



招商公路
CHINA MERCHANTS EXPRESSWAY

2024

**From Mountains to Seas:
Transforming Barriers into Pathway
CMET Sustainability Report 2024**



About This Report

This is the third annual Sustainability/Environmental, Social and Governance (ESG) report released by China Merchants Expressway Network & Technology Holdings Co., Ltd. The previous report was released on April 3, 2024. Based on the principles of objectivity, standardization, transparency, and comprehensiveness, this report discloses in details the Company's practices and performance in the economic, environmental, social, and governance areas for the year 2024. It aims to effectively communicate with various stakeholders and systematically address their expectations and requirements.



Hong Kong-Zhuhai-Macao Bridge

Reporting Scope

China Merchants Expressway Network & Technology Holdings Co., Ltd. and its subsidiaries (consistent with the scope covered by the consolidated financial statements).

Reporting Period

This report covers the period from January 1, 2024 to December 31, 2024, and may use data beyond the stated scope to enhance comparisons and completeness.

References

For better presentation and readability, "China Merchants Expressway Network & Technology Holdings Co., Ltd." is also referred to as "CMET", "We/our" or "the Company" in the report.

Data Source

The financial data disclosed in this report is from the *Annual Report 2024 of China Merchants Expressway Network & Technology Holdings Co., Ltd.*, and other data comes from audited official documents and statistical reports of the Company, which have been reviewed by relevant departments of the Company. Unless otherwise specified, the monetary unit in this report is all in Chinese RMB.

Compilation Conformance

- *Self-Regulatory Guidelines No. 17 for Companies Listed on Shenzhen Stock Exchange—Sustainability Report (For Trial Implementation)*
- *Corporate Sustainability Disclosure Standards— Basic Standards (Trial)* released by the Ministry of Finance
- *The 2030 Agenda for Sustainable Development (SDGs)* issued by the United Nations
- *IFRS S2 Climate-related Disclosures*
- *GRI Sustainability Reporting Standards (GRI Standards)* issued by the Global Sustainability Standards Board (GSSB)
- *Guidelines to the State-owned Enterprises on Better Fulfilling Corporate Social Responsibilities* released by the State-owned Assets Supervision and Administration Commission of the State Council (SASAC)
- *Guidance on Social Responsibility (ISO 26000:2010)* issued by International Organization for Standardization (ISO)
- *Guidance on Social Responsibility Reporting (GB/T 36001-2015)* released by Standardization Administration of the People's Republic of China (SAC)

Reporting Principles

The report contains no false records, misleading statements, or material omissions. CMET is responsible for the authenticity, accuracy, and completeness of its content.

Report Access

This report is available in both electronic and print formats, which can be accessed or downloaded from the official website of CMET (<http://www.cmet1965.com/>) and website of Shenzhen Stock Exchange (<http://www.szse.cn>).

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Message from the Chairman

The year 2024 marked the 75th anniversary of the founding of People's Republic of China. The magnificent journey driven by the surging tide of reform and innovation lies ahead. Only those who march in step with the times thrive forever, and those who ride the waves of change continuously renew themselves. Facing new situation and missions, CMET thoroughly implements the updated corporate culture of "Transforming Barriers into Pathway", contributing to building up China's strength in transport with "enjoyable travel for passengers and smooth transport of". In the context of complex and ever-changing macro-environment and industry transformation, CMET stays committed to the vision of "striving to build China's leading investment and operation enterprise in expressway and related infrastructure", adheres to the principle of "safety-prioritized, service-oriented and green-based", and ingrains the safe, green and people-centered development philosophy into its bloodline, solidifying the groundwork for high-quality and sustainable development.

Safety serving as the bedrock to underpin steady and long-term development.

Safety is the lifeline of expressway operations and foundation of CMET. Bearing in mind the worst-case scenarios, we build a robust protection network against safety risks. Addressing the trend of frequent catastrophic traffic accidents and rising natural disaster risks across the industry, CMET adopts a lesson-learned approach to comprehensively strengthen the risk prevention and control system and response capability building for critical structures (including slopes, bridges, and tunnels). We enhance both the frequency and efficacy of preparedness by conducting realistic and scenario-based emergency drills, unwaveringly safeguarding traffic safety of the people. We thoroughly implement the "technology-empowered safety" strategy, and adhere to core principles while driving innovation to ensure safety. We have comprehensively developed "visible, interconnected, and responsive" smart capabilities based on our smart operation center, achieving CMET's visualized and dynamic management under a "unified safety management map". Responding to pain points in expressway maintenance construction and hazard identification, we have built an "AI-powered safety assistant" empowered by the Shangdao Large-scale Model to guarantee end-to-end safety control throughout construction processes with advanced AI technology.

Driving green measures to pioneer low-carbon development. Focusing on matters of national significance, we support China's carbon peaking and carbon neutrality goals. In 2024, CMET stayed committed to implementing the three strategic measures of carbon emission reduction in expressway primary business, transportation-energy integration and serving the green transformation of society, advancing our overall transformation towards China's leading low-carbon transportation company. We stick to the application of four new maintenance technologies and

have innovatively developed the preventive maintenance technology of hot in-place recycling to achieve 100% recycling of the old asphalt pavement materials, promoting the green and circular development of the Company. We ramp up efforts to build zero-carbon service area and promote the photovoltaic construction on slopes along the expressways, achieving remarkable progress in green energy development with an annual new grid-connected capacity of 42.73MW and 337.5MW of photovoltaic projects in reserve. Based on the "1+3+N" mode ("energy and carbon platforms" + "integrated supercharging with photovoltaic and storage coordination" + "multi-dimensional carbon applications"), Ningbo-Taizhou-Wenzhou Expressway has built the Wenzhou "zero-carbon" service area, creating a pilot model of "zero-carbon" service area in Zhejiang Province.

Embracing intelligence to pursue people-centered development. Regarding sci-tech innovations as the inexhaustible driving forces for sustainable corporate growth, CMET harnesses the power of intelligence to forge a win-win ecosystem integrating people, vehicles, and roads, while pursuing the harmonious coexistence of nature and humanity. In 2024, CMET's "Tonggang Dayuan (easy access to ports and industrial parks)" project scored multiple achievements, with the entire Beijing-Tianjin-Tanggu Expressway open for the platooning operations of trunkline logistics autonomous driving vehicles based on vehicle-infrastructure integration. These autonomous driving vehicles, served by the "128" product system, which covers eight major vehicle-road coordination scenarios including toll stations, adverse-weather road sections, accident-prone road sections, and cloud companion protection, offered an excellent case for the expressway autonomous driving pilot trial of the Ministry of Transportation. "Warm Journey" campaign pays tribute to truck drivers, gathering strength like tiny sparks start a prairie fire, while "C Green" public welfare

education program takes further steps to converge glimmers into a galaxy of volunteers. With these efforts, we are spreading "CM Warmth" across the expressway networks to the whole society, fostering a more harmonious social atmosphere together.

Riding the tide fearlessly to lead sustainable development.

CMET pursues high-quality and sustainable development focusing on value creation. We deeply integrate the safety, green, people-centered development philosophy with the concept of sustainability to promote the ideological and quality revolution of the Company. Since 2022, we have systematically launched ESG development with high standards. Our ESG system has evolved from information disclosure to deeply embedded management practices, transforming regulatory ESG indicator framework into our internalized principles and actions, with progress being steadily propelled across strategic, organizational, procedural, and cultural dimensions at all levels. Over the past three years, we have made remarkable achievements in ESG system development: in 2024, our S&P Global CSA ESG Score surged from 18 to 35 points, and we secured the highest AAA rating in our first assessment under the CSI ESG Rating and achieved three consecutive rises from BB to AA in our CNI ESG rating; we maintained AA rating for two years in a roll under the Wind ESG rating, ranking first in the industry. In addition, we have been successively included as a constituent stock of multiple core indexes, including the MSCI Emerging Markets Index, CSI 300 Index and CSI A500 Index. And we have been awarded 9 ESG and sustainability related awards including the 2024 Best ESG Practice Award for Listed Companies.

Transforming barriers into pathways, and making concerted efforts to embark on the new journey. 2025 marks the completion of China's "14th Five-Year Plan" as well as the conception of the "15th Five-Year Plan". It is the new starting point for the Company to set sail for high-quality and sustainable development through reform and innovation. CMET will seize opportunities of the times with the courage to act first, the resolve to take responsibilities and the aspiration to explore and innovate, strive to cultivate new quality productive forces, and expedite the creation of the "Smile Curve" that climbs up to both ends of the value chain and the "Malik Curve" for sustainable development. In this way, we will compose the magnificent Era Chapter of sustainable development, and join hands with stakeholders to embark on the grand journey of building a country with great transport strength.



China Merchants Expressway Network & Technology Holdings Co., Ltd. Chairman

About CMET

Company Profile

China Merchants Expressway Network & Technology Holdings Co., Ltd. (CMET) was established in August 2016 with the approval of the State Administration for Industry and Commerce. On December 25, 2017, CMET merged with Huabei Expressway Co., Ltd., and was successfully listed on the Shenzhen Stock Exchange (SZSE, stock code: SZ001965). Since its listing, CMET has been included as a sample stock of the CSI 300 index, SZSE Component Index, SZSE 100 Index, and CSI 500, becoming an industry leader with strong influence.

Specializing in highway investment and operations, CMET gains extensive industry expertise. The Company's business scope includes investment and operation of expressway transportation infrastructure, traffic technology, intelligent transportation, and transportation ecology, covering important stages throughout the expressway industry chain. CMET is a leading Chinese expressway and related infrastructure investor and operator with the longest investing and operating road mileage, the most business coverage areas and the most integrated industry chain in China. By the end of 2024, CMET had invested in toll expressway totaling 14,785 km, spanning 22 provinces, autonomous regions, and municipalities across the country. Projects under its management were located in 15 provinces, autonomous regions, and municipalities. The company had invested in 31 high-quality toll expressway companies, of which 16 are A-share and H-share listed companies.



Branches and subsidiaries

China Merchants Expressway Network & Technology Holdings Co., Ltd.

China Merchants Chongqing Communications Technology Research & Design Institute

China Merchants Expressway Network Technology Holding Co., LTD. Beijing-Tianjin-Tanggu Expressway Branch

China Merchants Expressway Equity Investment Fund Management (Tianjin) Co., Ltd.

China Merchants Xizang Construction Electronic Information Co., Ltd.

China Merchants New Information Technology Co., Ltd.

China Merchants Communication Information Technology Co., Ltd.

Guogao Network Luyu Information Technology Co., Ltd.

China Merchants Expressway Technology (Beijing) Co., Ltd.

Hubei Edong Yangtze River Highway Bridge Co., Ltd.

Chongqing Shanghai-Chongqing Expressway Co., Ltd.

Chongqing Yuqian Expressway Co., Ltd.

Chengkun International (Jiangxi) Jiurui Expressway Development Co., Ltd.

Guangxi Huatong Expressway Co., Ltd.

Guangxi Guixing Expressway Investment and Construction Co., Ltd.

Guangxi Guiwu Expressway Guiyang Section Investment and Construction Co., Ltd.

Guilin Port Construction Expressway Co., Ltd.

Zhejiang Wenzhou Yongtaiwen Expressway Co., Ltd.

Langfang Communications and Development Expressway Development Co., Ltd.

China Merchants Huajian Commercial Management (Beijing) Co., Ltd.

China Merchants Expressway Operation Management (Beijing) Co., Ltd.

Beijing-Tianjin-Tanggu Engineering Construction Management (Tianjin) Co., Ltd.

Tianjin Huazheng Expressway Development Co., Ltd.

China Merchants & China Railway Holdings Co., Ltd.

Huaqi Investment Co., Ltd.

Honors



2024 Best Practices of Digital Transformation for Chinese Public Companies
China Association for Public Companies



2024 Best Practices of Corporate Culture Development for Public Companies
China Association for Public Companies



18th China Top 100 ESG Public Companies Award
China Association for Public Companies



2023 Outstanding Issuer of Technological Innovation in Fixed Income Products
Shenzhen Stock Exchange



2023 Outstanding Issuer of Fixed Income Products
Shenzhen Stock Exchange



Golden Information Disclosure Award
China Securities Journal



2024 Best Sustainability Practices for Public Companies
China Association for Public Companies



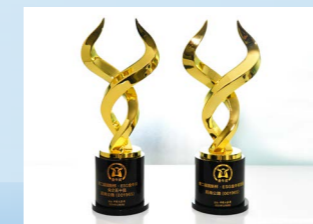
2024 Best Practices of Boards of Directors for Public Companies
China Association for Public Companies



2023 Best Practices of Annual Report Performance Briefing
China Association for Public Companies



2024 Best Practices of Board Office for Public Companies
China Association for Public Companies



The 2nd Guoxin Cup ESG Golden Bull Award Top 50 Central SOEs and ESG Golden Bull Award Top 100
China Securities Journal



19th China Listed Company Board of Directors "Golden Roundtable Award" Corporate Award – Corporate Governance Special Contribution Award
Directors & Boards Magazine



7th China IR Annual Awards: Best Capital Market Communication Award
Value Online



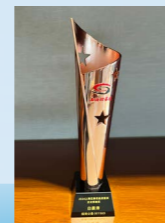
Wind ESG Rating: 2024 Best ESG Practices for Listed Companies in China
Wind



2023 Outstanding ESG Report Award for Communication Enterprises
China Association of Communication Enterprise Management



2024 Outstanding ESG Case for Communication Enterprises
China Association of Communication Enterprise Management



2024 Shanghai Securities News Golden Quality Award for Corporate Leadership (Individual)
Shanghai Securities News



7th China IR Annual Awards: Best Shareholder Relations Award
Value Online



7th China IR Annual Awards: Best Information Disclosure Award
Value Online



2023 Best ESG Practice Award for Listed Companies
Value Online



2024 Best ESG Practice Award for Listed Companies
Value Online

※ Note: Awards for 2023 were those applied for between January 1, 2023, and December 31, 2023, and granted between January 1, 2024, and December 31, 2024.

Topic Materiality Assessment

Dual Materiality Analysis

CMET has established a double materiality analysis framework based on the requirements in the *Self-Regulatory Guidelines No. 17 for Companies Listed on Shenzhen Stock Exchange Sustainability Report (For Trial Implementation)* (SZSE Guideline No. 17) and the *Self-Regulatory Guidance No. 3 for Companies Listed on Shenzhen Stock Exchange Preparation of Sustainability Report* (SZSE Guidance No. 3). This framework assesses external impacts (i.e., impact materiality) and the risks and opportunities for corporate development (i.e., financial materiality).

Dual materiality analysis process

Identification

- Analyze company operations, business background, and sustainability trends to identify key stakeholders.
- Review historical materiality assessment results based on sustainability guidelines, policy trends, media coverage, industry dynamics, and peer benchmarking to develop the annual list of material topics.
- Conduct impact, risk, and opportunity assessments for each topic.

Assessment

- Establish methodologies and thresholds for assessing both impact materiality and financial materiality.
- Engage stakeholders through one-on-one interviews, roundtable discussions, and surveys for annual materiality assessment and incorporate ESG expert insights and synthesize findings to rank material topics and develop a materiality matrix.

Reporting

- Conduct differentiated disclosures in the annual sustainability report to reflect the dual materiality analysis.

Due Diligence and Stakeholder Engagement

Due diligence is central to identifying, assessing, preventing, and addressing ESG risks. Beyond risk prevention in core business activities, CMET has conducted specialized due diligence in key areas such as climate change response, green operations, supplier management, and business ethics, with detailed disclosures provided in respective sections.

CMET is committed to proactively listening to and addressing stakeholder concerns. We have built a transparent and efficient two-way communication mechanism supported by diverse engagement channels. During the reporting period, we formulated and released the *CMET Stakeholder Engagement Statement* to enhance the standardization of stakeholder management.

Stakeholders	Expectations and appeals	Communication channels and methods
 Government and regulators	<ul style="list-style-type: none"> • Ensuring lawful and compliant operation • Contributing to carbon peaking and carbon neutrality goals • Supporting rural revitalization • Supporting the building of a country with great strength in transport • Driving economic development 	<ul style="list-style-type: none"> • Daily reports, communication, and performance assessment • Inspections and instructions • Work meetings • Regular and interim reports • Industry associations
 Shareholders and investors	<ul style="list-style-type: none"> • Protecting shareholders' rights and interests • Improving corporate governance • Improving profitability • Strengthening risk management • Disclosing business information 	<ul style="list-style-type: none"> • Shareholders' Meetings • Regular and interim reports • Regular performance briefing • SZSE Easy Interaction platform • Investor hotlines • Activities of "Investor Day" • Company official website
 Customers	<ul style="list-style-type: none"> • Building safe, smooth, and comfortable traffic environment • Providing quality services • Strengthening R&D and innovation • Protecting customer privacy and security • Disclosing business information 	<ul style="list-style-type: none"> • Expressway travel announcements • Communication with staff at toll stations and service areas • Service area complaint hotlines • Customer service hotlines • New media • Industry forums • Regular and interim reports • Transparency policy
 Partners	<ul style="list-style-type: none"> • Ensuring continuous and stable cooperation • Implementing supplier management • Strengthening R&D and innovation • Contributing to the development of the industry • Equal treatment of SMEs 	<ul style="list-style-type: none"> • Business cooperation and daily communication • Supplier communication channels • Forum participation and collaborative exchanges • Development of industry standards
 Employees	<ul style="list-style-type: none"> • Protecting employee rights and interests • Ensuring occupational health and safety • Promoting employee development • Enhancing employee wellbeing 	<ul style="list-style-type: none"> • Labor union and activities • Staff training programs • Festival-themed events and visits
 Communities and media	<ul style="list-style-type: none"> • Supporting economic development • Contributing to rural revitalization • Contributing to carbon peaking and carbon neutrality goals • Supporting smart transportation • Disclosing business information 	<ul style="list-style-type: none"> • Charitable activities • Regular and interim reports • Forum participation and collaborative exchanges • Social media promotion

Materiality Analysis Results

Annual materiality analysis

Based on sustainability guidelines, policy trends, media coverage, industry developments, and peer benchmarking, we have reviewed and updated our materiality topic list to reflect expressway industry characteristics and company-wide considerations. A total of 24 topics were identified.

Regulatory compliance

- SZSE Guideline No. 17
- GRI Standards

Leading ESG rating agencies

- MSCI
- S&P CSA
- WIND

Industry benchmarking

- Eight domestic and international industry peers

Policy trends

- National policies on dual carbon goals (China's 30•60 Decarbonization Goal) and green transportation issued by government ministries

Industry standards

- The *Green Transportation Standards System (2022)* issued by the General Office of the Ministry of Transport of the People's Republic of China

Media coverage

- Major news events in the transportation sector

Key research considerations for topic identification (excerpt)

CMET's 2023 material topics	CMET's 2024 material topics	Change	Reason for change
Climate change response	Climate change response	Maintained	—
Emissions management	Waste management	Refined	Refined the scope of topic coverage based on the 21 topics in the <i>SZSE Guidelines No. 17</i> and added noise management in line with industry characteristics.
—	Noise management	New	
—	Environmental compliance management	New	Added the new topic based on 21 topics in the <i>SZSE Guidelines No. 17</i> . The topic is relevant with emissions management and resource utilization, which were covered under material topics of 2023.
Resource utilization	Energy utilization	Refined	Refined coverage based on the 21 topics in the <i>SZSE Guidelines No. 17</i> .
Resource utilization	Water resource utilization	Refined	
—	Circular economy	New	Added the new topic based on 21 topics in the <i>SZSE Guidelines No. 17</i> .
Biodiversity and land use	Biodiversity and land use	Maintained	—

CMET's 2023 material topics	CMET's 2024 material topics	Change	Reason for change
Community relations	Community relations	Maintained	—
—	Rural revitalization	Separated	Separated the rural revitalization topic from the community relations topic in the 2023 materiality list based on the 21 topics in the <i>SZSE Guidelines No. 17</i> to clarify scope and responsibilities.
Sci-tech innovation	Smart expressway development	Refined	Formulated industry-specific topics based on the 21 topics in the <i>SZSE Guidelines No. 17</i> and industry characteristics.
Product and customer responsibility	Expressway quality and operational safety	Refined	
Supplier management	Supplier management	Maintained	—
—	Equal treatment of SMEs	New	Added the new topic based on the 21 topics in the <i>SZSE Guidelines No. 17</i> .
Privacy and data security	Data security and customer privacy protection	Maintained	Renamed the topic based on the 21 topics in the <i>SZSE Guidelines No. 17</i> .
Health and safety	Occupational health and safety	Maintained	Renamed the topic based on the 21 topics in the <i>SZSE Guidelines No. 17</i> .
Employment management	Employment management	Maintained	—
Training and development	Training and development	Maintained	—
—	Diversity and equality	New	Added the new topic based on rating agency concerns and peer benchmarking.
—	Due diligence	New	Added the new topic based on 21 topics in the <i>SZSE Guidelines No. 17</i> .
—	Stakeholder engagement	New	Added the new topic based on 21 topics in the <i>SZSE Guidelines No. 17</i> .
Business ethics	Business ethics	Maintained	Clarified the topic scope (including anti-commercial bribery, anti-corruption, and anti-unfair competition) based on the 21 topics in the <i>SZSE Guidelines No. 17</i> .
Board building	Corporate governance	Merged	Merged the topics based on rating agency concerns and peer benchmarking.
Board oversight			
Board engagement in ESG management			
Independence and effectiveness of the audit function			

► Materiality analysis

Based on our annual materiality topic list, we identified nearly 120 impacts, risks, and opportunities across six key stakeholder groups. Through roundtable discussions, one-on-one interviews, and evaluation surveys, we engaged team from both headquarters and subsidiaries to develop evaluation standards and threshold settings tailored to CMET's specific characteristics. We conducted a dual materiality assessment on 24 topics.



Identification

- We identified nearly **120** impacts, risks, and opportunities across six key stakeholder groups.



Assessment

- We conducted five roundtable discussions with core departments and incorporated insights from senior executives to define materiality assessment dimensions, such as the scope and scale, as well as financial materiality assessment criteria and thresholds tailored to the Company's specific characteristics.
- By collecting **56** materiality scoring sheets that cover all headquarters departments and subsidiaries, we derived preliminary materiality assessment conclusions.



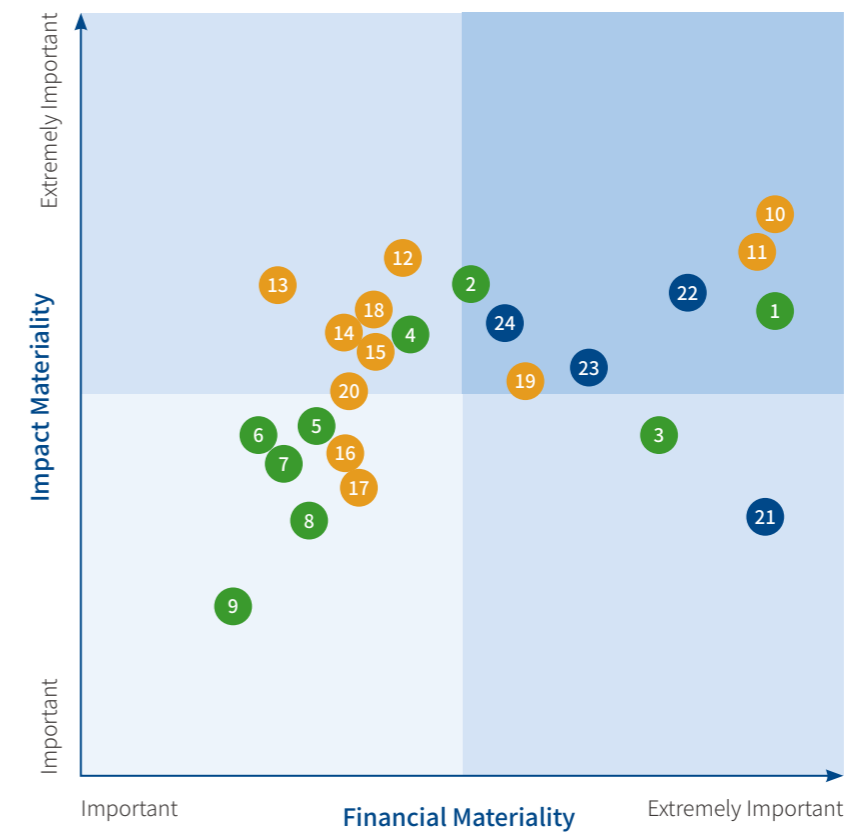
Reporting

- Based on the assessment results and the current state of sustainability initiatives, the three topics with the highest dual materiality in this report are: climate change response, expressway quality and operational safety, and smart expressways. These topics are disclosed in accordance with the four-pillar framework of "governance-strategy-impacts, risks, and opportunities management-metrics and targets".



Chongqing Liangjiang Bridge

Double Materiality Analysis Matrix



- 1 Climate change response
- 2 Biodiversity and land use
- 3 Energy utilization
- 4 Circular economy
- 5 Environmental compliance management
- 6 Water resource utilization
- 7 Waste management
- 8 Noise management
- 9 Hazardous emissions management

- 10 Expressway quality and operational safety
- 11 Smart expressway development
- 12 Data security and customer privacy protection
- 13 Employment management
- 14 Training and development
- 15 Occupational health and safety
- 16 Diversity and equality
- 17 Supplier management
- 18 Rural revitalization
- 19 Community relations
- 20 Equal treatment of SMEs

- 21 Corporate governance
- 22 Business ethics
- 23 Due diligence
- 24 Stakeholder engagement

Sustainability Governance

CMET views robust governance structure and transparent information disclosure as the foundation of sustainable development. We have established a hierarchical decision-making system and standardized information reporting mechanisms to ensure scientific sustainability decision-making. We respond to stakeholder concerns timely and accurately by integrating multi-channel communication, multi-dimensional feedback, and multi-source data analysis.

Sustainability Governance Structure

We have built a three-tier governance structure for sustainability. The Board of Directors (the Board) and its Strategy and Sustainability Committee oversees overall decision-making and supervision; the Sustainability Task Force is responsible for cross-departmental coordination and implementation; and headquarters' functional departments and subsidiaries execute specific tasks. Through clear delineation of responsibilities, interdepartmental collaboration, and resource integration, we ensure the efficient transformation of sustainability strategies into practical actions.

Sustainability governance structure



Sustainability capacity building

We have released multiple sustainability-related policies and statements to reinforce our ESG frameworks.. Furthermore, we have introduced a dual-track empowerment mechanism that combines external think tank exchanges with specialized internal training programs to systematically improve all employees sustainability awareness. In 2024, the Sustainability Task Force benchmarked against best practices of leading ESG enterprises both within and outside industries and restructured our sustainability roadmap and disclosure framework to align with the latest regulatory requirements. Additionally, we actively participated in forums and workshops and engaged experts to interpret policy trends, cutting-edge practices, and rating standards, thereby enhancing our team's ability to analyze and assess critical issues such as climate change.

The image block contains two photographs. On the left, Mr. Bai Jingtao, Chairman of CMET, is seated at a table during a special ESG training session. Behind him is a banner for "招商公路 CHINA MERCHANTS EXPRESSWAY". On the right, a group of people is seated around a large conference table in a modern meeting room, engaged in a discussion.

In July 2024, Mr. Bai Jingtao, Chairman of CMET, hosted and participated in a special ESG training session that conducted for the entire CMET organization. The session covered key topics such as ESG management, corporate human rights and labor practices, water resources, and proactive stress management. It aimed to elevate company-wide awareness, build ESG consensus, cultivate a culture of "ESG in All We Do"-ensuring sustainability principles are fully integrated into CMET's daily operations at every level.

Sustainability-based performance evaluation

CMET has integrated sustainability-related indicators, such as sustainability system development and technological R&D enhancement, into the compensation evaluation framework for the management team. We continue to improve the performance appraisal mechanism linking sustainability performance with management performance evaluations, aiming to establish a sustainability governance model specifically for the expressway industry.

Sustainability Information Reporting

CMET has established a standardized internal reporting mechanism for sustainability information. The Sustainability Working Group reports relevant initiatives to the Strategy and Sustainability Committee through dedicated briefing sessions and regular progress updates. Following evaluation, review, and interval compliance approval procedures, these reports are submitted to the Board for final review and approval before external disclosure.

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Environmental



Committed to green development, CMET makes all-out efforts to enhance ecological conservation, and is steadily marching towards a new journey of ecology-first green development. Leveraging our extensive experience in extreme weather responses, road maintenance, and renewable energy projects, we actively explore digital and intelligent management innovations, striving to foster a positive synergy between ecological conservation and corporate development.

Performance highlights



RMB **1.05** million+
Invested in energy conservation and environmental protection in total



5,136.00 kWh
Clean electricity consumption



0
Environmental pollution accident of general or higher severity levels and violation of energy conservation and environmental protection regulations

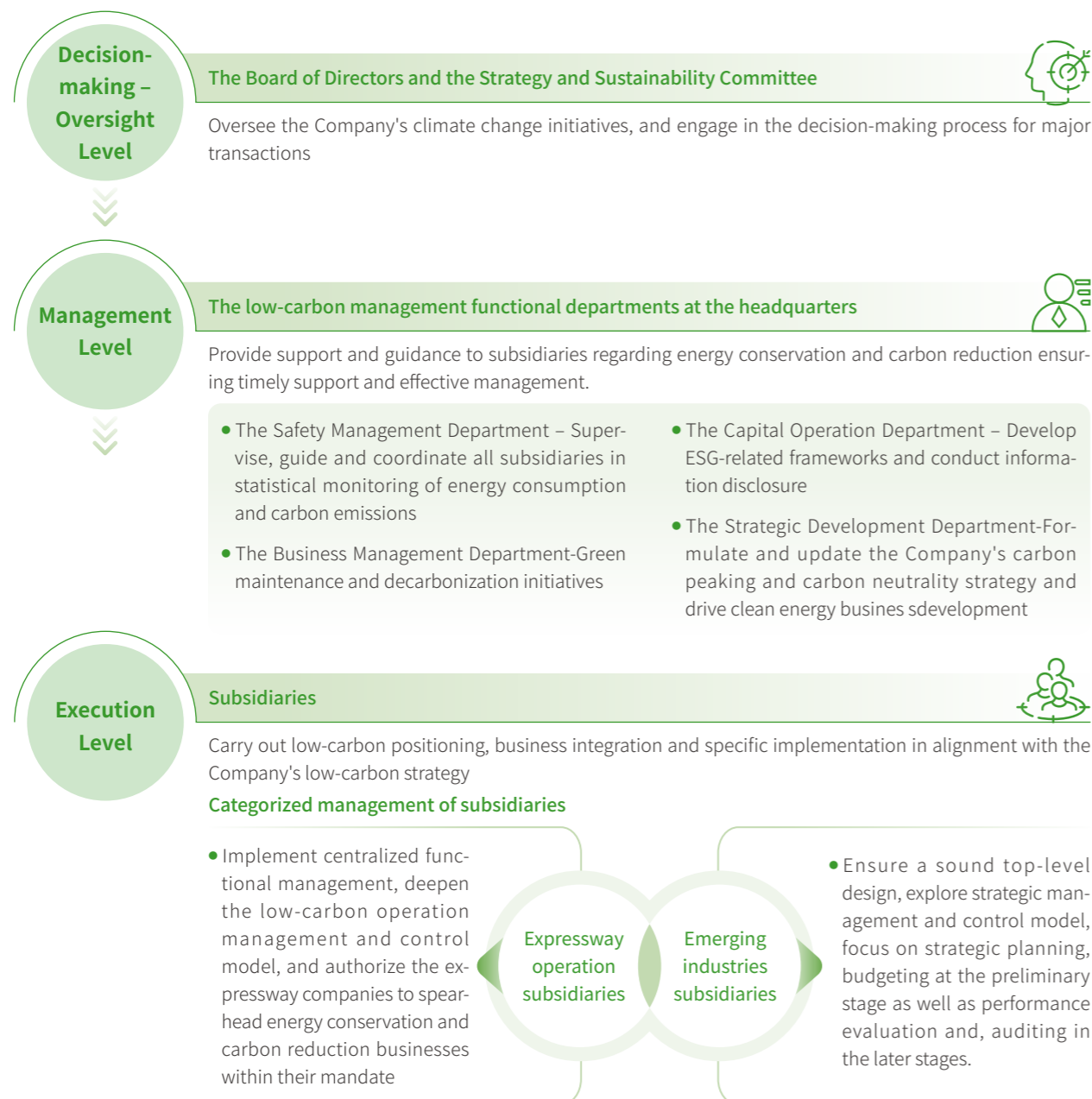
SDGs

Climate Change Response

Tackling climate change is a pivotal task for CMET in pursuing green, high-quality development. As China's leading investor and operator in expressways and related infrastructure, CMET has consistently embraced industry and social transformations with proactive measures. We take the initiative to identify risks and opportunities posed by climate change, enhance climate resilience, and contribute to the green and low-carbon development of the expressway network.

Governance

The Board of Directors and the Strategy and Sustainability Committee of CMET serve as the highest governance bodies responsible for climate change-related matters. They adopt the systematic approach throughout the entire process of carbon peaking and carbon neutrality work process, properly addressing the relationship between development and emission reduction, long-term planning and short-term goals by identifying, assessing, overseeing and tackling climate-related risks and opportunities.



Strategy

The Company has formulated the *CMET Low-carbon Strategic Plan for Special Initiatives* based on the industry characteristics and China's carbon peaking and carbon neutrality goals. Focusing on three aspects of ESG business, core expressway operations and integrated transportation-energy industry, we conduct forecasting and scenario analysis of carbon emissions in the context of the emission reduction initiatives for core expressway operations. This process enables us to progressively refine action pathways for addressing climate change.



Risks/ opportunities		Risks/ opportunities types	Description of impacts of risks/opportunities on our business and finance	Time Frame	Responses
Physical risks	Acute risks	Extreme weather	<ul style="list-style-type: none"> The occurrence of extreme weather events such as hurricanes, floods, extreme cold, high temperatures, and rainfall mainly has impacts on road operations, toll revenue and corporate reputation 	Short term	<ul style="list-style-type: none"> Scientifically optimize the project layout nationwide to balance the proportion of project development in areas with different climate impacts Carry out meteorological data analysis on digital platforms to ensure smooth traffic flow Constantly explore key technologies such as road traffic large-scale AI models and optimize contingency plans for extreme weather prevention
		Rising sea level	<ul style="list-style-type: none"> Mainly affect the Company's assets in coastal areas/road operations, most likely force the relocation of project infrastructure, which will increase operation difficulties; may also result in decrease in annual revenue due to less operational projects 	Long term	<ul style="list-style-type: none"> Carry out regular water level monitoring Strengthen the construction of typhoon and flood prevention infrastructures
Transition risks	Policy and legal risks	Carbon emission reduction policy introduced	<ul style="list-style-type: none"> May drive up operating costs of highway operating subsidiaries 	Short to medium term	<ul style="list-style-type: none"> Further implement measures to conserve energy, cut carbon emissions and reduce resource consumption, as well as incorporate key metrics into compliance assessments Formulate low-carbon strategic plans
		Ecological conservation policy introduced	<ul style="list-style-type: none"> The increasingly stringent national ecological conservation policies are imposing new energy conservation and environmental protection challenges on project development, leading to higher compliance costs 	Short to medium term	<ul style="list-style-type: none"> Stay abreast of relevant policies, rigorously implement ecological conservation and environmental protection throughout the project lifecycle to ensure compliance with laws and regulations Promote and apply ecological restoration technologies for soil and water bodies
	Market risks	New energy development and utilization and update of green maintenance technologies by industry peers	<ul style="list-style-type: none"> Accelerated development and application of new energy by industry peers results in fierce market competition 	Medium to long term	<ul style="list-style-type: none"> Promote the comprehensive development and utilization model of new energy, keep upgrading green maintenance technologies, and innovate in project development models and advanced technologies to tackle cut-throat market competition

Risks/ opportunities		Risks/ opportunities types	Description of impacts of risks/opportunities on our business and finance	Time Frame	Responses
Transition risks	Technology risks	Failure in low-carbon transformation	<ul style="list-style-type: none"> A company will face the risk of failure in low-carbon technology transformation if it fails to evaluate and apply appropriate new technologies timely or is unable to successfully recover additional funds invested in low-carbon technologies. While the existing traditional technologies being rendered entirely obsolete, this will lead to financial losses and higher operating costs 	Short term Long term	<ul style="list-style-type: none"> Conduct routine management and regular maintenance of environmental protection equipment and energy facilities, monitor operational parameters in compliance with environmental regulatory requirements, and implement prompt corrective measures in case of any abnormal indicators Pioneer the exploration in the areas of carbon consultation and carbon measurement, spearhead the drafting of China's first local standard for carbon footprint accounting of EV powered by hydrogen fuel cells Actively develop projects for the comprehensive utilization of distributed renewable energy Integrate climate-adaptive technologies (such as high-temperature resistant asphalt and intelligent monitoring systems) to extend asset lifespan, lower long-term maintenance costs, and elevate asset valuation through green certification
Opportunities	Energy source	Participation in carbon market	<ul style="list-style-type: none"> The implementation of Measures for the Administration of Carbon Emissions Trading (Trial) provided guidance for the Company to participate in carbon market trading 	Medium to long term	<ul style="list-style-type: none"> Actively conduct corporate greenhouse gas (GHG) inventory work of the Company Participate in the carbon trading market and obtain additional benefits by utilizing the carbon sink capacity of vegetations on expressway verges
		Low-carbon preferences of consumers	<ul style="list-style-type: none"> Ever-increasing demands throughout society for green travel in line with China's support and vigorous efforts on carbon emission reduction 	Long term	<ul style="list-style-type: none"> Actively develop green operation model and expand the scale of green energy use Strengthen publicity and training on green energy Promote the deployment of ancillary facilities including new energy charging piles, actively cater to the needs of new energy vehicle (NEV) users, fulfil market demand, and secure sustainable growth for the company Roll out green operation mode in alignment with industry development trends, continue to enhance digital management level and monitor customer satisfaction

※ Note: According to the business development model, the time frame defined in the risk and opportunity list for short term is 1-3 years (including 3 years); the medium term is 3-5 years (including 5 years); the long term is 5 years and above.

Impacts, risks and opportunities management

The Company continues to monitor and assess the impacts of climate risks on business and operations. We have included climate change related risks in the annual risk list and risk assessment questionnaires, pushed forward the incorporation of climate risks into the enterprise risk management (ERM) mechanism, and adopted targeted response strategies to minimize the physical risks caused by extreme weather, ensuring business operations and asset safety. In 2024, the Company issued more than 20 adverse weather warnings and initiated corresponding measures to mitigate negative impacts and ensure smooth traffic.

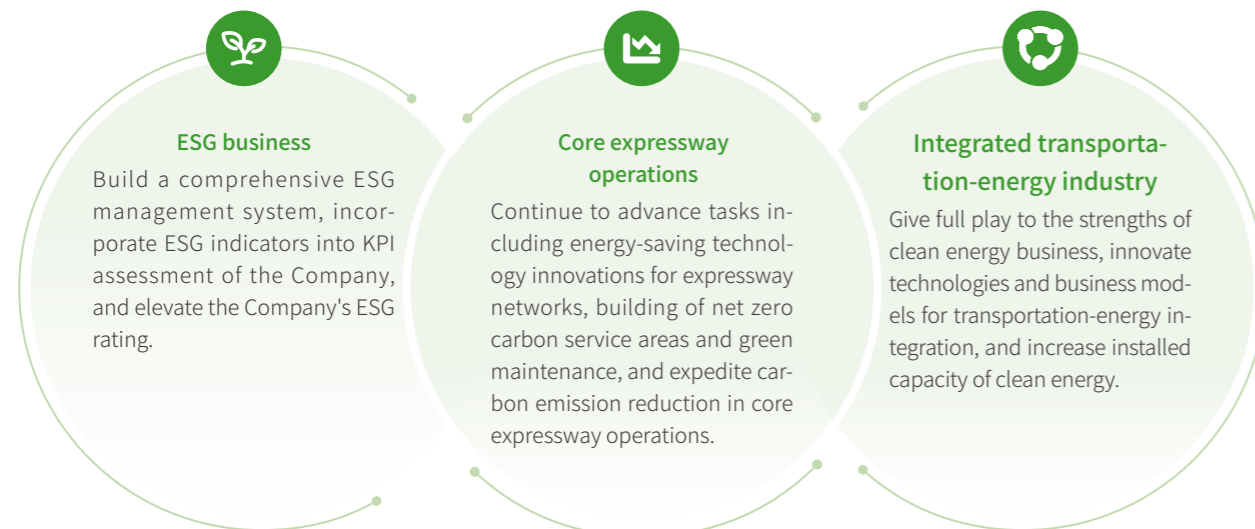
Main methods for identifying and assessing climate change risks and opportunities



Metrics and targets

The Company makes steady efforts to advance responses to climate change based on development goals stipulated in the *CMET Low-carbon Strategic Plan for Special Initiatives*, and conducts routine statistical monitoring and disclosure of climate-related indicators in accordance with the *CMET Administrative Measures on Statistical Monitoring for Energy Consumption and Carbon Emissions*. This approach provides quantitative management tools and decision-making support for the effective implementation of emission reduction strategies. In 2024, Scope 3 GHG emissions were incorporated into the Company's carbon inventory for the first time.

Strategic targets



Indicators	Unit	2024	2023	2022
Gross GHG emission	tCO ₂ e	56,872.57	53,320.43	42,021.89
GHG emission intensity	tCO ₂ e/RMB million business revenue	4.47	5.48	5.06
Scope 1 GHG emissions	tCO ₂ e	5,439.92	7,333.63	4,320.56
Scope 2 GHG emissions	tCO ₂ e	51,219.81	45,986.80	37,701.33
Scope 3 GHG emissions	tCO ₂ e	212.85	/	/
Category 6: business travel	tCO ₂ e	191.53	/	/
Category 7: employee commuting	tCO ₂ e	21.32	/	/

※ Note:

1.The Company's GHG emissions operational boundary includes direct emission (Scope 1) and indirect emissions (Scope2 and Scope 3).

2.Scope 1 GHG emissions are direct emissions mainly from gasoline, diesel and natural gas consumption, and the CO₂ emission factors mainly referred to *2006 IPCC Guidelines for National Greenhouse Gas Inventories*. The data of CMCR was consolidated in statistical calculations from 2024. CMET has reduced the consumption of gasoline and liquefied petroleum gas (LPG) by improving the energy-saving and emission-reduction system and taking measures such as promoting clean energy official vehicles and replacing LPG with electricity. The Scope 1 direct GHG (carbon) emissions decreased according to audit calculations.

3.Scope 2 GHG emissions are indirect emissions mainly from consumption of purchased electricity and purchased heat, the CO₂ emission factors mainly referred to the grid emission factors in the *Announcement on the Release of 2022 Electricity Carbon Footprint Data* (the Ministry of Ecology and Environment of the PRC) and the *Greenhouse Gas Emission Accounting Methods and Reporting Guidelines for Public Building Operation Enterprises (Trial)* of NDRC. The data of CMCR was consolidated in statistical calculations from 2024. The electric power consumption of CMET increased after taking emission-reduction measures including replacing LPG with electricity, resulting in the increase of Scope 2 indirect GHG (carbon) emissions.

4.Scope 3 is a newly-added metric in carbon audit this year. The data source is the business travel and employees commuting of CMET headquarter employees. The CO₂ emission factors mainly referred to the *China Products Carbon Footprint Factors Database (2022)*.



The first section of the Ningbo-Taizhou-Wenzhou Expressway in Ningbo

Green Development

The Company incorporates the vision of green development into its daily operations. We actively reduce our own carbon footprint on all fronts through a series of innovative and forward-looking systems and measures, contributing to the Beautiful China Initiative.

Environment compliance management

The Company strictly abides by Chinese laws and regulations including the *Environmental Protection Law*, and the *Law on Energy Conservation*. We strengthen the environmental management system, conduct trainings to raise environmental awareness for all, and improve environmental management compliance. During the reporting period, the business operations of the Company and its subsidiaries were in compliance with the relevant national environmental protection requirements, and there was no instance of penalties due to non-compliance.

Environmental management system

Based on policy documents, such as, the *Measures for the Supervision and Administration of Energy Conservation and Emission Reduction of Central State-owned Enterprises*, *Environmental management systems – Requirements with guidance for use* and its environmental management realities, the Company has formulated the *CMET Environmental Protection Policy*, *CMET Regulations on Energy Conservation and Environmental Protection*, *CMET Measures for Reporting and Investigating Environmental Emergencies*, *CMET Comprehensive Contingency Plan for Environmental Emergencies*, and *CMET Eco-environmental Conservation Responsibility List*. These policies clarify the energy conservation and environmental protection governance structure, establish emergency response guidelines for environmental emergencies, and further standardize the implementation of environmental protection tasks, accountability and assessment mechanism.

The energy conservation and environmental protection governance structure and responsibilities

The energy conservation and environmental protection leading group

It assumes the overall responsibilities to carry out the Company's energy conservation and environmental protection tasks, and coordinates the formulation of working plan. It also establishes systems and deploys tasks.

Head of the leading group

The deputy general manager is in charge of energy conservation and environmental protection.

Members of the leading group

Include the heads of each department at CMET headquarters, and heads of each subsidiary.




The office for the execution of energy conservation and environmental protection tasks

The office is set up at the Safety Management Department, and the general manager of the Safety Management Department serves concurrently as the office director. It is responsible for conveying requirements from senior management, improving the system, promoting, supervising, assessing and investigating specific tasks, and cooperating with audit compliance management.

Energy conservation and environmental protection culture building

The Company integrates energy conservation and environmental protection publicity and education into its regular work. Through organizing emergency drills and various environmental-themed training programs, we have made the energy conservation and environmental protection knowledge, experience and achievements deeply rooted in the hearts of our staff, effectively enhancing emergency response capabilities and environmental protection awareness among all employees.

Annual culture building initiatives

Form of activities	Content of activities	Performance highlights
 <p>Emergency evacuation drills</p>	Addressing scenarios including unblocking emergency lanes of expressways, fire accidents, landslides, tunnel fires, and leakage of hazardous chemicals.	<p>115 drills organized</p> <p>2,523 participants in total</p>
 <p>Energy conservation and environmental protection training</p>	Publicity and education, low-carbon knowledge competitions, micro-video contests, special training sessions, etc.	<p>142 training sessions organized</p> <p>4,867+ participants in total</p>
 <p>Summary of energy conservation and environmental protection best practices</p>	Combining online courses, field drills, knowledge quizzes and other work	<p>12 energy conservation and environmental protection best practices and achievements established</p> <p>1,650+ brochures printed and distributed</p>



On-site energy conservation and environmental protection training session of a subsidiary

Energy efficiency

The Company continues to explore in the fields of energy conservation and environmental protection technological and management. We actively encourage and promote innovations in energy conservation and environmental protection technologies and modes, which is regarded as the Company's long-term strategic tasks. It will advance the green and low-carbon development and facilitate the realization of China's carbon peaking and carbon neutrality goals.

Clean energy layout

In 2024, the Company made remarkable achievements in its strategic deployment of clean energy projects. With newly invested and acquired photovoltaic projects, Huaqi Investment boosted its total installed capacity to 76.06 MW, contributing to the cause of energy conservation and emission reduction. CMCR Dezhou-Shangqiu Expressway built distributed photovoltaic power plants by utilizing idle land at expressway interchanges, with expected saving of RMB 600,000 in its electricity costs. China Merchants Ecological Environmental Protection Technology Co., Ltd. (CMEE) intensively explored carbon consulting and carbon measurement services, and spearheaded in drafting China's first local standard for carbon footprint accounting of EVs powered by hydrogen fuel cells, providing solid support for the industry's clean energy layout.

Case CMET successfully supports green industry development with green deposit



In 2024, CMET invested RMB 30 million in green deposit to support clean energy sector outlined in the *Green Industry Catalog (2019 Edition)*. The fund was invested in the construction and operation of solar energy power generation projects located in Hebei Province and Shandong Province. According to calculations by independent third-parties, these two green industry projects supported by this green deposit can achieve an annual CO₂ emissions reduction of 990,700 tons after their operation.

Case Ningbo-Taizhou-Wenzhou Expressway builds "zero carbon" service area



Based on the "1+3+N" mode of "energy and carbon platforms" + "integrated supercharging with photovoltaic and storage coordination" + "multi-dimensional energy-carbon applications", the Wenzhou service area project of Ningbo-Taizhou-Wenzhou Expressway has built distributed photovoltaic systems with a cumulative installed capacity of 500kWp. They are capable of supplying over 1,300kWh of green electricity daily on average with surplus stored. The project has been completed and put into operation by the end of 2024, and is expected to supply 500,000kWh of green electricity annually to meet the daily operational needs of the service area. It has created a pilot model of "zero-carbon" service area in Zhejiang Province.



The "zero carbon" service area of Ningbo-Taizhou-Wenzhou Expressway

Green and low-carbon operation

The Company makes great efforts to promote green and low-carbon transition by updating intelligent lighting system, applying building intelligent management and control system and transforming official vehicles in to green ones. These initiatives inject new vitality to the Company's green development.

Case CMCR and Chongqing subsidiary optimize tunnel lighting



CMCR (Cenxing and Cenwu Expressways) and Chongqing subsidiary actively push forward tunnel lighting optimization. The intelligent dimming system is introduced to dynamically adjust lighting brightness based on ambient light, traffic flow and other conditions in the tunnels, enabling adaptive lighting control. The tunnel power consumption of Cenxing and Cenwu Expressways in the fourth quarter of 2024 recorded a year-on-year decrease of 32.99%. The annual tunnel power consumption of Chongqing subsidiary recorded a year-on-year decrease of 549,000 kWh, saving electricity cost of RMB 412,000, which significantly improved energy conservation benefits while ensuring traffic safety.



CMCR Cenxing and Cenwu Expressways tunnel lighting

Water resources management

The Company routinely promotes water resource conservation and the rational use of domestic water among all employees. The Company has set water conservation targets and clear water-saving responsibilities, and has incorporated the water consumption metric into the assessment of grassroots units. The energy conservation and environmental protection task forces at all levels are driving the implementation of measures to ensure the annual water consumption does not exceed that of the previous year. This water consumption metric has been incorporated into the assessment of grassroots units. We also have established water-saving operation mode to increase water resources recycling rate. During the reporting period, the volume of recycled water reached 35,000 tons.

Water-saving initiatives

- Upgrading equipment and facilities**

 - Promote the application of water-saving sanitary wares and sensor-activated faucets to reduce water consumption and prevent water flowing for a long time.
- Recycling**

 - Domestic water and rainwater undergo reclaimed water treatment for non-potable water purposes such as landscaping, flushing and cooling.
 - Construct reservoirs for the use in firefighting and daily road maintenance based on local climate and water resource conditions.
- Monitoring and maintenance**

 - Install individual household water meters, monitor real-time water usage to detect any abnormalities, conduct regular pipeline inspections and promptly fix any leaks identified.

Case Water-saving practice at the Yanglushan Tunnel of Chongqing subsidiary



Considering the abundant underground water resources with stable output volume all year round at Yanglushan tunnel, Chongqing subsidiary built new reservoirs in August 2023 to harvest tunnel water inrush for the use of daily maintenance and tunnel firefighting. As a result, the company has effectively reduced tap water consumption, saving approximately 3,000m³ of water in 2024. The company actively checked and fixed leaks in firefighting pipelines and reservoirs to ensure effective water supply in the tunnel, significantly improving water resource efficiency.



Water saving construction at the Yanglushan tunnel of Chongqing subsidiary

Case CMCR applies high-strength steel wire fiberglass sleeve reinforcement technique to reduce water resources pollution



In fixing pile foundation scour-induced necking at the Dongyuhe bridge of Dezhou-Shangqiu Expressway, CMCR has innovatively developed the high-strength steel wire fiberglass sleeve reinforcement system and solved the problems such as peeling off concrete protective layers, and exposing steel bars and scour-induced necking of underwater bridge pile foundations. Meanwhile, by adopting environmentally-friendly materials and implementing rigorous construction management measures, CMCR effectively mitigated the risk of polluting surrounding water resources during the construction period. These initiatives promoted the harmonious integration of transportation infrastructure construction and water resources protection.



High-Strength Steel Wire and Fiberglass Sleeve Reinforcement System of CMCR

► Waste management

The Company strengthens source control of waste reduction and specialized management to constantly improve the utilization of solid waste. In strict compliance with Chinese laws and regulations including the *Law on the Prevention and Control of Environmental Pollution by Solid Wastes and Standard for Pollution Control on Hazardous Waste Storage*, we continuously enhance our refined management of solid waste, waste water and waste gas to ensure the compliance of waste disposal and to minimize environment pollution.

Solid waste management

The primary sources of solid waste in our daily operation management are household waste (including kitchen residue) from daily operations and construction waste from new and renovation projects. Covering multiple scenarios including new and renovation project construction, service area operations and road maintenance, the Company has formulated strict solid waste management measures, to ensure the compliant treatment and disposal of waste.



Household waste management

Collection

Advocate and supervise employees to sort household waste before disposal

Centralized removal

Entrust third-party management companies for centralized waste transfer and disposal



Construction waste management

Prioritize comprehensive utilization

Prioritize construction waste, excavated spoil, drill cuttings and sludge generated during the construction period for comprehensive utilization.

Compliance disposal

Transport construction waste that cannot be comprehensively utilized to designated disposal sites for disposal as required by competent regulatory authorities.

Hazardous waste management

Properly store hazardous waste generated during the construction period and regularly transfer to qualified companies for disposal.

Case CMCR applies new material to reduce waste



In the maintenance of Mianyang-Suining expressway, CMCR has actively explored the application of novel high polymer materials to effectively reduce waste generation. In May 2024, the maintenance project at the Jixiang to Fuxing Interchange Section adopted the polymer grouting technology, which in turn reduced the generation of waste materials and avoided large-scale excavation of the road surface. Meanwhile, the maintenance costs have been significantly reduced along with a 40% increase in construction efficiency and a 50% decrease in impacts of traffic control measures, achieving a win-win situation that balances economic and environmental benefits.

Waste water management

In our daily operations, the primary source of wastewater is domestic sewage. Our subsidiaries actively strengthen the construction of rainwater and sewage pipeline network at service station to implement rainwater and sewage diversion. The domestic sewage generated is first settled in septic tanks, then treated by wastewater treatment equipment to meet discharge standards, and finally discharged into the municipal sewage network, where it enters a downstream wastewater treatment plant.

Case The "reclaimed water" sewage treatment system of Ningbo-Taizhou-Wenzhou Expressway



Ningbo-Taizhou-Wenzhou Expressway has built a "reclaimed water" sewage treatment system at Qingjiang service area to treat all the sewage generated from this service area. After in-depth treatment processes, including solid-liquid separation, biochemical reaction, sanitization, etc., the quality of the "reclaimed water" is clear and odorless, and meets relevant standards. The "reclaimed water" could be directly used for toilet flushing, plant watering, square cleaning, etc. in the service areas, achieving "high-quality water for high-end use, poor quality water for specified use" of water resources. From its completion in early 2022 to the end of 2024, a total of about 98,000 tons of reclaimed water was processed, which has effectively improved water resource utilization efficiency and relieved water shortage pressures in the service area.



The "reclaimed water" sewage treatment system of Ningbo-Taizhou-Wenzhou Expressway

Exhaust gas management

At CMET, the exhaust gas is primarily from canteen kitchen fumes, exhaust gas emissions from official vehicles related to corporate management and operations, and gaseous waste generated during the spraying of road markings in expressway maintenance. By installing canteen fume purification devices, conducting regular maintenance and inspections to official vehicles, and promoting and applying new environmental-friendly and low-carbon road marking materials, we can effectively reduce exhaust gas emissions and minimize the impacts on atmosphere.

Case Road marking restoration technology cuts emissions



Guilin subsidiary and CMCT have jointly developed the "green and low-carbon" key technology of restoring existing road marking. This technology effectively addresses the challenges of conventional hot-melt road makings, including difficult old-marking elimination and excessive generation of dust, volatile organic compounds (VOCs), and CO₂ during new marking constructions. In 2024, this technology had 1 invention patent application accepted and 1 research paper published. It was widely adopted in a number of road sections including Qiongming Expressway, Baofu Expressway, Yushen Expressway, and Guixing Expressway, with a cumulative application area of 22,806.31m², reducing 0.78 tons of CO₂ emissions and 7.30 tons of waste materials generated.



The subsidiaries' on-site application of restoring existing road marking technology

» Noise management

The Company strictly adheres to national laws and regulations including the Law of the People's Republic of China on the Prevention and Control of Environmental Noise Pollution and the Environmental Noise Emission Standards for Construction Site Boundaries. Through comprehensive noise management measures—such as actively reducing external noise impacts and fostering a safe internal workplace—the Company effectively mitigates noise disturbance to both neighboring communities and internal employees.

Noise management measures

Mitigating external impacts on surrounding environment

Installing sound barriers: Install sound barriers in noise-sensitive areas such as toll stations, service areas, and expressway sections adjacent to residential areas to block and reduce noise propagation.

Applying low-noise pavement: Select brand new low-noise asphalt noise reduction materials for pavement to reduce the noise generated by the friction between pavement and vehicle tires.

Creating green median strips: Plant various trees and vegetations, utilize the sound absorption and barrier properties of plants to absorb noise, reduce noise transmission, and form natural green sound barriers.

Enforcing speed limit and traffic control: Impose speed limits to control vehicle speed, reduce traffic flow on specific sections through traffic control measures such as traffic diversion, install additional road signs to encourage drivers to honk less unless necessary, and minimize vehicle noise from multiple aspects.

Creating a safe internal workplace

Protecting construction workers: Require partners to equip construction workers with protective equipment such as helmets, earplugs, earmuffs and masks to minimize the intrusion of construction noise on their hearing and other physical functions.

Optimizing working environment: Update equipment and optimize equipment operating parameters to reduce equipment noise in workplace including toll stations and service areas, and provide employees with a relatively quiet and comfortable working spaces.



Case Edong Bridge renovates sound barriers

The sound barriers of Edong Bridge have been in use for 15 years, with signs of aging such as deformed foundation columns and damaged sound-absorbing panels, affecting noise reduction results and traffic safety. In 2024, the sound barrier demolishing and replacement project commenced in several road sections with a total length of 600 meters, and is expected to be completed by the end of May 2025. The completion of sound barrier upgrades will enhance the living comfort of neighboring residents.

Noise management of Edong Bridge

» Circular economy

The Company ramps up efforts to adopt a circular economy mode in expressway construction and maintenance. We innovate in technologies including full-component solid waste recycling, hot in-place recycling and ultra-thin wearing course overlay, realizing the 100% recycling of old asphalt pavement material and milling waste. This has effectively conserved resources and reduced waste emissions or discharge. Our subsidiaries make full use of the existing old equipment and facilities in site development to maximize resource utilization, providing best practices for the sustainable development of the expressway industry.

Case The full-component solid waste recycling technology and circular economy practice



Edong Bridge has innovated and applied the "full-component solid waste bituminous surface layer high-quality recycling" technology. Through methods including incorporating epoxy resin, steel slag, and warm-mix recycling, 100% recycling of asphalt pavement milling waste and high-quality reuse of industrial waste residues has been achieved. Furthermore, with 80% reduction of VOCs emissions, it directly reduced over 10% of road maintenance costs, and increased 30% service life of asphalt pavement, facilitating the sustainable green road maintenance. This research result was awarded two invention patents and won multiple awards, including "Expressway Green and Low-Carbon Typical Case" in China's Transportation Industry, First Prize in Innovation and Entrepreneurship from the China Association of Inventions, and First Prize in Scientific and Technological Progress from the China Building Materials Circulation Association.

Case Hot in-place recycling technology promotes circular economy



The hot in-place recycling technology uses specialized equipment to heat and mill the old asphalt pavement, then incorporating rejuvenator and 20% new asphalt mixture on-site, followed by processes including mixing, paving, and compaction. This process achieves 100% recycling of the old pavement materials. Guilin subsidiary used the "hot in-place recycling technology" in its green overhaul project in 2020 and completed China's first million-square-meter standalone super-scale re-mixing hot in-place recycling project. At present, this technology has been widely adopted across multiple expressway road sections. In 2024, CMCR applied this technology in Pingzheng Expressway, which realized a reduction in maintenance costs of RMB 436,800 as compared with traditional asphalt milling and resurfacing method. Meanwhile, it saved 3,800.56 tons of asphalt mixture and reduced 278.54 tons of standard coal in energy consumption and cut 583.00 tons of CO₂ emissions.



The subsidiaries' on-site hot in-place construction

Case Ultra-thin wearing course (UTWC) overlays technology facilitates circular economy



Ningbo Merchants Expressway Transportation Technology Co., Ltd. has applied the "1cm refined milling + 2cm ultra-thin wearing course overlay" technology to replace the traditional 4cm SMA-13 resurfacing process. The application effectively solved the difficult issue of damaged pavement, while making remarkable achievement in circular economy. In 2024, 15.21km of ultra-thin wearing course overlays were completed, with 2,536 tons of milling waste recycled and over RMB 1.09 million of maintenance funds saved. This technology enabled resources recycling and promoted the green and high-efficient development of expressway maintenance.

Case Bofu Expressway gives waste tires a green new life



Bofu Expressway has actively developed and promoted rubberized asphalt pavement technology to turn old tires into valuable resources, effectively mitigating environmental pressures. In the specialized maintenance project of 2024, the company successfully finished rubber powder composite modified asphalt mixture construction by utilizing approximately 137 tons of waste tires (which is equivalent to emissions reduction of 240 tons of CO₂), effectively promoting the development of circular economy.



Bobu Expressway develops and promotes rubberized asphalt pavement technology

Biodiversity Conservation and Land Use

The Company puts the concept of ecological conservation into action by focusing on biodiversity conservation and land use. Positioned at the industry's cutting-edge, the Company integrates biodiversity conservation into its daily operations with innovative thinking and science-based planning. We facilitate soil ecological restoration, and contribute our strength to the harmonious coexistence between humanity and nature, protecting the ecosystem of the Earth, our common home.

Biodiversity conservation

The *CMET Biodiversity Commitment* and *CMET No-Deforestation Commitment* are formulated and released to engage business partners across the supply chain in conservation activities and advocate eco-friendly ways of work and life that foster harmonious coexistence between humanity and nature. The Company has integrated biodiversity conservation into the expressway planning, construction and maintenance stages. We engage third-party agencies to conduct comprehensive analysis on surrounding ecological environment and biodiversity, followed by targeted protective measures.



Planning and construction stage

Ecological conservation red line and key ecological areas

- Strictly define the construction boundaries to avoid constructions within the ecological conservation red line, permanent ecological conservation areas and important wetlands.

Temporary land occupation management

- Prioritize the use of existing buildings or permanent site for setting up construction camps, optimize the layout of temporary access roads and facilities, and minimize additional temporary land occupation.
- Strip the topsoil before construction and put into proper storage, as well as restore vegetations promptly after construction completion.

Wildlife protection

- Avoid setting up construction facilities in wildlife habitats and foraging areas to minimize disturbance to birds and aquatic organisms.
- Strengthen all-weather construction management and prohibit killing birds or aquatic organisms.

Daily operation stage

Ecological conservation red line and key ecological areas

- Continuously monitor the ecological status within the ecological conservation red line and key ecological areas to ensure no disturbance caused by operational activities.

Protecting wildlife habitats

- Conduct regular monitoring of wildlife habitats, promptly restore damaged areas and mitigate operational disturbances.
- The scenic areas will enforce strict nighttime driving regulations including restricted hours and speed limit, and set up warning signs in Chinese brown frog (*Rana chensinensis*) frequented areas. Nighttime patrols and supervisions will be strengthened to crack down on traffic violations, protect the normal breeding of wildlife populations.

Case Kunming-Yuxi Expressway – "beautiful road" facilitates biodiversity conservation



Kunming-Yuxi Expressway, an associated company of CMEGT, has been making vigorous efforts in biodiversity conservation since June 2018. For aquatic biodiversity conservation, the company completely banned the use of herbicides to prevent chemicals from polluting nearby rivers and Dianchi Lake through rainwater runoff; and for terrestrial and other biodiversity conservation, the company invested RMB 45 million to build a "beautiful road." By planting ground-cover plants, landscape shrubs, and flowering trees on both sides of the roadbeds, it provided rich habitats and food sources for insects, birds and other organisms. In addition, the company has built vegetated buffer filtration strips for expressway pavement drainage, serving as habitat spaces for small organisms.



Kunming-Yuxi Expressway built "beautiful road"

➤ Ecological restoration

The Company actively assesses and mitigates the impacts of its business operations on the eco-environment in response to relevant plans of the Ministry of Ecology and Environment. We carry out ecological restoration, and strengthen the environmental protection of soil and water, striving to minimize or even eliminate impacts of our business operations on it in the long run.

CMEE is committed to facilitating the sustainable development of China's soil remediation industry, and aims to achieve the following development targets through technological innovations and pioneering model exploration.

Promote comprehensive soil contamination treatment in industry contaminated sites, farmland, mines, etc., to restore the ecological function of soil.

Improve groundwater treatment capacity and ensure water environment safety.

Conduct land consolidation and improve land resource efficiency.



Provide soil contamination risk management services for companies to facilitate green development.

Promote solid waste disposal and recycling to achieve waste reduction and resource recycling.

Actively participate in the building of waste-free cities and contribute to ecological conservation.

Case New applications of CMEE-Soil Guard series products in soil remediation



CMEE has independently developed CMEE-Soil Guard series soil stabilizer and solidification agent for heavy metal-contaminated sites and soil conditioner for agricultural land, which are widely applied in soil remediation of industrial contaminated sites and farmland restoration projects. In 2024, in terms of industry contaminated site restoration, the company undertook multiple projects involving soil investigation, assessment, remediation design and construction. The Chongqing Iron & Steel Co., Ltd. Sintering Plant project is one of them. It applied technologies, including heterotopic thermal desorption, to complete the soil remediation for 190,000m² of contaminated land, and handed over approximately 105,000m² of land for construction purpose; as for farmland restoration, CMEE explored safe modes to utilize contaminated arable land. A number of demonstration bases are set up to conduct field experiments. By employing agronomic regulation, soil improvement, biotechnology and other methods, it has achieved a cumulative demonstration area of over 100 mu over three consecutive years, accumulating experience to ensure the soil environment safety of agricultural land and the sustainable development of agriculture.

Case Integrated ecological management technology for water environment



CMEE has established a comprehensive technology system in the area of integrated water environment management. Its independently developed core products and core technology system for integrated watershed management are widely applied in multiple projects. With a daily treatment capacity of 1,500 m³ decentralized domestic sewage in rural areas, the impact-load-resistant decentralized sewage treatment equipment has solved the sewage pollution issue in villages and significantly improved rural environment and village appearance. Engineered Bioremediation System (EBS) microbial particles realize the in-situ control of pollution sources within water bodies and facilitate the building of aquatic ecosystems. Phosphorus removal and algae control product series are used for water quality control and eutrophication control to ensure the ecological health of water bodies.



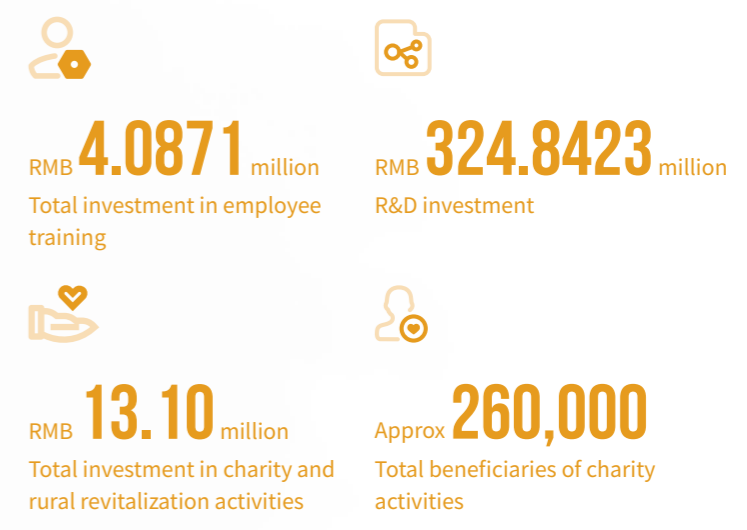
CMEE undertakes Beibei black and malodorous water bodies project

02 Social



Staying committed to the "people-oriented" development philosophy, CMET integrates social values into every aspect of its operations to enhance the experiences of drivers and passengers. We work to foster a dynamic team, build responsible partnerships, and engage in public welfare and charitable activities. Together with all sectors of society, we strive to create a brighter future.

Performance highlights



SDGs



Expressway Experience and Services

The Company upholds the fundamental mission of "Ensuring smooth traffic flow", gives full play to resource synergy across the entire industry chain, and makes all-out efforts to build safe, smooth, and harmonious expressway networks. Besides our researches on expressway maintenance technologies, we hone early warning and emergency response mechanism, and aim to create all-weather safe passage corridors; by deepening the innovative "Service area +" road derivative economic model, we ensure two-way empowerment between major arterial expressways and regional economies. Additionally, we make great efforts to push forward the deep integration of physical expressway with new technologies and new business forms, creating benchmark cases of intelligent expressways and service areas.

Expressway quality and operational safety

We continue to improve safe operational management of expressways, intensify the engagement with surrounding communities, and further innovate the new "Service area +" road derivative economic model, creating a wonderful travel experience for drivers and passengers.

Governance

At CMET, safety, unimpeded traffic flow and harmony are the cornerstones for our expressway operations and management. We constantly strengthen road maintenance and operational safety management system, improve service area management mechanism, and take systematic approaches to advance standardized and collaborative system building.

We also make steady efforts to advance work safety management responsibility system, providing management and guidance on traffic safety and occupational health and safety (OHS) throughout the lifecycle of construction, maintenance and operations. The chairman and senior management serve as the highest responsible body for road operational safety, and the CMET's Safety Management Department takes the lead in the overall safety management. Each subsidiary implements the work safety responsibility system to fulfill all-year-round safety responsibilities across the entire expressway networks.



Neiqiaoba Bridge on the Dianzhong Expressway of CMCR

Governance

The Company thoroughly implements China's initiative of building a country with great transport strength. We advance the "technology-empowered and technology-enhanced safety" strategy under the guidance of CMET "Strategies for the 14th Five-Year Plan Period", and make solid progress in upgrading expressway quality and service based on the principle of full response to travelers' needs. Our goal is to ensure the safety and unimpeded traffic flow of expressway networks.

Risks/ opportunities	Description of the impact of risks/opportunities on business and financial aspects	Time Frame	Responses
	The incomplete expressway operation and management system leads to inadequate maintenance and innovations of road and structure control equipment and facilities. This may endanger the traffic safety of drivers and passengers, negatively impacting on the Company's reputation and operational costs.	Medium to long term	<ul style="list-style-type: none"> Improve system building and carry out standardized management of expressway operations; Install equipment and facilities such as safe driving guidance system for fog-prone areas, lighting guidance facilities, and accident alert zones to improve traffic safety capacity of expressways.
Risks	Belated or insufficient risk identification and early warnings result in safety hazards in structures (tunnels, slopes, bridges, subgrade and pavements), which, in severe cases, may lead to safety accidents, pose threats to the lives of drivers and passengers, or negatively impact on the Company's reputation and operating costs.	Medium to long term	<ul style="list-style-type: none"> Strengthen the building of a dual-control system integrating risk classification and hazard identification; Carry out targeted hazard identification and ratification in structures including slopes, bridges and tunnels.
	Failures to establish an emergency response mechanism, formulate emergency response plans or regularly implement emergency drills, undermine staff risk awareness and emergency response capabilities. This may lead to delays in promptly handling road accidents, thereby compromising traffic efficiency and diminishing customer satisfaction.	Short term	<ul style="list-style-type: none"> Carry out emergency drills under real conditions, including coordination with multiple parties to conduct integrated emergency rescue drills addressing rainfall-induced slope collapse incident, and emergency drills on snow and ice removal during the year.
Opportunities	Strengthen the real-time monitoring of road conditions and emergency response through empowering measures such as the introduction of new materials and innovative technology, to enhance road traffic efficiency and service efficiency of service areas and toll stations.	Short term Medium term	<ul style="list-style-type: none"> Adopt the technology of "Internet + traffic law enforcement" by introducing response modes including sound-alerting and aerial traffic policing to improve the efficiency of real-time traffic safety monitoring; Build an AI-powered safety assistant covering comprehensive supervision and management, business management, and construction operations, to ensure the safety and controllability of road construction processes.

※ Note: According to the business development model, the time frame defined in the risk and opportunity list for short term is 1-3 years (including 3 years); the medium term is 3-5 years (including 5 years); the long term is 5 years and above.

Impacts, risks and opportunities management

The Company continues to identify impacts, risks and opportunities in the key links of its operation and management, including construction, operations & maintenance, and services. Accordingly, we work to establish a sound risk management process centered on the dual-control system integrating risk classification and hazards identification, and also devise and implement targeted and effective responsive measures. In 2024, the Company completed the development of the *CMET Management Manual on Building Work Safety Dual-Control System Integrating Risk Classification and Hazard Identification and Rectification* to constantly improve the long-term mechanism for eliminating safety hazards.



We carry out standardized safety management system building and hazard identification to effectively prevent and control safety risks. In 2024, we formulated and revised 7 documents such as the *CMET Work Safety Management Regulations*, and updated the *CMET Expressway Standardized Operation System (2024 Edition)*. We conducted 2 rounds of on-site inspection on 26 subordinated business entities, with 100% ratification rate of safety hazards. We also held targeted safety education and training programs, including a total of 9 system-wide safety training sessions and 506 emergency drills.

Case Multi-dimensional integrated emergency drill addressing rainfall-induced slope collapse incident

On June 27, at the smart operation management center, the Company organized a multi-dimensional integrated emergency drill addressing rainfall-induced slope collapse incident, in partnership with the subordinated Cenxing Expressway of CMCR. This drill simulated a sudden rainfall-induced slope collapse disaster due to continuous heavy rainfall, resulting in trapped drivers and traffic disruption. As a direct participant, CMET headquarters organized and guided Cenxing, Cenwu subsidiaries to carry out emergency responses promptly and effectively in collaboration with local government. The whole process, from the disaster occurrence, perception through monitoring, contingency plan initiation, information release, coordination and dispatch, on-site rescue to post-disaster recovery, lasted 1 hour and 30 minutes. Chairman of CMET, relevant departments at the headquarters, and Yulin City Public Security Bureau of Guangxi Zhuang Autonomous Region and other dozens of units participated in the online and offline drill activities.



On-site emergency drill addressing rainfall-induced slope collapse incident

Ensuring safe and unimpeded traffic flow

The Company constantly refines its expressway maintenance technologies, improves traffic emergency response capability, and enhances early-warning, monitoring and emergency response capabilities for risks such as road user safety and traffic disruptions, so as to ensure traffic safety of expressways.

Case Innovation of "Vehicle-mounted mobile signs-transparent panel display self-luminous signs" in expressway long-distance warning system

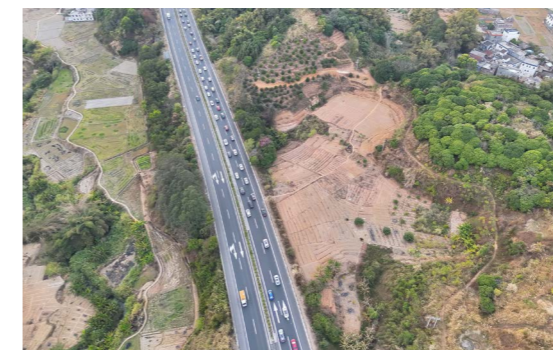
Led by CMCT, China Merchants Zhixiang Road Technology (Chongqing) Co., Ltd. and Chongqing subsidiary have jointly submitted the application of "vehicle-mounted mobile signs-transparent panel display self-luminous signs" expressway long-distance warning system. The system was successfully included into the Expressway Monitoring and Early Warning Application Demonstration Typical Cases (First Batch) by the Ministry of Transport. The system utilizes LED light sources and retroreflective materials to enhance visibility and recognition performance, enabling drivers to quickly identify traffic sign information under all-weather conditions, thus significantly improving dynamic risk warning capabilities of expressways.



Vehicle-mounted mobile signs-transparent panel display self-luminous signs

Case CMCT facilitates expressways to boost quality and efficiency of safety services during the Spring Festival travel rush.

During Spring Festival travel rush in 2024, CMCT Cenxing Expressway relied on the multiple parties along the expressway collaborative command and dispatch platform to establish a three-dimensional network-wide intelligent perception system capable of "complete surveillance + mobile perception + aerial patrol and monitoring". The system integrates "vehicles, expressways and drones", and develops remote verbal communication patrol and response modes such as sound-alerting and aerial traffic policing. As evidenced by the 81.19% drop of congestion frequency compared with the same period in 2024 and the 45.30% year-on-year decrease of traffic accident rate, these efforts have effectively improved the safety management and traffic efficiency of road sections during the Spring Festival travel rush, ensuring the safe and smooth trips of the people.



On-site aerial patrol and inspection of a drone



Road Administrator-Police-Operator collaborative monitoring and dispatch center

Enhancing service experience

The Company seizes the opportunities in digital transformation, and continues to enhance service efficiency and quality of service areas and toll stations. We have identified the opportunity of expressway networks that drive surrounding communities' economic growth, and iterated the innovative "service area +" road derivative economic model to create a harmonious development pattern along the expressways. In 2024, the Company rolled out customer satisfaction enhancement initiative in accordance with the *CMET Customer Satisfaction Survey Management Measures* to verify the quality and efficiency of customer service.

Case "CM Smooth Travel" personalized travel service platform

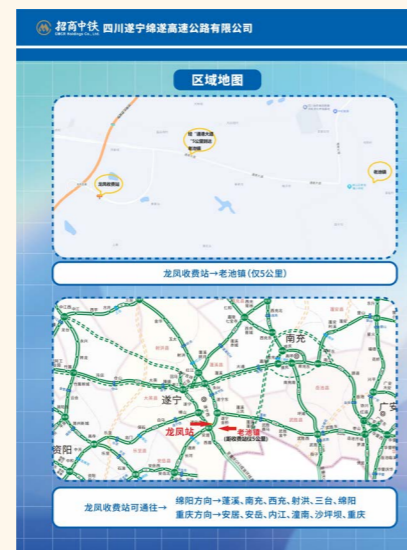
Guilin subsidiary has innovatively developed a digital travel service platform "CM Smooth Travel", which continuously iterates service features based on user needs. This smart service platform integrates five core "one-click away" services, namely video on-demand (VOD), navigation, reservation, emergency aid and incident resolution, fulfilling users' needs throughout the entire journey, from pre-trip planning, in-trip assistance, to post-trip engagement. This mini program also offers four value-added benefits: bonus points redemption, travel deals, local specialties collection and discount coupons for curated homestays, meeting road users' demands in diverse scenarios.



"CM Smooth Travel" mini program

Case Developing road derivative economy by deepening the integration of "service area + tourism"

Miansui Expressway compiles comprehensive information about adjacent tourist attractions, travel routes and service areas into handbooks and manuals and distributes them extensively through toll stations and service areas. A professional video production team sponsored by the company, thoroughly explores the tourism resources along the expressway, creating promotional videos that showcase the scenic beauty along Miansui Expressway and Suining's cultural heritage. These efforts have boosted local tourism development, with some scenic areas along the expressway recording a 5% increase of visitors after the video release.



Metrics and targets

To ensure effective implementation of all critical tasks for highway quality assurance and operational safety, and to verify operation performance, the Company decomposes the annual work safety targets to establish a seamless chain of safety accountability at all levels. 133 safety responsibility letters have been signed at CMET headquarters, with a 100% signing rate.

Indicators	Unit	2024	2023	2022
Pavement Quality Index (PQI)	point	93.91	93.05	93.52
Road maintenance input	RMB million	368	258	195
Proportion of Type 1 and 2 bridges	%	100	99.77	100
Rate of arrival within 20 minutes for hindrance clearance *	%	92.19	82.92	81.10
Rate of arrival within 30 minutes for hindrance clearance *	%	98.39	93.73	95.23
Average clearance time*	minute	21.42	27.47	26.50
Annual obstacle clearance*	time	32,349	36,663	28,006
Satisfaction rate of obstacle clearance	%	99.86	99.97	99.03
Number of customer complaints	/	1,013	1,972	565

* Note: The data of CMCR was consolidated at the end of 2023, items marked with * in the above table excludes CMCR for the time being, while other data includes CMCR.

Smart expressway development

The Company actively embraces the trends of smart expressway development, effectively controls risks and seizes development opportunities under the guidance of a scientific governance framework and clear strategic plans. We are making steady efforts to advance towards established goals, injecting new vitality to the industry's progress.

Governance

The Company has established a sound governance structure in smart expressway development. Supported by task forces, we clarify the roles of decision-making level, management level and execution level, and have established a well-functioned inter-departmental collaboration mechanism to promote information sharing and collaborative efforts. Our management team takes charge of overall decision-making on smart expressways planning and construction, while the Strategic Development Department and Business Management Department collaborate to organize the smart expressway design and evaluation. Leveraging the Beijing-Tianjin-Tanggu Expressway reconstruction and expansion project, Beijing-Tianjin-Tanggu Engineering Construction Management (Tianjin) Co., Ltd. is responsible for formulating detailed implementation plan and resource allocation for smart expressways design and construction, and carries out the smart expressway development.

Strategy

CMET has formulated the medium and long-term goals and plans for building intelligent expressways by actively aligning with the Group's digitalization and innovation strategies, striving to promote digital, intelligent and collaborative development of expressway operation and management. Concentrating its efforts on smart toll collection and smart operation, the Company has created an industry-leading expressway lean operation and management system for its core business. We have cultivated smart expressway service capabilities spanning over 20 provinces in our industry development. An innovative ecosystem integrating vehicle-road coordination and autonomous driving is built by tapping into emerging industries, and key universal core technologies are developed, including video detection and IoT through strenuous scientific and technological research. These efforts have further solidified CMET's technological prowess and industrial capabilities in driving the digital and intelligent transformation of expressways.

Risks/ opportunities	Description of the impact of risks/opportunities on business and financial aspects	Time Frame	Responses
Risks	Failure to match market positioning or failure to promptly carry out industry technology transformation in accordance with the requirements of strategic development, may lead to a situation that technologies are unable to support long-term business development, low operational efficiency, or difficulties in implementing the Company's strategic transformation goals.	Short term	<ul style="list-style-type: none"> Establish a sound sci-tech innovation system. Build a contingent of innovative talents, set up special awards for commercialization of sci-tech achievements to unleash driving forces for innovations. Cooperate with scientific research institutions and universities to carry out cutting-edge technological innovations.
Opportunities	Attract premium resources and partners by introducing digital and intelligent technologies, innovate in business models, create smart new businesses, and enhance brand influence, speeding up the smart and collaborative development of expressways.	Medium to long term	<ul style="list-style-type: none"> Continue to invest in building smart expressways, create industry benchmark projects, and strengthen brand promotion. Build industrial cooperation platforms, organize industry exchange activities, and promote collaborative innovations across the industry chain.

※ Note: According to the business development model, the time frame defined in the risk and opportunity list for short term is 1-3 years (including 3 years); the medium term is 3-5 years (including 5 years); the long term is 5 years and above.

Impacts, risks and opportunities management

• Sci-tech innovations •

Sci-tech innovation plays a key role in the development of smart expressways, driving productivity improvements and the transformation and optimization of management modes. It also strongly promotes higher traffic operation efficiency and safety guarantee capabilities, contributing to elevating the Company's brand influence and market competitiveness.

With reference to CMG's relevant management policies on sci-tech innovations, the Company has formulated well-defined sci-tech innovation regulations such as *CMET Management Policy on Sci-tech Innovation*, and *CMET Guidelines for Innovation R&D Project Fund Management*. These regulations will help unleash driving forces for innovation and standardize innovation process. They encourage to adopt special awards for sci-tech commercialization achievements to stimulate the market-oriented transformation. At the same time, the Company has developed recruitment, cultivation, assignment and incentive mechanism for innovative talents, and establishes close ties with universities and companies to jointly carry out technological innovation projects.

To standardize its intellectual property rights (IPRs) management and strengthen its guidance to subsidiaries on IPR management, the Company has formulated the *CMET Regulations on Intellectual Property Management* to clarify the scope of application and working mechanism for IPRs protection such as trademarks rights, copyrights, patent rights, technical know-how, and trade secrets.

• Intelligent collaborative ecosystem •

The establishment of an intelligent collaborative ecosystem promotes the in-depth integration across all stages of expressway construction, operation and management. By leveraging resource sharing and complementary advantages, it consolidates resources along the industry chain to develop new business models, and creates comprehensive smart mobility solutions and a sound collaborative ecosystem, enhancing the overall service quality of expressways.

As the designated "chain leader" of smart expressway and vehicle-road coordination businesses, the Company works to accomplish key tasks including policy alignment and product development. We coordinate multiple parties to provide support in cargo sourcing, engineering design, and product certification, while actively participating in building a "government-industry-university-research-application" industry ecosystem that facilitates the implementation of vehicle-infrastructure integration. In 2024, the signature project of "Tonggang Dayuan" under "chain leader system" passed comprehensive acceptance review, marking the successful creation of China's first cross-provincial/city autonomous driving demonstration expressway, the Beijing-Tianjin-Tanggu Expressway.

Case "Smart freight + autonomous driving" supports logistics service

In 2024, the "Tonggang Dayuan" project explored the innovative business model of "smart freight corridor + autonomous driving fleet", establishing a new pathway for cost reduction and efficiency enhancement in trunk-line logistics through policy-driven initiatives, technical verification and commercial trial operation. As of the end of December 2024, the project had completed a total of 2,113 vehicle trips of freight operation, with a total mileage of 151,500 km, including 132,500 km of platooning operations. Thereby, it accumulated valuable experiences for the commercialization of autonomous driving technologies.



Beijing-Tianjin-Tanggu Expressway "Tonggang Dayuan" Digital Twin Platform

Case "Smart toll station" facilitates enhancement in operational quality and efficiency

Ruichang toll station of Jiurui Expressway completed its overall standardized renovation in June 2024, becoming CMET's demonstration station of smart toll stations. The station is equipped with smart devices highlighting CMG features, and the toll island facades showcase a simple, neat and visually appealing design. The implementation of booth-free toll islands ensures unobstructed view and enhanced traffic safety for drivers. In addition, the station is equipped with fully digitalized tools integrating end-to-end functions, including remote incident resolution, equipment status monitoring, and operation efficiency analytics. The functions enabled a single staff to handle multiple categories of station tasks, thereby reducing the numbers of on-site toll collectors from the previous 5 to 3 persons per shift.



Smart toll booth of Ruichang Toll Station

Case "CloudEye Road Inspector" facilitates expressway patrol and inspection



In 2024, the "CloudEye Road Inspector" product and service suite developed by CMCT's CloudEye team was officially launched. Integrating LIDAR point cloud processing, oblique photogrammetry modeling, multi-source data fusion, artificial intelligence, and WebGIS technologies, it delivers high-efficiency, high-precision, and intelligent inspection and assessment of expressway infrastructure. Based on an end-to-end road inspection and maintenance solution, the solution significantly enhances infrastructure management and maintenance efficiency. At present, the "CloudEye Road Inspector" technologies have been applied in the patrol and inspection operations on over 200 km of road sections in approximately a dozen of expressways, including Guangxi Cenxing Expressway, Guizhou Pingluo Expressway. The "CloudEye" system has been widely applied in over ten provinces across the country, achieving more than 60 successful pre-warnings.



On-site "CloudEye Road Inspector"

Metrics and targets

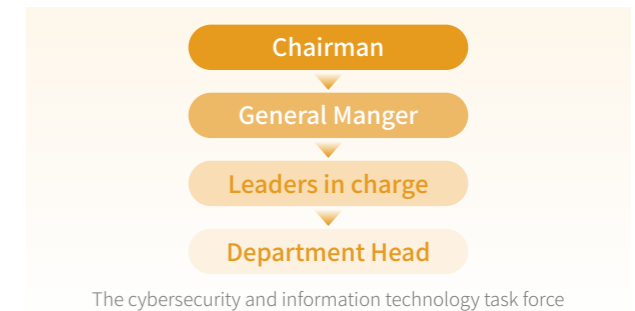
To provide well-defined quantitative benchmarks for smart expressway development, the Company has formulated measurable metrics and phased targets that also serve as a monitoring-evaluation framework for project implementation, ensuring effective progress in advancing smart expressway constructions.

Indicators	Unit	2024	2023	2022
R&D investment	RMB million	324.8423	397.3076	363.6436
R&D investment as a percentage of core business revenue	%	2.56	4.08	4.38
R&D personnel	/	1,043	1,082	1,060
Ratio of R&D personnel to total employees Ratio	%	15.36	16.29	16.21
Patent applications completed	/	174	242	156
Completed patent applications	/	215	205	203
Science & technology	/	23	36	26

※ Note: The total amount of R&D investment for 2024 disclosed herein is consistent with the annual financial report, and the data for 2023 and 2022 have been adjusted for consistency.

» Data security and customer privacy protection

The Company has formulated the *CMET Cybersecurity Management Regulations* in compliance with Chinese laws and regulations such as the *Cybersecurity Law*, *Data Security Law* and *Regulation on Measures for Cybersecurity Review*. We have clarified the organizational structure of the Company's cybersecurity and information technology leading group, broken down and implemented cybersecurity responsibilities following the principle that "whoever manages, builds, maintains, or uses the system should be responsible".



Guided by the requirements of Level 3 Compliance Assessment under China's Multi-Level Protection Scheme (MLPS) for Cybersecurity and relevant cybersecurity management policies of CMG and CMET, the Company has established a comprehensive cybersecurity framework. It regulates issues like perimeter security, environment security, application security, operations and maintenance security, administrative security, and security testing, in a systematic and coordinated manner. In 2024, the Company carried out multiple cybersecurity initiatives including cyberattack and defense drills, cybersecurity overhaul, the HW National Cybersecurity Protection Exercise. Our information security education and training sessions engaged 253 participants. All those initiatives raise security awareness of all employees and strengthen the prevention against data breaches.

The Company has formulated the *CMET Privacy Protection Policy* in accordance with Chinese laws and regulations such as the *Personal Information Protection Law*, to clarify job responsibilities, specify each privacy protection rights entitled by customers, and standardize the privacy protection framework. In 2024, we did not register any complaint or non-compliance incident due to the leakage, loss or infringement of customer privacy.

« Annual key initiatives on cyber and information technology application security »

Cyberattack and defense drills under simulated scenarios of data breach

3 drills were conducted under simulation scenarios of sensitive data leakage to GitHub and cyberattack and defense drills. Emergency response activities were carried out in accordance with the dedicated Data Breach Contingency Plan, which serve to evaluate the incident response capabilities for data breach mitigation.

Cybersecurity overhaul

Cybersecurity overhaul of 28 entities has been completed with targeted remediation measures implemented against 284 identified risks. 81.55 million cyberattacks were successfully curbed with zero breaches, securing top-three rankings in both the "Zero-Breach in Annual Cybersecurity Protection Exercise Awards" and the "Significant Progress Unit Awards" among econd-tier subsidiaries of the Group.

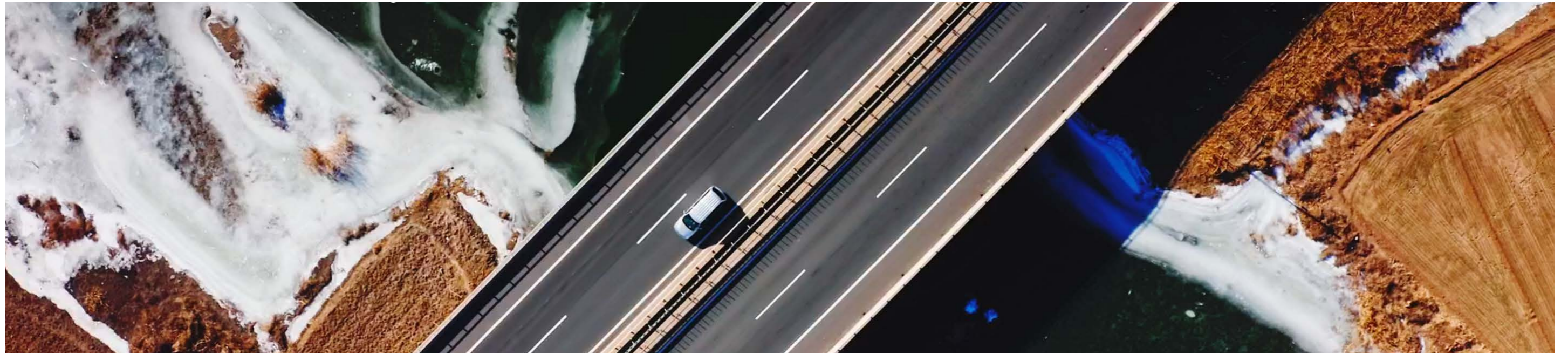
HW National Cybersecurity Protection Exercise

A total of 18,868 cyberattacks were blocked, 94 security threat alerts were investigated, 21,300 high-risk malicious IP addresses were blacklisted, 151 web intrusion attempts were intercepted, and 93 security policy optimizations were implemented.

Case Experts engaged to offer cybersecurity training



CMET invited cybersecurity experts from the Ministry of Public Security in September 2024 to hold a company-wide cybersecurity training with the theme of "Cybersecurity for the People, Cybersecurity by the People". With an aim to strengthen the concept of "Cybersecurity is as important as workplace safety" and raise the cybersecurity awareness of our managers and employees, we analyzed the severe domestic and international cybersecurity situations, and the evolution of cyberattack and defense exercises, introduced cyberattack strategies and techniques, offered recommendations for cybersecurity protection at the training session.



Beijing-Tianjin-Tanggu Expressway 61.361 Fenghe Bridge

Talent Development

Adhering to the "people-oriented" development philosophy, CMET has established a comprehensive talent management system covering talent recruitment, training, incentives, and welfare. We provide employees with a systematic career development pathway, differentiated training plans, an inclusive cultural atmosphere, and comprehensive health and safety protection. Our goal is to ensure the synchronized growth of both employees and the Company and to foster a competitive talent ecosystem.

» Employment management

Abiding by Chinese laws and regulations, including the *Labor Law* and the *Labor Contract Law*, and in accordance with the *CMET Employee Management Regulations*, we continue to improve the employment management system, enhance employee rights protection, and optimize the compensation and incentive system, improving key aspects such as recruitment, training, promotion, and benefits. During the reporting period, our social insurance coverage and labor contract signing rate were both 100%.

Compliant employment

We have explicit policies prohibiting the employment of child labor and forced labor in our recruitment processes and business operations. Through identity verification of candidates, we ensure that no form of child labor or forced labor is employed, thus minimizing employment risks. During the reporting period, no instances of child labor or forced labor were found within CMET or its business chain.

In accordance with the *Labor Law*, relevant regulations from the State Council, and internal policies such as the *Attendance and Leave Management Measures for CMET Employees*, we ensure employees' legal rights to annual leave, personal leave, sick leave, and paternity leave. For some positions, we implement flexible working hours and integrated working hour systems. A total of 13 employees at our headquarters work under the special working hour scheme, accounting for 7.56% of the total workforce at the headquarters. Additionally, we conduct satisfaction surveys on employee care services, such as canteen, shuttle buses, and cleaning services, through online and offline surveys and questionnaires to improve employees' sense of fulfillment and well-being.

Indicators		Unit	2024	2023	2022
Number of employees		/	6,445	6,641	6,540
Breakdown of full-time employees	By gender-female	/	2,344	2,483	2,472
	By gender-male	/	4,101	4,158	4,068
	By age-30 and below	/	1,269	1,559	1,678
	By age-30 to 50	/	4,457	4,416	4,243
	By age-51 and above	/	719	666	619
	By educational background-master's degree and above	/	980	960	872
	By educational background-bachelor's degree and above	/	2,611	2,611	2,465
By educational background-junior college and below	/	2,854	3,070	3,203	

Compensation system

The Company has established a market-oriented compensation system. In accordance with the *CMET Employee Compensation and Benefits Management Measures* and the *CMET Performance Management Measures* and based on both corporate performance and individual performance, we determine performance results through scientific assessments, ensuring income distribution tilts toward value creators and rewards are aligned with both effort (more work) and performance (better results).



We have developed a scientific and comprehensive compensation and performance evaluation system. Based on the CMET's annual business objectives and the KPIs of senior units, we set different performance indicators and target values for different departments and employees, and sign the Departmental Performance Target Responsibility Agreements and the Individual Performance Target Responsibility Agreements with them. We continuously track and analyze the performance of each department, summarize the findings periodically, and adjust performance targets as needed in a timely manner. Moreover, we conduct performance analysis based on department and individual performance assessment results, develop departmental performance improvement plans, and provide feedback and performance discussions with employees on a departmental level.

Democratic communication

CMET highly values employees' voices and has established diverse two-way communication channels and mechanisms. This allows our employees to express their demands, participate in our management and provide important input for improving our management practices. We encourage employees to participate in decision-making and management through workers' congress, employee seminar, and suggestion box. Reasonable suggestions raised by employees will be promptly reviewed and addressed, followed by feedback to employees, aiming to foster a positive communication atmosphere and continuously improve our management. In 2024, the Company held 33 workers' congresses, and 100% of employee were union members.

» Training and development

Taking talent development as a strategic priority, the Company continues to enhance employees' skills and competencies. We have enhanced talent development planning and team building, providing employees with comprehensive and multi-dimensional growth opportunities. Our well-established training system and clear career development pathways support employees in realizing their personal values and professional goals.

Enhancing talent development

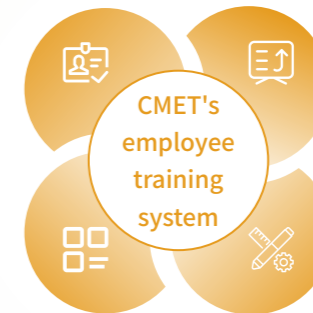
We further optimize our training system to meet the diverse needs of employees across different roles and levels. In alignment with our strategic and business development goals, we have developed courses covering professional skills, managerial competencies, and workplace ethics. To enhance technical expertise, we invite industry experts at irregular intervals to deliver training on cutting-edge expressway maintenance technologies and innovative approaches. We also conduct regular skills competitions and professional development exercises to strengthen employees' technical proficiency. In 2024, the Company invested over RMB 4.0871 million in employee training, significantly improving employees' technical skills and innovation capabilities.

Orientation training

- Introduction to company culture and policies to facilitate integration for new hires;
- Overview of the expressway industry and company operations, along with professional competence and safety training.

Regular training

- Job-specific professional training to enhance professional skills tailored to different roles;
- Expert-led sessions on industry trends and policies to deepen professional knowledge and skills for all employees;
- Leadership training for management personnel to strengthen the Company's overall competitiveness.



Specialized training

- Project management training to ensure efficient project execution;
- Emergency response training to enhance employees' emergency management capabilities;
- Compliance and audit training to reinforce compliance management.

Emerging training plans

- Smart expressway technology training to develop employees' expertise in applying emerging technologies;
- Green expressway and sustainability training to foster employees' environmental awareness.

Case Yangtze River Company cultivates skilled maintenance talents in a new era



To support the continuous learning and development needs of maintenance personnel, Jiangsu Yangtze River Expressway Management Co., Ltd (Yangtze River Company, an associated company of CMET)'s training center offers both traditional master-apprentice mentorship flexible cloud-based learning programs for upskilling. The company has implemented a "Career Growth Map" initiative to provide tailored development paths for employees at different career stages and to foster an ecosystem of skill transmission and collaborative innovation. In 2024, several employees obtained professional certifications such as drone operation licenses and first-class construction engineer certificates, significantly enhancing their technical expertise and professional qualifications.



On-site operations by the maintenance talents

Unblocking employee promotion channel

The Company has established a fair and transparent promotion system. Guided by the *CMET Qualification Management Measures* and other internal regulations, we have developed detailed promotion criteria and processes for various positions to ensure structured career promotion for different positions. To support diverse career paths, dual career advancement channels are developed for managerial and professional roles to ensure an integrated approach to talent development and deployment. In 2024, 19 core employees participated in cross-functional exchanges between our headquarters and subsidiaries, while 18 professionals were assigned to subsidiaries through secondments and temporary assignments. Additionally, 10 employees participated in job rotation programs.

Emphasizing merit-based selection, CMET has conducted open competitions for subsidiary general manager and deputy general manager positions to optimize leadership structures, with 12 talents appointed to subsidiary general manager and deputy general manager positions. In 2024, a total of 24 cadres were selected, with 21 appointed to leadership team members within 10 subsidiaries.

Case **Launching youth leadership development program through diverse teaching methods**

In 2024, CMET conducted a cultivation program for young leaders and implemented the Wisdom Journey Class I and Class II training program. This program integrates teaching methods like personal assessment and business simulations to enhance practical leadership skills. We have innovatively integrated teaching methods, including personal assessments and business strategy simulations, to enhance training effectiveness. In this way, we can help young leaders improve self-awareness, strengthen their professional capabilities, and build a strong talent pipeline for our future development. Additionally, we have established a talent pool for outstanding young leaders, implemented targeted training programs, and organized diverse training formats such as management rotation programs and specialized lectures to further strengthen talent cultivation.

► Diversity and equality

Abiding by Chinese laws and regulations, such as the *Labor Law* and the *Labor Contract Law*, we have published the *CMET Code of Conduct* and the *CMET Human Rights Commitment*. Through campus recruitment, social recruitment, and internal selection, we attract employees from diverse backgrounds, respect employees' career choices, and provide equal employment and development opportunities for each one.

Building an equal workplace

We respect the religious beliefs and cultural backgrounds of all employees and firmly oppose any form of discrimination, bullying, harassment, violence, or conflict. The Company strictly prohibits discrimination based on gender, age, race, religion, or any other factor in recruitment, onboarding, training, promotion, and rewards. During the reporting period, no incidents of workplace discrimination or harassment occurred.

Caring for female employees

Upholding the principle of gender equality in employment, we impose no gender-based restrictions on job requirements. Job requirements are set based on skills and experience to ensure fair competition between male and female employees. Furthermore, we give special attention to the career development of female employees by providing equal promotion opportunities and access to training resources.

Recognizing the vital role and contributions of female employees, CMET supports them to achieve better work-and-life balance. We strictly enforce maternity leave policies for pregnant, postpartum, and breastfeeding employees and provide dedicated nursing rooms for working mothers. On International Women's Day and other special occasions, the Company organizes events and offers gifts to female employees, fostering a supportive and inclusive work environment for female employees.



Theme Event "Gorgeous Blossoms, Shining Goddess" on Women's Day

Indicators	Unit	2024
Female percentage in management positions – junior management	%	34.00
Female percentage in management positions – middle management	%	15.38
Female percentage in management positions – senior management	%	7.14
Female management percentage in revenue-generating (e.g., sales) management positions	%	16.00
Female percentage in STEM-related positions*	%	17.38

* Note: Refers to female percentage in positions that require expertise in science, technology, engineering, or mathematics in daily work.

► Occupational health and safety

CMET prioritizes the health and safety of employees as a fundamental cornerstone of its development. Upholding the "people-oriented and safety-first" philosophy, we are committed to providing a safeguard system for employee safety and health. We have developed the *CMET Occupational Health and Safety Policy* and the *CMET Occupational Health and Labor Protection Management Measures* and set up the Health Management Committee to advance employee health initiatives during the reporting year and continuously improve the occupational health and safety management system. Additionally, China Merchants New Information Technology Co., Ltd. has obtained the ISO 45001 certification (occupational health and safety management systems).

CMET actively invests in employee well-being through the following initiatives

- ▶ Equipping workplaces with occupational health protection facilities and equipment that meet national standards and carrying out specialized training to ensure proper usage.
- ▶ Building employee activity rooms, furnished with treadmills, rowing machines, adjustable training benches, and other fitness equipment.
- ▶ Organizing daily workplace exercise sessions to help employees combat sub-health conditions.
- ▶ Inviting external experts to conduct educational sessions on common diseases to enhance employees' awareness of disease prevention.
- ▶ Evaluating and selecting the best employee health check-up programs and offering medial report interpretation services for those in need.
- ▶ Continuously monitoring the safety and hygiene of employee canteens and disclosing inspection results irregularly.
- ▶ Implementing special employee visit initiatives. In 2024, RMB 3,000 was spent on consolation for 6 veterans, RMB 1,000 on consolation for 1 sick employee, and RMB 6,000 on assistance for 2 employees facing economic difficulties.

🌟 Society Contribution

CMET remains committed to giving back to society while pursuing corporate growth. Collaborating with partners across the industry chain, we facilitate the collaborative development across the entire industry chain, actively foster strong community relations, and support rural revitalization strategy. Through concrete actions, we demonstrate our corporate responsibility and commitment to social welfare and regional coordinated development.

➤ Supplier management

Following the procurement policy of "fairness, openness and impartiality" and complying with China's *Law on Tenders and Bids* and the *Government Procurement Law*, we have formulated and improved policies such as the *CMET Supplier's Code of Conduct*, the *Supplier Management Measures* and the *Regulations for Supplier Integrity Management*, to ensure the orderly operation of our supplier management system. Upholding a policy of transparent procurement, we treat small and medium-sized enterprises (SMEs) and all market participants equitably. Meanwhile, we strictly follow legal and regulatory requirements to ensure full payment to SMEs, fostering a fair business environment and long-term cooperative relationships.

The Company implements a full lifecycle management approach for supplier access, evaluation, collaboration, and exit. We maintain strict supervision before, during, and after procurement and carry out a supplier classification management system, with an annual comprehensive evaluation of contract performance conducted in the first quarter of each year. Based on the evaluation results, suppliers are classified into A, B, C, and D levels, and corresponding management measures are implemented. In 2024, no legal or regulatory violations related to bidding or procurement were recorded.

Indicators	Unit	2024	2023	2022
Total suppliers	/	9,947	9,233	8,161

Management stage	Action
Supplier qualification review	Conduct information verification on suppliers' qualifications, capabilities, scale, and reputation based on procurement needs. Qualified suppliers will be added to the supplier database.
Qualification review in the procurement stage	During a specific procurement implementation, review supplier qualifications and verify their credentials, performance, and personnel to ensure compliance with procurement requirements.
Supplier performance evaluation	Each evaluation cycle aligns with the natural calendar year, ending on December 31. Evaluation units conduct an annual evaluation of suppliers' integrity performance. Based on the results, supplier ratings may be assigned or adjusted, with the results published on the procurement platform.
Handling of supplier misconduct	In accordance with regulations, measures are taken against non-compliant suppliers, including putting them on integrity blacklist or downgrading their rating to D (non-compliant).

➤ Community relations

Committed to fostering a harmonious symbiotic relationship with neighboring communities, we maintain two-way communication channels with the community and engage in charity and public welfare initiatives to strengthen community ties. To better capture the voice of stakeholders and integrate them into our long-term sustainability strategy, we developed the *CMET Stakeholder Engagement Policy Statement* in 2024, providing clear guidance for effective community engagement.

Through regular community forums and online feedback channels, we timely address the concerns and needs of local residents. Additionally, preventive measures in residential areas near our projects are in place, such as installing no-climbing warning signs on fences, clearing and regularly inspecting under-bridge spaces, and placing public notices to prevent unauthorized occupation of these spaces. These measures ensure the safety of communities surrounding our transportation network.

Case "C Green" activities achieves new milestones



By combining public welfare education program with the promotion of green concept, CMET implemented a "financial aid + empowerment training" model in partnership with local normal universities to provide scholarships, introduce open courses on environmental protection, and support students in social practices on environmental protection. By empowering educators to spread green development values, the model encourages deeper reflection and insight into sustainable development among youth. As of 2024, the "C Green" public welfare education program has been implemented in nine normal colleges, benefiting nearly 140,000 students and faculty members.

The subsidiaries actively carry out sub-project activities such as the "C Green Smart Ocean" education assistance and teaching public welfare action, the "C Green Zhao Xiaochang" public welfare education assistance project, and the "C Green Zhao Lumei" child protection action, to comprehensively help improve the level of education.

"C Green" eco-education course

In 2024, CMET, together with the "Excellent Course Center" of the China Education Support Program, launched a course collection campaign for the "C Green" eco-education course. A total of 152 pieces of high-quality courseware and online teaching materials from nine universities were selected and made publicly available to students nationwide. The goal is to support university students in participating in eco-education volunteer teaching and inspire more young people to learn about green development knowledge and engage in sustainable development initiatives.

2nd #Carbon to Zero# Youth Green Co-creation Camp

From November 23 to 25, 2024, CMET and the China Education Support Program co-hosted the 2nd #Carbon to Zero# Youth Green Co-creation Camp. Over 80 university leaders, teachers and student representatives from the nine normal universities donated and supported by CMET were invited to the Company headquarters to engage in design thinking training, roundtable discussions, project showcases, and green and innovative city explorations. The camp encouraged creativity, collaboration, innovation, and discussions on topics such as green and low-carbon lifestyles, and the development of smart and green expressways.



"C Green" activities

Case Launching "Warm Journey" campaign to pay tribute to truck drivers



In 2024, CMET launched the "Warm Journey" campaign to pay tribute to truck drivers under the "Together with CMET" care initiative, providing care and support to truck drivers traveling on expressways. Drivers received care packages during extreme weather conditions in winter and summer and heartfelt gifts and festive greetings during traditional holidays. In addition, the Company actively promotes the construction of "Driver's Home", allowing truck drivers to "have a hot meal, drink hot water, take a hot shower, and park their vehicles with peace of mind", expressing the deepest respect to the freight pioneers who work tirelessly day and night. During the reporting period, the Company carried out over 690 public welfare activities titled "Warm Journey" at 59 toll stations and 17 service areas across 26 expressways in 15 provinces nationwide. The total volunteer service time exceeded 16,000 hours with approximately 102,000 beneficiaries



"Warm Journey" campaign

As the host organization of the Highway Operation Management Branch of the China Highway and Transportation Society, the Company has further upgraded "Together with CMET" care initiative into an industry-wide public welfare campaign. Together with 21 industry entities, it planned and launched the 'Warm Journey' public welfare campaign to pay tribute to freight pioneers. By strengthening overall coordination and joint efforts, it continuously promotes the unification of service standards and innovation in activity formats, jointly creating a positive social atmosphere. As of now, a total of 27 highway operation management entities across the country have participated in this public welfare activity, covering 27 provinces, autonomous regions, and municipalities nationwide, with a provincial coverage rate of over 87%, highway mileage exceeding 100,000 kilometers, and serving over 1.3255 million drivers and passengers.



"Warm Journey" campaign



➤ Rural revitalization

CMET actively responds to the national rural revitalization strategy and integrates its development with rural revitalization efforts to comprehensively support rural development. In 2024, CMET donated RMB 11 million through the China Merchants Foundation (CMF) to fund rural revitalization projects. These efforts primarily focus on supporting Weining (Guizhou Province), Qichun (Hubei Province), Yecheng (Xinjiang Uyghur Autonomous Region), and Shache (Xinjiang Uyghur Autonomous Region) counties to develop specialized industries and establish model rural revitalization sites. We focused on key initiatives such as prioritizing industry-led development, enhancing public service, providing vocational training, and improving rural governance to drive comprehensive rural revitalization in these counties.

Case Supporting the walnut tree cluster scenic area in Kashgar



The Seven Immortals Garden Agri-cultural Tourism Demonstration Base Project is located in Walnut Seven Immortals Garden, Heyuan Town, Yecheng County, Xinjiang Uyghur Autonomous Region, approximately 13 kilometers from the county center. The site is home to the oldest known walnut tree cluster in the Kashgar region. In 2024, CMCT assisted in upgrading the 18 mu (equivalent to 1.2 hectares) core demonstration area of this base site with improved environmental architecture and landscaping. The project received an investment of around RMB 7.48 million from CMCT. Aiming to stimulate the rural tourism industry, the project promoted the local walnut industry and created new employment and income generation opportunities for farmers.



Aerial view of Walnut Garden

Case Industrial vitalization and talent training program in Xinjiang



In 2024, CMET actively contributed to industrial vitalization and talent development in Xinjiang Uyghur Autonomous Region. The Company constructed an integrated quick-freezing and cold storage facility in Baishikante, Shache County to fill industry gaps and support the development of a cold-chain logistics park that benefits over 30,000 residents. In Yecheng County, we facilitated farmland consolidation to reduce fragmentation and ensure food security, reaching more than 1,000 beneficiaries. We also provided insurance through the "insurance + futures" model for 754 jujube farmers to help hedge against price fluctuations. Additionally, we offered customs and logistics training to 200 participants and organized sessions for 20 local officials at CMG Party School, to build up local governance capacity.

Case Supporting healthcare development in Weining, Guizhou



In 2024, CMET partnered with local Party branches, focusing on enhancing healthcare services in Weining, Guizhou Province. The Company funded the purchase of smart medical equipment for five remote village clinics, enabling remote medical consultations and improving access to quality healthcare. We also donated portable color ultrasound machines to eight health centers and provided AED defibrillators to 29 clinics to strengthen local emergency response capabilities, benefiting over 20,000 residents. At the same time, we promoted Party branch cooperation between the CMET and local communities in Weining and organized joint activities such as Party lecture discussions to strengthen rural healthcare and party building.

03

Governance



CMET upholds the leadership of the Party and drives high-quality development through efficient corporate governance. The Company continues to enhance the effectiveness of its governance structure featured by "the Shareholder's Meeting, the Board of Directors, and the Board of Supervisors, and the Management Team (Three Meetings and One Management)". By comprehensively upgrading its compliance management system, CMET has significantly strengthened its risk prevention capabilities, establishing a full-cycle management moat that covers investment, construction, and operation. This positions the Company as a modern corporate governance benchmark in the transportation infrastructure sector.

Performance highlights



36.36%

Proportion of independent directors



0

Incidents involving commercial bribery and corruption



100%

Legal review rate of business contracts



100%

Legal review rate for major business decisions

SDGs



Party Leadership

Upholding the leadership of the Party and strengthening Party building are fundamental guarantees for the Company's accelerated transition and development and its contribution to building a great modern socialist country in all respects. CMET thoroughly implements the guiding principles of the 20th CPC Central Committee, as well as the Second and Third Plenary Sessions of the 20th CPC Central Committee. With a spirit of reform, innovation, and rigorous standards, the Company continues to reinforce Party building efforts. We unite Party organizations at all levels and rally Party members to forge ahead with resolve and take on responsibilities, striving to be a pioneering force in the Company's transition and development. These efforts are continuously fostering development synergy and opening new horizons in Party building.

2024 Party building of CMET

Political development as the guiding compass

The Company has deepened the implementation of the "top agenda" system and strengthened the sound long-term mechanisms for reinforcing commitment, acquiring knowledge, improving conduct, and enhancing performance through learning, continuously enhancing the political awareness and strategic thinking of its leadership team. Through targeted initiatives such as thematic lectures, rotational training, and joint theoretical study, the Company has thoroughly studied and applied the guiding principles of the Third Plenary Session of the 20th CPC Central Committee, fostering a strong consensus around reform and progress. Party discipline education has been earnestly carried out, embedding disciplinary safeguards throughout the full spectrum of business operations. The Company has also advanced inspection and rectification efforts in a structured and effective way, with all corrective actions for 2024 successfully completed, further shoring up the weak spots and strengthening mechanisms.

Strict governance over the Party to fulfill the responsibilities

The Company conducts regular thematic studies on full and strict governance over the Party. Senior leadership have undertaken field visits to grassroots units to provide on-site guidance, effectively promoting Party leadership and governance responsibilities to be followed in grassroots operations. A categorized assessment system for Party building responsibilities is in place, supported by a closed-loop Party building mechanism that clarifies duties, enforces accountability, and links performance to consequences. Key governance documents, including the *Rules of Procedure for the Party Committee Meetings of CMET* and the *Decision-Making System for Decision-Making on Major Issues, Important Appointments and Removals of Officials, Arrangement of Major Projects and the Use of Large Sums of Money of CMET*, have been revised to enhance the leadership role of the Party Committee. Furthermore, we take firm steps to consolidate the responsibility of ideological work and continue to strengthen positive publicity and guidance.

Team building to foster new momentum

A leadership group dedicated to talent and young cadre development has been established to select individuals who demonstrate strong political conviction, deep professional expertise, a strong sense of accountability, exemplary work ethic, and a commitment to integrity and clean governance. A Company-wide talent work conference was convened to implement new strategies, concepts, and initiatives in talent development. Also, the *CMET Guidelines for the Selection and Appointment of Cadres*, were revised, and measures such as exit interviews and background checks for departing cadres were introduced, reinforcing a disciplined and rigorous approach to cadre management.

Solid foundation to build organizational resilience

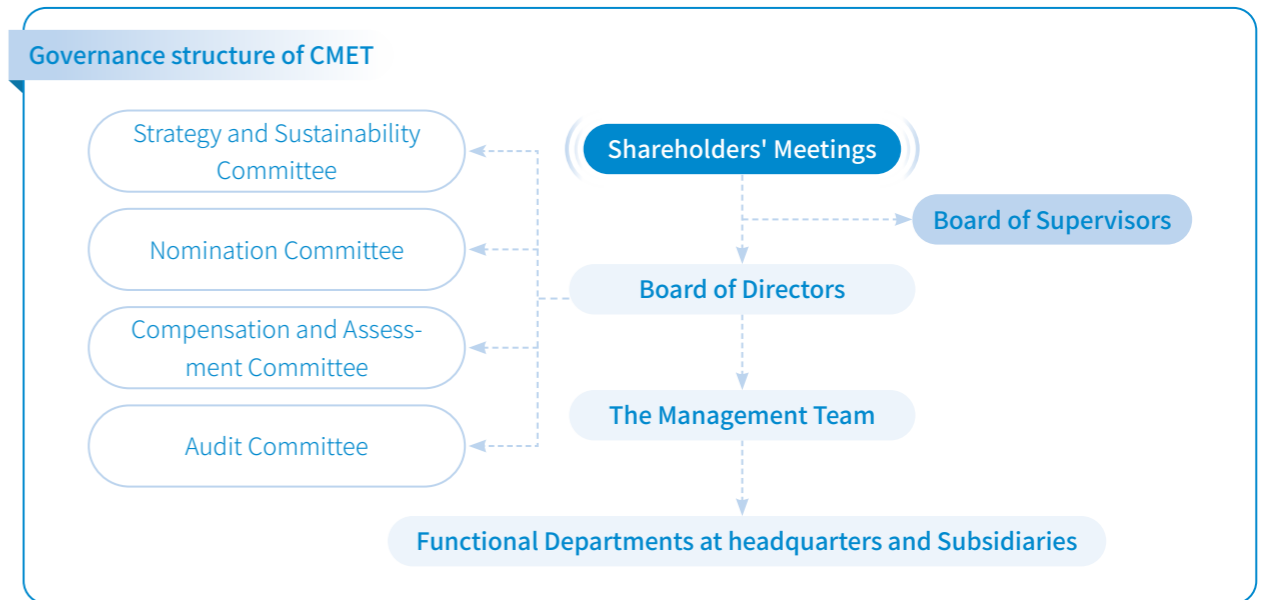
To further reinforce grassroots Party organizations, the Company rolled out the *CMET Measures to Strengthen and Solidify Grassroots Party Building*. Organizational structures have been optimized, and training sessions for Party secretaries and Party affairs cadres have been conducted. Commendation programs such as "outstanding Party members, exemplary Party workers, and representatives of advanced community-level Party organizations" have been carried out, with the Company earning honors including "Model Workers of Central SOEs" and "Advanced Collectives of Central SOEs". Additionally, the Company is exploring new models of Party building that integrate the industrial and innovation chains within the transportation sector. Initiatives such as "Joint Study and Joint Party Building" and "Multiple Parties collaboration along the expressway" have effectively supported key projects including expansion and reconstruction work.

Corporate Governance

CMET continues to enhance governance effectiveness through a sound decision-making mechanism based on the structure of the Shareholder's Meeting, the Board of Directors, the Board of Supervisors, and the Management Team. By embedding risk management and internal control standards into the entire business lifecycle, the Company strengthens its development safety margin. Our efficient and transparent approach to investor communication underpins the trust of the capital markets for us, forging a core competitive advantage that blends the responsibility of a state-owned enterprise with market competitiveness.

Board building

According to applicable laws and regulations, we have established a robust corporate governance structure. We position the Board of Directors as the central body for strategic decision-making, and leverage the operation system of specialized committees to build a scientific decision-making ecosystem.



Board independence and diversity

CMET places board independence at the core of its corporate governance structure and has issued the *CMET Board of Directors Independence and Member Diversity Policy*. The Board conducts ongoing assessments of directors' independence, taking into account factors such as tenure, familial relationships, and potential conflicts of interest. The Company clearly stipulates in its *Rules of Procedure for Board Meetings* that independent directors must comprise no less than 30% of the Board. As of the end of 2024, the Board consisted of 11 members, including 9 non-executive directors, of whom 4 were independent directors.

In the director nomination process, the Company takes diversity dimensions into considerations, such as gender, age, professional expertise, and cultural background. The current Board brings together a broad range of expertise across sectors including transportation, infrastructure, risk management, finance, law, and modern corporate governance, leveraging the advantage of interdisciplinary cross-validation and enhancing the scientific rigor and overall effectiveness of corporate governance.

14
Specialized committee meetings held

22
Shareholder's Meeting, the Board meetings, and meetings of the Board of Supervisors held

115
Proposals reviewed by the Three Meetings

Board efficiency and performance evaluation

The Board of Directors strictly adheres to the regulatory guidelines for listed companies issued by the China Securities Regulatory Commission, continually refining a modern enterprise system centered on a robust corporate governance structure. This system is featured by clearly defined responsibilities and authority, transparent accountability, coordinated operation, and effective checks and balances, all underpinned by a comprehensive internal control mechanism. In 2024, the Board achieved a 100% attendance rate at its meetings. Additionally, a dual-constraint mechanism on director tenure has been established, ensuring compliance with regulatory requirements that independent directors serve on no more than four boards, thereby safeguarding focused and effective performance. The Board also conducts an annual self-assessment of its performance and publishes an annual board work report.

Aligned with CMG's *Board Evaluation Method* and *Board Building Guidelines*, the Company has set up a multidimensional evaluation system for the Board. This system conducts dynamic assessments across various dimensions, including Board building, governance, and performance efficiency. Specifically, we evaluate the Board's operational standards in terms of roles and responsibilities, information communication, as well as its effectiveness in strategic planning, decision-making, and risk prevention, alongside the overall impact on the Company's reform and development. For the day-to-day business operations, the evaluation further assigns specific scores based on aspects such as system development and implementation, meeting convening, proposal management, functioning of specialized committees, support and guarantee, etc.

CEO performance evaluation

The Company has developed and strictly followed the *Compensation Management Measures for the Management Team of CMET*, which clearly defines the CEO's compensation structure as comprising a fixed annual salary, performance-based bonuses, and special incentives. The Company continuously improves the flexibility and alignment of CEO compensation with its strategic objectives. Performance bonuses are explicitly linked to key performance indicators of "One Profit, Five Ratios" proposed by the SASAC, including recurring profit, net operating cash flow, return on invested capital (ROIC), and R&D intensity. In addition, the Company has proactively incorporated high-quality development metrics-such as capital market performance and progress in ESG system development-into the evaluation model. This comprehensive approach is designed to strike a strategic balance between short-term performance gains and long-term value creation. In 2024, the total pre-tax compensation awarded to the CEO by the Company amounted to RMB 1.596 million.

The Company has implemented a performance bonus claw back mechanism for the management team. In accordance with the *Implementation Rules for Salary Deduction of CMET Headquarters Employees Subject to Party or Administrative Disciplinary Punishment (Trial)*, annual performance reviews are conducted regularly for the CEO and other members of the management team. In cases of major decision-making failures or regulatory violations, the Company will initiate salary deductions and claw back procedures for previously awarded bonuses, ensuring a closed-loop management system that aligns rights with responsibilities.

Protection of investor rights

Guided by the principles of strengthening compliance, enhancing disclosure, and innovating investor engagement, CMET actively promotes the coordinated implementation of key policies, including the *CMET Investor Relations Management Policy*, the *Market Value Management Policy*, and the *Information Disclosure Management Policy*. Together, these policies form a long-term mechanism to safeguard investor rights, particularly those of minority shareholders.

In terms of market value management, the Company employs a scientific and well-structured valuation assessment system to accurately gauge its intrinsic market value, enabling the Company to strengthen investor relation management and proactively communicate with capital market about its true value and long-term development potential. Within the governance framework, the Company has established formal feedback mechanisms to fully incorporate the perspectives of minority shareholders in major decision-making processes, ensuring their opinions are heard and appropriately taken into consideration. Regarding profit distribution, the Company adheres to the principles of fairness and equity, ensuring that minority shareholders receive their rightful dividends. In 2024, the Company declared a record-high cash dividend of RMB 3.621 billion, delivering sustained and stable returns to shareholders and driving its market capitalization beyond RMB 95 billion. In terms of information disclosure, the Company is committed to ensuring that all public communications are truthful, accurate, complete, timely, and fair, while strictly maintaining confidentiality prior to disclosure. We actively provide investors with the critical information needed to support informed value assessments and investment decisions.

In 2024, we actively engaged with investors through online, offline, and telephone performance briefings. During the reporting period, we issued a variety of 172 announcements and maintained a record of "zero errors, zero corrections and zero inquiries".

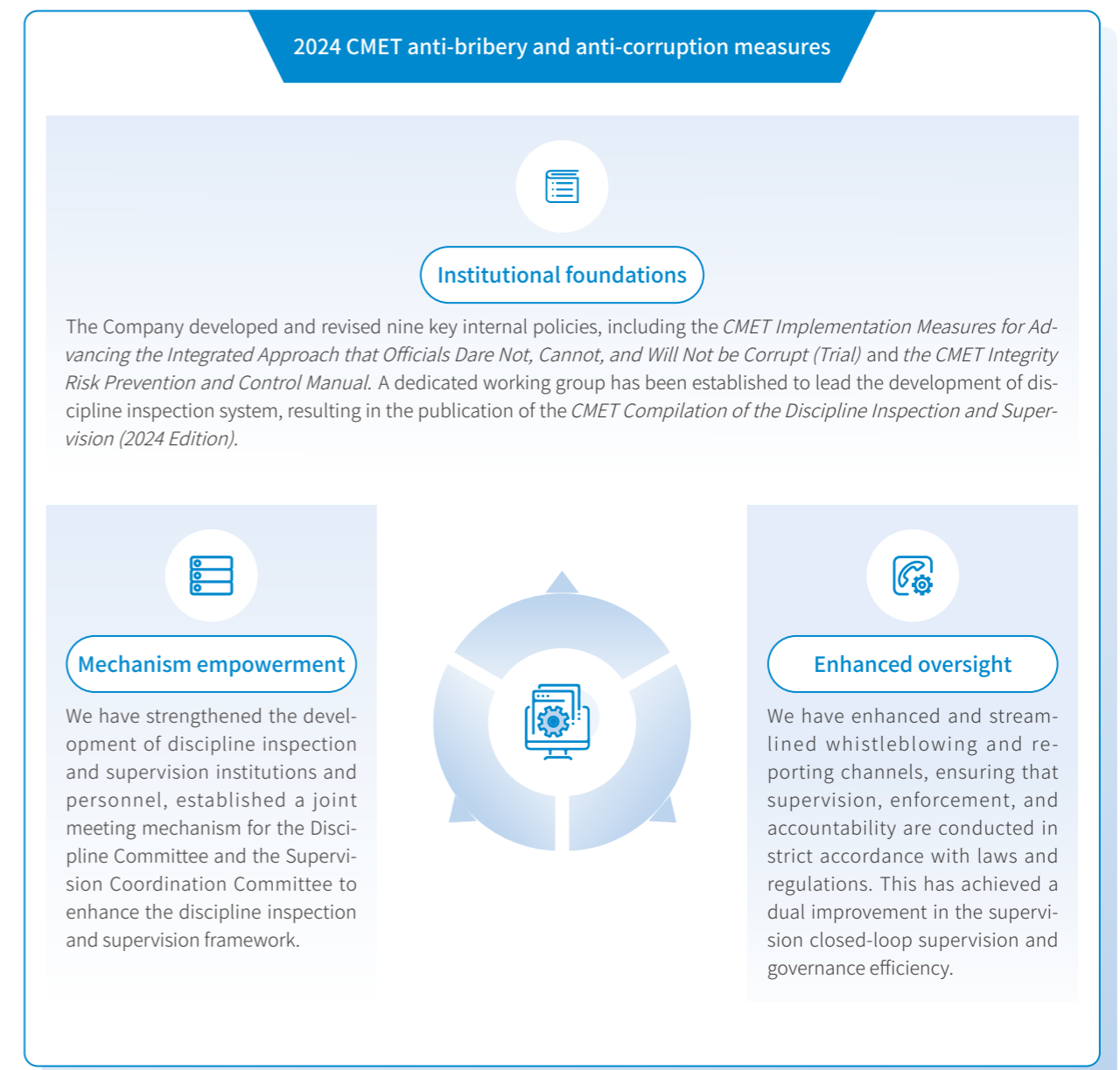


Business Ethics

As a responsible state-owned enterprise, the Company regards business ethics as the lifeline of its high-quality development. We value and respect the trust placed in us by customers, partners, and communities. We have embedded anti-bribery, anti-corruption, and anti-monopoly principles deeply into every facet of our strategic decision-making and operational processes. Through these efforts, we are committed to setting a benchmark for compliant operations in the expressway industry.

Anti-commercial bribery and anti-corruption

The Company strictly complies with the *Company Law of the People's Republic of China*, the *Anti-Monopoly Law*, the *Regulations on Fair Competition Review*, and other relevant Chinese laws and regulations. We uphold a policy with zero-tolerance toward all forms of commercial bribery and corruption. We are continuously improving our discipline inspection and supervision systems and teams. By reinforcing supervision, enforcement, and accountability, we remain as determined as ever to combat corruption.



Committed to building a comprehensive and multi-layered integrity culture system, the Company instills a strong ethical foundation across all levels of the organization—from directors to grassroots employees—reinforcing the ideological barrier of "Do Not Want to be Corrupt". In 2024, the legal review rate of business contracts reached 100%. All directors participated in three anti-bribery and anti-corruption training sessions, covering duty performance, new regulations on dividend distribution, and real-world case studies on legal and regulatory violations. During the Company's Integrity Education and Awareness Week, a diverse range of initiatives was launched to strengthen the reach and appeal of integrity culture, including publishing of the *Expressway Integrity Review* discipline inspection journal and "Discipline and Law Mini-Class" comic series, and organizing integrity-themed art and cultural performance.

The Company also maintains a dual approach of positive guidance and negative warnings. A warning and disciplinary education conference is held, at which typical cases of disciplinary and legal violations are disclosed. Educational tools such as typical case-based warning videos and written confessions are leveraged to further strengthen the impact and effectiveness of warning education. During the reporting period, the Company organized 183 anti-corruption education sessions, with over 6,300 participants in total; no incidents of commercial bribery or corruption occurred throughout the year.

The Company has established a standardized whistleblowing management system to further regulate the handling of issues and clues. By institutionalizing and standardizing processes, we aim to strengthen our supervisory and enforcement capabilities. We promote accessible whistleblowing channels, enhance whistleblowing publicity, and guide Party members and the public to express their demands lawfully and rationally. We strictly follow prescribed procedures and timelines to process whistleblowing. A standardized whistleblowing process has been established to enhance the handling quality and efficiency, effectively addressing public concerns as well as ensure timely investigation of discovered issues. We also implement a whistleblower protection policy.

CMET whistleblowing channels

Dedicated e-mail address

zsgljw@cmhk.com

Address

Huafeng Mansion, No.1 Building, No.9 Beitucheng East Road, Chaoyang District, Beijing, China



▶ Anti-unfair competition

The Company strictly complies with China's *Anti-Unfair Competition Law* and resolutely opposes any form of commercial bribery, money laundering, monopoly, and unfair competition practices. We have established the *CMET Anti-Monopoly Compliance Management Measures*. *CMET Code of Conduct* clearly prohibit reaching monopoly agreements in any form, abusing market dominance, and restricting customers or distributors from independently determining prices and transaction conditions.

CMET is committed to independently selling products, providing services, and procuring raw materials from suppliers. It legally conducts concentration filings and fully cooperates with anti-monopoly enforcement agencies during investigations when necessary. In implementing mergers, asset purchases, and other concentration activities that may affect market competition, the Company adheres to principles of integrity and transparency, strictly following market competition regulations to maintain a fair and competitive market environment and protect the legitimate rights of market participants. As of the end of the reporting period, the Company has not been involved in any judicial proceedings or significant administrative penalties related to unfair competition or monopoly behavior.

◉ Risk Management and Internal Control

The Company has established the *CMET Risk Management and Internal Control Regulations* in accordance with applicable laws and regulations, building a standardized and effective risk management and internal control system. This framework adopts a dual approach—proactively seizing opportunities while systematically managing risks—to identify and address potential threats that may impact the achievement of the Company's overall strategic objectives. Leveraging a scientific internal control framework, we ensure compliant operations and asset safety, enhance operational efficiency, and provide a compliance guarantee for achieving our strategic goals.

▶▶ Compliance System

The Company strictly adheres to regulatory requirements and has formally developed and publicly disclosed the *CMET Code of Conduct*. We have established a scientific and effective compliance management framework, appointing a Chief Compliance Officer, compliance liaisons, and compliance officers to ensure that key business areas and functional lines are staffed by compliance specialists. A regular joint meeting mechanism has been established for the Chief Compliance Officer and compliance officers, supported by annual meetings of the Risk Management Committee and annual legal compliance meetings to review and summarize periodic work and discuss key annual tasks.



The Company consistently regards compliance culture building as a core component of its compliance management system. Through a variety of innovative initiatives, including compliance-focused lectures, legal awareness campaigns, and structured training programs, we actively promote the compliance culture and support the Company's healthy and sustainable development. Specialized training sessions are organized for compliance officers in areas such as investment management, procurement management, and data security, continuously enhancing their business management capabilities. We highlight business coordination and communication, strengthening the overall ability of the compliance team to identify and solve problems, prevent and mitigate risks, adapt to changes, and effectively address challenges. In 2024, the Company conducted a variety of five compliance training sessions, with a total of 2,000 employee participations. As of the end of the reporting period, the Company reported zero incidents of non-compliance, including no cases of conflicts of interest, money laundering, or insider trading.


► Risk management

The Company has established a vertical risk management organization to promote the building of a three-line defense system for risk management across its subsidiaries, effectively creating a robust risk management protection network. The Company comprehensively manages six types of risks: strategy, operations, market, finance, legal affairs and compliance, and integrity. Each year, we conduct risk identification to create an annual risk checklist and risk heat map. Additionally, we carry out annual risk audits both internally and externally to provide important risk insights for updating risk management and internal control systems.

► Three lines of defense in risk management



► Risk management and internal control organizational structure and responsibilities



Audit Committee
Responsible for the effectiveness of the Company's risk and internal control work, it reviews planning, approves reports and strategic proposals, supervises and evaluates the results of system operations, and constructs the risk control system.

Risk Management Committee
It executes risk management and internal control tasks. Specifically, it reviews risk management strategies and policies, establishes working mechanisms, reviews special reports and proposals, examines regulatory documents, and supervises implementation.

Office of the Risk Management Committee
It carries out daily management responsibilities, with the Risk Management Department leading specific execution; implements strategies, policies, promotes internal processes, develops annual work plans, prepares special reports, and conducts specific tasks.

Functional Departments at Company Headquarters and Dedicated (Part-time) Risk Control Personnel at Subsidiaries
Functional departments at headquarters are responsible for approving and monitoring the work of subsidiaries, establishing work plans, organizing and coordinating work, and supervising progress.


In 2024, the Company prepared and published 21 copies of the *CMET Business Management Process and Compliance Standardization Manual*, enhancing the comprehensive risk prevention and control capabilities in key business areas. Climate change risk has been included in the risk list, and risks related to team building and workplace safety assurance have been added to the Risk in Focus 2025, promoting the integration of ESG risks into comprehensive risk management.

During the mergers and acquisitions (M&A) process, the Company conducts targeted risk assessments for key areas involving emerging industries. Looking ahead, the Company plans to progressively implement a three-dimensional due diligence framework for potential investment targets, covering environmental footprint tracing (e.g., carbon intensity), social responsibility performance (e.g., labor rights protection), and governance effectiveness diagnosis (e.g., board diversity), further aligning strategic investment with value created by sustainable development.

Case

Expressway operation risks and typical case analysis training by CMET

In 2024, CMET positioned commercial insurance as an effective supplementary tool within its risk management framework and conducted dedicated training sessions on risk management for all employees. The Company invited industry experts to deliver specialized training focusing on expressway operations risk and typical case analysis. The training provided a systematic overview of common risk points in expressway operations spanning structural risks, site-related risks, operational risks, and external risks. In addition to identifying key vulnerabilities, the sessions also presented practical mitigation solutions. These efforts have significantly strengthened all employee's risk awareness across the Company and its subsidiaries, while improving their risk response capabilities.



► Internal control

The Company has established a "top-down coordination, unified advancement" working model, creating a centralized, unified, and efficient internal control management system with the headquarters as the core and subsidiaries collaborating effectively. In accordance with the requirements of SASAC and the China Merchants Group, and tailored to its own circumstances, the Company continuously improves the standardized institutional framework applicable to expressway operation companies. This framework covers key areas and critical stages such as external investment, bidding and procurement, and project management, with regular independent internal audits of important aspects, such as risk management and compliance.

Each year, the Company engages external firms to audit its annual financial statements and related internal control processes. In 2024, based on the annual internal control self-assessment and supervisory evaluation, we launched a special rectification campaign focusing on the "Top Ten Weaknesses in Internal Control", addressing all identified issues through complete remediation. Additionally, we conducted seven audit items, including economic responsibility audits, special audits, internal control audits, infrastructure projects audits, etc., achieving 100% coverage of major investment project audits.



Humen Bridge Main Cable

ESG Data Sheet and Annotations

Environmental

Addressing climate change

Indicators	Unit	2024	2023	2022
Total GHG emissions	tCO ₂ e	56,872.57	53,320.43	42,021.89
GHG emissions intensity	tCO ₂ e/RMB million of revenue	4.47	5.48	5.06
Scope 1 GHG emissions	tCO ₂ e	5,439.92	7,333.63	4,320.56
Scope 2 GHG emissions	tCO ₂ e	51,219.81	45,986.80	37,701.33
Scope 3 GHG emissions	tCO ₂ e	212.85	-	-
Category 6: business travel	tCO ₂ e	191.53	-	-
Category 7: employee commuting	tCO ₂ e	21.32	-	-
Total direct energy consumption*	tce	2,766.67	4,240.63	2,147.61
Consumption of liquefied petroleum gas*	ton	21.46	757.08	18.15
Natural gas consumption	m ³	490,145.52	482,948.98	325,616.80
Gasoline consumption*	ton	441.73	845.23	598.04
Diesel consumption	ton	974.82	759.31	430.31
Total indirect energy consumption*	tce	11,766.08	9,496.91	9,078.16
Electricity consumption*	kWh	94,663,874.53	76,934,257.98	56,465,165.63
Clean electricity used*	kWh	5,136.00	5,768.00	7,543.00
Heat consumption	GJ	3,847.00	1,222.00	-

※ Notes:

1. CMET's operational boundary of GHG emissions includes direct emissions (Scope 1) and indirect emissions (Scope 2 and Scope 3).

2. Direct emissions (Scope 1) primarily are from gasoline, diesel, and natural gas. The CO₂ emission factors are mainly referenced from *the 2006 IPCC Guidelines for National Greenhouse Gas Inventories*. In 2024, CMCR was included in the consolidated emission accounting. Through improvements in the energy-saving and emission reduction system, we take emission reduction measures such as promoting greener official vehicles and converting petroleum gas to electricity to reduce the consumption of gasoline and liquefied petroleum gas. Upon verification, Scope 1 direct carbon emissions have decreased.

3. Indirect emissions (Scope 2) mainly result from purchased electricity and heat. The CO₂ emission factors are primarily referenced from *the Announcement on the Release of Carbon Dioxide Emission Factors for Electricity in 2022 (Ministry of Ecology and Environment)* and *the Guidelines for Accounting and Reporting Greenhouse Gas Emissions China Public Building Operation Units (Enterprises) (Trial)*. In 2024, CMCR was incorporated into the consolidated calculation. After emission reduction measures, such as converting petroleum gas to electricity, electricity consumption has increased, leading to a rise in indirect emissions (Scope 2).

4. Scope 3 was newly included in our 2024's inventory, covering employee business travel and commuting within the CMET headquarters. The CO₂ emission factors are primarily referenced from *the China Product Life Cycle Greenhouse Gas Emission Coefficient Database (2022)*.

5. In 2024, the total direct and indirect energy consumption was calculated by using standard coal conversion factors from the *General Rules for Calculation of the Comprehensive Energy Consumption (GB/T 2589-2020)*.

Environmental opportunities

Indicators	Unit	2024	2023	2022
Green investment*	RMB million	16.70	0.20	-
Green deposit	RMB million	30.00	-	-
Research and development investment in green business related technologies*	RMB	140,700	18,867,600	-
Green business revenue*	RMB million	85.45	70.88	-
Number of patents related to green business*	/	146	88	-

※ Note: We refined data collection methodologies in 2024. Green investments refer to investments made in green industry projects through various financial instruments, while green business refers to clean energy innovation and environmental protection-related businesses.

Waste management

Indicators	Unit	2024	2023	2022
Emissions of nitrogen oxides (NOX)	ton	0.90	3.15	2.69
Sulfur oxide (SOX) emissions	ton	0.10	0.11	0.06
Total household waste discharged*	ton	664.20	2.51	-
Total kitchen waste discharged*	ton	253.07	1.15	-
Total recyclable waste discharged*	ton	31.60	1.32	-

※ Note: In 2024, we enhanced our energy-saving and emission reduction system, strengthened solid waste performance indicator management, and improved data quality. As a result, there may be significant fluctuations in data compared to previous years. Please refer to the latest disclosed data for accurate reference.

Water resources utilization

Indicators	Unit	2024	2023	2022
Total water withdrawal *	ton	1,008,784.43	915,216.54	909,372.28
Total water withdrawal intensity	ton/RMB million of revenue	79.36	-	-
Total water discharged	ton	759,031.26	-	-
Total water consumption	ton	249,753.18	-	-

※ Note: In 2024, CMCR was incorporated into the consolidated calculation of CMET. Additionally, the annual water consumption data increased due to the requirement to provide free water for large trucks in compliance with local service area regulations for new business operations.

Social

Employment management

Indicators		Unit	2024	2023	2022
Number of employees		/	6,445	6,641	6,540
Total number of full-time employees		/	6,445	6,641	6,540
Number of new hires		/	327	565	671
Percentage of vacant positions filled by internal candidates (internal employment)		%	0	-	-
CEO-to-employee pay ratio*		/	8.65	-	-
Number of full-time employees by rank	senior management	/	14	-	-
	middle management	/	208	-	-
	Junior management	/	50	-	-
	employees	/	4,500	-	-
Number of full-time employees by ethnicity	Han Chinese	/	6,162	6,183	-
	ethnic minorities	/	283	458	-
Number of full-time employees by gender	female	/	2,344	2,483	2,472
	male	/	4,101	4,158	4,068
Number of full-time employees by age	30 and below	/	1,269	1,559	1,678
	30-50	/	4,457	4,416	4,243
	51 and above	/	719	666	619
Number of full-time employees by educational background	Master's degree or above	/	980	960	872
	Bachelor's degree	/	2,611	2,611	2,465
	Junior college and below	/	2,854	3,070	3,203
Number of leavers		/	527	676	760
Total employee turnover rate		%	8.18	-	-
Employee voluntary turnover rate		%	7.31	-	-
Number of departing employees by gender-female		/	155	202	-

※ Notes: CEO-to-employee pay ratio = CEO compensation / the mean or median employee (except the CEO) compensation; the compensation here includes only salaries, bonuses, allowances and subsidies.

Indicators	Unit	2024	2023	2022
Number of departing employees by gender-male	/	247	347	-
Number of departing employees by age-30 and below	/	156	226	-
Number of departing employees by age-30-50	/	202	226	-
Number of departing employees by age-51 and above	/	44	97	-
Number of departing employees by educational background-master's degree or above	/	61	70	-
Number of departing employees by educational background-Bachelor's degree	/	183	210	-
Number of departing employees by educational background-Junior college and below	/	158	269	-
Labor contract signing rate	%	100	100	100
Social insurance coverage rate	%	100	-	-
Human capital return on investment	%	207	-	-

※ Note: Human capital return on investment = (Total Revenue-(Total Operating Expenses-Total employee-related expenses)) / Total employee-related expenses, of which total revenue and total operating expenses are consistent with the consolidated financial statements, and total employee-related expenses include salaries, bonuses and subsidies, social insurance, and training and education expenses, etc. In 2024, the total operating costs amounted to RMB 11,117.5304 million, and total employee-related expenses amounted to RMB 1,489.1885 million.

Occupational health and safety

Indicators	Unit	2024	2023	2022
Investment in workplace safety	RMB million	51.6718	-	-
Proportion of work safety investment in operating revenue	%	0.41	-	-
Number of work-related injuries*	/	11	9	-
Days lost due to work injury	day	310	404	139
Work-related fatalities	/	0	0	0
Lost Workday Rate (LWD)*	/	4.56	6.08	2.09
Employee participants in various health and safety training programs	/	53,759	52,611	20,020

※ Notes:

1. In 2024, with CMCR incorporated into the consolidated calculation, the data reporting scope has been expanded.

2. Lost Workday Rate (LWD) = (Total Lost Workdays * 200,000) / Total Working Hours during the Reporting Period. Simultaneously, the Lost Time Injury Frequency Rate (LTIFR) was calculated using the formula: (Number of Lost Time Injuries) / (Total Working Hours during the Reporting Period) * 1,000,000. After rounding, the result is 0.

Training and development

Indicators	Unit	2024	2023	2022
Total investment in employee training	RMB million	4.0871	4.3989	0.7452
Investment in development and training per employee	RMB	600	700	-
Training hours in total	hour	376,246.70	278,722.77	202,117
Training hours per employee	hour	58.38	41.97	30.90
Employee training hours by gender-female	hour	164,826.22	104,211.51	-
Employee training hours by gender-male	hour	211,420.48	174,511.26	-
Employee training hours by rank-senior management	hour	1,606.00	335.76	-
Employee training hours by rank-middle management	hour	31,160.71	2,602.14	-
Employee training hours by rank-non-management employees	hour	343,479.99	275,784.87	-
Participants in employee training*	/	6,707	6,539	-
Percentage of employees trained*	%	100	-	-
Average employee employment costs *	RMB	800	-	-

※ Notes:

1.The number of employees trained includes outsourced personnel, while the coverage rate of training for CMET's employees (excluding outsourced personnel) is 100%.

2.In 2024, we calculated employee employment costs for the first time, with the current scope excluding CMCT. Employee hiring costs are the costs incurred during the year for recruiting and hiring new employees, excluding compensation paid to new employees.

Community relations

Indicators	Unit	2024	2023	2022
Charity donations and investment in rural vitalization*	RMB million	11.00	14.00	14.10
Employees engaged in volunteer activities	participant	6,477	2,870	1,306
Employee volunteer service hours	hour	19,904.00	10,869.00	23,057.50
Number of beneficiaries of charity activities	participant	About 260,000	49,315	23,500

※ Notes:

1. The fund includes RMB 11 million of donations through the China Merchants Foundation.

2. Beneficiaries of charity activities include approximately 140,000 students and teachers under the "C Green" charity brand, around 100,000 drivers and passengers under the activity of "Warm Journey to Pay Tribute to Truck Drivers", and approximately 20,000 people benefiting from CMCT's charitable activities.

Governance

Development of Shareholder's Meeting, the Board of Directors, and the Board of Supervisors

Indicators	Unit	2024	2023	2022
Number of Directors	/	11	12	12
By gender-male	/	10	11	10
By gender-female	/	1	1	2
Number of Executive Directors	/	1	1	1
Number of Independent Directors	/	4	4	4
Number of Supervisory Board Members	/	3	3	3
Number of employee supervisors	/	1	1	1
Number of Shareholders' Meetings	time	4	6	5
Board meetings	time	12	14	13
Meetings of the Board of Supervisors	time	6	4	11
Meetings of the Specialized Committees	time	14	19	12
Meetings of the Strategy and Sustainability Committee	time	1	1	-
Meetings of the Nomination Committee	time	3	4	6
Meetings of Audit Committee	time	7	6	2
Meetings of the Compensation and Assessment Committee	time	3	3	2
Independent director work meetings	time	4	4	2
Number of proposals reviewed by the Board	/	37	65	56
Number of proposals reviewed by the Shareholder's Meeting, the Board of Directors, and the Board of Supervisors	/	115	148	133

Anti-commercial bribery and anti-corruption

Indicators	Unit	2024	2023	2022
Proportion of directors trained in anti-commercial bribery and anti-corruption	%	100	-	-
Proportion of senior management trained in anti-commercial bribery and anti-corruption	%	100	-	-
Proportion of middle management trained in anti-commercial bribery and anti-corruption	%	100	-	-
Proportion of employees trained in anti-commercial bribery and anti-corruption	%	100	-	-
Incidents of commercial bribery and corruption	/	0	-	-
Economic losses caused by disputes over business ethics	RMB	0	0	0
Major illegal incidents or regulatory violations	/	0	0	0

※ Note: In 2024, we updated the anti-commercial bribery and anti-corruption training indicators by referencing the Self-Regulatory Guidelines No. 17 for Companies Listed on Shenzhen Stock Exchange—Sustainability Report (For Trial Implementation) and independent third-party ratings at home and abroad. The data presented here applies to the CMET headquarters, and historical indicators are not repeatedly disclosed.

Risk management and internal control

Indicators	Unit	2024	2023	2022
Coverage of risk management system	/	46	67	40
Number of audit projects carried out	/	7	12	13
Legal review rate of business contracts	%	100	100	100
Legal review rate for major business decisions	%	100	100	100

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Self-Regulatory Guidelines No. 17 for Companies Listed on Shenzhen Stock Exchange—Sustainability Report (For Trial Implementation)

Topic	Chapter
Climate response	Climate Change Response
Pollutant discharge	Green Development
Waste disposal	Green Development
Ecosystem and biodiversity protection	Green Development
Environmental compliance management	Green Development
Energy utilization	Green Development
Water resources utilization	Green Development
Circular economy	Green Development
Rural revitalization	Social Contribution
Social contributions	Social Contribution
Innovation	Expressway Experience and Services
Ethics of science and technology	Expressway Experience and Services
Supply chain security	Social Contribution
Equal treatment of SMEs	Social Contribution
Product and service safety and quality	Expressway Experience and Services
Data security and customer privacy	Expressway Experience and Services
Employees	Social Contribution
Due diligence	Topic Materiality Assessment Risk Management and Internal Control
Stakeholder engagement	Topic Materiality Assessment
Anti-commercial bribery and anti-corruption	Business Ethics
Fair competition	Business Ethics
Topics of self-disclosure	Expressway Experience and Services

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Feedback

Dear Stakeholders,

Thank you very much for reading the 2024 Sustainability Report of China Merchants Expressway Networks & Technology Holdings Co., Ltd. To leverage this report as a better tool for communicating with all stakeholders, we sincerely look forward to your valuable comments and suggestions on this report and our ESG work.



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