work-Related Injury Insurances (《工伤保险条例》) as well as other laws and regulations that have a material effect on employees' health and safety in the regions and countries where the Company carries out operations, and formulates related systems, such as the Occupational Safety and Health Supervision and Management Regulations, Guiding Opinions on Employee Life Security Works to continue to intensify management in this area, striving to provide employees with a healthy and safe working environment, reduce work-related accidents and protect the legitimate rights and interests of the workers.

In 2023, CREC adhered to the policy of supremacy of life and safety first. Bearing in mind the safe development philosophy, the Company strengthened red line awareness and bottom-line thinking. Giving top priority to the life safety and physical health of employees, the Company continued to promote the fulfillment of "management" and "supervision" responsibilities. At the same time, the Company continued to strengthen management and control of safe production, comprehensively strengthened and standardized safe production education and training, put in place the mechanism of safe production reporting, and promoted the effective operation of the automatic control system.



中国中铁高度重视隧道及地下工程施工、密闭空间作业、高原作业、矿山开采、电离辐射照射等职业健康危害高发领域现场管理，普遍配备有“健康小屋”等职业健康保护设施。

CREC attaches great importance to on-site management in areas with high incidence of occupational health hazards, such as tunnel and underground construction, confined space operation, plateau operation, mining and exposure to ionizing radiation, and is generally equipped with occupational health protection facilities such as "health huts".

安全生产

Safe production

公司始终将“保持安全生产的稳定局面，为社会提供安全优质的建筑产品，为公众提供安全愉悦的周边环境，为员工创造安全健康的工作条件”，作为履行社会责任的重要方面。我们从落实安全责任、完善安全管理体系、强化安全施工管理、加强安全设备保障、开展安全教育培训五个方面，全方位强化安全生产，保障员工工作安全。

公司制定了项目“零事故、零伤害”和企业本质安全的长远目标，认真落实《安全生产管理“十四五”规划》，制定了《2023年安全生产、工程质量、环境保护和职业健康监督管理工作要点》，明确了全年工作思路和工作目标，并认真落实。公司施行的安全生产管理情况与高管薪酬挂钩措施，是国务院国资委对公司年度业绩考核和公司主要负责人任期考核的重要内容。在承包商安全生产管理方面，公司对劳务（专业）承包商实施负面清单管理。公司在评标过程中，对投标方的安全生产管理能力进行明确评估。2023年，公司严格执行《关于建立安全生产述职机制的通知》要求，完善了企业安全生产考核评价体系，督促安全生产第一责任人和分管负责人履职尽责。



中国中铁基层进行例行安全检查
Routine safety checks by the grassroots level of CREC

CREC always regards “to maintain the stable condition of safe production, to provide the society with safe and good-quality architectural products, to provide the public with a pleasant environment, and to create safe and health working conditions for the staff” as an important aspect of its social responsibility. We strengthen safe production and ensure the safety of employees in the following five aspects: implementing safety responsibility, improving safety management system, strengthening safety construction management, strengthening safety equipment protection and carrying out safety education and training.

The Company has set the long-term goals of “zero accident and zero injury” for projects and essential safety for itself, and has conscientiously implemented the “14th Five-Year Plan” for Management of Safe Production (《安全生产管理“十四五”规划》), and formulated the Safe Production, Engineering Quality, Environmental Protection and Occupational Health Supervision Management Essentials in 2023 (《2023年安全生产、工程质量、环境保护和职业健康监督管理工作要点》). The Company defined and conscientiously implemented the work ideas and objectives for the whole year. The Company’s safe production management is linked to the remuneration of senior management, which is an important part of the SASAC’s appraisal of the Company’s annual performance as well as the evaluation of term of office of the Company’s major responsible persons. In terms of contractor safety management, the Company implemented negative list management for labor (professional) contractors. In bid evaluation, the Company evaluated the capabilities of bidders of managing safe production. In 2023, the Company strictly enforced the requirement of the Notice on Establishing a Mechanism of Safe Production Reporting (《关于建立安全生产述职机制的通知》), improved the Company’s safe production assessment and evaluation system, and urged the persons chiefly in charge of safe production and other persons in charge of safe production to fulfill their duties with due diligence.



中国中铁在基层项目部广泛开展“安全大检查”活动
CREC widely carried out “safety checks” in the grassroots project department

落实安全责任

Implementing safety responsibility

公司设有安全生产（质量）委员会，统筹负责公司安全生产各项工作。委员会设主任2名，由公司党委书记、董事长和总裁担任；设副主任1名，由分管安全质量的副总裁担任；委员若干名，包含公司领导班子其他成员和高管、安全生产总监（高管）、高级专家、总部相关部门负责人。从公司总部到项目部，各级组织都设有安全生产总监和安全生产监督部门。

公司持续强化主体责任落实，完善管理体系，夯实管理基础，落实《中国中铁安全质量管理体系提升实施方案》，落实国务院安委会“十五条”重要措施，修订发布《中国中铁铁腕治安硬十条》。公司不断加强安全生产体系建设，加大安全生产投入和管控力度，构建了体系化、立体化、常态化并以检查、帮扶、指导于一体的预控机制。各层级企业安全生产管理体系进一步健全，工作机制运行情况有所改善，安全生产重要文件，各系统协同联动、同向发力的行动自觉明显增强。实现了营业收入大幅增长、百亿元营业额死亡人数大幅下降。

2021年，公司发生重大生产安全责任事故1起，致14人死亡，该年度因工伤损失工作日数169天，每百亿元营业收入重大生产安全责任事故死亡人数为0.18人。2022年、2023年，公司无因重大生产安全责任事故造成的死亡和因工伤损失工作日数。

The Company has a safe production (quality) committee, which is responsible for all aspects of the Company's safe production. The committee has 2 directors who are the Company's Party Secretary and chairman, and the president; 1 deputy director who is the vice president in charge of safety and quality; several members who are the members of the Company's leadership team and senior management, safe production directors (senior executives), senior experts, and head of relevant departments at headquarters. From the Company's headquarters to the project department, organizations at all levels have safety production directors and production safety supervision departments.

In order to continue to strengthen the fulfillment of main responsibilities, perfect the management system, and consolidate the management foundation, the Company implemented the requirements of the China Central Railway Plan for Improving the Safety and Quality Management System of CREC (《中国中铁安全质量管理体系提升实施方案》). The Company put into place "15" important measures of the Work Safety Committee of the State Council, and revised and issued the Ten Measures for Public Security by a Strong Hand of CREC (《中国中铁铁腕治安硬十条》). The Company kept strengthening the construction of safety production system, stepped up the investment and control of safety production, and built a systematic, three-dimensional, and normalized pre-control mechanism that integrated inspection, assistance, and guidance. The enterprises at various levels further refined the work safety management system, improved the functioning of the working mechanisms to a certain extent, and obviously strengthened the important documents on work safety, collaboration between various systems and joint force. We substantially increased the operating revenue and slashed the deaths per RMB10 billion of operating revenue.

In 2021, one major production safety liability accident occurred in the Company, resulting in 14 deaths and 169 working days lost for work-related injuries in the year, the number of deaths from major production liability safety accidents per RMB10 billion of operating revenue was 0.18. In 2022 and 2023, the Company has no major production safety liability accidents resulting in death and loss of working days for work-related injuries.



完善安全管理体系

Improving safety management system

为提升企业安全工作保障能力，公司提出了新时期落实企业主体责任的“2468”管理要点，即落实“两个”责任、推进“四化”建设、健全“六大”体系、强化“八个”到位，科学阐述建筑企业安全管理的多层面、多领域、全要素管理内容、要求和作用。

公司深入贯彻《中共中央 国务院关于推进安全生产领域改革发展的意见》，认真落实GB/T28001标准，把生产要素系统（组织指挥、技术保障、资源配置）的常态管控作为安全生产的基础，采取有效措施，加强安全生产的源头管控和预防预控。同时，公司运用顶层设计、制度建立、监督检查等手段对安全生产情况进行纠偏，建立起层层预防、纠偏补充的多重保障体系，真正形成安全生产的长效机制，提高企业和项目本质安全保障能力。

2023年，公司全面落实“总制度+专项制度+刚性标准”制度体系。落实安全质量纲领性文件《中国中铁安全质量环保管理办法》，四个管理层级安全体系更加健全，运转有效，业务系统的管理支撑作用增强，系统合力逐步形成。推动各层级制定并发布了全员岗位安全责任制清单。为进一步规范双重预防工作机制的有效运行，发布实施了《安全风险分级管控和隐患排查治理双重预防工作机制指导意见》。公司各施工成员企业均成立了管控稽查队，建立了监督情况定期报告制度，及时消除现场安全

In order to improve the capability of ensuring safe production, the Company put forward “2468” management key points for implementing its main responsibilities in the new era, namely fulfilling the “two” responsibilities, advancing the “four modernizations”, improving the “six major” systems, and strengthening the “eight” implementations. The management key points scientifically elaborate the multi-level, multi-field and total-factor management content, requirements and functions of safety management of construction enterprises.

The Company thoroughly implements the Opinions of the CPC Central Committee and the State Council on Advancing the Reform and Development of the Work Safety Field (《中共中央国务院关于推进安全生产领域改革发展的意见》), and earnestly implements the GB/T28001 standard. By taking the normal control of the production factor system (organizational command, technical support, and resource allocation) as the basis for safe production, the Company adopts effective measures to strengthen the safe production at the source. At the same time, the Company rectifies production safety by adopting top-level design, system establishment, supervision and inspection and other measures, establishes a multi-level protection system of prevention, rectification and supplementation, and truly forms a long-term mechanism for safe production, to enhance intrinsic safety guarantee capabilities for itself and projects.

In 2023, the Company fully implemented the “general system + special system + rigid standards” policy framework. We implemented the safety and quality outline of China Railway Safety, Quality and Environmental Protection Management Measures, further perfected safety systems at four management levels. The systems worked effectively, the management support role of business systems was strengthened, and the joint force of these systems gradually took shape. We promoted the development and release of a list of safety responsibility systems for all positions at all levels. In order to further standardize the effective operation of the dual prevention mechanism, we issued and implemented the Guiding Opinions on the Dual Prevention Mechanism of Safety Risk Grading, Control and Hidden Danger Investigation and Governance. Each construction member enterprise of the Company has established a control and inspection team,



质量环保各项隐患。通过对全年常态化隐患排查问题进行系统分析，项目安全隐患数量大幅减少，安全管理氛围更加浓厚，从严管理的态势初步形成。

2023年，公司印发了《关于持续提升安全生产管理理念 引领安全质量管理体系提升纵深推进的通知》，引领全年工作主线。各层级、各企业、各系统按照“转观念、守规矩、严程序、强落实”的年度安全生产工作总方针，纵深推进安全质量管理体系提升。

2023年，公司按照时间维度和项目全生命周期维度，重塑了各层级管理机制。持续强化安全生产风险分级管控，针对安全风险辨识评估清单，明确各层级安全风险管控等级、范围、重点和责任人，明确落实每一处重大安全风险和重大危险源的安全管理与监管责任，严格落实风险控制方案和措施，强化风险管控技术、制度的刚性落实与执行。

公司在重要时间节点，采用作业条件危险性评价法(LEC)、专家调查法、是非判断法、安全检查表分析等方法，开展全方位、全流程的风险辨识评估，并通过安全教育培训、技术交底、更新公示等方式将风险源和管控措施告知从业人员。把风险辨识评估、分级、管控等内容作为项目安全策划的重要组成部分。

在应急管理方面，公司制定了《安全质量、生态环境及灾害事故（事件）应急预案》，采用桌面演练、功能演练和全面演练三种方式进行应急演练。2023年6月“安全生产月”期间，公司广泛组织开展了应急演练活动。

established a regular reporting system for supervision findings, and promptly eliminated various safety, quality, and environmental hazards on site. Through a systematic analysis of the problem of normalized hazard investigation throughout the year, the number of safety hazards in the project significantly decreased, and the atmosphere of safety management became stronger, forming a preliminary trend of strict management.

In 2023, the Company issued the Circular on Continuously Enhancing Work Safety Management Concept and Guiding Safety & Quality Management System Enhancement to deep to lead the main work for the whole year. Various levels, enterprises and systems enhanced the safety and quality management system in depth in accordance with the annual outline for work safety: “transform concept, observe rule, intensify procedure, and strengthen implementation”.

In 2023, the Company reshaped the management mechanism at each level according to the time dimension and the whole life cycle dimension of projects. The Company continued to strengthen the tiered control of safe production risks in an all-round way. Based on the list of identification and evaluation of safety risks, the Company identified the control level, scope, priorities and persons in charge of safety risks at each layer, and implemented safety management and supervision responsibilities for every major safety risk and major hazard source. The Company strictly implemented risk control plans and measures, and strengthened the rigid implementation of risk control technologies and systems.

At important time nodes, the Company adopts LEC, expert investigation method, right and wrong judgment method, safety check list analysis and other methods to carry out omni-directional and full-process risk identification and evaluation, and to inform employees of risk sources and control measures by means of safety education and training, technical disclosure, update and publicity, etc. The Company regards risk identification, evaluation, ranking, and control as an important part of project safety planning.

In terms of emergency management, the Company formulates the Emergency Plan for Safety, Quality, Ecological Environment and Disaster Accidents (Events) (《安全质量、生态环境及灾害事故(事件)应急预案》) and carries out three kinds of emergency drills, namely desktop drills, functional drills, and comprehensive drills. During the “Safe Production Month” in June 2023, the Company extensively organized emergency drills.



强化安全施工管理

Strengthening safe construction management

公司加强施工技术管理工作，与施工企业签订《安全质量责任书》，推进科学施工，持续优化策划，合理安排资源配置，坚决杜绝盲目赶工期、抢进度，做到手续不齐全不施工、地质条件不清楚不施工、安全措施不落实不施工、人员培训不到位不施工、隐患不排除不施工。项目过程中，随时做好施工图审核与勘探设计复核工作，对实际地质与设计图纸不符等问题及时向设计方及业主方反馈，及时落实变更方案，排除重大安全质量隐患。

The Company strengthens the construction technology management, enters into the Safety and Quality Responsibility Letter with the construction enterprise, promotes scientific construction, continuously optimizes planning, rationally arranges resource allocation, and resolutely avoids blindly meeting tight deadlines, to see that no construction is carried out without complete formalities, clear geological conditions, safety measures, well-trained personnel, and the elimination of hidden dangers. During the course of the project, the Company is ready to review the construction drawings and the exploration design at any time. In the event of discrepancies between the actual geology and the design drawings, the Company shall promptly feed back to the designer and the owner and implement the change plan in time, to eliminate major safety and quality risks.

加强安全设备保障

Strengthening security equipment protection

公司进一步加强安全生产关键技术装备的研发推广力度，推动信息化、机械化、智能化技术和装备在危险工艺和关键环节上的应用，加强现代信息技术与安全生产的深度融合和推广应用。

The Company further strengthens the research and development and promotion of key technologies and equipment for safe production, promotes the application of informatization, mechanization, intelligent technology and equipment in dangerous processes and key aspects, and strengthens the further integration and promotion of modern information technology and safety production.

案例 Case

中国中铁建工在广州白云站建设中，把握人工智能新科技革命浪潮，探索应用包括混凝土施工机器人、焊接机器人、三维扫描机器人等18款智能机器人，确保工程建设更高效、更安全，成为智能建造在大型站房应用典型案例，极大推动国内建筑机器人产业发展进程。

When constructing the Guangzhou Baiyun Station, China Railway Construction Engineering Group has seized the wave of new technological revolution in artificial intelligence and explored the application of 18 intelligent robots, including concrete construction robots, welding robots and 3D scanning robots to ensure more efficient and safe engineering construction. This has become a typical case of intelligent construction applied in large station buildings, greatly promoted the development process of the domestic construction robot industry.

开展安全教育培训

Carrying out safety education and training

公司不断完善项目安全教育培训体系，持续推广应用安全教育培训微课堂，编写和补充质量通病预防课件，利用多媒体安全培训工具箱对现场作业人员进行培训，实现安全教育培训的趣味化、信息化、系统化和规范化以及培训内容的多样化、专业化。2023年，公司对全员开展了《安全生产法》、安全生产管理制度等应知应会考试，并派员对所属企业进行现场督考。组织开展了注册安全工程师继续教育、“三类人员”继续教育培训，累积培训专职人员3,400余名；全公司通过线上与线下相结合方式，共培训各级企业领导、项目经理、安全质量专职人员及作业人员计35.3万余人次，进一步提升了专职队伍和员工安全素质。

The Company continuously improves the education and training system for project safety, continuously promotes the application of safety education training micro-classes, prepares and supplements the courseware on the prevention of common quality problems, and uses multimedia safety training toolbox to train field operators to realize the fun, informatization, systematization and standardization as well as diversification and specialization of training. In 2023, the Company conducted examinations for all employees to understand the Production Safety Law 《安全生产法》 and the production safety management policy, and sent employees to supervise the examinations on site in the affiliated enterprises. The Company organized continuing education for registered safety engineers and “three types of personnel”, and trained more than 3,400 full-time personnel. Using online and offline methods, the Company trained a total of 353,000 times for enterprise leaders, project managers, safety and quality personnel and operators at all levels, further improving the quality of the full-time team and employees.



中国中铁八局昆明公司开展消防培训及应急演练
Kunming Branch of China Railway No. 8 Engineering Group Co., Ltd. conducted fire training and emergency drills



中国中铁四局开展救治伤员应急演练
China Railway No. 4 Engineering Group Co., Ltd. carried out emergency drills for the treatment of wounded

职业健康

Occupational health

公司严格遵循《中华人民共和国安全生产法》《中华人民共和国职业病防治法》等法律法规。加强和改善劳动安全卫生条件、劳动防护以及特殊工种和女职工的特殊保护工作。持续做好职业健康和环境保护工作，研究、引进、使用绿色低碳循环生产技术和工艺，按国家规定的劳动卫生标准进行作业场所的尘毒治理，特别是加强隧道及地下工程、工业制造场所的尘毒危害防治工作，坚决杜绝一线作业人员尘肺病发生，推动企业绿色发展。2023年，公司认真开展建设项目职业病危害预评价、全员职业健康教育培训、职业危害因素告知、完善健康体检档案、配备合格劳动保护用品、加强过程监督检查等工作，对全体管理人员、作业人员实施了职业健康体检，为4,872个工作场所实施了职业病危害定期检测，将职业健康培训纳入中国中铁教育“云平台”，开展职业健康培训19,233次，参培人员超170万人次。

公司加强职业病危害申报、监测、告知和警示工作，按照国家“职业病危害因素分类目录（2021年）”所列职业病的危害因素进行识别，及时、如实向项目所在地或公司注册地卫生行政主管部门主动申报并接受监督。公司坚持每年对职业病危害因素进行检测，每三年进行一次职业病危害评价。2023年，公司未发生职业病事件。

承包商劳工管理

Labor management of contractors

公司把承包商的劳工管理作为准入条件，并作为评价要素纳入对承包商的日常评价和年度评价。公司与承包商签订的合同明确了劳务安全与劳工权益等条款，要求劳务承包商依照公司要求，落实安全生产与职业健康保障措施，为劳工提供安全就业环境和生产条件。公司为劳工提供工伤保险和意外伤害保险，定期对劳工开展安全卫生教育，最大限度地减少安全事故与职业危害。

公司下发《加强境外安全生产管理工作的通知》，要求把包括承包商员工在内的境外全体员工的安全放在首位，把境外企业统一纳入企业安全生产管理体系，并结合项目所在国有关规定设置安全生产专职机构，配置安全生产监管人员。公司制定境外安全生产发展规划、加强境外项目安全生产管控、强化安全生产标准化管理、运用安全信息化技术、保障安全投入、加强安全培训、开展风险管控和隐患排查、提升应急处置能力、依规应对安全事故等9项加强境外安全生产的举措。

The Company strictly abides by laws and regulations such as the Production Safety Law of the People's Republic of China (《中华人民共和国安全生产法》) and the Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases (《中华人民共和国职业病防治法》). The Company improves labor safety and health conditions, and implements labor protection as well as special protection for employees engaging in special types of work and female employees. The Company continues to do well in occupational health and environmental protection; researches, introduces, and uses green and low-carbon recycling production technologies and processes; implements dust and poison control in the workplace according to national labor and health standards, particularly strengthening the prevention and control of dust hazards in tunnels, underground projects, and industrial manufacturing sites; resolutely puts an end to pneumoconiosis among front-line workers; and pushes forward green development. In 2023, the Company conscientiously carried out the pre-assessment of occupational disease hazards for all construction projects, occupational health education and training for all employees, notification of occupational hazard factors, improvement of health examination files, provision of qualified labor protection supplies and strengthening of process supervision and inspection. The Company conducted occupational health checkups for all managers and operators, and checked 4,872 workplaces for occupational disease hazards. Incorporating occupational health training into its "cloud platform", the Company conducted occupational health training 19,233 times, with over 1.7 million participants.

The Company strengthens the declaration, monitoring, notification and warning of occupational disease hazards, identifies them according to the "Catalogue of Categorized Occupational Disease Hazard Factors (2021)", promptly and truthfully reports to the competent public health authority at the location of projects or the Company's registration and accepts the supervision. The Company insists on the detection of occupational disease hazards every year and the evaluation of occupational hazards every three years. In 2023, there were no occupational disease incidents in the Company.

The Company regards the labor management of contractors as an entry condition and includes it as an evaluation element in the daily evaluation and annual evaluation of contractors. The contract entered into between the Company and contractors clarify the labor safety and labor rights and other provisions, requiring the labor contractors to implement measures of safety production and occupational health protection as required by the Company, to provide laborers with a safe employment environment and production conditions. The Company provides workers with work injury insurance and accident insurance, and regularly conducts safety and health education for workers to minimize safety accidents and occupational hazards.

The Company issued the Notice on Strengthening Management of Overseas Safety Production (《加强境外安全生产管理工作的通知》), which requires that the safety of all overseas employees, including contractor employees, be given the highest priority, and that overseas enterprises be integrated into the enterprise's safe production management system, a production safety special institution be set up, and personnel in charge of safe production supervision be assigned according to the relevant regulations of the countries where projects are located. The Company took 9 measures to strengthen overseas safe production, such as formulating overseas production safety development plans, strengthening production safety management and control of overseas projects, strengthening production safety standardization management, applying safety information technology, ensuring safety operation, strengthening safety training, carrying out risk control and hidden danger investigation, improving emergency handling capacity, and dealing with safety accidents in accordance with regulations.

关注员工成长与发展

Focusing on the Growth and Development of Employees

公司大力实施“人才强企”战略，把人才资源视为企业的第一资源，努力做到人才资源优先开发、人才结构优先调整、人才投入优先保证、人才制度优先创新，积极构建以品德、业绩和贡献为主的分类考核评价体系。公司从组织员工培训、职业技能评选、鼓励资格认证三个方面为员工的职业成长与发展提供系统地支持。

The Company vigorously implements the strategy of “strengthening the enterprise with talents”, regards human resources as its first resource, and strives to give priority to the development of human resources, the adjustment of the talent structure, the guarantee of talent input, and the innovation of the talent system. The Company also actively builds a classification assessment system based on morality, performance and contribution. The Company provides systematic support for employees’ career growth and development from three aspects: organizing employee training, appraisal and selection based on vocational skills, and encouraging qualification certification.

组织员工培训

Organizing employee training

2023年，公司落实《培训工作管理规定》《技能人员培训管理办法》等制度，并持续优化完善培训制度体系，积极推进培训工作长远谋划，统筹分类抓好各层级干部教育培训，强化关键人才培养，确保培训与企业发展和人才培养保持高度一致。公司及所属企业通过“线上+线下”等多种培训方式加大培训力度，进一步促进员工队伍能力素质提升，促进企业高质量发展。

In 2023, the Company implemented the Training Work Management Regulations, Skill Personnel Training Management Measures and other systems, and continued to optimize and improve the training system, advance the long-term planning of training in an active way, coordinate the education and training of officials at all levels, and strengthen the training of key personnel, in order to ensure that training is highly consistent with enterprise development and talent cultivation. The Company and its affiliated enterprises increased the training through “online and offline” training and other training methods, in a bid to further improve the ability and quality of the employees and promote high-quality development of the Company.

2023年，公司累计培训各类人员111万余人次，培训员工占员工总数的90%以上。高级管理层培训1,389人次，覆盖面100%；中层管理人员培训9,538人，占比100%。高级管理层平均受培训106课时，中层管理平均受培训98课时，员工平均受培训80课时。

In 2023, the Company trained more than 1,110,000 personnel, accounting for more than 90% of the total number of employees. 1,389 were senior management personnel, accounting for 100%; 9,538 were middle management personnel, accounting for 100%. Senior management personnel received an average of 106 hours of training, while middle management personnel received an average of 98 hours and the employees received an average of 80 hours of training.



中国中铁举办新入职员工示范培训班
CREC held demonstration training courses for new employees



中国中铁开展新入职员工培训，参观企业“开路先锋”文化展览馆
CREC carried out new employee training and new employees visited the “Road Pioneer” cultural exhibition hall

职业技能评选

Appraising and selecting vocational skills

公司完善健全了职称评审制度体系，更加突出业绩、能力和实际贡献导向。2023年，评审通过正高级工程师510人，高级工程师4,120人；正高级会计师55人、高级会计师329人；正高级经济师93人、高级经济师168人；高级政工师424人。

公司各级企业大力开展各类技能培训、岗位练兵、技术比武和技能竞赛等技能提升活动，掀起了广大员工立足岗位学习技术、提升技能、岗位建功的热情，提升了技术技能人才队伍的整体素质水平。

公司所属各级企业积极选拔推荐优秀员工，为佼佼者提供上升通道，展示了优秀技能人才风采，弘扬了企业员工的劳动精神和工匠精神。

The Company has improved the professional title evaluation system, focusing more on the performance, ability and actual contribution. In 2023, 510 professorate senior engineers and 4,120 senior engineers; 55 professorate senior accountants and 329 senior accountants; 93 professorate senior economists and 168 senior economists; and 424 senior political engineers passed the evaluation.

Enterprises at all levels of the Company carried out skills upgrading activities such as skills training, post training, technical contests and skill contests. These competitions and events aroused the enthusiasm of employees to learn technology, improve their skills and make contributions, and improved the overall quality of the team of technical and skilled personnel.

Enterprises at all levels of the Company actively select and recommend outstanding employees to provide a promotion pathway for the best employees. These awards demonstrate the elegant demeanour of CREC's excellent skilled personnel and carry forward the labor spirit and craftsman spirit of the employees.



● 中国中铁举办职业技能竞赛接触网项目决赛
CREC held the finals of the Vocational Skills Competition of Overhead Lines Project

鼓励资格认证

Encouraging qualification certification

公司鼓励员工进行相关资格认证，并设有工程、会计、经济、政工多个系列的专业技术职务人员晋升评审委员会，按照公司有关规定对申报上述系列高级专业技术职务人员进行资格评审。2023年，公司完善健全了职称评审制度体系，破除“唯论文、唯职称、唯学历、唯奖项”倾向，减少学历、奖项、称号等限制性条件。2023年，全公司共评审通过高级职称5,699人。

公司高度重视技能人才队伍建设工作，按照“提素质、拓渠道、增待遇、强管理、树形象”五位一体的系统管理思路，努力培养建设一支规模适度、结构合理、素质优良、技艺精湛的技能人才队伍。2023年评定工匠技师3人、特级技师97人、高级技师510人，高水平技能人才数量不断增加，质量稳步提升。

The Company encouraged employees to undergo relevant qualification certifications and established a promotion evaluation committee for professional and technical positions in multiple series, including engineering, accounting, economics and political work. In accordance with relevant regulations of the Company, qualification evaluations are conducted for personnel applying for the above-mentioned series of senior professional and technical positions. In 2023, the Company improved its professional title evaluation system, eliminating the tendency of “relying solely on academic papers, professional titles, academic qualifications and awards”, and reducing restrictive conditions such as academic qualifications, awards and titles. In 2023, a total of 5,699 people of the Company passed the evaluation of senior professional titles.

The Company attaches great importance to the technical talents team building. Following the five-sphere management thinking of “improving quality, expanding channels, increasing remuneration, strengthening management, and establishing image”, the Company strives to build a team that is appropriate in scale and reasonably structured and that boasts high-quality skilled personnel with exquisite craftsmanship. In 2023, the Company appraised 3 craftsman technicians, 97 special technicians and 510 senior technicians. The number of highly skilled personnel is on the rise and their quality is steadily improving.

产品责任

Product Responsibility

公司秉承“不断增强企业核心优势，发挥龙头企业示范带动作用，做中国建筑行业的领跑者；走全球发展道路，提升企业国际影响力，建设具有全球竞争力的世界一流综合性建筑产业集团”的愿景，已发展成为集勘察设计、施工安装、房地产开发、工业制造、科研咨询、工程监理、资本经营、金融信托、资源开发和外经外贸于一体的多功能、特大型企业集团。公司致力于奉献精品工程、精良产品和精益服务，目前工程项目遍布中国除台湾省以外的各省市自治区以及全球90多个国家和地区。

Adhering to the vision of “continuously strengthening the core advantages of enterprises, giving play to the leading role of leading enterprises, and being a leader in the Chinese construction industry; taking a global development path, enhancing the Company’s international influence, and building a world-class comprehensive construction industry group with global competitiveness”, has developed into a large-scale enterprise group integrating survey and design, construction and installation, real estate development, industrial manufacturing, scientific research consulting, engineering supervision, capital management, financial trust, resource development and foreign trade and other businesses. The Company is committed to dedicating high-quality engineering, excellent products and lean services. The Company’s current engineering projects cover all provinces, municipalities and autonomous regions in China except Taiwan province, and more than 90 countries and regions around the world.

产品质量保证

Product quality assurance

公司秉承“百年大计，质量第一”的方针，按照“政府监督、社会监理、企业自控、用户评价”的工程质量管理模式，建立健全工程质量保证体系与组织体系。在质量管理方面，公司认真贯彻实施ISO9000体系标准和《质量管理体系文件》《质量程序文件》《工程质量监督管理办法》等文件办法，制定并落实《工程质量监督管理规定》《安全质量责任事故追究办法》《班组长安全质量责任制的实施细则》等制度，不断强化施工过程管控，加强施工过程中的自检、互检和交接检验工作，以确保施工工程质量管理始终处于受控状态，从而使工程质量达到有关规范、标准和合同要求。

公司全面开展质量风险隐患排查专项行动。研究出台《产品质量风险隐患自查整治专项行动方案》，组织开展产品质量自查整治。公司成立督导组，对项目部（车间）自查，二、三级公司检查情况开展专项督导。

公司全面开展质量安全通病预防及整治工作。对在建工程施工质量通病进行排查整治，发现问题和隐患迅速按照定人、定期、定岗、定责、定点的“五定”原则整改，重大隐患及时上报，及时处置，坚决将工程质量隐患消灭在开通运营之前。

公司持续加强安全质量标准化建设。指导各企业和项目把优秀的管理制度、管理流程、管理模式、管理做法广泛应用到各管理层级，并根据实际情况不断完善、持续改进，充分发挥管理效能。把安全质量管理的各项要求嵌入工程建设各个环节的管理标准、技术标准和作业标准中，把标准细化到每个工种和每道工序，成为施工作业的强制性规范和评价标准，固化作业程序，达到闭环管理。

Following the “hundred-year plan with quality priority” policy and based on the project quality supervision and management model of “government supervision, social supervision, enterprise self-control and user evaluation”, the Company establishes and improves the project quality assurance system and organizational system. In terms of quality management, the Company conscientiously implements ISO9000 system standards and documents and measures such as the Quality Management System Documents (《质量管理体系文件》), Quality Procedure Documents (《质量程序文件》), and Measures for Supervision and Management of Project Quality (《工程质量监督管理办法》). The Company formulates and implements systems such as Regulations on Supervision and Management of Project Quality, Measures for Investigation of Safety and Quality Liability Accidents and Rules for Implementation of Safety and Quality Accountability System for Team Leaders to constantly strengthen the control of the construction process, and strengthens the self-inspection, mutual inspection, and handover inspection in the construction process to ensure that the quality management of construction projects is always under control, so that the project quality meets relevant specifications, standards and contract requirements.

The Company launched a comprehensive special action to identify quality risks and hidden dangers. After study, we formulated the Special Action Plan for Self-inspection and Rectification of Product Quality Risks and Hidden Dangers, and organized the self-inspection and rectification of product quality. The Company set up a supervision and leading team to inspect the project departments (workshops), and carried out the special supervision against the inspection over tier-two and tier-three subsidiaries.

The Company has comprehensively carried out the prevention and rectification of common quality and safety problems. The common defects in the construction quality of projects under construction are investigated and rectified, and the problems and hidden dangers should be quickly rectified in accordance with the “five fixed” principles of fixed personnel, fixed time, fixed post, fixed responsibility and fixed locations. Major hidden dangers are reported and dealt with in a timely manner, and the hidden dangers of project quality are resolutely eliminated before projects are put into operation.

The Company continues to strengthen the standardization of safety and quality, guides all enterprises and projects to apply excellent management systems, management processes, management modes and management practices to various management levels, continuously improve and optimize according to actual conditions, and give full play to management effectiveness. The Company incorporates the requirements of safety and quality management into the management standards, technical standards and operating standards in all aspects of engineering construction, refines the standards involving each post and process, form mandatory specifications and evaluation standards for construction operations, and solidify operating procedures to achieve closed-loop management.

2023年，公司严格按照《中国中铁优质工程评选规定》，在“严格把关、优中选优”的基础上，规范优质工程评审流程，深入开展工程创优活动，推动企业和施工现场加强工程质量管理，评选出中国中铁优质工程金杯奖37项、中国中铁杯奖60项，确保工程质量水平的持续改进与提高。公司作为建筑类企业，不存在因安全与健康理由须回收产品的情形。

2023年，公司获中国建设工程鲁班奖17项；获国家级优质工程奖57项，其中金奖5项。

In 2023, in strict accordance with the Selection Regulation of CREC's Quality Project (《中国中铁优质工程评选规定》), the Company regulated the quality project review process based on "strict control and best selection". Through in-depth project excellence activities, the Company and the construction site are promoted to strengthen project quality management, during which 37 projects were selected and awarded as CREC's Quality Project Gold Cup and 60 projects as CREC Cup, ensuring continuous improvement and optimization of project quality. As a construction company, the Company does not have to recall products for safety and health reasons.

In 2023, the Company won 17 China Construction Engineering Luban Prizes and 57 National Quality Engineering Awards, including 5 Gold Awards.



● 鳊鱼洲长江铁路大桥
Bianyuzhou Yangtze River Bridge



● 拉林铁路林芝站
Nyingchi Railway Station, Lhasa-Nyingchi Railway

中国中铁入选2023年度中国建设工程鲁班奖名单 List of the Projects in 2023 Winning the China Construction Engineering Luban Prize

沈阳市快速路PPP项目（长青街快速路）、南部快速路（浑南大道快速路工程）、胜利大街快速路-胜利大街跨浑南大道桥（PC1号路-兴岛路）
Shenyang Expressway PPP Project (Changqing Street Expressway), Southern Expressway (Hunnan Avenue Expressway Project), Shengli Street Expressway – Shengli Street Cross Hunnan Avenue Bridge (PC1 Road – Xingdao Road)

重庆轨道交通4号线二期工程 Phase II Project of Chongqing Rail Transit Line 4

上海轨道交通18号线一期工程 Phase I Project of Shanghai Rail Transit Line 18

京沪高速济南连接线工程 Jinan Link Project of Beijing-Shanghai Expressway

新建银川至西安铁路陕西段站前工程施工YXZQ-1标段咸阳渭河特大桥
Construction of YXZQ-1 Section of Xianyang Weihe Extra Large Bridge, Station Work of the Shaanxi Section of the Yinchuan-Xi'an Railway

新建郑州至周口至阜阳铁路郑州南站（郑州航空港站）
Construction of Zhengzhou South Station of Zhengzhou-Zhoukou – Fuyang Railway (Zhengzhou Airport Station)
拉林铁路站房及相关工程LLZF2标段林芝站 Lhasa-Nyingchi Railway Station Building and Linzhi Station of LLZF2 section of related work

中铁大厦 China Railway Building

鲇鱼洲长江铁路大桥 Bianyuzhou Yangtze River Railway Bridge

新建中老铁路磨丁至万象段工程 Construction of Boten-Vientiane Segment of China-Laos Railway Project

刚果（金）SICOMINES 铜钴矿项目二期工程 Phase II of SICOMINES Copper-Cobalt Mine in the Democratic Republic of the Congo

南京至句容城际轨道交通工程（马群至东郊小镇段、汤泉西路至句容段）
Nanjing-Jurong Intercity Rail Transit Project (Maqun-Dongjiao Town Section and Tangquan West Road-Jurong Section)

凤凰山体育中心（足球场和体育馆） Phoenix Mountain Sport Center (football field and stadium)

厦门市轨道交通2号线二期工程 Phase II of Xiamen Rail Transit Line 2

拉萨贡嘎机场航站区改扩建工程新建航站楼工程 New terminal work of terminal expansion and renovation project of Lhasa Gongga Airport

新建广州南沙港铁路西江特大桥（DK12+962-DK27+810）工程
Construction of Xijiang Ultra Large Bridge (DK12+962-DK27+810) work of Guangzhou Nansha Port Railway

综合实验楼（清华大学综合实验楼等4项）及教学科研（经管学院扩建及三创中心）（教学科研用房） Comprehensive Laboratory Building (4 comprehensive laboratory buildings, including that of Tsinghua University) as well as teaching and scientific buildings (expansion of the School of Economics and Management and the Research Center for Technological Innovation) (teaching and scientific research rooms)

知识产权管理

Intellectual property management

中国中铁坚持以企业发展需求为目标，严格遵守《中华人民共和国专利法》和《中华人民共和国商标法》，认真推行和落实《企业知识产权管理规范》国家标准，按照《企业知识产权管理规范》（GB/T29490-2013），全面提高公司知识产权的创造和运营能力，促进知识产权流的通和利用。修订了公司专利管理规定，下发了关于全面提升公司专利质量的文件，完善优化了工法、专利业务在科技管理信息系统在线办理工作，做到管理全覆盖、无死角。根据工法开发和专利授权情况，加大了省部级工法开发任务指标、专利授权任务指标（增加了发明专利的授权占比），推动量质齐升。注重专利、工法、标准的布局，尤其对自主知识产权的关键技术给予重点支持，构建支撑企业发展和提升企业竞争力的专利储备，强化企业在市场竞争中的有利地位。

2023年，公司工法开发和专利申请计划全面完成。国家知识产权局和世界知识产权组织发布了第二十四届中国专利奖授权决定，中国中铁荣获中国专利奖优秀奖3项，获第48届日内瓦国际发明展金奖1项、银奖2项，其中高铁工程中心申报的专利“地震下高速铁路桥上行车安全试验系统”获得日内瓦国际发明展金奖，实现中国中铁在该奖项的新突破。公司知识产权数量和质量得到了进一步提升。2023年，公司共获得省部级工法1,184件，授权专利8,324项，其中发明专利2,438项，海外专利315项。

Taking development needs as the target, CREC strictly abides by the Patent Law of the People's Republic of China (《中华人民共和国专利法》) and the Trademark Law of the People's Republic of China (《中华人民共和国商标法》), and earnestly pursues and implements the national standards of the Specifications for the Administration of Intellectual Property Rights of Enterprises (《企业知识产权管理规范》). According to the Specifications for the Administration of Intellectual Property Rights of Enterprises (《企业知识产权管理规范》) (GB/T29490-2013). The Company comprehensively improves its ability to create and operate intellectual property rights, and promotes the flow and use of intellectual property rights. The Company revises the patent management regulations, issues a notice on comprehensively improving the quality of CREC's patents, and optimized the online processing of construction methods and patent businesses in the technology management information system. The Company has increased the task index of provincial and ministerial industrial method development and patent authorization task index (increasing the proportion of invention patent authorization) according to the situations of industrial method development and patent authorization, promoting the upgrade of both quantity and quality. The Company attaches importance to the layout of patents, construction methods, and standards, with major support on key technologies of independent intellectual property rights, and creates a patent reserve that underpins enterprise development and enhances enterprise competitiveness.

In 2023, the Company fully completed the construction method and patent application plan. The China National Intellectual Property Administration and the World Intellectual Property Organization issued the authorization decision on the 24th China Patent Award. China Railway won three outstanding awards of China Patent Award, one gold award and two silver awards at the 48th Geneva International Invention Exhibition. Among them, the patent of the "Over-bridge Traffic System of High-speed Railway under Earthquake" declared by the High-speed Railway Engineering Center won the gold award at the Geneva International Invention Exhibition, realizing a new breakthrough of China Railway in this award. The quantity and quality of the Company's intellectual property have been further improved. In 2023, the Company obtained a total of 1,184 provincial and ministerial-level construction methods and won the 8,324 authorized patents, including 2,438 invention patents and 315 overseas patents.



隐私和数据保护

Privacy and data protection

中国中铁全面保护客户商业敏感信息和个人隐私。公司全面贯彻落实党和国家“数字经济、网络中国”的战略，以实施信息贯通工程和数智升级工程为两条主线，持续加大信息化建设力度，加快推进企业数字化转型，进一步夯实数字中铁，打造智慧中铁。公司按照习近平总书记关于网络安全工作“四个坚持”的重要指示精神，贯彻落实及遵守《网络安全法》《数据安全法》《个人信息保护法》《国家网络空间安全战略》《关键信息基础设施安全保护条例》《网络安全审查办法（征求意见稿）》等网络安全相关的法律法规、重要政策文件要求，进一步规范公司网络信息安全管理工作，制定有《网络信息安全管理规定》、《数据资产管理规定》等制度，保护客户隐私和企业数据安全，保障信息系统的正常、高效、安全运行。

2023年，公司召开了网络安全宣贯培训会议，学习习近平总书记关于网络安全的重要指示精神、国家信息化和网络安全战略以及相关法律法规，培训了网络安全政策法规、安全意识及防护技能，不断提升公司员工的网络安全防范意识、防护能力。公司强化员工网络安全意识提升工作，通过网络安全宣传、安全专题讲座、线上培训等线上线下相结合的方式，切实提升了全公司员工的网络安全意识、防护技能和网络诈骗意识。

2023年，公司按照国资委、公安部等上级单位的工作要求，积极开展2023年度国家重要时期网络安全保障工作，全国两会、杭州亚运会、成都大运会期间开展7×24小时值守工作，保障了重保期间公司网络、官网及中铁头条等重点网站的安全稳定运行。公司持续完善优化商密系统建设与推广工作，构建了总分两级技术架构，加强了全公司商业秘密技术防护能力。

CREC comprehensively protects customers' business sensitive information and personal privacy. The Company fully implemented the strategy of "Digital Economy and Network China" of the Party and the state. With the implementation of the information connectivity project and digital intelligence upgrading project as the two main lines, the Company continuously increased the intensity of information construction, accelerated the digital transformation of the enterprise, further solidified the digital China Railway, and created a smart China Railway. In accordance with the important instructions of General Secretary Xi Jinping on the "Four Adherence" for network security, the Company earnestly implements and abides by the Cybersecurity Law, Data Security Law, Personal Information Protection Law, National Cyberspace Security Strategy, Regulations on the Security protection of Critical Information Infrastructure, Cybersecurity Review Measures (Draft for Comments) and other cybersecurity related laws and regulations, as well as important policy documents, further standardizes the security management of network information, and formulates Regulations on Network Information Security Management, Data Asset Management Regulations and other systems in order to protect the customer privacy and enterprise data security, and guarantee the normal, efficient and safe operation of the information system.

In 2023, the Company held a communication meeting on cyber safety, learned General Secretary Xi Jinping's important instructions regarding cyber safety, information technology and cyber safety strategies of the state as well as related laws and regulations. We organized the training as to cyber safety policies and regulations, safety awareness and prevention skills, and continuously enhanced cyber safety prevention awareness and preventive capacity among employees. The Company reinforced the work to enhance employees' awareness of cyber safety, and combined online and offline methods, including cyber safety communication, safety feature studio and online training, which have effectively improved the awareness of cyber safety, preventive skills and awareness of preventing cyber frauds among all employees of the Company.

In 2023, the Company actively carried out the cyber safety assurance during the important periods of the state in 2023 in accordance with the working requirements of the SASAC, the Ministry of Public Security and other supervising authorities. During the Two Conferences, the Hangzhou Asian Games, the Chengdu FISU World University Games, the Company kept on duty 7x24 hours, and assured the safe and stable operation of the Company's network, official website, China Railway Headlines and other major websites. The Company continuously refined and optimized the development and deployment of the trade secret system, built the headquarters-branch dual-level technological architecture and strengthened the technological capacity to protect trade secrets across the Company.

中国中铁成立有中铁云网信息科技有限公司可为企业数据保护提供专业服务
CREC has established CREC Cloudnet Information Technology Co., Ltd., which can provide professional services for enterprise data protection



重视客户沟通

Attaching importance to customer communication

中国中铁始终坚持“精益求精，持续改进”的总体思路，坚持以人为本的理念，以对国家、对人民、对客户、对企业高度负责的态度，不断提高服务质量。公司高度重视与客户的沟通，积极营造良好的客户关系，设立了指定渠道（包括电话、传真和邮件）供客户提出投诉，成立了相关监管中心，认真对待客户的投诉与建议。公司收到客户投诉和建议后，相关监管中心将及时作出调查，并将结果报告至公司经理层，依据相关制度给予妥善处理，并向客户及时反馈处理结果。公司与各地方政府、大型企业等客户签订战略合作协议或服务协议时，均会明确定期联系沟通机制和法律适用及争议解决条款。2023年，我们作为上市公司，共收到业主有关诉求14起，均采用积极态度予以回应，依法依规及时处理，有关诉求均得到妥善解决，诉求回复率、满意率100%。

CREC always adheres to the general idea of “striving for excellence and continuous improvement”, adheres to the people-oriented concept, and continuously improves the quality of services with a highly responsible attitude towards the country, the people, the customers, and the enterprise. The Company attaches great importance to communication with customers, actively builds good customer relationships, sets designated channels (including telephone, fax and mail) for customers to file complaints, establishes a related supervisory center, and seriously treats customers' complaints and suggestions. After the Company receives customer complaints and suggestions, the relevant supervisory center will promptly make investigations and report the results to the Company's managerial level, give proper treatment according to the relevant system, and provide timely feedback to customers on the results. When the Company enters into strategic cooperation agreements or service agreements with various local governments, large enterprises and other customers, it will clearly specify regular communication mechanisms and clauses of application of law and dispute resolution. In 2023, as a listed company, we received a total of 14 requests from owners, all of which were responded to in a positive manner and dealt with in a timely manner in accordance with the laws and regulations, and the requests were properly resolved, with a 100% response rate and satisfaction rate.

供应商管理

Supplier Management

建立公平运行机制

Fair operation mechanism establishment

公司秉持科学、高效、公平的管理理念持续建立健全供应商管理体制机制，通过供应商公开招募、准入评审和考核评价，建立战略、优质、合格供应商名录并进行动态管理，推动公司供应链管理持续升级。公司严格开展供应商综合评审，按照“先评审、后采购”的原则，从技术、质量、服务、价格、技术、信誉等方面对供应商进行全面评审，辅之以实地考察，遴选优质供应商资源，优化供应结构，拓宽采购渠道，打造高质量采购价值链；公司实行阳光采购，倡导公平竞争，搭建了全公司统一的采购电子商务信息化平台——中国中铁采购电子商务平台（即鲁班电子商务网），公开采购信息、固化采购流程，充分利用采购电子商务平台开展各类产品和服务上网采购，促进采购活动公开化、透明化。截至2023年底，公司电商平台拥有各类注册供应商38万余家；其中，国内供应商38万家，国外供应商26家。

Upholding the scientific, efficient and fair management concept, the Company continues to establish and perfect the supplier management system and mechanism. Through open supplier recruitment, access review and evaluation, the Company establishes a strategic, high-quality and qualified supplier catalog and implements dynamic management, to drive the continuous upgrade of supply chain management. The Company strictly carries out comprehensive supplier review based on the principle that “review comes before procurement” and in terms of technology, quality, service, price, reputation, etc., supplemented by on-the-spot investigation. The Company selects high-quality suppliers, optimizes the supplier structure, and expands procurement channels, to create a high-quality procurement value chain. The Company implements sunshine procurement, promotes fair competition, and establishes a unified Company-wide e-commerce procurement platform, CREC Procurement E-commerce Platform (namely Luban E-commerce Network), which publicizes procurement information and solidifies procurement processes. In addition, the Company makes full use of the e-commerce procurement platform to purchase various products and services online, and promotes open and transparent procurement activities. As of the end of 2023, there were more than 380,000 registered suppliers on the e-commerce platform of the Company, including 380,000 domestic suppliers and 26 overseas suppliers.

禁止贿赂等非法活动

Prohibition of bribery and other illegal activities

公司实行抵制商业贿赂承诺制，在供应商管理制度中明确要求各类供应商在办理注册申请时须签署《供应商承诺书》，承诺遵守国家反腐败相关法律法规，守法诚信；公司开展各类采购活动时，均在采购文件中明确各类供应商须严格遵守国家反不正当竞争法等相关法律法规，禁止贿赂等非法活动，成交供应商还应签署廉洁协议书并严格履约；公司建立供应商不良行为负面清单，并将贿赂员工行为列入供应商重大不良行为认定标准，对存在相应不良行为的供应商，公司将对其采取限制交易措施，在一定期限内禁止其参与公司新的采购活动，引导供应商廉洁经营。2023年，公司依规对部分违反廉洁规定的供应商进行了限制交易管理，营造了公平竞争的采购环境。

推动供应商履行社会责任

Promoting suppliers to fulfill their social responsibilities

公司建立供应商准入及评价管理体系，开展合格供应商准入评审，审查供应商诚信经营、安全生产、环境保护等情况，对合格供应商实行供应目录管理。公司开展供应商日常评价和年度评价，对供应商所提供的原材料质量、环境保护措施等进行综合评价，将评价结果纳入供应商年度考核。

公司与供应商签订的合同中，明确了劳务安全、维护农民工权益、环境保护等方面的约束性条款，要求供应商积极落实职业安全卫生保障措施，加大安全管理投入，持续改善安全设备设施，为农民工提供安全就业环境和生产条件；对农民工开展安全卫生教育和培训，积极防止劳动过程中安全事故的发生，最大限度地减少职业危害；认真落实国家有关工伤保险和意外伤害保险的规定，把农民工纳入保险范围之内；进一步落实农民工劳动报酬的支付规定，通过建立农民工工资专用账户制度、保证金制度、代发工资制度等，确保农民工工资按时足额发放到位。通过签订合同，公司监督供应商保障劳务安全、维护农民工权益、保护环境，引导其履行社会责任。

The Company implements a commitment system to resist commercial bribery. In the System for the Management of Supplier, various suppliers are explicitly required to sign the Supplier Commitment Letter (《供应商承诺书》) when they apply for registration, and they should promise to abide by national laws and regulations related to anti-corruption and be law abiding and upright. When the Company conducts various procurement activities, it makes clear in the procurement documents that all types of suppliers must strictly abide by relevant laws and regulations such as the national Anti-Unfair Competition Law, and prohibit bribery and other illegal activities. Suppliers should also sign integrity agreements and strictly implement the agreement. The Company establishes a negative list of supplier bad behaviors, and includes bribery of employees in the identification standard of suppliers' major bad behaviors. For suppliers with corresponding bad behaviors, the Company will take measures to restrict transactions and prohibit them from participating in the Company's new procurement activities within a certain period of time, and guide suppliers to operate incorruptibly. In 2023, the Company carried out restricted transaction management on some suppliers that violated the integrity regulations in accordance with the integrity agreement, and created a fair competition procurement environment.

The Company establishes a supplier access and evaluation management system, conducts a qualified supplier access review for supplier integrity management, safe production, environmental protection, etc., and implements supply directory management for qualified suppliers. While carrying out daily evaluations and annual evaluations of suppliers, the Company comprehensively evaluates the quality of raw materials provided by suppliers, environmental protection measures, etc., and includes the evaluation results into the annual evaluations of suppliers.

In the contracts between the Company and suppliers, the binding clauses on labor safety, safeguarding the rights and interests of peasant workers, and environmental protection are specified. Suppliers are required to actively implement occupational safety and health protection measures, increase investment in safety management, and continue to improve safety equipment and facilities, to provide a safe employment environment and production conditions for peasant workers. The Company conducts safety and health education and training for peasant workers, and actively prevents safety accidents in the work process, to minimize occupational hazards. The Company earnestly implements national regulations on work injury insurance and accident insurance, and includes peasant workers in the insurance coverage. The Company further implements the provisions on the payment of peasant workers' labor remuneration, and ensures that peasant workers' remunerations are paid in full and on time by establishing a special account system, a security system, and a payroll system. By signing contracts, the Company oversees suppliers to ensure labor safety, safeguard the rights and interests of peasant workers, protect the environment, and guides them to fulfill their social responsibilities.

社区投资 Community Investment

公司在自身发展的同时高度重视回馈社会，制定了《关于新时代中国中铁高标准履行社会责任(ESG)的指导意见》，积极主动承担社会责任，活跃在抗灾抢险第一线，鼓励员工参与志愿活动，大力支持基础教育，为构建和谐美好社会持续贡献力量。

公司高度重视文化遗产保护和传承，以优质的服务和专业的技术，参与世界文化遗产保护项目50余项、全国重点文物保护单位相关保护项目300余项，累计完成文物保护项目600余项，为保护人类文明贡献了智慧和力量。

While developing, the Company attaches great importance to giving back to the society. We have formulated the Guiding Opinions on CREC's High-Standard Fulfillment of Social Responsibility (ESG) in the New Era, take the initiative to assume social responsibilities, actively participate in the front line of disaster relief, encourage employees to participate in voluntary activities, and strongly support basic education, in order to make continuous contributions to the construction of a harmonious and beautiful society.

The Company focuses on the inheritance and protection of cultural heritage. With high quality service and exquisite professional technology, we have participated in more than 50 world cultural heritage protection projects and more than 300 related protection projects of key national cultural relics protection units, and completed more than 600 cultural relics protection projects, contributing wisdom and strength to the protection of human civilization.

中国中铁积极投身各地文物保护，图为中国中铁科研院参与的甘肃敦煌莫高窟保护项目
CREC is actively engaged in the protection of cultural relics in various regions. The picture shows the Mogao Caves Protection Project in Dunhuang, Gansu Province, in which China Railway Research Institute actively participated



抢险救援

Emergency rescue

公司始终高度重视应急管理工作，认真学习贯彻习近平总书记重要指示批示精神，贯彻落实应急管理部工作要求，全力以赴投入抢险救灾。2023年，中国中铁及所属各企业累计参与各类抢险共317次。

公司持续推动应急救援体系建设，继续加强三支国家专业救援队建设，按照应急救援体系建设工作总体部署，持续推进昆明救援队、贵阳救援队基地建设和救援装备升级改造，并逐步拓展应对各类自然灾害综合应急救援能力。同时，围绕基地建设项目的实施和基地的新定位、新任务，全面系统开展补充救援人员、完善指挥系统、健全协调机制、配套基础设施、完善规章制度、加强培训演练和构建保障体系等工作，有效提升基地专业救援、快速机动和综合保障能力。中国中铁三支国家专业应急救援队全年出警15次，救援生还人数7人。

The Company always paid much attention to emergency management, carefully learned and implemented the essences of General Secretary Xi Jinping's important instructions and notes. We carried out the working requirements of the Ministry of Emergency Management and devoted itself to disaster relief and rescue with every effort. In 2023, China Railway and its affiliates participated in a total of 317 disaster reliefs.

The Company continues to promote the construction of the emergency rescue system and strengthen the building of three national professional rescue teams. According to the overall plan for the construction of the emergency rescue system, the Company continues to promote the construction of the bases of the Kunming rescue team and the Guiyang rescue team and the upgrading and transformation of rescue equipment, and gradually expands their comprehensive emergency rescue capabilities to respond to various natural disasters. Centering on the implementation of construction projects at the bases and the new positioning and new tasks of the bases, the Company comprehensively and systematically carries out the following work: supplementing rescue personnel, improving the command system, perfecting the coordination mechanism, providing supporting infrastructure, improving rules and regulations, strengthening training exercises, and establishing a guarantee system. At the same time, the Company meaningfully strengthens the professional rescue, rapid maneuver and comprehensive guarantee capabilities of the bases. Three national professional emergency rescue teams of China Railway answered 15 alerts and rescued 7 persons alive.



● 中国中铁救援机械设备运抵12·18积石山地震灾区
CREC's rescue machinery and equipment arrived at the disaster area of the 12-18 Jishishan Earthquake



● 中国中铁全力抢建12·18积石山地震灾区临时安置房
CREC made every effort to build temporary resettlement houses in the disaster area of the 12-18 Jishishan Earthquake

● 中国中铁一局闻“汛”而动、积极参与天津市暴雨抢险，筑牢汛期安全防线
China Railway First Group Co., Ltd. mobilised and actively participated in the rainstorm rescue in Tianjin to build a solid defence line during the flood season

案例 Case

公司积极参与京津冀、东北等区域抗洪抢险，投入12,000余人、设备2,200余台套，圆满完成固堤筑坝、清淤除障、铁路线路旅客疏散和抢通修复等各项抢险救灾任务，为地方政府和人民群众解决了忧难问题。

The Company took an active part in the flood control and disaster relief in Beijing, Tianjin, Hebei, Northeast Region and other regions. With the input of more than 12,000 people and 2,200 devices, the Company successfully attained various disaster relief and rescue tasks, including bank consolidation, dam building, dredging, barrier removal, evacuation of passengers on railway lines, emergency rescue and repair, and solved the big headaches of local governments and people.

案例 Case

公司积极参与甘肃积石山地震抢险，投入969人、设备193台套，建设安置板房1,113间，捐赠食品药品、取暖物品等应急物资2.6万余件，为保障受灾群众生命财产安全贡献了“中铁力量”。

The Company took an active part in the disaster relief during the earthquake hitting Jishishan County, Gansu Province, and earmarked 969 people and over 193 devices. We built 1,113 settlement sheds, donated more than 26,000 containers of foods, drugs, heating equipment and other emergency materials, and contributed the “China Railway Force” to protect the life and property safety of the people stricken by the disaster.



社区服务

Community service

中国中铁长期以来坚持“地企文明、和谐共建”的工作思路，志愿服务敬老院、医院、街道、社区、学校等地方单位，以实际行动履行企业社会责任。

2023年，公司贯彻落实习近平总书记给老挝中老友好农冰村小学师生回信精神，联合中国和平发展基金会举办中老友好民心相通师生游学访华活动。邀请昌都卡若区16名青少年赴京开展“感受百年铁路辉煌，走进中国中铁”北京夏令营活动。全公司持

CREC has always insisted on the work ideas of “local corporate civilization and harmonious construction”, offered volunteer services to gerocomium, hospital, street office, community, school and other local institutions, fulfilling its corporate citizenship responsibility with actual actions.

In 2023, the Company carried out the essence in the reply of General Secretary Xi Jinping to the China-Laos Friendship Nongbing Village Primary School in Laos, and organized its teachers and students to travel and learn in China under the theme of “China-Laos Friendship, People’s Hearts Connected” in collaboration with China Foundation for Peace and Development. The Company invited 16 teenagers from Karuo District of Changdu City to visit Beijing and participate in the Beijing Summer Camp



中铁卡若“五彩梦想”联合接力行动捐赠仪式在卡若区约巴乡乃通村小学举行
The donation ceremony of China Railway Kanuo “Colorful Dream” Joint Relay Action was held in Naitong Village Primary School in Yueba Township, Kanuo District

续以“号、手、岗、队”为依托，组建青年志愿服务队3,000余支，开展包含防汛救灾、助老爱小、扶贫帮困、助力高考等在内的“千人百团”志愿服务3,000余场次，参与青年2.8万余人次，帮扶人数超过3万余人次。持续开展“百名优秀海外青年家访”，接续开展第七季“五彩梦想”接力计划品牌项目，2名青年荣获第十四届中国青年志愿者荣誉称号，大力弘扬社会道德风尚，积极构建和谐和谐社会。

Event under the theme of “Feeling the Splendor of Century-old Railway, Approaching China Railway”. Relying on the “window, hand, position and team” system, the Company organized more than 3,000 youth volunteer service teams, and provided more than 3,000 volunteer services, including flood control, disaster relief, aid for the old and young, aid for the impoverished and aid for the college entrance examination, under the “Thousand People Hundred Mission” flag. More than 28,000 young volunteers participated in these services and aided more than 30,000 people in need. The Company continuously organized the “100 Excellent Overseas Youth’s Home Visit” and implemented the brand project under the relay plan for the Seventh “Colorful Dreams” event. 2 young persons won the honorary title of the Fourteenth China Youth Volunteers. They promoted the social ethics and styles with great effort, and actively tried to construct a harmonious society.

案例 Case

2023年3月27日，中国中铁与阿勒泰地区团委共同在阿勒泰市第一中学举办“点亮微心愿 我是圆梦人”第七季“五彩梦想”圆梦行动，实现了31名困难学生的微心愿，并为学校200余名学生送上书包、文体教具等爱心用品，活动期间，由地方团委与中铁一局青年志愿者组成的爱心支教老师为学生们开展了以科普教育、益智手工、户外活动为主题的多彩课堂。

On March 27, 2023, China Railway and the Communist Youth League of Altay Prefecture cosponsored the seventh “Colorful Dreams” – a dream realization event themed “Kindling Small Wish, I am a Dream Driver” – at Altay First Middle School, and realized the small wishes of 31 students in need. Moreover, the Company donated schoolbags, cultural, sport and teaching instruments to more than 200 students of the school. During the event, the philanthropic teachers from the local Communist Youth League and the youth volunteers from China Railway No. 1 Group Co., Ltd. aided these students with the colorful classrooms themed scientific fiction, intelligence development, handwork and outdoor activity.

案例 Case

中国中铁四局一公司团委持续开展“‘青’心携手，筑梦未来”帮扶儿童志愿服务活动，共前往10余个小学帮扶儿童400余名。连续11年在关爱安医大二附院白血病儿童、农民工子女夏令营、金秋助学、“同在一片蓝天”关爱国际儿童等四个方面开展活动，范围涵盖全国30个省市自治区和6个国别国家。

The Youth League Committee of No. 1 Company of China Railway No. 4 Engineering Group Co., Ltd. continuously implemented the volunteer service event of aiding children under the theme of “Youth and Heart Join Hand, Drive Dream for Future”. They visited more than 10 primary schools and helped over 400 students. For 11 consecutive years, it has organized four events, including care for children with leukemia at the Second Hospital of Anhui Medical University, summer camp for migrant workers’ offspring, student aid during autumn and care for international children under the theme of “Under One Sky”. The event benefited 30 provinces, municipalities and autonomous regions in China as well as 6 countries.

教育和文化

Education and culture

公司重点面向生产一线员工、海外员工、困难员工、艰苦环境工作的员工及家庭，以及先进模范人物、有突出贡献的科技专家等，广泛开展“两节”送温暖、夏送清凉、一年四季送健康活动。2023年，全公司共发放“两节”送温暖资金1.57亿元，走访慰问职工（民）工37万人次；“夏送清凉”1.25亿元，慰问班组1.49万余个；金秋助学款653万元，资助困难职工（民）子女2,865人；抢险救灾719万元，慰问9,448人；消费帮扶采购帮销1,774万元。全公司二级工会聚焦为职工办实事，推动解决了一线职工的急难愁盼问题。

The Company carries out the activities of delivering warm in the “two festivals”, bringing coolness in summer, and providing health services throughout the year, particularly to production frontline employees, overseas employees, employees in difficulties, employees and families working in a tough environment, advanced model figures, and scientific and technological experts with outstanding contributions, etc. In 2023, the Company has distributed RMB157 million in total for delivering warm in the “two festivals”, visited and extended its regards to 370,000 migrant workers. The Company has spent RMB125 million to bring coolness in summer for workers, visited over 14,900 groups, offered a student loan of RMB6.53 million in the autumn, and subsidized 2,865 children of financially challenged workers. Meanwhile, RMB7.19 million has been incurred when organizing and coordinating the participation in rescue and relief efforts, 9,448 victims were consoled and RMB17.74 million was spent to purchase products featuring consumption assistance. The second-level trade union focused on handling practical matters for employees, helping to solve the urgent and anxious problems of front-line workers.



Topic 1 专题一

践行“三个转变”重要指示

Implementing the Important Instructions of “Three Transformations”

推动中国速度向中国质量转变
Promoting the Transformation from Being ‘Made in China’ to Being ‘Created in China’

推动中国速度向中国质量转变
Promoting the Transformation from Chinese Speed to Chinese Quality

推动中国速度向中国质量转变
Promoting the Transformation from Chinese Products to Chinese Brands



2014年5月10日，习近平总书记在视察中国中铁装备集团时，提出要“推动中国制造向中国创造转变、中国速度向中国质量转变、中国产品向中国品牌转变。”5月10日“中国品牌日”由此诞生。10年来，我们始终牢记习近平总书记的嘱托，认真贯彻落实“三个转变”重要指示。

On 10 May 2014, when General Secretary Xi Jinping inspected China Railway Engineering Equipment Group Co., Ltd. (CREG), he proposed to “promote the transformations from being ‘Made in China’ to being ‘Created in China’, from China’s Speed to China’s Quality, and from Chinese Products to Chinese Brands.” The “Chinese Brand Day” on 10 May was thus born. For the ten years, we have always kept in mind and carefully implemented General Secretary Xi Jinping’s important instructions of “Three Transformations”.

推动中国制造向中国创造转变

Promoting the Transformation from Being ‘Made in China’ to Being ‘Created in China’

完善创新体系

Innovation system improvement

扎实推进科技创新体制机制改革。2023年，公司召开两次科技创新领导小组会议，推动顶层设计和总体规划，审议出台《中国中铁首批专业研发中心优化整合方案》《中国中铁实用技术成果内部转化管理规定》《支持三个国家级实验室高质量发展的若干措施》等二十余项针对科技工作的重要制度或办法，为明确公司科技创新发展方向，推动科技研发体系改革提供有力支撑。

构建并完善“三级四层”科技创新体系。首创了形式统一、分工紧密的研发体系，以行业领军企业为主体、以相关二级企业为支撑、以企业重大需求为引擎、以重大工程问题需求为导向，对既有21家专业研发中心进行优化整合，形成了科研平台协同建设、领军人才协同培养、技术疑难协同攻关、研究成果协同转化的协同创新机制，得到了客户高度认可。

加大高端研发平台的建设力度。推进三个国家级实验室的建设，通过完善运行机制，确保经费、人员、课题、成果“四落实”。加快省级研发平台和各级企业技术中心建设，2023年度新增1个国家级企业技术中心和4个省（市）认定的企业技术中心和研发平台。

The Company made solid progress in the reform of science and technology innovation system and mechanism. In 2023, the Company held two meetings on science and technology innovation to promote top-level design and overall planning. In these two meetings, the Company considered and issued more than 20 important systems or methods for the science and technology work of the Company, including the Optimization and Integration Plan for the First Batch of Professional R&D Centers of CREC (《中国中铁首批专业研发中心优化整合方案》), the Management Provisions on the Internal Transformation of Practical Technology Achievements of CREC (《中国中铁实用技术成果内部转化管理规定》), and the Measures for Supporting the High-Quality Development of the Three National Laboratories (《支持三个国家级实验室高质量发展的若干措施》). This provided strong support for clarifying the orientation for the Company’s science and technology innovation development and promoting the reform of science and technology R&D system.

The Company established and perfected the “three-level and four-layer” science and technology innovation system. The Company pioneered a R&D system with unified form and close division of labor, with industry leading enterprises as the main body and with the support from relevant secondary enterprises, to satisfy major needs of enterprises and solve major engineering problems. By optimizing and integrating the existing 21 professional R&D centers, the Company formed a collaborative innovation mechanism of collaborative construction of scientific research platforms, collaborative training of leading talents, collaborative tackling of technical difficulties, and collaborative transformation of research results, getting the nod of customers.

The Company ramped up the construction of high-end R&D platforms. The Company promoted the construction of three national laboratories, and ensured that the funding, personnel and subjects were in place and the results were fruitful by improving the operational mechanism. The Company sped up the construction of provincial R&D platforms and enterprise technology centers at all levels, and added 1 national enterprise technology center and 4 provincially (municipally) recognized enterprise technology centers and R&D platforms in 2023.

强化科技创新投入和成果转化。制定《推动实用技术成果内部有偿转化的工作意见》等制度办法，持续加大科研经费投入。依托重难点工程，突破了复杂海域公铁大桥建造关键技术，攻克了高速铁路列车技术条件相关世界性难题，40项成果达到国际领先水平，151项成果达到国际先进水平。

The Company increased investment in technology innovation and strengthened achievement transformation. It formulated the Working Opinions on Promoting the Internal Paid Transformation of Practical Technology Achievements (《推动实用技术成果内部有偿转化的工作意见》) and other systems and methods, and continuously increased scientific research funding. Relying on important and difficult projects, the Company has made breakthroughs in key technologies for the construction of public-railway bridges in complex waters, and overcome global problems in technical conditions of high-speed railroad trains. 40 achievements have reached the international leading level, and 151 achievements have reached the international advanced level.



● 中国中铁开展优秀实用技术成果推广应用培训
CREC carried out training on the promotion and application of excellent practical technical achievements

引领科技进步

Leading technological progress

2023年，公司获得中国专利奖优秀奖3项，获第48届日内瓦国际发明展金奖1项、银奖2项，获中国土木工程詹天佑奖17项；获得授权专利8,324项，其中发明专利2,438项，PCT等海外专利315项，获得省部级工法1,184项，获省级（含国家认可的社会力量设奖）科技进步奖480项。

截止本报告期末，公司拥有“高速铁路建造技术国家工程研究中心”、“隧道掘进机及智能运维国家重点实验室”和“桥梁结构健康与安全国家重点实验室”三个国家实验室（工程研究中心）及10个博士后工作站，1个国家地方联合研究中心（数字轨道交通技术研究与应用国家地方联合工程研究中心），52个省部级研发中心（实验室）（新增3），19个国家认定企业技术中心和138个省级认定企业技术中心（新增1）；优化重组后有17个公司专业研发中心。2023年，公司获批国家知识产权局地下工程知识产权运营中心，新增国家知识产权示范企业和优势企业8家，其中示范企业3家、优势企业5家，累计拥有示范企业及优势企业25家。

截止本报告期末，公司累计荣获国家科技进步和发明奖127项，其中特等奖5项、一等奖16项，中国土木工程詹天佑奖200项，荣获省部级（含国家认可的社会力量设奖）科技进步奖5,258项。拥有有效专利38,676项，其中发明授权9,279项，海外专利666项。拥有国家级工法166项，省部级工法6,998项。

In 2023, the Company won 3 Excellence China Patent Awards, 1 Golden Medal and 2 Silver Medals at the 48th International Exhibition of Inventions Geneva, and 17 Zhan Tianyou Civil Engineering Prizes; the Company was granted 8,324 patents, including 2,438 invention patents and 315 PCT patents, received provincial and ministerial level recognition for its 1,184 construction methods, and won 480 Provincial-Level Science and Technology Progress Awards (including nationally recognized awards established by social forces);

As of the end of the reporting period, the Company had three national laboratories (engineering research centers) including "State Engineering Research Center of High-Speed Railway Construction Technology", "National Key Laboratory of Tunnel Boring Machine and Intelligent Operation and Maintenance", "State Key Laboratory of Bridge Structure Health and Safety" and 10 post-doctoral workstations, 1 national local joint research center (a national and local joint engineering research center for digital rail transit technology research and application), 52 provincial and ministerial-level R&D centers (laboratories) (3 new ones), 19 nationally recognized enterprise technology centers and 138 provincially recognized enterprise technology centers (one new); and the Company had 17 professional R&D centers after optimization and reconstruction. In 2023, the Company was approved as the Intellectual Property Operation Center for Underground Engineering of China National Intellectual Property Administration, and had 8 new national intellectual property demonstration enterprises and advantageous enterprises, including 3 demonstration enterprises and 5 advantageous enterprises, with a cumulative total of 25 demonstration enterprises and advantageous enterprises.

As of the end of the reporting period, the Company won a total of 127 National Science and Technology Progress and Invention Awards, including 5 Special Awards and 16 First Prizes, 200 Zhan Tianyou Civil Engineering Prizes, and 5,258 Provincial and Ministerial-Level Science and Technology Progress Awards (including nationally recognized awards established by social forces). The Company had 38,676 valid patents, including 9,279 invention patents and 666 PCT patents. The Company had 166 national-level construction methods and 6,998 provincial and ministerial-level construction methods.



全面创新发展

Comprehensive innovation and development

公司制定了《关于进一步贯彻落实习近平总书记“三个转变”重要指示精神推动企业创新发展的意见》《中国中铁原创技术策源地和产业链链长建设的若干指导意见》《培育发展未来产业实施方案》，以科技创新为突破，以管理创新为保障，以质量提升为根本，以品牌塑造为目标，全力推动质量变革、效率变革、动力变革，努力打造世界一流的中国创造、中国质量、中国品牌。组建了中国中铁“三个转变”研究院，开展推动“三个转变”的路径和方法的理论研究和实践探索，加快企业在产业转型、技术创新、质量提升、品牌建设等方面的突破。加快数智升级，赋能施工生产一线，在首届国企数字场景创新专业赛中获一等奖2项、二等奖5项、三等奖10项；4项成果入选工业和信息化部智能制造示范工厂和优秀场景评选。

The Company has formulated the Opinions on Further Implementing the Spirit of the Important Instructions of General Secretary Xi Jinping's "Three Transformations" to Promote Enterprise Innovation and Development (《关于进一步贯彻落实习近平总书记“三个转变”重要指示精神推动企业创新发展的意见》), Several Guiding Opinions on Building CREC into an Original Technology Source and Industry Chain Chief (《中国中铁原创技术策源地和产业链链长建设的若干指导意见》), and the Program for Cultivating and Developing Future Industries (《培育发展未来产业实施方案》). By taking technological innovation as a breakthrough point, innovation management as a guarantee, quality improvement as the fundamental and brand-building as the goal, the Company goes all out to promote quality change, efficiency change and power change, and strives to create a world-class brand with Chinese quality. CREC has established a research institute on "Three Transformations" to carry out theoretical research on and explore the path and method of promoting "Three Transformations", while speeding up breakthroughs in industrial transformation, technological innovation, quality improvement and brand building. The Company accelerated digital and intellectual upgrading and empowered the front line of construction and production. It won 2 first prizes, 5 second prizes and 10 third prizes in the First Professional Competition for State-owned Enterprise Digital Scene Innovation; 4 achievements were included in the selection of the Intelligent Manufacturing Demonstration Factory and Excellent Scene by the Ministry of Industry and Information Technology of the People's Republic of China.



推动中国速度向中国质量转变

Promoting the Transformation from Chinese Speed to Chinese Quality

着力质量提升，推进品质革命

Focusing on quality improvement and advancing the quality revolution

公司不断加强质量精细化管理，分层次、分行业实施全面质量管理(TQM)，积极推动企业ISO9001质量管理体系换版升级。积极引入卓越绩效管理等先进质量管理方式，开展标准化技术和工艺改造，建立工艺参数及质量在线监控系统。同时开展与国内外优质产品的质量比对，鼓励以用户为中心的微创新，改善用户体验，激发消费潜能，满足绿色环保、可持续发展、消费友好等需求。

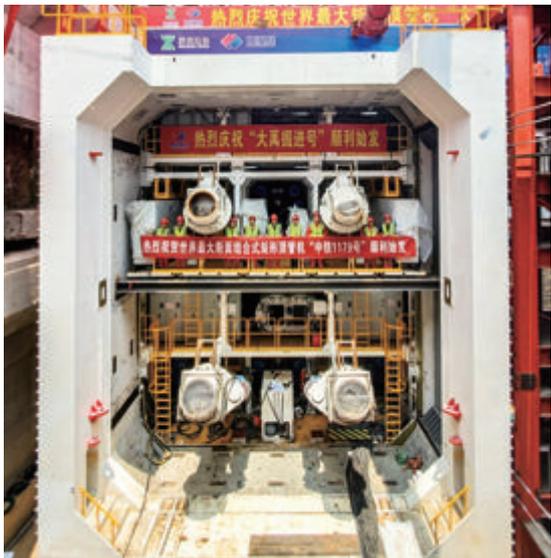
The Company continuously strengthens quality precision management, implements TQM at different levels and industries, and actively promotes the upgrade of the Company's ISO9001 quality management system. We actively introduce advanced quality management methods such as superior performance management, carry out standardized technology and process transformation, and establish process parameter and online quality monitoring systems. At the same time, we carry out quality comparisons with high-quality products from home and abroad, encourage user-centered micro-innovation, improve user experience, and stimulate consumer potential, to satisfy the needs of green environmental protection, sustainable development, and friendly consumption.

保证产品质量，建设精品工程

Ensuring product quality and building quality projects

2023年，公司参与建造的 74项精品工程荣获国家级优质工程奖（中国建设工程鲁班奖、国家优质工程奖），获奖工程设计理念领先、工程质量优异、社会效益显著，是中国速度、中国高度、中国跨度、中国深度、中国精度和中国温度的经典代表，体现了中国中铁建造智慧，展示了中国中铁建造力量。我们将继续砥砺前行，推动中国速度向中国质量转变。

In 2023, 74 quality projects that the Company has participated in won National Quality Engineering Awards (China Construction Engineering Luban Prizes, National Quality Engineering Awards). The award-winning projects, featuring leading design philosophy, excellent quality and obvious social benefits, are classic representatives of Chinese Speed, Chinese Height, Chinese Span, Chinese Depth, Chinese Accuracy and Chinese Temperature. They have also reflected the wisdom and strength of CREC in construction. We will continue to forge ahead and promote the transformation from Chinese Speed to Chinese Quality.



中国中铁研发的世界最大断面组合式矩形顶管机“大禹掘进号”始发
The world's largest cross-section combined rectangular pipe jacking machine "Dayu Tunneling" developed by CREC was put into use

案例 Case

2023年9月1日，以“经济复苏中的质量变革与合作”为主题的中国质量大会在成都开幕，“企业首席质量官质量变革创新典型案例”正式发布，共评选出20个典型案例，中国中铁《三级质量官制度，助推“百年山桥”实现数字化转型》《基于绿色循环制造的“同心圆”质量管理模式》两个案例入选。

On 1 September 2023, China Quality Conference with the theme of "Quality Change and Cooperation in Economic Recovery" was opened in Chengdu, and "Typical Cases of Quality Change and Innovation of Chief Quality Officers of Enterprises" was formally released. A total of 20 typical cases were selected. Two cases of CREC, i.e., the Three-level Quality Officer System Boosts the Digital Transformation of the "Century-old China Railway Shanhaiguan Bridge Group" (《三级质量官制度，助推“百年山桥”实现数字化转型》) and "Concentric Circle" Quality Management Mode based on Green Circular Manufacturing (《基于绿色循环制造的“同心圆”质量管理模式》) were selected.

推动中国产品向中国品牌转变

Promoting the Transformation from Chinese Products to Chinese Brands

品牌建设体系

Brand building system

2023年，公司不断深化品牌建设的全局性、战略性与牵引性作用，修订完善公司品牌建设“十四五”规划，优化细化了指导思想、发展目标、建设路径等。

健全品牌建设体系，成立了两级品牌工作领导小组，构建了横向协同、纵向联动的良好工作格局。出台《中国中铁商誉管理规定》，系统构建全过程商誉管理体系。编印《品牌管理手册》，打造品牌管理人员的工具书、品牌建设工作的宣传册。2023年，中国中铁首次入选“中央企业品牌建设TOP30排行榜”，位列第25位，4项作品入选国企品牌建设典型案例和优秀品牌故事。

品牌运营效能稳步提升。发布《2023年品牌架构图谱》，系统构建了“一主多辅”，母品牌与各子品牌各有侧重、互补发展的良性机制，提升了品牌价值。国际品牌价值评估权威机构Brand Finance发布的《2023年全球最具价值品牌500强》中，中国中铁(CREC)品牌价值达到197.76亿美元，位列第97位，较上一年度提升10位。

In 2023, the Company deepened the overall, strategic and guiding role of brand building, revised and perfected its “14th Five-Year Plan” for brand building, and optimized and refined the guiding ideology, development goals, construction path, etc.

It improved the brand building system, set up a two-level leading group for brand work, and constructed a well-formed working pattern featuring horizontal synergy and vertical linkage. The Company issued the CREC Goodwill Management Regulations (《中国中铁商誉管理规定》) to systematically build a goodwill management system for the whole process. The Company prepared and printed the Brand Management Manual to provide a tool book for brand management personnel and a brochure for brand building. In 2023, CREC was selected in the list of “Top 30 Chinese Central State-owned Enterprises by Brand Building” for the first time, ranking 25th. Four of its works were selected as typical cases of brand building and excellent brand stories of state-owned enterprises.

The effectiveness of brand operation was steadily improved. The Company released the Brand Architecture Mapping 2023 (《2023年品牌架构图谱》), which systematically constructs a benign mechanism of “one main brand with multiple supplementary brands”, whereby the mother brand and its sub-brands have their own focuses and develop in a complementary manner, thus enhancing the value of the brand. In the 500 Most Valuable Global Brands 2023 published by Brand Finance, an authoritative international brand value evaluation organization, CREC ranked 97th with a brand value of 19.776 billion US dollars, up 10 places from the previous year.

案例 Case

2023年，中国中铁亮相中国品牌博览会，公司董事长陈云生动介绍了中国路、中国隧、中国桥、中国装备等建设成就和国家名片，受到党和国家领导人积极肯定与社会广泛关注。

In 2023, CREC appeared at the China Brand Expo, where Chen Yun, Chairman of the Company, vividly introduced the construction achievements and national business cards of CREC, i.e., Chinese Roads, Chinese Tunnels, Chinese Bridges, Chinese Equipment, etc., which were positively affirmed by the leaders of the Party and the State and received wide attention from the society.



● 中国中铁工业研制的CRT450悬臂掘进机，是世界最大的纵轴悬臂掘进机，出口韩国用于下穿隧道建设

CRT450 boom-type roadheader developed by CRHIC is the world's largest vertical shaft boom-type roadheader and exported to South Korea for the construction of submerged tunnels

诚信经营

Business integrity

公司始终重视企业信用管理，全面兑现了各项合同承诺，把诚信履约贯穿于企业生产经营活动始终，无不良经营行为。

2023年，所属中铁一局、中铁四局、中铁上海局、中铁广州局被中国施工企业管理协会评为2023年度工程建设诚信典型企业。所属中铁二局、中铁九局、中铁十局被中国建筑业协会评为AAA级信用企业。所属中铁五局、中铁七局被中国对外承包工程商会评为AAA级信用企业。所属中铁六局、中铁隧道局被中国水利工程协会评为AAA级信用企业。所属中铁水利院被中国水利水电勘测设计协会评为2023年度水利建设市场主体信用评价设计类AAA等级。

2023年，公司扎实推动重点项目优质高效履约，京雄高速、深中通道、贵南高铁、福厦高铁、沪宁沿江高铁、大连地铁5号线等一大批重点项目高质量建成。

The Company always attaches great importance to the corporate credit management and fully fulfills all the contractual commitments. It always implements the principle of integrity performance throughout the production and operation activities without bad business practices.

In 2023, China Railway First Group Co., Ltd., China Railway No. 4 Engineering Group Co., Ltd., Shanghai Civil Engineering Co., Ltd. of CREC and China Railway Guangzhou Engineering Group Co., Ltd. were honored as 2023 Typical Enterprises with Integrity in Engineering Construction by China Association of Construction Enterprise Management. China Railway No. 2 Engineering Group Co., Ltd., China Railway No. 9 Group Co., Ltd. and China Railway No. 10 Engineering Group Co., Ltd. were awarded as AAA credit enterprises by China Construction Industry Association. China Railway No. 5 Engineering Group Co., Ltd. and China Railway Seventh Group Co., Ltd. were awarded as AAA credit enterprises by China International Contractors Association. China Railway Sixth Group Co., Ltd. and China Railway Tunnel Group Co., Ltd. were awarded as AAA credit enterprises by China Water Engineering Association. China Railway Water Conservancy & Hydropower Planning and Design Group (CRWI) was awarded as an AAA enterprise in design category by China Water Conservancy and Hydropower Investigation and Design Association for credit evaluation of water conservancy construction market entities in 2023.

In 2023, the Company made solid progress in promoting the high-quality and high-efficiency performance of key project contracts, and a large number of key projects were completed with high quality, such as Beijing-Xiong'an New Area Expressway, Shenzhen-Zhongshan Bridge, Guiyang-Nanning High-speed Railway, Fuzhou-Xiamen-Zhangzhou High-speed Railway, Nanjingnan-Taicang High Speed Railway, and Dalian Metro Line 5.

投资者沟通

Investor communication

公司高度重视与投资者的沟通。自2007年在上海证券交易所和香港联合交易所上市以来，中国中铁始终以信息披露为核心，坚持依法依规开展信息披露工作，合规率始终保持100%。公司制定了《投资者关系管理办法》《信息披露管理办法》等10余项投资者关系管理和信息披露管理相关制度，并建立临时报告、定期报告、业绩发布会、投资者接待、资本市场危机处理等工作流程。

公司持续深化和完善“大投关”“立体投关”理念体系，管理层定期参加业绩推介会、股东大会、现金分红说明会、投资者教育保护等活动。构建了主责部门牵头，相关业务部门与下属企业积极参与的全方位、专业化、立体式的投资者沟通交流格局。

报告期内，全年累计召开6场业绩说明会，出席各类会议225场，其中资本市场峰会、策略会121场（含一对一及小组会），电话会议48次，接待线下调研来访56次，充分覆盖境内外投资者、分析师，尤其是中小投资者；联合中铁工业组织“智能建造+”主题反向路演1次，共计35家机构投资者及行业分析师、2家主流财经媒体参加；累计接听投资者热线电话461余次，回复上证E互动平台投资者问题125个，处理IR邮件447封，及时汇总梳理投资者关注重点与诉求，通过《每日股价市值动态信息》《资本市场监测周报》《资本市场观点汇总及管理建议》《年度市值管理报告》等形式反馈管理层，持续提升投资者关系管理工作的深度和广度，助推高质量发展目标实现。

自上海证券交易所开展信息披露评价工作以来，公司连续10年荣获A类评价；获评中国上市公司协会、北京上市公司协会“中国上市公司ESG最佳实践案例2023”；连续五年蝉联《新财富》“最佳IR港股公司（A+H股）”，荣获“最佳ESG实践奖”；年内还荣获大公文汇“最佳上市公司ESG实践奖”、证券时报“中国上市公司ESG百强”、财经杂志长青奖“可持续发展普惠奖”等多个奖项，进一步树立了公司在资本市场的良好形象。

The Company attaches great importance to the communication with investors. Since listing on the Shanghai Stock Exchange and the Stock Exchange of Hong Kong in 2007, CREC has put disclosure at the core of compliance, carried out information disclosure in compliance with laws and regulations, and maintained a compliance rate of 100%. The Company has formulated more than 10 systems for managing investor relations and information disclosure including the Management of Investor Relations Measures (《投资者关系管理办法》) and the Management of Information Disclosure Measures (《信息披露管理办法》) and established work processes of interim reports, periodic reports, performance briefing, investor reception and handling of capital market crises.

The Company continues to deepen and improve the systems of concepts of “major investment relations” and “three-dimensional investment relations”, and the management participates in performance promotion meeting, general meeting, cash bonus presentation, investor education protection and other activities on a regular basis. The Company has created an all-round, professional, three-dimensional landscape of investor communication, where principal departments in charge take the lead in and related business departments and subordinate enterprises actively participate in the communication with investors.

During the reporting period, the Company held 6 performance presentations and attended 225 meetings, including 121 capital market summits and strategy meetings (including one-on-one and group meetings) and 48 teleconferences, and received 56 offline research visits, which covered domestic and overseas investors and analysts, especially small and medium-sized investors. The Company and China Railway Hi-Tech Industry Co., Ltd. (CRHIC) jointly organized one reverse roadshow with the theme of “Intelligent Construction +”, which was attended by 35 institutional investors, industry analysts, and 2 mainstream financial media. The Company answered more than 461 investor hotline calls, replied 125 investor questions on the SSE e-interactive platform, handled 447 IR emails, and summarized and sorted out the key concerns and demands of investors in time. The Company provided feedback to the management through the Dynamic Information on the Market Capitalization of Daily Stock Prices (《每日股价市值动态信息》), Monitoring Report on Weekly Capital Market (《资本市场监测周报》), Summary of Capital Market Views and Management Recommendations (《资本市场观点汇总及管理建议》), Report on the Management of Annual Market Capitalization (《年度市值管理报告》), etc. The Company kept expanding the depth and breadth of investor relations management to achieve the goal of high-quality development.

Since the Shanghai Stock Exchange carried out the evaluation of information disclosure, the Company has won the Class A evaluation for 10 consecutive years; the Company was rated as “2023 ESG Best Practice Cases of Chinese Listed Companies” by the China Association for Public Companies (CAPCO) and the Listed Companies Association of Beijing (LCAB) and won the “Best IR Hong Kong Listed Company (A + H Shares)” by New Fortune for five consecutive years and the “Best ESG Practice Award”; during the year, the Company won the “Best ESG Practice Award for Listed Companies” by Hong Kong Ta Kung Wen Wei Media Group, “Top 100 ESG Listed Companies” by Securities Times, the “Sustainable Development Inclusion Award” of the Changqing Award by Caijing Magazine, etc. These awards further established the Company's good image in the capital market.

Topic 2

专题二

助力乡村振兴

Help Rural Revitalization

定点帮扶规划

Targeted Poverty Alleviation Planning

定点帮扶概要

Summary of Targeted Poverty Alleviation

定点帮扶成效

Effectiveness of Targeted Poverty Alleviation Efforts

定点帮扶计划

Targeted Poverty Alleviation Plan





2023年，中国中铁全面贯彻落实党的二十大和二十届二中全会精神，深入学习贯彻习近平总书记关于全面推进乡村振兴的重要论述，按照党中央、国资委的决策部署，认真履行帮扶责任，有序推进各项工作落实落地，扎实推动巩固拓展脱贫攻坚成果同乡村振兴有效衔接，为促进农业农村现代化、加快建设农业强国持续贡献中铁力量。

In 2023, CREC fully implemented the spirit of the 20th CPC National Congress and the Second Plenary Session of the 20th CPC Central Committee, thoroughly studied and implemented General Secretary Xi Jinping's important exposition on comprehensively promoting rural revitalization, and conscientiously fulfilled its responsibility of offering assistance to the countryside in accordance with the decision-making and deployment of the Central Committee of the CPC and the State-owned Assets Supervision and Administration Commission (SASAC). The Company implemented various tasks in an orderly manner, aligned efforts to consolidate and expand the achievements in poverty alleviation with efforts to promote rural revitalization, and continued to contribute to the modernization of agriculture and rural areas and acceleration of making China an agricultural power.

定点帮扶规划 Targeted Poverty Alleviation Planning

2023年，公司共召开定点帮扶工作领导小组会议、专项工作会议、现场座谈会议共15次。公司领导积极到定点帮扶县实地对接调研。2023年8月中旬，公司党委书记、董事长陈云，总裁、党委副书记陈文健分别到山西省保德县，湖南省汝城县、桂东县调研，与帮扶地区相关领导就帮扶成效和工作方向开展深入座谈，考察重点援建项目建设情况，并走访慰问了脱贫群众。

In 2023, the Company held a total of 15 meeting, including leading group meetings, special work meetings and on-site discussion meetings for targeted poverty alleviation. The leaders of the Company actively went to the counties receiving targeted poverty alleviation assistance to conduct field docking and research. In mid-August 2023, Chen Yun, the Party secretary and chairman of the Company, and Chen Wenjian, the president and deputy Party secretary of the Company respectively visited Baode County in Shanxi Province and Rucheng County and Guidong County in Hunan Province, conducted in-depth discussions with relevant leaders of the areas receiving assistance on the effectiveness and work orientation, inspected the construction of key assistance projects, and visited the households lifted out of poverty.



中国中铁·保德县定点帮扶工作座谈会
CREC Baode County Targeted Poverty Alleviation Symposium



中国中铁·汝城县定点帮扶工作座谈会
CREC-Rucheng County Targeted Poverty Alleviation Symposium

定点帮扶概要

Summary of Targeted Poverty Alleviation

持续加大产业帮扶力度。继续投入500万元扶持汝城白毛茶发展，通过镇村联动补奖模式，激发当地茶农种植积极性；继续投入2,000万元在牧塔村建设保德县第二座5MW光伏电站项目，以发电收益反哺当地公益事业发展以及贫困户帮扶；投入2,000万元扶持桂东县岗梅种植产业，计划“十四五”期间新种植岗梅5万亩，帮助桂东县打造岗梅之乡。努力通过各种方式增加村集体收益，桂东县组织开展直播带货培训，在村里培养出一批直播带货能手；汝城县带领当地村民制作板鸭，带动致富增收；保德县新建2,000平方米四季蔬菜大棚，提升蔬菜供应能力。

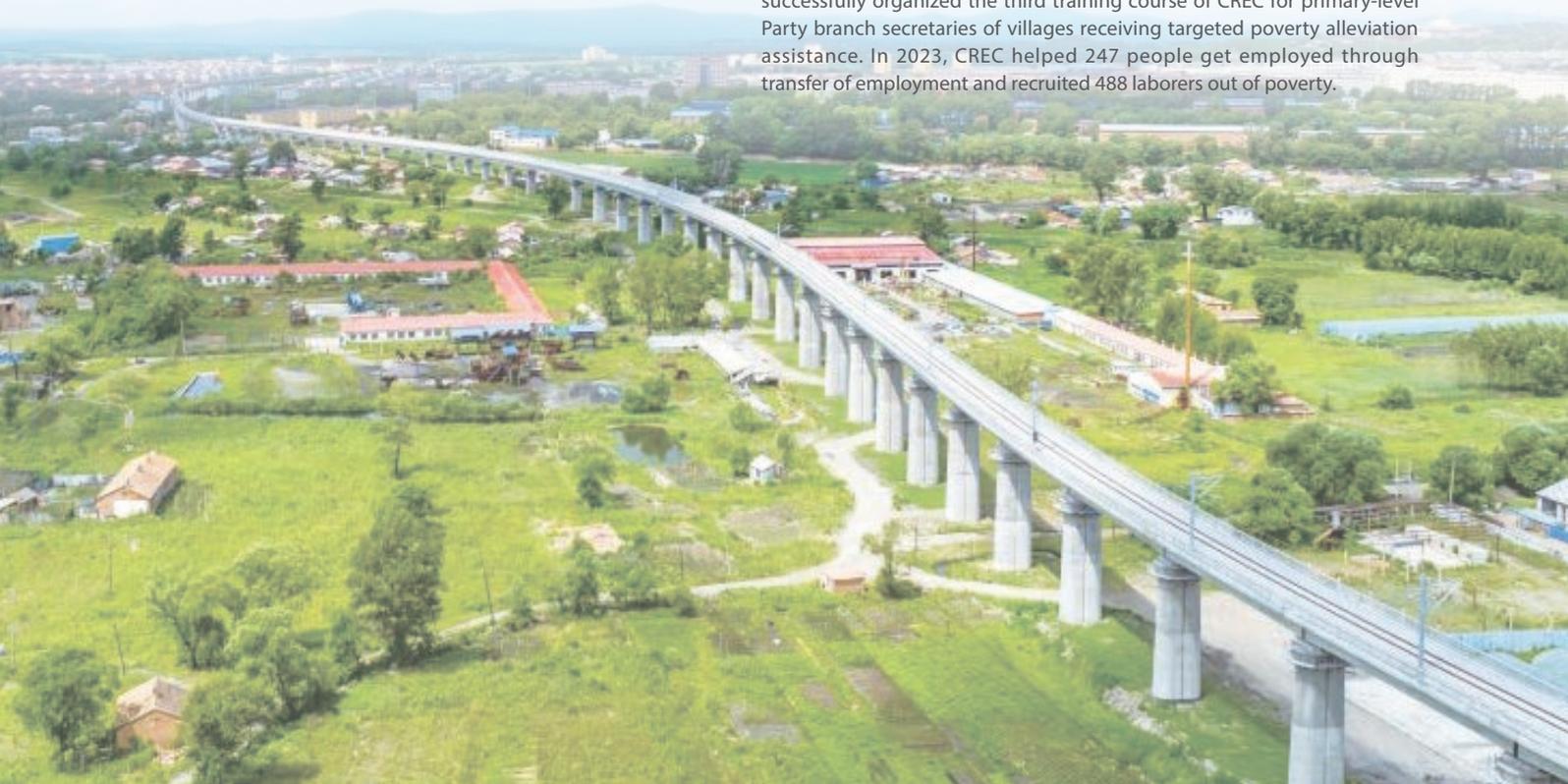
The Company made sustained efforts to increase support for industries. The Company continued to invest RMB5 million to support the development of the camellia sinensis var industry of Rucheng County, and stimulated the enthusiasm of local tea farmers in tea tree planting through the town-village combined supplementary awards model. The Company continued to invest RMB20 million to Muta Village to build the second 5MW photovoltaic power station project in Baode County to use the power generation proceeds to fuel the development of local public welfare undertakings and the support for poverty-stricken households. The Company invested RMB20 million to support Guidong County in planting Ilex asprella and planned to help the county plant 50,000 mu of Ilex asprella during the “14th Five-Year Plan” period, so as to build it into the hometown of Ilex asprella. The Company made every effort to increase the collective income of villages. It organized training on selling goods through live streaming and cultivated a batch of villagers excelling at this job. With its help, Rucheng County led villagers to produce spicy salted duck products, which increased their revenue, and Baode County built 2,000 square meters of vegetable greenhouses, which enhanced the ability to supply vegetables of the county.

巩固提升“三保障”和饮水安全。在汝城县投入1,500万元，实施特色产业帮扶和人居环境整治，新建1,500多亩白莲产业基地，1,000亩油菜花基地，100余亩向日葵基地，举办的莲文化节、祁剧之夜、荷塘星空音乐等活动，吸引游客、网红近4万人；在保德县投入10万元，推进瑞窝村自来水入户和太阳能路灯项目，自来水入户率实现100%，路灯基本覆盖全村；在汝城县引进农业企业为村免费修建农机耕道1,200米，带领村民治理抛荒耕地300多亩；在桂东县大力推进“居家和社区养老服务提升行动”和“残疾人家庭无障碍改造工程”，先后为88户困难老年人进行居家适老化改造，升级了11个社区居家养老服务中心，新建6个长者食堂，惠及1.68万人。

加大培训赋能帮扶力度。组织7名乡村振兴管理人员及挂职干部参加大连高级干部管理学院“国有企业助力乡村振兴干部能力提升网络专题班”；与汝城县共同主办旅游讲解人才培训班，并将考核优秀的20余名学员推荐到第二届湖南省旅游发展大会服务；在汝城县职中配套建设专业实训室，开展师资培训、人员技能培训等，全年共培训各类技术人才14,607人次；整合桂东县培训资源，开办保育员、家政服务、电子商务师等56个专业培训班，培训人次接近1万；保德县先后组织多期专题培训，培训人次超过2.45万；公司联合中智培训机构，在浙江杭州成功举办中国中铁第三期定点帮扶基层村党支部书记培训班。2023年中国中铁帮助转移就业247人，招用脱贫劳动力488人。

The Company made greater efforts to “secure access to compulsory education, basic medical services and safe housing” and ensure drinking water safety. The Company invested RMB15 million in Rucheng County to provide support for the characteristic industries and improve living environment of the county. More than 1,500 mu of Echeveria ‘White Lotus’ industry base, 1,000 mu of rapeseed flower base, and more than 100 mu of sunflower base were built. The Lotus Culture Festival, Qi Opera Night, Lotus Pond on a Starry Night Music Festival and other activities were held, which attracted nearly 40,000 tourists and online celebrities. The Company invested RMB100,000 in Baode County to promote the project of tap water supply to households and the project of solar street lamps in Tuanwo Village, with households’ access to tap water reaching 100% and solar street lamps basically covering the whole village. The Company introduced agricultural enterprises to Rucheng County to build 1,200 meters of farm road for a village free of charge and led villagers to improve more than 300 mu of abandoned arable land. The Company vigorously promoted the “Home-based and Community-based Elderly Care Service Enhancement Action” and the “Barrier-Free Improvement Project for Households Having Members with Disabilities” in Guidong County; it successively carried out elderly-oriented improvement for 88 households with the elderly in difficulty, upgraded 11 community-based elderly care service centers, and built 6 elderly canteens, benefiting 16,800 people.

The Company provided more training to empower assistance. The Company organized seven rural revitalization management personnel and cadres assuming temporary posts to participate in the Online Course of State-owned Enterprises for Improving the Ability of Cadres in Rural Revitalization” of Dalian Senior Cadre Management Institute. The Company co-sponsored with Rucheng County to provide tourism explanation talent training sessions and recommended more than 20 excellent trainees to serve at the Second Hunan Tourism Development Conference. The Company built a supporting professional training room in Rucheng Secondary Vocational School to provide teacher training and personnel skill training, with a total of 14,607 technical talents of various types trained throughout the year. The Company integrated training resources of Guidong County to offer more than 56 professional training courses to train child-acre workers, housekeeping attendants, E-commerce personnel, etc., with a total of nearly 10,000 trainees. The Company successively organized a number of thematic training sessions to train more than 24,500 people. The Company joined hands with Zhongzhi Training Institution and successfully organized the third training course of CREC for primary-level Party branch secretaries of villages receiving targeted poverty alleviation assistance. In 2023, CREC helped 247 people get employed through transfer of employment and recruited 488 laborers out of poverty.





中国中铁援建保德县第十一小学宿舍楼交接
Handover of dormitory buildings of No. 11 Primary School in Baode County assisted by CREC



中国中铁援建的桂东县寨前中学交付
Delivery of Guidong County Zhai Middle School supported by CREC

加大消费帮扶力度。按照国资委“迎春行动”、“兴农周行动”等专项活动安排，推动消费帮扶全员参与，全年仅“迎春行动”“兴农周行动”两个专项活动完成消费帮扶近1,800万元；邀请网红歌手参与汝城县红色沙洲奈李文化节公益助农直播活动，奈李销量达到20万吨，占全年产量的1/3；在桂东县新建网络销售点100家，助力桂东黄桃、高山冷水米、玲珑茶叶等特色产品提升销量，全年该县农产品网销额大幅增长近800万元。

The Company increase support for assistance by boosting consumption. Following the arrangement of the SASAC's "Spring Action", "Agricultural Week Action" and other special activities, the Company promoted the full participation in the activities and completed consumption assistance of nearly RMB18 million through the "Spring Action" and "Agricultural Week Action". The Company invited an online singer to participate in Rucheng County-Red Shazhou Prunus Salicina Var. Cordata Public Welfare Live Streaming Event to help farmers sell their agricultural products. In this event, the sales of prunus salicina var. cordata reached 200,000 tons, accounting for 1/3 of the annual production. The Company established 100 network sales outlets in Guidong County to help boost the sales of specialty products, including yellow peach of Guidong County, Premium Short Grain Rice and Linglong tea. The online sales of county's agricultural products increased by nearly RMB8 million.



定点帮扶成效

Effectiveness of Targeted Poverty Alleviation Efforts

2023年，中国中铁选派挂职干部6名，投入定点帮扶资金7,904.9万元（无偿资金6,540万元，有偿资金1,364.9万元），引进帮扶资金6.71亿元（无偿资金1.4亿元，有偿资金5.31亿元）。培训县乡村基层干部人数4,514人次，乡村振兴带头人1,804人次，专业技术人才23,852人次，购买和帮助销售农产品5,028.8万元，打造乡村振兴示范点24个。定点帮扶成效显著，“‘半条被子’暖民心‘四定六靠’促振兴”等3篇案例获评中国上市公司乡村振兴优秀案例；保德县獭窝村驻村第一书记闫剑波同志荣获“山西省干部驻村工作模范第一书记”，2023年5月，闫剑波同志的先进事迹被《经济日报》刊登。

In 2023, CREC selected 6 cadres assuming temporary posts, invested RMB79.049 million in targeted assistance funds (including RMB65.40 million of donation and RMB13.649 million of reimbursable funds), attracted RMB671 million of assistance funds (including RMB140 million of donation and RMB531 million of reimbursable funds), trained 4,514 grass-roots cadres, 1,804 rural revitalization leaders, and 23,852 professional and technical personnel. The Company purchased and helped sell RMB50.288 million of agricultural products, and built 24 rural revitalization demonstration points. The results of targeted poverty alleviation efforts were remarkable. Three cases, including “‘Half a Quilt’ Warms People’s Heart, ‘Following the Decisions of Villagers in Four Situations and Relying on Villages in Six Situations’ Promote Revitalization”, have been awarded as excellent cases of rural revitalization of listed companies in China. Comrade Yan Jianbo, the first secretary of Tuanwo Village, Baode County, was honored as the “Model First Secretary Among Resident Officials in the Village of Shanxi Province”. In May 2023, the advanced deeds of Yan Jianbo were published by Economic Daily.



中国中铁获评2023上市公司乡村振兴优秀实践案例奖
CREC won the 2023 Excellent Practise Case Award for Rural Revitalization of Listed Companies

定点帮扶计划

Targeted Poverty Alleviation Plan

2024年，中国中铁将以习近平新时代中国特色社会主义思想为指导，学习运用“千村示范、万村整治”工程经验，着力创新帮扶方式，锚定推动产业发展不放松，统筹考虑经济、社会效益，切实发挥帮扶资金撬动作用，以产业促进就业，改善民生，在有效推进乡村全面振兴进程中发挥中国中铁作用。

In 2024, CREC, guided by Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, learn and apply the gains from the “Zhejiang’s Green Rural Revival Program”, devise innovative assistance methods and insisting on promoting industrial development. We will coordinate economic benefits and social benefits and make support funds play the driving role to the full. Also, we will promote employment through industry, improve people’s livelihood and play our role on the way to carry forward the effective comprehensive revitalization of rural areas.

- 持续推进产业振兴。公司将紧扣产业振兴主题，持续加强汝城白毛茶产品的包装和销售工作，建设特色农产品仓储、冷链、物流等补短板基础设施；在保德县实施高标准农田新建和改造提升，加快高标准农田转换。公司将继续加快与产业基金和入股企业的沟通，探索有偿帮扶项目，进一步夯实帮扶地区特色产业根基。
- 深化和美乡村建设。深入开展“五百行动”，建设“四类乡村”。坚持因地制宜、生态优先、塑形铸魂、共建共享的原则，积极推动宜居宜业和美乡村建设，全面改善农村生产生活条件。
- 提高消费帮扶质量。着力打造更具特色的产品品牌，拓展微信公众号、电商平台、直播带货等线上营销方式，鼓励各县采用消费者更接受的营销手段。积极引入外部客户，助力加快市场化机制建设，逐步打响口碑，推动消费帮扶进一步深化。
- 发挥专家智力作用。大力发展农村集体经济，增强集体经济发展活力，推动“梁西军劳模创新工作室”在保德县挂牌，发挥创新工作室的人才和资源优势；以“梁西军劳模创新工作室”为载体，开展系列活动。充分发挥“外脑”持续拉动作用，邀请专家、学者现场指导，为各类人才大展才华提供平台。

中国中铁将以强烈的责任感和使命感，持续强化责任担当，善始善终，善作善成，为全面实施乡村振兴战略作出新的更大贡献。

- Move ahead with industrial revitalization without cease. Focusing on the theme of industrial revitalization, we will continuously strengthen the package and sale of the camellia sinensis var product of Rucheng County and build storage, cold chain, logistics and other infrastructures that will bolster the short slab for this specialized agricultural product. In Baode County, we will develop, enhance and transform high-standard farmlands. The Company will continue to communicate with industrial funds and corporate shareholders at a faster pace, explore paid assistance projects and further cement the specialized industry foundation in the regions receiving assistance.
- Implement the “Harmonious and Beautiful Village” project in greater depth. We will carry out the “Five Hundred Action” in depth and build “Four Types of Villages”. We will adhere to the principle of local accommodation, ecological preference, shape formation, soul making, joint construction and sharing, carry forward the development of livable, business-friendly, harmonious and beautiful villages, and improve production and living conditions of rural areas in every aspect.
- Improve the quality of assistance by driving consumption. We will make every possible effort to develop more specialized product brands, expand WeChat official account, e-commerce platform, live show and other online marketing modes, and encourage the counties to adopt marketing methods that are more welcomed by consumers. We will actively introduce external customers, help accelerate the market mechanism building, build a good reputation step by step, and further promote the consumption-based support mechanism in greater depth.
- Give full play to expert intelligence. We will vigorously develop the rural collective economy and make it more vibrant. We will promote the “Liang Xijun Model Worker’s Innovation Studio” to settle down in Baode County and exert its talent and resource advantages. Through the “Liang Xijun Model Worker’s Innovation Studio”, we will organize a series of events. We will fully exert the continuous driving role of “external brains”, invite experts and scholars to instruct on the site, and provide a platform for various talents to exert their expertise and intelligence.

Cherishing the strong sense of responsibility and mission, CREC will continuously reinforce our assumption of responsibility, make a good beginning and a good ending, make it happen in good manners, and make new and bigger contributions to the all-round implementation of the rural area revitalization strategy.







Topic 3 专题三

高质量共建“一带一路”

Joint Construction of the “Belt and Road” with High Quality

秉持共商共建共享原则
Upholding the Principles of Joint Consultation,
Construction and Sharing

坚持开放、绿色、廉洁理念
Adhering to the Philosophy of Openness,
Greenness and Integrity

实现高标准、惠民生、可持续目标
Achieving Targets of High Standard, Sustainable
Development, and Benefiting People's Livelihood



2023年，中国中铁积极参与“一带一路”建设、基础设施互联互通、国际产能和装备制造合作，全力推动中国铁路“走出去”。公司国际业务新签合同额284.16亿美元，同比增加8.25亿美元，增长率为2.99%。本年度公司成功中标塞拉利昂铁矿铁路运营管理项目、南非祖鲁地区铁路通信项目、中泰铁路一期土建C3-1标段、坦桑尼亚460km公路维护项目、几内亚西芒铁矿项目土方工程、塞拉利昂马可尼锂矿项目等项目。在ENR全球承包商250强排名第2位，在全球最大250家国际承包商排名第13位。

In 2023, CREC actively participated in the joint construction of the "Belt and Road" initiative, infrastructure interconnection, international production capacity and equipment manufacturing cooperation, and gave all-out support for Chinese railways "going global". The Company's international business achieved a new contract amount of US\$28,416 million, an increase of US\$825 million or 2.99% year-on-year. This year, the Company successfully won the bids for the railway operation and management project of an iron mine in Sierra Leone, the railway communication project in Zulu Region of the South Africa, C3-1 civil work section of the China-Thailand Railway Phase I, 460km road maintenance project in Tanzania, the civil work of Simandou Iron Mine in Guinea, the Marconi Lithium Mine Project in Sierra Leone and other projects. CREC ranked No. 2 on ENR's Top 250 Global Contractors and No. 13 on the 250 largest international contractors in the world.

秉持共商共建共享原则

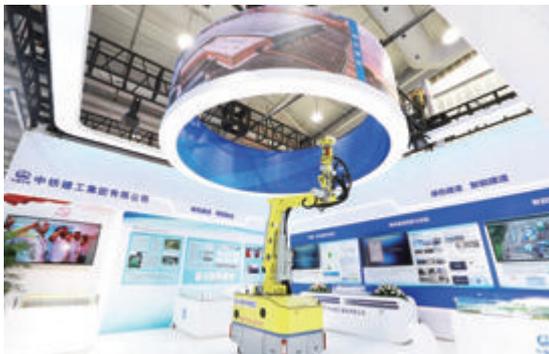
Upholding the Principles of Joint Consultation, Construction and Sharing

深化国际合作

Furtherance of international cooperation

2023年，中国中铁主动服务国家对外合作大局，扎实开展国际交流合作。积极参与2023全球可持续交通高峰论坛、第15届国际交通技术与设备展览会、第20届中国-东盟博览会、第三届“一带一路”国际合作高峰论坛、中阿博览会、澳门基建论坛、进博会、服贸会等重大活动，举办了驻华使节“步入中国中铁”活动，公司领导与相关国家政要举行了友好会谈。公司加入了全球可持续交通创新联盟、中非联合工商会中方理事会，进一步拓宽国际交流渠道，持续深化国际互联互通合作。

In 2023, the Company actively served the overall situation of the country's foreign cooperation, carried out solid international exchanges and cooperation, The Company actively took part in a series of important events, including the 2023 Global Sustainable Transport Forum, the CHINA TRANSPRO 2023, the 20th China-ASEAN Expo, the third Belt and Road Forum for International Cooperation, the China-Arab States Expo, the Macau International Infrastructure Investment and Construction Forum, the China International Import Expo and the China International Fair for Trade in Services. Also, the Company invited foreign ambassadors in China to participate in the "Approach CREC" activity, and the Company leaders held friendly talks with the political leaders of related countries. The Company has joined the Global Sustainable Transport Innovation alliance and the Chinese Council of the China-Africa United Business Council. We have developed broader channels of international exchange and continuously deepened international contact and cooperation.



● 中国中铁亮相2023年中国国际服务贸易交易会
CREC debuted at the 2023 China International Fair for Trade in Services



● 中国中铁应邀出席第六届中国-阿拉伯国家博览会并作主旨发言
CREC was invited to attend the 6th China-Arab States Expo and delivered a keynote speech

属地化经营

Territorial operation

中国中铁持续推进海外体制机制改革，加快境外业务区域化发展，构建境外立体经营格局，进一步提升国际化发展水平。公司持续完善境外区域总部机构运行体系，从政策导向、资源配置、考核激励等方面提供强有力支持，不断深化制度建设，持续提高项目履约管理水平，维护有序境外经营秩序，有序提升风险防控能力，推动境外区域总部属地化经营高质量发展。

CREC continues to promote the reform of systems and mechanisms of overseas operations, accelerates the regionalization of overseas business development and builds a three-dimensional overseas operation landscape, for the purpose of further enhancing its international development. The Company continuously improves the operation system of the overseas regional headquarters by providing strong support in terms of policy orientation, resource allocation, appraisals and incentives. Meanwhile, the Company continues to deepen system construction, improves performance management of projects and enhances the ability of risk prevention and control in an orderly manner. This will drive the high-quality development of localized operation of the overseas regional headquarters.

文化交流沟通

Cultural exchange and communication

中国中铁尊重当地文化和民俗民情，注重与当地民众融合，努力增加本土用工，关心关爱外籍员工，秉承“授人以渔，服务全球”的文化理念，与驻在国保持良好的文化沟通交流，广泛传播中国智慧和优秀文化。

CREC respects local culture and folk customs with a focus on integration with local people, strives to increase local employment, cares for foreign employees, adheres to the cultural concept of “teaching people to fish, serving the world”, and maintains good cultural communication with the host country to widely spread Chinese wisdom and excellent culture.



● 中国中铁两个案例入选第五届中国企业国际形象建设优秀案例
Two cases of CREC were selected as the excellent cases of the fifth session of international image building of Chinese enterprises



● 中国中铁印尼雅万高铁项目部与当地学校开展交流活动
CREC Indonesia Jakarta-Bandung High-speed Railway Project Department carried out exchange activities with local schools



● 驻华使节参观中国中铁“开路先锋”企业文化展厅
A visit to CREC's “Road Pioneer” Corporate Culture Exhibition Hall on the Chinese Embassy Day

案例 Case

2023年3月30日，中国中铁匈塞铁路项目经理部在罗兰大学“一带一路”研究中心开展文化交流活动，双方就文化交流合作等方面签署了战略合作协议。中国中铁匈牙利有限责任公司和匈牙利罗兰大学中文系及孔子学院合作完成《匈汉词典》编撰，并成功入选第三届“一带一路”国际合作高峰论坛民心相通专题论坛务实成果。

On 30 March 2023, the China Railway Hungary-Serbia Railway Project Management Department held a cultural exchange event at the “Belt and Road” Study Center of Roland University, and both parties signed a strategic cooperation agreement on cultural exchange and other aspects. China Railway Hungary Limited, the Chinese Language Department of Roland University and Confucius Institute completed the compilation of the Hungarian-Chinese Dictionary, which has been shortlisted as a pragmatic result of the “Connecting People’s Hearts” theme forum of the Third Belt and Road Forum for International Cooperation.

2023年6月13日至15日，中国中铁孟加拉帕德玛大桥铁路连接线项目部联合当地医院，深入一线为项目800余名孟籍员工及孟籍工人进行了健康体检。此次体检为全体孟籍员工建立了健康档案，对有相关疾病的人员免费配发了药品，进行了详细的健康指导和建议。

On 13 June to 15 June 2023, the China Railway Project Department for Padma Bridge Railway Connection Line in Bangladesh provided a physical examination for more than 800 local employees and workers working on the site together with a local hospital. With the physical examination, the Company created health achieves for all local employees, distributed drugs for free to the employees suffering relevant diseases and provided them with detailed health instructions and advice.

坚持开放、绿色、廉洁理念

Adhering to the Philosophy of Openness, Greenness and Integrity

推动绿色基础设施建设

Promoting construction of green infrastructure

2023年，公司境外在建项目严格遵守驻在国相关环保法律法规，办理各类环保资质，积极采取有效措施推进绿色工程建设。各境外项目严格执行周、月、季度的现场巡视检查与整改落实，闭环管理，确保当地生态环境不被破坏；健全环保制度，重视项目环保的整体策划与环保措施的落地实施；强化环保教育，定期开展环保业务培训，树立全员环保意识；强化应急管理和应急演练，根据环境污染事件的应急处理预案组织演练。

In 2023, the Company's overseas projects under construction strictly abided by the environmental protection laws and regulations of the countries where they are located when handling various environmental qualifications, and the Company actively took effective measures to promote green construction. Its overseas project departments strictly implemented weekly, monthly and quarterly on-site inspections and rectification implementation, closed-loop management, to prevent the local ecological environment from being damaged; the Company improved the environmental protection system, pay attention to the overall planning of environmental protection of project and the implementation of environmental protection measures; the Company strengthened environmental protection education, provided trainings on environmental protection businesses, fostered environmental protection awareness for all employees; and the Company strengthened emergency management and emergency drills, and organized drills according to the emergency response plan for environmental pollution incidents.

案例 Case

2023年5月4日，在中铁高新工业股份有限公司旗下中铁装备国家TBM产业化中心内，世界首台绿色盾构机下线。设备长9.16米，用于意大利西西里岛高速铁路隧道施工。该设备在业内首次搭载“绿色节能TBM”技术，自主达到掘进效率和能源消耗的最佳匹配。这台TBM还搭载了连续掘进技术，快速换模技术等，与常规盾构相比施工效率提高20%-30%，换模时间降为常规的三分之一。

On 4 May 2023, the world's first green shield tunneling machine rolled off the line at the China Railway Engineering Equipment National Center for TBM Industry under the flag of China Railway Hi-Tech Industry Corporation Limited. The 9.16m-long equipment was used to build a high-speed railway tunnel in Sicily, Italy. The equipment, first provided with the "green and energy-saving TBM" technology in the industry, achieved the optimal match between excavation efficiency and energy consumption independently. Also adopting the continuous excavation technology and fast mold change technology, the TBM increased the construction efficiency by 20%-30% compared to the conventional shield tunneling machine and reduced the mold change time to one third of the conventional one.

案例 Case

2023年，中国中铁玻利维亚ESPINO公路项目为沿线3个部落钻井8口，为沿线居民用水提供了基础保障。同时，对项目全线取弃土场进行植被恢复，累计完成植树造林106.35公顷，实现了环境保护与项目履约“双丰收”，获得了当地民众一致好评。

In 2023, CREC Bolivia ESPINO Road Project drilled 8 wells for 3 tribes along the line, thereby providing fundamental water supply support for the local community. At the same time, the project restored the vegetation on the borrow area and spoil ground, and completed tree planting and forestation with an accumulated area of 106.35 hectares. This realized the "dual harvest" for both environmental protection and project performance, and won the unanimous acknowledgment from the local community.

案例 Case

加纳首都Pokuse互通立交工程是该国重点项目。中国中铁所属中铁大桥院充分发挥技术优势，采用菲迪克价值工程理念，推动实施项目方案变更，减少大面积土地开挖，有效规避工程对热带雨林湿地的破坏，推动绿色设计贯穿项目始终。该项目被评为2022年度菲迪克最佳合同实践奖，并于2023年荣获境外国家优质工程奖。

The Pokuse interchange project in the capital of Ghana is an important project in the country. China Railway Major Bridge Reconnaissance & Design Institute under the flag of CREC promoted the change in the project implementation plan based on the FIDIC's engineering concepts. This has reduced the land excavation over a large area, effectively avoided the destruction of the tropical rain forest and wetland by the project and propelled the green design to throughout the process of the project. The project won the FIDIC Best Contract Practice Award in 2022 and won the Overseas Countries' Quality Project Award in 2023.

强化依法合规管理

Strengthening management in compliance with laws and regulations

2023年，中国中铁不断建立健全境外合规管理体系，配齐配强各层级境外法律合规专业人员，不断强化境外法律合规风险管控。持续完善排查机制，连续6年开展境外法律合规风险年度排查，将境外合规作为重点领域，认真组织开展“合规管理有效性评价”相关工作，不定期开展各类专项排查，坚持做好季度风险监测，督促各层级识别、防范各类法律合规风险。高度重视涉外法治人才培养，开展第三期涉外法治人才培训班，开展重点领域涉外法治研究及专题调研，有效提升涉外法治工作能力。持续培育合规文化，开展高风险岗位人员合规培训，组织境外从业人员签订合规承诺书，多措并举开展涉外法治宣传。稳步推进合规管理信息化，强化重点环节的合规管控。

In 2023, CREC continuously established and improved its overseas compliance management system, equipped excellent overseas legal and compliance professionals at all levels, and continuously strengthened overseas legal and compliance risk control. We continuously improved the investigation mechanism, conducted annual investigation over overseas legal compliance risks for six consecutive years, and considered overseas compliance as a key area. Also, we conscientiously organized and carried out the work related to "compliance management effectiveness evaluation", conducted various special investigations from time to time. Also, we adhered to quarterly risk monitoring, and urged employees at every level to identify and prevent various legal and compliance risks. We attached great importance to the cultivation of foreign-related rule of law talents, and carried out the third training course for foreign-related rule of law talents. We also conducted research and thematic research on key areas of foreign-related rule of law, and effectively enhanced our ability to work in foreign-related rule of law. We continuously cultivated a compliance culture, and conducted compliance training for high-risk positions. Also, we organized overseas employees to sign compliance commitment letters, and took multifaceted measures to promote foreign-related rule of law. The Company steadily promoted the IT application of compliance management and strengthened the compliance control of key links.



保障海外项目安全

Ensuring the safe operation of overseas projects

2023年，公司海外项目坚持生命至上、安全第一，树牢安全发展理念，强化红线意识和底线思维，坚持问题导向，坚持标本兼治，保障安全投入，通过全公司共同努力，确保了公司海外项目安全生产状况保持稳定。

公司严格落实安全生产责任制，实施风险分级管控，加强安全生产工作监管和安全生产管理体系建设，完善安全生产规章制度。组织中方管理人员和当地作业人员进行安全教育培训。通过风险管控、隐患排查、专项检查等各类安全生产活动，及时发现项目管理过程中存在的薄弱环节。针对发现的问题坚持监督整改闭环，确保消除安全隐患。推进科技产品和信息化手段在项目安全生产管理中的应用，进一步提升对项目生产一线人员的安全保障。

遵守项目所在地职业病有关法律法规，坚持依法依规做好职业健康工作，本着以人为本、健康工作的原则，落实建设项目职业病危害预评价、办理工伤保险、全员职业健康教育培训、职业危害因素告知、完善健康体检档案，对当地工人进行艾滋病检测和常规体检、配备合格劳动保护用品。

In 2023, the Company adhered to the policy of supremacy of life and safety first for its overseas projects. Bearing in mind the safe development philosophy, the Company strengthened red line awareness and bottom-line thinking and maintained problem-oriented solutions to both symptoms and root causes, to guarantee safe investment. Through concerted effort of the whole Company, the stable and safe production of overseas projects were realized.

The Company strictly implemented the safe production responsibility system, implemented hierarchical risk control, strengthened supervision over safe production and the building of the safe production management system, and improved rules and regulations concerning safe production. The Company organized Chinese managerial personnel and local operators to participate in safety education and training. By carrying out various safe production activities such as risk control, hidden danger investigation, and special inspections, the Company identified weak links in the project management process. The Company insisted on supervising and fixing the problems identified, to eliminate potential safety hazards. The Company promoted the application of scientific and technological products and informatization means in project safety production management to further improve the safety guarantee for the front-line personnel of project production.

CREC complied with the relevant laws and regulations on occupational diseases of the countries where the projects are located, and was committed to undertaking the task of occupational health according to laws and regulations. On the people-oriented and healthy work principle, the Company implemented pre-evaluation of occupational disease hazards for construction projects, purchased work-related injury insurance, provided occupational health education and training for all employees, kept them informed of factors of occupational hazards, enriched archives of health inspection, conducted AIDS testing and regular checkups for local workers, and equipped them with qualified labor protection supplies.

案例 Case

中国中铁孟加拉帕德玛大桥铁路连接线项目通过实作教学、体验教学、信息化教学、模块化教学等形式，对作业人员进行经常性安全培训和教育。2023年，项目部召开安全质量环保会议242次，开展安全教育培训2,687次，培训达44,829人次，做到了进场人员培训工作的全覆盖。

For the railway connection project of the Padma Bridge in Bangladesh, the Company provided regular safety training and education for operators through hands-on teaching, experiential teaching, information-based teaching and modular teaching. In 2023, for the project, the Company held 242 meetings for safety, quality and environmental protection and conducted 2,687 trainings for safety education, which received 44,829 trainees and achieved full coverage of personnel on the site.

实现高标准、惠民生、可持续目标

Achieving Targets of High Standard, Sustainable Development, and Benefiting People's Livelihood

中国技术带动当地发展

Chinese technologies driving local development

中国中铁充分发挥全产业链优势，采用设计、采购、施工加融资的EPC+F模式，为业主提供从投资、勘察设计、施工建设到运营维护全周期的服务。公司依托在全球轨道交通领域的勘察设计、工程咨询、工程总承包项目，积极开展培训。

CREC takes full advantage of the whole industry chain and adopts the EPC+F model of design, procurement, construction and financing to provide owners with full-cycle services from investment, survey and design, construction to operation and maintenance. The Company actively carries out training relying on the Company's survey and design, engineering consulting, and general engineering contracting projects in the field of global rail transit.

案例 Case

中国中铁埃及斋月十日城铁路项目从2018年开始实施埃及本地员工优才计划，目前已招收并培养了三期共计88名埃及学员，学员均已加入项目建设及维保团队，并在各自的岗位上成长为团队业务骨干。

In 2018, the 10th of Ramadan Light Rail Transit project of CREC implemented the excellent staff project for local Egyptian employees. So far, the project has recruited and cultivated a total of 88 local trainees in three phases, and all these trainees have joined the construction and maintenance project of the project and grown to become major team members on respective positions.

中国中铁所属中海外尼泊尔逊科西马林引水隧道项目实行“中国人管，尼籍骨干带，新进劳工干”的全自营属地化管理模式，择优引进当地优秀员工，分专业、分工点、分岗位开展能力建设，定期开展考核和培训，逐渐提高劳工队伍的整体技术技能水平。2023年，通过考核任命优秀尼籍带班人员14人，属地化培养当地TBM隧道施工作业人员累计171人，房建施工作业人员54人，管片生产作业人员423人，机电汽修维保作业人员59人。

The COVEC Nepal Sunkosi Marin Diversion Tunnel Project under the flag of China Railway has implemented the full autonomy and localized management mode of "Chinese manage, major Nepalese employees teach, and new employees work". The project has selected and introduced local excellent employees, carried out the capacity building by discipline, working site and position, and performed regular evaluation and training. This has gradually improved the overall technical and skill level of the labor team. In 2023, the project appointed 14 excellent Nepalese foremen through evaluation, cultivated a total of 171 local TBM tunnel construction workers, 54 housing construction workers, 423 production workers in charge of specific area and 59 electromechanical and automotive repairmen.



澜沧号列车穿越中国中铁建设的中老铁路友谊隧道国界段
Lancang train crossing the national boundary of the China-Laos Railway Friendship Tunnel constructed by CREC



中国中铁培训埃塞俄比亚乘务员学习中国式客运礼仪
CREC trained its Ethiopian crew to learn Chinese-style passenger service etiquette

优质工程助推当地经济

Quality projects boosting local economy

中国中铁依托境外重点工程，努力打造出企业与项目所在国之间的发展之路、绿色之路、廉洁之路、友谊之路、幸福之路，为高质量推动“一带一路”建设做贡献。

公司雇佣当地人员6万余人，侧重于在当地采购材料，助推当地经济发展。

Relying on its key overseas projects, CREC is striving for the construction of the road to development, greenness, integrity, friendship and happiness between the Company and the countries where the projects are located, contributing to the high-quality promotion of the “Belt and Road” construction.

The Company employs over 60,000 local people and focuses on purchasing the local materials to boost local economic development.

案例 Case

中国中铁所属中海外尼泊尔逊科西马林引水隧道项目，在尼泊尔当地的设备物资采购总额超过3,636万美元，长期租赁工程机械设备60台/套，合计租赁费用约100万美元，极大地拉动了尼泊尔当地建筑业内需和经济发展。

The COVEC Nepal Sunkosi Marin Diversion Tunnel Project under the flag of China Railway purchased local equipment and materials worth a total of more than US\$36.36 million from local suppliers and rented 60 sets of construction and engineering machines under a long-term contract involving a total renting expense of some US\$1 million. This greatly drove the local domestic demand in the construction industry and economic development of Nepal.

案例 Case

中国中铁大桥院加纳职业教育升级改造项目，采用中国进出口银行优惠贷款资金，为加纳15所高级职业教育学院建设实验室和成套职业技术培训设施，涵盖机械加工、电工电子、焊接、汽修、土木工程等专业。学校分布于加纳全国各地，每年可以培养至少3万名高级技工人才，为加纳国家工业化发展提供强有力的技术人才保障，是典型的“小而美、惠民生”项目。

China Railway Major Bridge Reconnaissance & Design Institute initiated an occupational education, upgrade and transformation project in Ghana. Funded with the primed loan from the Export-Import Bank of China, the project built laboratories and integrated occupational technical training facilities for 15 senior occupational education schools in the country, and covered machining, electrical engineering, electronics, automotive repair, civil engineering and other disciplines. The schools scatter across Ghana can cultivate at least 30,000 senior technical workers every year, and provide a technological professional support for the national industry development of Ghana. It is a typical project that is “small but beautiful” and benefits people’s livelihood.

公益事业惠及当地人民

Public welfare undertakings benefit the local people

中国中铁作为“一带一路”建设的主力军，在项目建设过程中，积极履行企业社会责任，主动融入当地社会，通过扶贫济困、公益慈善、抗议抢险等多种方式，搭建起一座座民心相通的友谊桥梁。

As the main force of the “Belt and Road” construction, CREC actively fulfills its corporate social responsibility, actively integrates into the local society and builds a bridge of friendship between peoples through various means such as poverty alleviation, public welfare charity, protest and emergency rescue, etc.

案例 Case

2023年10月31日凌晨，乌干达北部地区突降暴雨，导致PACWCH国家公园附近道路区域交通瘫痪。中国中铁七局乌干达62.5公里道路项目部第一时间到达洪水现场，对道路阻塞地段进行疏通。当日下午5时许，道路恢复交通。乌干达公路局对中国中铁七局长期以来在企业社会责任方面付出的努力表示肯定。

Early on the morning of 31 October 2023, a storm struck the northern region of Uganda, paralyzing the traffic along the roads near the PACWCH National Park. China Railway Seventh Group Co., Ltd. Uganda 62.5km Road Project Department arrived at the flood site immediately to evacuate the blocked segments of the roads. At about 17:00 in the afternoon, the roads opened to traffic again. The Uganda National Roads Authority acknowledged China Railway Seventh Group Co., Ltd. for the efforts it has made in the corporate social responsibility for a long term.

案例 Case

2013-2023年期间，中国中铁二院先后参与中国援建14个非洲国家约3,000口“中国井”援助项目建设，为这些国家边远地区民众提供了清洁干净、安全的饮用水源，大大改善了受益地区民众的卫生条件。

From 2013 to 2023, China Railway Eryuan Engineering Group successively took part in a Chinese aid project of building about 3,000 “Chinese Wells” in 14 African countries. This project has provided clean and safe drinking water sources for people in the desolate regions of these countries and greatly improved the sanitary conditions for the people in the benefited regions.



中国中铁MKM矿业组织向刚果（金）当地居民开展义诊活动
CREC MKM Mining organised a free clinic to local residents in the DRC



中国中铁向安哥拉学校学生捐赠文具
CREC donated stationery to the students of Angola School

展望 Outlook

2024年，中国中铁将以习近平新时代中国特色社会主义思想为指导，完整、准确、全面贯彻新发展理念，服务构建新发展格局，聚焦高质量发展这一首要任务，坚定“十四五”规划战略不动摇，全方位推进管理强企、改革强企、科技强企、人才强企、文化强企，着力构建现代化产业体系、着力防范化解重大风险、着力实现质的有效提升和量的合理增长，不断提升企业核心竞争力，为全面建设社会主义现代化国家开好局起好步贡献中铁力量！

2024年，中国中铁将进一步发挥行业龙头企业履行社会责任的表率作用，全面深化社会责任管理，拓展社会责任领域，丰富社会责任内容，提升社会责任实践水平，与利益相关方共同携手，为推动全社会的发展进步而不懈努力！

In 2024, CREC will take Xi Jinping's Thought on Socialism with Chinese Characteristics for a New Era as guidance to fully, accurately and comprehensively carry out the new development ideas to build a new development layout. Focusing on the primary task of high-quality development, CREC will hold fast to the strategy of the "14th Five-Year Plan" by promoting a strong enterprise with management, reform, technology, talents and culture in an all-round way. To that end, CREC will make every effort in building a modern industrial system and preventing and resolving major risks for achieving effective improvement in quality and reasonable growth in quantity. Meanwhile, CREC will further improve its core competitiveness, all of which will contribute to a good start in building a modernized socialist country in all aspects.

In 2024, CREC will further play an exemplary role of an industry leading enterprise to fulfill social responsibilities, comprehensively deepen the social responsibility management, expand the social responsibility field, enrich the social responsibility content, enhance the social responsibility practices, and cooperate with its stakeholders to make unremitting efforts in order to promote the development and progress of the whole society!



意见反馈 Feedback

感谢您在百忙之中阅读中国中铁股份有限公司2023年度环境、社会与管治报告暨社会责任报告。

报告在编写过程中难免存在瑕疵和疏漏之处，我们十分愿意倾听您的意见和建议，如英文报告与中文报告有不符之处，以中文报告为准。

再一次向您对本公司的支持和帮助表示衷心感谢。

Thank you for taking time out of your busy schedule to read the 2023 Environmental, Social and Governance Report of China Railway Group Limited in your busy schedule.

There are inevitable flaws and omissions in the compilation process of the report. We are very willing to listen to your comments and suggestions. If there is any discrepancy between the English report and the Chinese report, the Chinese report shall prevail.

We express our sincere thanks for your support and help for the Company once again.

