中國建築國際集團有限公司
CHINA STATE CONSTRUCTION INTERNATIONAL HOLDINGS LIMITED
(Incorporated in the Cayman Islands with limited liability)
Stock Code : 03311

Leaping towards a Sustainable Future

2024 Sustainability Report

Building Happiness and Leading the Trend

Tide, born from the ocean, and leads the **ocean** forward

With the guidance of China Overseas' Leading Culture, we go together with "one country, two systems" policy and resonate with the "reform and opening-up" of China

Hong Kong-rooted, China-based. Global-oriented, Keep going beyond, Lead the trend, Stand at the forefront

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About the Group

BUSINESS OVERVIEW

Founded in 1979 and headquartered in Hong Kong, China State Construction International Holdings Limited ("CSCI") is a member of China State Construction Engineering Corporation and is responsible for the construction and related businesses of China Overseas Holdings Limited ("COHL"). Since its listing on the Main Board of The Stock Exchange of Hong Kong Limited (the "SEHK") in 2005 (Stock Code: 3311), CSCI together with its subsidiaries (collectively, the "Group") has consolidated its industry-leading position in the construction industry, infrastructure investment, infrastructure asset operation, façade systems and other construction-related businesses.

The Group has continued to strengthen its internal integration of resources and business synergies in order to establish a business model of "technology + investment + construction + asset operation" to provide professional services for urban construction. While pursuing business growth, the Group has made continuous efforts in recent years to integrate the concepts of low carbon, talent development, good governance and social contribution into its business and operations, which have yielded fruitful results and received support and recognition from various parties.

Over the years, the Group has carried out significant projects in Hong Kong and Macau, invested in and managed infrastructures in Chinese Mainland, and grown its façade business through another listed company, China State Construction Development Holdings Limited ("CSC Development"). Now, the Group operates in over 80 cities across 22 provinces, effectively forming a national network. It has completed more than 1,500 projects in Hong Kong, Macau, Chinese Mainland, and abroad.

The Group operates in

22 provinces over 80 cities

Constructed

over 1,500 projects

Building a Diverse and Sustainable Business Ecosystem

In response to market environment changes and high-quality development requirements, CSCI has established a company system covering diverse fields including infrastructure investment, construction engineering, modular construction, façade technology, and asset management. This platform-based business model further enhances the Group's professional expertise, intensive operations, and comprehensive service capabilities, achieving resource integration, synergistic development, and value chain extension. Each platform company closely aligns with the Group's strategic objectives, leveraging professional advantages, deepening local market presence while expanding overseas business, forming a collabourative and diverse sustainable development pattern.

中建國際投資集團有限公司
CHINA STATE CONSTRUCTION INTERNATIONAL INVESTMENTS LIMITED
("CSCIIL")

A leading enterprise in infrastructure investment and operation in Chinese Mainland, specializing in undertaking large and medium-sized municipal projects, including infrastructure projects such as airports, highways, bridges, tunnels, and ports. Its business spans across 21 provinces and over 80 cities nationwide, having completed more than 300 projects with a total investment exceeding 500 billion Hong Kong dollars.

中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LIMITED
("CSHK")

One of Hong Kong's major construction contractors, this company engages in diverse construction businesses including housing construction, civil engineering, foundation engineering, site investigation, electrical and mechanical engineering, and concrete production. It undertakes projects of extensive scale, being responsible for 15% of Hong Kong's public housing projects and 25% of hospital projects, while also participating in water pipeline construction, supplying approximately 70% of Hong Kong's fresh water.

中國建築工程(澳門)有限公司
CHINA CONSTRUCTION ENGINEERING (MACAU) COMPANY LIMITED
("CCE Macau")

As one of the key players in Macau's construction market, focusing on major landmark buildings and infrastructure projects, the company maintains partnerships with 1/3 of local Macau construction enterprises, provides employment opportunities for 1/4 of local construction workers during peak periods, and consistently maintains its leading position in Macau's construction industry.

中國建築興業集團有限公司
CHINA STATE CONSTRUCTION DEVELOPMENT HOLDINGS LIMITED
("CSC Development")

CSC Development was established in Hong Kong in 1969 and listed on the Hong Kong Stock Exchange in 2010 (stock code: 00830). Its core brand "Far East Façade" is Hong Kong's longest-established professional façade company, operating across 5 continents, 13 countries and regions, and more than 100 cities, with a track record of over 1,000 completed façade projects. The Zhuhai Smart Manufacturing Production Base has an annual production capacity of 600,000 square meters of complex façade or 1.2 million square meters of standard façade, providing stable manufacturing support for global projects.

In 2024, the Group established Far East Photovoltaic Technology (Guang Dong) Company, focusing on the research, development, and business expansion of Building Integrated Photovoltaic (BIPV) products. Additionally, its "China Overseas Supervision" brand holds the highest supervision qualification, having undertaken over 1,000 projects, demonstrating professional supervisory capabilities. Shenyang Huanggu Thermoelectricity, as a cogeneration enterprise integrating environmental protection and energy-efficient focusing on heat and power generation, continues to provide efficient and sustainable solutions for urban energy supply.

中建海龍科技有限公司
CHINA STATE CONSTRUCTION HAILONG TECHNOLOGY COMPANY LIMITED
("CSC Hailong")

The company focuses on Modular integrated Construction (MiC) technology, dedicated to developing and implementing innovative construction solutions. Its business encompasses the design, manufacturing, and installation of MiC modules, while actively promoting environmentally friendly construction products. It has cumulatively constructed 79 MiC projects across 19 cities in 11 provinces nationwide, encompassing various types including residential buildings, affordable housing, dormitories, hotels, schools, hospitals, and reconstruction of old residential districts, covering a total construction area of 5.09 million square meters. This provides efficient, safe, and sustainable construction solutions for the construction industry.

中海建築有限公司
CHINA OVERSEAS CONSTRUCTION COMPANY LIMITED
("China Overseas Construction")

Primarily engaged in construction engineering design and implementation, the company covers diverse sectors including residential, commercial, public facilities, and infrastructure. Leveraging its professional technical team and extensive project experience, the company is committed to providing high-quality, cost-effective, and sustainable construction solutions for clients.

中建國際資產管理有限公司
CHINA STATE CONSTRUCTION INTERNATIONAL ASSET MANAGEMENT LIMITED
("CSIAM")

Specializing in the Group's asset operation and management, this company oversees more than 400 kilometers of toll roads and bridges, around 380 kilometers of municipal roads, around 1.45 million square meters of industrial parks, and over 1.75 million square meters of urban public construction projects. The company actively explores innovative asset revitalization models, focusing on enhancing cash flow management and asset value, providing strong support for the Group's strategic transformation.

BUSINESS PERFORMANCE

Leveraging years of extensive development experience in the Guangdong-Hong Kong-Macau region, the Group actively promotes business expansion into broader markets, continuously optimizes its business structure, enhances project quality, and ensures steady growth in performance.

While expanding its business operations, the Group upholds the philosophy of "Quality Assurance, Value Creation" and actively promotes technological innovation by adopting advanced technologies and smart construction solutions, committed to creating high-quality, iconic engineering projects. With the mission of "We manage happiness," the Group adheres to its corporate spirit of "Integrity, Innovation, Transcendence, and Win-win," continuously enhancing its competitive advantages.

Sustained Growth and Outstanding Performance

In response to the trends of green transformation and technological construction, CSCI actively expands its business in industrialized construction, environmental infrastructure, and green building. In 2024, the Group maintained steady business development and achieved remarkable operating results, injecting new momentum into its diversified and sustainable development.

Industrial Automation Business

As a pioneer in construction industrialization, the Group continues to deepen its technological presence in Modular integrated Construction (MiC), Modular integrated Mechanical, Electrical and Plumbing (MiMEP), Building Integrated Photovoltaics (BIPV), and advanced façade systems, driving the production and application of industrial automation technologies. With increasing market demand for efficient and low-carbon building solutions, this business contributed 9% of the Group's total revenue during the year, becoming a crucial pillar for the Group's future technological upgrade and smart construction transformation.

Seawater Desalination Business

The Group participates in the construction and operation of the Tseung Kwan O Desalination Plant in Hong Kong. This project is jointly operated by a consortium comprising our Group, Acciona, and Jardine, with our 12% shareholding. In 2024, the plant was completed on schedule and commenced operations in June. During the year, the project produced 5.43 million cubic meters of fresh water, effectively supporting local drinking water supply security. The project contributed approximately HK$100 million in construction revenue and HK$700 million in operating revenue for the year, accounting for 0.15% of the Group's total revenue, establishing a solid operational foundation for the Group in water resource management.

Wastewater and Waste Treatment Business

Wastewater and Waste Treatment Business: The Group continues to strengthen its efforts in wastewater treatment and organic waste treatment engineering. In 2024, the Group's Sha Tin Sewage Treatment Works Relocation project contributed approximately HK$700 million in revenue, further consolidating the company's leading position in Hong Kong's sewage infrastructure sector. Meanwhile, the Group's Hong Kong Organic Resources Recovery Centre Phase 2 ("O·PARK2") project, which we constructed and operate, has been running steadily throughout the year, with a daily processing capacity of 300 tonnes of pre-sorted organic waste (such as food waste), promoting resource recovery and waste-to-energy conversion. This project recorded a turnover of approximately HK$900 million in 2024. Wastewater and waste treatment related businesses contributed 0.08% of the Group's total revenue during the year.

In expanding its mainland China business, the Group won the bid for the Beijing Yizhuang Sewage Treatment Plant project in 2024. With a designed sewage treatment capacity of 500,000 cubic meters per day, this project is the country's largest underground reclaimed water plant combined with above-ground cultural and sports facilities development. The project is promoted through a PPP model, with our 35.1% shareholding. This project will become an important growth engine for the Group's wastewater treatment business in mainland China.

Green Building

The Group continues to advance green building design and construction across mainland China, Hong Kong, and Macau. Most construction projects in Hong Kong follow BEAM Plus 1.2 and 2.0 standards for design and construction, demonstrating excellent environmental management capabilities and engineering quality. In 2024, two of the Group's representative green building projects in mainland China received national-level awards recognition; The Luoyang Yishui Guest House Project (Phase I), which integrates regional cultural and ecological landscape design concepts and optimizes energy-efficient environmental systems, successfully won the "National Quality Project Award", highlighting the overall effectiveness of green design and construction. The Hongkou New Industry Park Project, as an exemplary project of urban renewal and industrial upgrading, also received the "National Quality Project Award" recognition. Related businesses accounted for 35% of the Group's total revenue in 2024.

Through these representative green building practices in Hong Kong, Macau, and mainland China, the Group continues to deepen the application of green construction technologies and project quality management, demonstrating its comprehensive strengths in energy conservation, emission reduction, smart buildings, and sustainable urban development. Looking ahead, the Group will further promote green building technology upgrades, expand its green project investment portfolio, and work with all sectors of society to build a low-carbon future.

Mission

We manage happiness

Philosophy

Quality assurance, value creation

Corporate Spirit

Integrity, innovation, transcendence, "win-win"

Business Performance

A total of **121** new contracts signed with a total attributable contract value of **HK$211.26** billion

Annual turnover reached **HK$115.11** billion

Gross profit amounted to **HK$17.85** billion

Value Creation

Direct economic value generated **HK$115.11** billion

Project cost **HK$97.26** billion

Salary and welfare expenses **HK$7.39** billion

Payment to the government **HK$2.82** billion

Payment to shareholders **HK$3.10** billion

Charitable donations **HK$31.0** billion

Innovation Leadership

Patent licensing **342** items

Formulation of industry standards **16** instances

Conduct of technology-related training **19** sessions

Green Construction

Electricity[1] **259,352.0** MWh

Water consumption **10,155,236.5** m^3

Clean technology research and development[2] **HK$560** million

Employee Development

Total number of employees trained **100%**

Total training hours **307,820.84** hours

Average training hours per employee **21.15** hours

Joint Forces

Total number of suppliers **20,784**

1st tier suppliers **600**

2nd tier suppliers **2,400**

3rd tier suppliers **17,784**

For information about the Group's business strategy and financial performance, please refer to the Group's 2024 Annual Report.

1 Including 256,912.3 MWh of purchased electricity and 2,439.7 MWh of self-generated and self-consumed photovoltaic power.

2 Related technologies include industrial automation, reuse and recycling of waste, waste treatment, desalination and information technology optimisation.

Message from the Chairman

In this era of unprecedented challenges, strategic leadership becomes paramount. As global markets navigate through complex dynamics in 2024, including economic volatility, heightened geopolitical tensions, and escalating environmental concerns, the construction industry faces transformative challenges in supply chain optimization, sustainable development, and technological advancement. Against this backdrop, China's economy has demonstrated remarkable adaptability and strategic resilience, maintaining its trajectory toward sustainable growth and innovation.

At CSCI, we have adopted a visionary approach to high-quality development, aligning our corporate strategy with national development objectives. We consistently anchor our high-quality development trajectory with strategic determination, resonating with national development, and deeply practicing the new development philosophy of innovation, coordination, green development, openness, and sharing. Aligning with the strategic deployment of the "14th Five-Year Plan," we innovatively construct a four-dimensional integrated development model driven by technology leadership, investment drive, construction empowerment, and operational value enhancement, serving the nation's economic transformation and upgrade through high-quality development.

Mr. Zhang Haipeng
Chairman and Executive Director
Sustainability Committee Member

TECHNOLOGICAL INNOVATION AND SMART CONSTRUCTION

In this digital era, innovation serves as our fundamental driver while safety remains our cornerstone of development. We strategically capitalize on the transformative opportunities presented by information technology advancement, continuously elevating our digital and intelligent capabilities. Leveraging Building Information Modeling (BIM) technology, we have achieved unprecedented precision in project lifecycle management, setting new industry benchmarks in digital control standards. Committed to fostering collabourative growth, the Group actively facilitates the digital transformation of our entire value chain, cultivating an inclusive and innovative construction ecosystem that benefits all stakeholders.

GREEN TRANSFORMATION AND SUSTAINABLE DEVELOPMENT

Following the Chinese government's ambitious energy transition initiatives, the Group has strategically enhanced its portfolio in zero-carbon buildings, green building materials, and renewable energy infrastructure. This commitment has culminated in the successful development of Hong Kong's pioneering carbon-neutral construction project, directly supporting national "dual carbon goals." Furthermore, the Group actively utilizes sustainability-linked loans and green bond instruments, pioneering social responsibility lending models in Hong Kong's construction industry while promoting the development of green finance.

A landmark achievement in 2024 was securing the West New Territories Landfill Extension (WENTX) project from the Hong Kong Environmental Protection Department, representing an unprecedented contract value of HK$61.1 billion, with the Group's share at HK$42.7 billion — the largest undertaking in our corporate history. This transformative project will deliver approximately 76 million cubic meters of landfill capacity, managing roughly 10,000 tonnes of solid waste daily. Beyond addressing Hong Kong's long-term waste management requirements, it provides crucial infrastructure support for the ambitious "Northern Metropolis" development initiative. This achievement underscores our growing prominence in environmental engineering excellence and reinforces our commitment to sustainable development pathways.

Aligned with China's "dual carbon goals" directive and the construction industry's imperative for low-carbon transformation, we maintain unwavering dedication to the "carbon peak and carbon neutrality" strategy. Our comprehensive approach encompasses green building initiatives, enhanced energy efficiency measures, emissions reduction programs, and expanded renewable energy applications, collectively shaping a sustainable future for the construction sector. The O·PARK2 Organic Resources Recovery Centre stands as a testament to our environmental leadership, achieving the distinction of being the nation's first environmental project to maintain carbon neutrality throughout its construction phase. This milestone showcases our technical prowess and environmental stewardship. Furthermore, we continue to spearhead carbon-neutral construction initiatives and advance carbon reduction technologies, demonstrating our commitment to elevating industry-wide environmental standards.

DRIVING ECONOMIC GROWTH THROUGH URBAN DEVELOPMENT

In alignment with national economic policies promoting domestic consumption and urban advancement, the Group has established a significant presence in the Guangdong-Hong Kong-Macao Greater Bay Area development initiative. Our strategic involvement encompasses transformative urban renewal projects across key economic zones, notably in Shenzhen Qianhai and Guangzhou Nansha, where we leverage our technical expertise to advance modern urbanization goals. Concurrent with these initiatives, we maintain our commitment to social responsibility through expanded investment in affordable housing development, embodying the principle of "people-centric urban development."

The Group's unwavering dedication to sustainable practices continues to garner international recognition. Our 2024 achievements include an eighth consecutive inclusion in the prestigious "FTSE4Good Index" and an industry-leading AA rating in ESG assessments by CCXI Green Finance and Wind. These achievements not only reflect our steadfast commitment to sustainability principles but also propel our progression toward global industry leadership.

Embracing the momentum of progress while acknowledging the magnitude of our responsibilities, we maintain our forward trajectory with determined resolve. The launch of our second sustainability roadmap in 2024 marks a significant advancement in our environmental stewardship, building upon previous successes to establish more ambitious carbon reduction and sustainability objectives. Moving forward, we remain dedicated to our foundational principles while enhancing corporate governance structures, strengthening transparency mechanisms, and harmonizing with international standards, ultimately contributing innovative Chinese solutions to global sustainability challenges.

Sustainability Roadmap

In an era of unprecedented global environmental challenges, sustainable development has emerged as a paramount imperative for the international community. The paradigm shift towards "low-carbon, green development" has transcended individual behavioural changes to become deeply embedded in corporate governance frameworks. China's strategic policy initiatives, including the landmark "Dual Carbon Goals" and "14th Five-Year Plan," establish ambitious targets of achieving peak carbon emissions by 2030 and carbon neutrality by 2060, providing a comprehensive framework for industrial transformation.

This transformative landscape has catalyzed profound changes within the construction sector, driven by both regulatory frameworks and evolving market dynamics. Industry participants are compelled to pioneer technological innovations and enhance operational paradigms to meet increasingly rigorous environmental standards and heightened stakeholder expectations for sustainability excellence. Furthermore, the accelerated integration of digital and intelligent technologies is fundamentally reshaping industry operations, heralding a new era of construction methodologies and practices.

EVOLUTION AND ENHANCEMENT OF OUR SUSTAINABILITY FRAMEWORK

Demonstrating industry leadership in sustainable practices, the Group initiated comprehensive sustainability framework development in 2019, meticulously balancing environmental stewardship, social accountability, and corporate governance excellence to establish new industry benchmarks.

The Group's journey began with the 2020 launch of our foundational sustainability framework, centred on "Safeguarding the Environment". This framework evolved into a comprehensive roadmap by 2021, encompassing 30 strategic targets with detailed implementation protocols. Notable achievements during 2022–2023 included surpassing our carbon intensity reduction targets — achieving a 25% reduction from 2018 levels ahead of our 2025 deadline — and strengthening our governance infrastructure. These early successes catalyzed the development of an enhanced framework in 2023, focusing on more ambitious and integrated sustainability objectives.

Through rigorous consultation with industry experts during October-November 2023, we conducted extensive market analysis and benchmarking studies, identifying crucial gaps between global standards, industry trajectories, and our existing commitments. This analytical phase culminated in a collabourative effort across our organizational ecosystem, involving platform companies and key operational units, such as finance, technology, information, human resources, legal, marketing and operation, in comprehensive feasibility assessments and risk evaluations. The new Sustainability Roadmap includes a carbon peak target for 2030 and brings forward the carbon neutrality target from 2060 to 2050, supported by a series of planned initiatives to achieve these new objectives.

The sustainability framework, receiving formal endorsement from both the Sustainability Committee and Board of Directors in 2024, establishes a robust foundation for advancing our environmental, social, and governance initiatives while providing a strategic roadmap for addressing future sustainability challenges.

ENVIRONMENTAL

- Conserving Resources
- Reducing Pollution
- Carbon Neutral
- Eco-friendly
- Innovation Opportunities

SOCIAL

- Labour Rights & Benefits
- Talent Cultivation
- Health & Safety
- Product Responsibility
- Community Development

GOVERNANCE

- Business Ethics & Compliance
- Efficient Supervision
- Management of Supply Chain
- Securing Information
- Maintaining Transparency

STRATEGIC TRANSFORMATION AND KEY ADJUSTMENTS

This enhancement further emphasizes the Group's overarching strategy of "Technology Empowerment," formally incorporating "Strategic Development" into the core framework as the guiding principle for the Group's sustainable development. Under the new roadmap framework, the four core domains include: "Safeguarding the Environment", "Building a Sustainable Supply Chain", "Nurturing and Supporting Talent", and "Serving the Community". Additionally, the Group has elevated "Transition to Carbon Neutrality" from its original position under "Safeguarding the Environment" to "Driving Strategic and Innovated Development", highlighting its status as a core corporate strategy. This adjustment also aligns with the Group's integrated carbon strategy comprising "Carbon Emissions Management", "Low-Carbon Technology", and "Carbon Finance". This revision adds "Best Governance Practices" as one of the new strategic development objectives, expanding the sustainability roadmap's guidance effectiveness at the corporate governance level.

PROGRESS TOWARDS OBJECTIVES AND ANNUAL TARGETS

The Group has established key targets for 2025, monitoring progress and achievements through quarterly and annual reports. All target years are based on fiscal year-end dates. Unless otherwise specified, the data used in this report is current as of fiscal year 2024 (December 31, 2024).

Strategic Development

- 2025 targets achieved ahead of schedule
- Meeting interim targets while maintaining performance to achieve long-term objectives
- Interim targets have not been achieved; currently conducting comprehensive review of existing practices

Technological Innovation

2025 Targets	2024 Progress
Technology investment reaches HK$600 million by 2025, with clean technology constituting 75% least[3]	In 2024, R&D expenditure amounted to HK$747 million, with clean technology investment expenses of HK$560 million, accounting for 75%
R&D and application projects for innovative technologies — 20 projects per year from 2022 onwards	Target achieved
Number of published patents, methods, and papers grows annually	Target achieved
100% of technology-related employees trained with innovative concepts or tools[3]	Target achieved
Apply the Modular Integrated Construction (MiC) in 10 projects each year	Target achieved

[3] Training in innovative concepts or tools includes, but is not limited to: (1) Training related to innovative construction techniques, such as MiC, BIM, DfMA, BIPV; (2) Business-related innovative tools training, including C-SMART, C-SYS+, information management systems; (3) Training related to innovative technologies, such as carbon capture.

Strategic Development

- 2025 targets achieved ahead of schedule
- Meeting interim targets while maintaining performance to achieve long-term objectives
- Interim targets have not been achieved; currently conducting comprehensive review of existing practices

Transition to Carbon Neutrality

2025 Targets	2024 Progress
Reduce scope 1 and 2 carbon intensity to 7.63 tonnes CO_2e-/million HKD, representing a 59% reduction from 2018	In 2024, Scope 1 and 2 carbon intensity reached 8.36 tonnes CO_2e/million HKD, alongside green electricity consumption totaling 2,439.7 MWh
Achieve Scope 1 and 2 carbon peak and reduce carbon intensity to 5.48 tonnes CO_2e/million HKD by 2030, representing a minimum 40% reduction from 2022	
Achieve carbon neutrality by 2050	
Provide low carbon training to all relevant staff annually	90.10% of relevant staff have completed low-carbon training
Provide low carbon training to all relevant new staff	96.38% of relevant new staff have completed low-carbon training
The targets for adopting low-carbon environmentally friendly generators in 2025 and 2026 are 85% and 90% respectively	In 2024, the adoption rate of low-carbon environmentally friendly generators (Euro III NRMM green label) was approximately 78%

Strategic Development

- 2025 targets achieved ahead of schedule
- Meeting interim targets while maintaining performance to achieve long-term objectives
- Interim targets have not been achieved; currently conducting comprehensive review of existing practices

Best Governance Practices

2025 Targets	2024 Progress
30% of Board members to be women by 2030	The Board appointed a female director in 2022
Executive remuneration is directly tied to sustainability performance	2025 targets achieved ahead of schedule in 2024 Executive remuneration has been linked to sustainability performance, with details available on page 37, 95 and 140 of this report
1 ESG demonstration project per year	The company's independently developed "Carbon Neutral Cloud Platform" has been implemented across all projects in Hong Kong and Macau, with details available on page 80 of this report
Complete a Code of Business Ethics by 2024	2025 targets achieved ahead of schedule in 2024
All employees (including part-time and contractual) and contractors receive anticorruption and business ethics training[4]	Training completed in 2024
All employees (including part-time) and contractors receive information security training[5]	In 2024, information security training was provided for all employees (including part-time staff) and major contractors
0 significant data security incidents each year	No major information security incidents occurred during 2024

[4] Training includes: face-to-face sessions, written materials, and video instruction

[5] The definition of training is the same as above.

Safeguarding the Environment

- 2025 targets achieved ahead of schedule
- Meeting interim targets while maintaining performance to achieve long-term objectives
- Interim targets have not been achieved; currently conducting comprehensive review of existing practices

Green Operation

2025 Targets	2024 Progress
Reduce the hazardous waste intensity (generation/turnover)	In 2024, hazardous waste intensity was 0.005 tonnes/million HKD
Increase the recycling rate of non-hazardous waste	In 2024, non-hazardous waste recycling rate reached 61.5%
Reduce water consumption intensity (water consumption/turnover)	In 2024, water consumption intensity was 88.2 cubic meters/million HKD
Reduce energy intensity (energy consumption/turnover)	The energy intensity in 2024 was 9.1 MWh/million HKD
Reduce the landfill and incineration waste intensity (disposal/turnover)[6]	In 2024, landfill or incineration waste intensity was 47.1 tonnes/million HKD
Conduct biodiversity risk assessments for all sites in 2024	Biodiversity risk assessments were conducted at all sites during the year

[6] Calculation method: Total non-hazardous waste minus total recycled non-hazardous waste.

Building a Sustainable Supply Chain

- 2025 targets achieved ahead of schedule
- Meeting interim targets while maintaining performance to achieve long-term objectives
- Interim targets have not been achieved; currently conducting comprehensive review of existing practices

Supply Chain Management

2025 Targets	2024 Progress
Each business division organises 2 training sessions for relevant staff per year	Target Achieved
Each business division organises an annual training or seminar for suppliers and subcontractors to communicate the Group's sustainability requirements	Target Achieved

Sustainable Materials

2025 Targets	2024 Progress
All timber purchased by CSHK should be with FSC/PEFC certification	Target Achieved
Enhance the use of green and low-carbon building materials and equipment	Target Achieved

Nurturing and Supporting Talent

- 2025 targets achieved ahead of schedule
- Meeting interim targets while maintaining performance to achieve long-term objectives
- Interim targets have not been achieved; currently conducting comprehensive review of existing practices

Talent Acquisition and Retention

2025 Targets	2024 Progress
All monthly paid employees undergo personal performance review[7]	100% of monthly-salaried employees received individual performance evaluations
Employee turnover rate below 25%	The target was met by the monthly paid employees
Conduct an anonymous employee satisfaction survey annually	Anonymous employee satisfaction surveys were conducted at 4 subsidiaries during the year
Conduct an anonymous employee engagement survey annually	Continuously increasing the number of subsidiaries participating in employee engagement surveys

Staff Training

2025 Targets	2024 Progress
All monthly paid employees are trained	100% of the monthly paid emplyees were trained
Average training hours of monthly paid employees achieves 15 hours	Average training hours reached 21.15 hours

Occupational Safety

2025 Targets	2024 Progress
Occupational injury rate below 6.0 per 1,000 persons[8]	The overall occupational injury rate per thousand employees for Group employees and other workers was 3.58 (2023: 3.7), significantly lower than the Hong Kong construction industry level (2023: 27.6)[9]
Annual safety and health training covers all employees (including part-time employees) and Tier 1 contractors	64.55% of monthly-paid and 100% of other full-time employees completed safety and health-related training
Maintain 100% of companies' ISO 45001 certification	100% of companies has obtained ISO 45001 certification
Lost Time Injury Rate (LTIR) — less than 1.2% per 200,000 hours	LTIR is 0.33

7 The personal performance review includes entry-to-job assessment, and annual personal performance evaluation.

8 The target covers all employees (including full time, part time and contractual).

9 Source: https://www.labour.gov.hk/common/osh/pdf/Bulletin2023_issue24_tc.pdf

Serving the Community

- 2025 targets achieved ahead of schedule
- Meeting interim targets while maintaining performance to achieve long-term objectives
- Interim targets have not been achieved; currently conducting comprehensive review of existing practices

Community Investment

2025 Targets	2024 Progress
Organise/co-organise/participate in community projects at least 80 projects per year	181 projects organised
Community investment amount increases by 15% compared to 2020	In 2024, the Group's total donations for charitable projects amounted to approximately HKD3.098 million (2020 Donations was approximately HKD50,000)

Employment Opportunities for Disadvantaged Groups and Young People

2025 Targets	2024 Progress
Annually provide funding for 30 low-income youth apprentices for further education	CSHK provided educational funding for 11 youth apprentices in 2024 (Allocated 11 quota places by the Hong Kong Vocational Training Council (VTC))

FIVE-YEAR STRATEGIC PLANNING AND KEY FOCUS AREAS

To ensure the new roadmap aligns with international standards and incorporates quantifiable performance indicators, the Group has engaged international consultants to review annual carbon data and, referencing standards such as the Science Based Targets initiative ("SBT"), developed carbon reduction models and medium to long-term scientific carbon reduction targets tailored to the Group's business characteristics. Furthermore, the Group actively responds to the Taskforce on Nature-related Financial Disclosures initiative by launching multiple forward-looking assessments and action plans, including:

- Completing biodiversity risk assessments for all sites to identify protected species and ecologically sensitive areas, serving as a basis for adjusting design and construction plans;
- Developing disclosure plans under the Taskforce on Nature-related Financial Disclosures (TNFD) framework to enhance corporate resilience to nature-related risks.

To further address the rapid transformation in the construction industry and society's expectations for sustainable development, the Group has begun planning its second five-year sustainability strategy, including but not limited to the key areas below:

Green Construction Technology

Continuously developing and promoting innovative construction technologies to improve construction efficiency while reducing environmental impact.

Digital Management

Strengthening smart construction and engineering information technology applications to enhance productivity and safety standards, while monitoring and reducing product carbon footprint.

Supply Chain Management

Deepening green procurement policies, promoting sustainable supply chain development, and ensuring environmental compliance across the entire value chain.

Community Engagement and Employee Development

Strengthening talent cultivation and employee care, advancing community interaction and social contribution to promote harmony and inclusion.

Sustainability Governance

CORPORATE GOVERNANCE OVERVIEW

CSCI has always regarded corporate governance as a core element of sustainable development, committed to establishing an efficient, transparent, and responsible governance structure to ensure the robustness and compliance of business operations. The Group's governance system encompasses the Board of Directors, management, and various professional committees, and through clear division of responsibilities and collabourative mechanisms, drives the implementation of corporate strategy and achievement of sustainable development goals.

The Group's governance structure is centred around the Board of Directors, led by the Board Chairman, with multiple professional committees established to support decision-making and supervisory functions. The specific structure is as follows:

The Board

The Board is the Group's highest decision-making body, responsible for formulating overall strategic direction, supervising management's execution, and ensuring corporate operations comply with laws, regulations, and stakeholder interests. The Board has established multiple committees, including the Audit Committee, Remuneration Committee, Nomination Committee, and Sustainability Committee, to focus on governance work in specific areas.

The President's Working Group

The President's Working Team, led by the Group President, is responsible for managing and executing daily business operations. The President's Working Team convenes regularly to review major matters and coordinate operations across business units, ensuring effective implementation of the Group's strategy.

Regional and Business Research Team

The Group has established multiple Regional and Business Research Team, including CSHK Research Team, CCE Macau Research Team, CSCIIL Research Team, CSC Development Research Team, the Fifth Platform Research Team, and CSIAM Research Team. These research teams are responsible for regional market research and analysis, providing support for the Group's strategic decision-making.

Integrated Management System

The Group has established a comprehensive integrated management system, covering various aspects including operational budgeting and financial control, resource allocation, marketing, technological innovation, strategic management, brand management, major special projects, safety and environmental protection, and sustainable development management. These systems ensure efficient coordination and risk control in the Group's business operations.

Board Diversity

The Group places high importance on Board diversity, believing that a diverse board structure brings broader perspectives and expertise, thereby enhancing decision-making quality and corporate governance standards. To this end, the Group has formulated clear plans to recruit new Board members and established clear professional requirement guidelines, ensuring diversity in skills, experience, gender, and background among Board members, with particular emphasis on incorporating sustainability-related expertise.

Recruitment of New Board Members

The Group is actively recruiting new Board members with professional expertise in sustainability, environmental protection, social responsibility, and corporate governance. These new members will bring cutting-edge sustainability concepts and practical experience to the Board, further enhancing the Group's strategic formulation and execution capabilities in sustainable development.

1

Professional Requirement Guidelines

The Group has established clear professional requirement guidelines to ensure new Board members possess diverse professional backgrounds and skills. These guidelines particularly emphasize the importance of sustainability knowledge and require candidates to have extensive experience or professional qualifications in sustainable development.

2

Promoting Diversity and Inclusiveness

The Group is committed to promoting diversity in gender, age, cultural background, and professional fields within the Board, and through regular assessments and training, ensures Board members can fully understand and drive the Group's sustainability goals.

3

The current Board members possess diverse professional backgrounds and rich industry experience, covering multiple fields including construction engineering, financial investment, corporate governance, and sustainable development. Below is an overview of the current Board members' key backgrounds:

Construction Engineering and Project Management	Some Board members possess extensive construction engineering backgrounds, having played key roles in major infrastructure projects, with rich project management experience and technical knowledge.
Finance and Investment	Multiple Board members possess outstanding professional capabilities in finance and investment, having led major investment decisions and driven corporate capital operations and financial management.
Corporate Governance	Some members have corporate governance professional backgrounds, enabling them to provide compliance advice and ensure business operations meet international and local regulations.
Sustainable Development and Environmental Protection	The Group's Board also includes members focused on sustainable development and environmental protection, with rich practical experience, providing professional guidance for the Group's green development strategy.
International Markets and Business Development	Some Board members possess extensive international market experience, having led business development across multiple countries and regions, providing support for the Group's globalization strategy.

The Group arranges various professional training programs for directors covering compliance, risk management, and sustainability topics. In 2024, directors completed nearly 170 hours of training in total, demonstrating the company's strong emphasis on good corporate governance and directors' continuous professional development. Training takes diverse forms, including online seminars, reading materials, and other supplementary learning methods. For instance, the Group hosted an online seminar in February on "Sustainable Development Market Trends and Sustainable Finance," helping directors understand market sustainability trends and financial regulatory directions. The Group also arranges for directors to review the latest regulatory and practical information provided by various authoritative institutions (including Hong Kong Exchange, Securities and Futures Commission, Hong Kong Institute of Corporate Governance, and Hong Kong Institute of Directors), with reading materials covering various topics such as the new treasury shares mechanism, climate-related disclosures in sustainability reports, 2023 Hong Kong listed companies compliance observations, SFC warnings on virtual asset fraud risks, and the roles and responsibilities of corporate leadership in responsible AI governance.

To ensure the Board effectively fulfills its duties and complies with Hong Kong laws and Hong Kong Listing Rules requirements, the Group has planned to continue providing systematic training for Board members in 2025. Training content covers areas including the roles and functions of the Board and its committees, directors' responsibilities and conduct, corporate governance practices, sustainability, and risk management and internal control mechanisms. Additionally, the training covers Hong Kong's latest legal and regulatory developments, particularly updates to the Listing Rules, sustainability and climate-related risks and opportunities, as well as industry trends and company strategic development, helping directors stay current with compliance requirements and market dynamics.

Through regular and on-demand seminars and workshops, directors can continuously enhance their professional capabilities, further improve the Board's overall effectiveness, and ensure the Group maintains good corporate governance standards while promoting stable business development in a rapidly changing business environment.

SUSTAINABILITY GOVERNANCE STRUCTURE

CSCI regards sustainable development as a core element of long-term corporate success, and is committed to establishing an efficient, transparent, and responsible governance structure to ensure operational robustness and compliance. The Group's sustainability governance system encompasses multiple aspects including strategy formulation, target setting, performance monitoring, and report disclosure, and through clear division of responsibilities and collabouration mechanisms, drives the implementation of corporate strategy and achievement of sustainable development goals.

The Group's sustainability governance structure is centred on the Board of Directors, combining the collabouration of professional committees and management, ensuring sustainable development goals are deeply integrated with business strategy, and creating long-term value for stakeholders. Below are the key components of the Group's sustainability governance structure:

The Board

The Board is the highest decision-making body for the Group's sustainability governance, responsible for formulating sustainable development strategic directions and overseeing their implementation. The Board's main responsibilities include:

- Reviewing and approving the Group's sustainable development vision, mission, and long-term objectives;
- Ensuring alignment between sustainability strategy and the Group's overall business strategy;
- Monitoring the progress and performance of the Sustainability Committee;
- Approving major sustainability-related investments and decisions.

The Board ensures sustainability issues receive adequate discussion and attention through regular meetings and reporting mechanisms, providing strategic guidance for the Group's sustainable development.

The Sustainability Committee of the Board

The Sustainability Committee, established under the Board and chaired by the Group CEO with members including the Board Chairman and Independent Non-executive Directors, is responsible for key decisions regarding the Group's sustainability matters. Its main responsibilities include:

- Formulating and reviewing the Group's sustainability policies and action plans;
- Monitoring the implementation and performance of sustainability objectives;
- Promoting best practices in environmental protection, social responsibility, and corporate governance;
- Reviewing and approving sustainability reports, ensuring their transparency and accuracy.

The Sustainability Committee regularly reports to the Board on work progress and adjusts strategies based on internal and external changes to maintain the Group's leadership in sustainable development.

The Sustainability Executive Committee ("SEC")

The Sustainability Executive Committee is the Group's core executive-level body responsible for translating sustainability strategies formulated by the Board and Sustainability Committee into specific action plans. The committee comprises senior management members from relevant departments, including the CFO, platform heads, and financial business unit heads. Its main responsibilities include:

- Developing specific implementation plans and measures based on the Group's sustainable development strategic objectives;
- Coordinating sustainability work across business units and departments;
- Monitoring the implementation progress of sustainability projects and regularly reporting to the Sustainability Committee;
- Promoting best practices in environmental protection, social responsibility, and corporate governance.

The SEC regularly reports progress to the Board's Sustainability Committee and adjusts action plans based on committee guidance to ensure objective achievement.

Professional Committees

Five professional committees are established under the Executive Committee to support the comprehensive implementation of sustainability strategies. These subcommittees develop corresponding plans and measures based on the Group's strategic objectives and monitor their execution.

- Committee on Climate Change: Focuses on addressing climate change and environmental protection issues, promoting green buildings and low-carbon development.
- Committee on Social Responsibility: Responsible for community investment, employee wellbeing, and charitable initiatives, promoting social sustainability.
- Committee on Corporate Governance: Evaluates and manages sustainability-related risks, ensuring operational robustness.
- Committee on Green Finance: Promotes the development and application of green financial products, supporting financing needs for sustainable development projects.
- Committee on Sustainability Report: Be responsible for sustainability information disclosure and report preparation.

The Office of the Sustainability Committee ("the Office")

The Office of the Sustainability Committee is the Group's executive support body for sustainability governance, led by the Group's Financial Business Department, aimed at addressing specific issues and facilitating smooth project implementation. Its responsibilities include:

- Executing and coordinating specific sustainability-related tasks;
- Providing data support and technical assistance to subcommittees;
- Regularly reporting work progress to the Sustainability Executive Committee;
- Ensuring effective implementation of sustainability strategies across business units.

To further strengthen the sustainability governance framework, the Group has established both the Sustainability Executive Committee and the Office of the Sustainability Committee, with clearly defined responsibilities and mutual collabouration, jointly promoting the implementation of the Group's sustainability strategy and building a close collabourative relationship. The Executive Committee is responsible for formulating overall strategies and objectives while providing guidance and support to the Office; meanwhile, the Office is responsible for executing and implementing specific tasks, and reporting work progress to the Executive Committee and the Board, ensuring smooth advancement of the Group's sustainability strategy.

Furthermore, to thoroughly implement the "dual carbon" strategic objectives and comprehensively enhance the Group's carbon asset management effectiveness, the Group officially established the Carbon Neutrality and Carbon Asset Development Committee and Working Group in April 2025 to coordinate and advance various carbon peak and carbon neutrality initiatives. Notably, the Committee comprises the Board Chairman, Company CEO, platform company heads, and all senior management personnel, fully demonstrating the company's high-level attention and firm commitment to "dual carbon" objectives. The Committee will undertake the top-level design and strategic planning functions for carbon peak and carbon asset development work, coordinating and reviewing various work plans to ensure steady progress toward dual carbon goals, with the Committee office located in the Financial Business Department.

As the Committee's executive body, the Working Group consists of members from core departments including finance, technology, corporate planning, investment, environmental protection, and safety management, fully leveraging the organizational advantages of horizontal collabouration and vertical integration. Under the guidance of the leadership team, the Working Group is responsible for developing specific implementation plans, coordinating internal and external resources, promoting the implementation of various initiatives, and regularly reporting progress to the Committee to ensure effective achievement of all objectives.

This initiative not only marks an important milestone in the Group's transition towards green and low-carbon development but also lays a solid foundation for future carbon asset management and market-oriented operations.

SUSTAINABILITY APPROACH AND POLICY

CSCI upholds its corporate mission of "Expanding Space of Happiness" by integrating sustainability concepts into its corporate strategy and daily operations. The Group references the United Nations Sustainable Development Goals ("SDGs") to formulate and implement seven core guidelines, covering areas including corporate compliance, green development, talent development, safety priority, quality assurance, supply chain management, and community feedback, striving to achieve coordinated development across economic, environmental, and social dimensions while creating long-term value for stakeholders.

Compliance

The Group strictly adheres to international and local laws and regulations, ensuring the legality and transparency of business operations. Through a comprehensive internal control system and risk management mechanism, the Group continuously enhances corporate governance standards, protects stakeholder interests, and actively fulfills its corporate citizenship responsibilities.

Green Development

The Group is committed to promoting green buildings and low-carbon development through innovative technology and efficient resource management, reducing carbon emissions, improving energy efficiency, and promoting renewable energy use. The Group actively participates in green building certifications and implements environmental protection concepts throughout project lifecycles to achieve sustainable urban development.

Talent Development

The Group values employee growth and well-being, providing fair employment opportunities and diverse career development paths. Through systematic training programs and performance management mechanisms, the Group continuously enhances employees' professional skills and overall qualities while creating an inclusive, equal work environment that promotes mutual growth between employees and the enterprise.

Safety First

The Group considers safety a core element of business operations, strictly implementing safety management systems to ensure construction site safety and health. Through regular training, risk assessments, and emergency drills, the Group strives to reduce occupational risks and protect the safety of employees and partners.

Quality Assurance

The Group maintains a customer-centric approach, strictly controlling construction quality to ensure projects meet international standards and customer expectations. Through advanced quality management systems and technological innovation, the Group continuously enhances product and service competitiveness, providing safe and reliable construction solutions for clients.

Supply Chain Management

The Group promotes sustainable procurement, incorporating environmental and social responsibilities into supply chain management processes. Through establishing supplier codes of conduct and regular assessment mechanisms, the Group ensures supply chain compliance and sustainability while collabourating with partners to promote industry green transformation.

Community Contribution

The Group actively participates in community development through public welfare projects including educational support, post-disaster reconstruction, and infrastructure development, supporting local sustainable development. The Group also encourages employee participation in volunteer services, building close community ties to create social value together.

Summary of Sustainability Policies

Through establishing clear guidelines and policies, the Group not only implements sustainability concepts in its business operations but also actively fulfills corporate social responsibilities, contributing to environmental protection, social progress, and economic prosperity. The policies and guidelines cover multiple aspects including corporate governance, environmental management, and social responsibility to ensure operational transparency, compliance, and sustainability. Currently, global governments and regulatory bodies are increasingly stringent in their regulatory and compliance requirements, while investors and other stakeholders are showing growing attention to corporate sustainability strategies and performance. In response to this trend, the Group has successively released various policy documents in recent years, including the Anti-corruption Policy, Whistleblowing Policy, Water Resources Management Policy, and Sustainable Procurement Policy, while continuously improving relevant systems, aiming to provide more refined policy standards and operational guidelines for the Group's management. For example, in 2025, the Group updated three policies, including the "Anti-Corruption Policy", "Health and Safety Policy" and "Supplier Code of Conduct".

Policies Summaries

Major policies summaries:

Policies	Description
Memorandum of Association and Amended and Restated Articles of Association	Basic document governing the company's organizational structure, division of powers and responsibilities, and operational procedures.
Terms of Reference of Audit Committee	Reviews and monitors the company's financial reporting, internal control, and risk management.
Terms of Reference of Remuneration Committee	Formulates and approves remuneration policies and packages for directors and senior management.
Terms of Reference of Nomination Committee	Assesses board structure, nominates director candidates, ensures board diversity.

Policies	Description
Terms of Reference of Sustainability Committee	Promotes and monitors the company's environmental, social and governance strategies and measures.
List of Directors and Their Roles and Functions	Lists board members and their responsibilities and roles within the company.
Director Appointment, Election and Removal Procedure	Regulates director appointment, election procedures and removal mechanisms.
Board Diversity Policy	Promotes diversity in skills, experience, gender and other aspects of the board.

Policies Summaries

Policies	Description
Inside Information Disclosure Policy	Ensures accurate and timely disclosure of inside information to maintain market fairness.
Whistleblowing Policy	Provides channels for employees and third parties to report misconduct or violations.
Anti-corruption Policy	Prevents and combats all forms of corruption, maintains integrity culture.
Human Rights Policy	Respects and protects human rights of employees and stakeholders, creates fair work environment.
Climate Change Policy	Addresses climate change, promotes carbon reduction and environmental protection measures.

Policies	Description
Sustainable Procurement Policy	Considers environmental and social factors in procurement to promote sustainable development.
Water Resources Management Policy	Effectively manages and conserves water resources, reduces water waste.
Supplier Code of Conduct	Regulates supplier behaviour standards, ensures supply chain responsibility and sustainability.
Health and Safety Policy	Protects employee health and safety, creates safe work environment.
Business Code of Ethics	Regulates employee professional ethics and behavioural standards, maintains company reputation.

Enhancement of Financial Management Systems

In 2024, China State Construction International continues to advance lean financial management and internal control system development, comprehensively strengthening fund coordination, cost control, risk prevention, and compliance operational capabilities to help the Group achieve sustainable growth and maximize resource efficiency.

1. Strengthened Fund Coordination to Significantly Improve Cash Flow

Focusing on improving the cash flow-centric control system, enhancing management granularity, and strengthening cash collection efforts to effectively safeguard project fulfillment and investment returns. Annual operating cash inflow reached HKD2.01 billion, while investment cash inflow reached HKD1.14 billion, firmly consolidating the cash flow improvements achieved over the past three years.

2. Expanded Financing Channels to Further Reduce Financing Cost

The Group actively expands low-cost funding sources, fully utilizing RMB financing channels and issuing multiple bonds, with mainland financing rates reaching record lows. The Group's average financing cost in 2024 was 3.53%, a decrease of 0.35 percentage points from the previous year. RMB accounts for 81% of interest-bearing liabilities, aligning with the business structure and financing environment, reducing exchange rate risk through natural hedging.

The Group maintains a consistently healthy financial position. As of 31 December 2024, cash on hand amounted to HKD30.74 billion, accounting for 11.3% of total assets; unutilized banking facilities reached HKD131.86 billion, representing a 64.8% increase compared to the same period last year. Cash on hand and available financial resources remain abundant.

SUSTAINABILITY RISKS AND OPPORTUNITIES

CSCI fully recognizes the risks and opportunities brought by climate change and actively responds to the challenges of global low-carbon transformation. Since December 2021, the Group has officially become a supporter of the Task Force on Climate-related Financial Disclosures ("TCFD") and has fully adopted the TCFD framework to ensure the company maintains international standards in climate risk management and financial transparency. In 2023, the Group published its first TCFD analysis report to provide investors with insights into potential risks and impacts of climate change on the Group.

Governance

To ensure the effectiveness of climate risk management, the Group has established a comprehensive governance structure, with the Board of Directors, Risk Management Committee, and Sustainability Committee responsible for overseeing and promoting climate change-related decisions.

The Board has comprehensive responsibility for the Group's sustainability matters, including oversight of climate risk and opportunity-related strategies and initiatives to ensure the Group's sustainability performance consistently aligns with its objectives and commitments.

The Sustainability Committee, composed of Board members and reporting to the Board, is responsible for managing the Group's sustainability agenda, strategies, policies, and performance. In 2024, the Committee held one meeting to discuss the Group's climate-related issues. During these meetings, the Committee deliberated on decisions and measures regarding short, medium, and long-term climate change-related risks facing the Group, and provided strategic guidance on exploring climate-related opportunities.

At the management level, the Group has established the Committee on Climate Change, encompassing management from various platform companies and key business departments, responsible for advancing matters such as carbon neutrality, low-carbon buildings, and circular economy, while providing comprehensive leadership and supervision of the Group's greenhouse gas reduction targets and climate action plans. The Committee meets quarterly to review climate-related matters and reports annually to the Board. Under the Committee, specialized working groups are established to review planning and proposals related to carbon neutrality, carbon asset trading, and climate change risks, opportunities and response measures, while monitoring the implementation progress of climate objectives.

The Group has established a Climate Change Policy applicable to directors, senior management, and all employees, which is reviewed annually to ensure the policy remains current. The Group also places high importance on the impact of climate change on its business, enhancing management and employee expertise and response capabilities regarding climate-related risks and opportunities through systematic training, while strengthening internal governance and risk control. Multiple climate change-specific training sessions were conducted throughout the year to ensure leadership stays abreast of the latest developments.

Furthermore, in 2024, the Group formally initiated research on incorporating climate performance into its remuneration incentive system, aiming to promote collective effort toward achieving carbon reduction targets through a compensation incentive mechanism linked to climate goals, further consolidating the Group's climate governance level and enhancing sustainability competitiveness. The research findings will be completed and specific implementation plans will be established in 2025, with gradual application planned for management and key position performance evaluations, thereby promoting organization-wide participation in low-carbon transformation and jointly building a green future.

Strategy

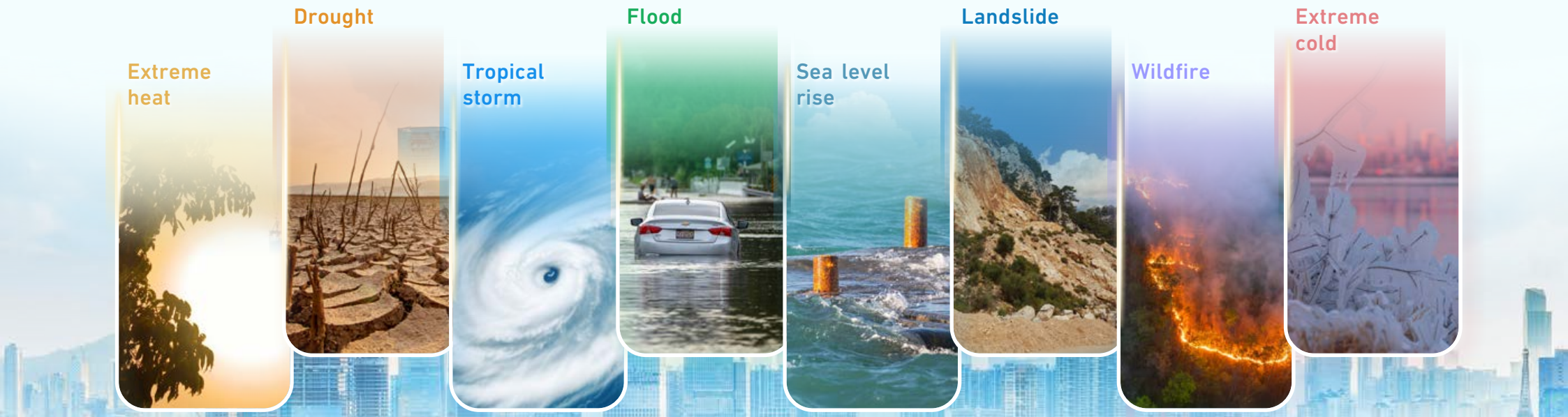
Facing the severe challenges of global climate change, the Group takes proactive management approaches, conducting analysis across four climate change scenarios based on International Financial Reporting Standards ("IFRS") S2 disclosure requirements, TCFD recommendations, and the Hong Kong Stock Exchange's Climate Information Disclosure Guidelines. These scenarios incorporate the Shared Socioeconomic Pathways ("SSP") and Representative Concentration Pathways ("RCP") published by the United Nations Intergovernmental Panel on Climate Change ("IPCC"), enabling a more comprehensive and scientific understanding of possible future socioeconomic development and greenhouse gas emission pathways, thus better planning and managing the impact of climate change on the Group's operations and assets.

The Group adopts four climate scenarios encompassing different pathways ranging from strict low-carbon transition to high emissions, as follows:

Pathway	Description
SSP1–2.6 (Sustainability Pathway)	Under strict low-carbon transition policy intervention, global greenhouse gas emissions are significantly reduced, with socioeconomic development showing sustainable and inclusive growth. Climate change is effectively controlled, with global temperature rise maintained within the target range of below 2°C.
SSP2–4.5 (Middle Pathway)	Under moderate low-carbon transition policy intervention, global socioeconomic development is relatively balanced, with moderate climate change control. Global temperature rise approaches 3°C.
SSP4–6.0 (Inequality Pathway)	Under limited low-carbon transition policy intervention, global economic development is highly uneven, leading to social and economic instability. Climate change control is weak, with global temperature rise potentially exceeding 3°C.
SSP5–8.5 (High Emission Pathway)	Without low-carbon transition policy intervention, the global economy remains highly dependent on fossil fuels, with limited climate change control. Global temperature rise could reach its highest level, exceeding 4°C.

Physical Risks

Physical risks primarily arise from extreme weather events and long-term environmental changes caused by climate change, directly impacting the Group's business operations. Through analysis of historical natural disaster data and corporate financial conditions, the Group has identified 8 major physical risks, of which 7 are acute risks (such as tropical storms and floods) and 1 is a chronic risk (such as sea level rise).



According to the analysis results, the degree of physical risk impact varies significantly by region, with the most severely affected areas concentrated in coastal provinces. Under the high emission pathway (SSP5) scenario in 2050, the Group's most severely affected regions are, in order: Macau (expected business impact: 5.43%), Guangdong (expected business impact: 3.50%), Jiangsu (expected business impact: 2.58%), and Zhejiang (expected business impact: 2.07%). Among all physical risks, the three factors with the greatest impact on the Group's overall operations are tropical storms (expected business impact: 6.33%), floods (expected business impact: 2.80%), and sea level rise (expected business impact: 3.24%). Tropical storms may lead to construction delays and infrastructure damage, floods may increase project maintenance costs and operational shutdown risks, while sea level rise may affect the durability and maintenance costs of coastal assets. Although these risks have limited financial impact on the Group's overall business and fall within the low impact range, the Group still needs to adopt targeted measures to reduce potential losses.

Regarding extreme weather events that may affect infrastructure and business stability, the Group has established a comprehensive set of preventive and response measures, and will develop disaster-resilient urban integrated development plans to ensure the safety of assets, business operations, and employees. In terms of climate risk management, the Group has formulated a climate risk project budget plan to reduce uncertainties in physical risks' impact on business, asset adaptability, and financial performance, while continuously promoting close cross-departmental cooperation to ensure rapid coordinated response to sudden climate risk events. Additionally, the Group has introduced smart monitoring and prediction systems through technological innovation to enhance response capabilities to extreme climate events.

As the Group's financial impact assessment indicates low impact on subsidiary operations and overall physical risk levels are moderate, this reflects the Group's high adaptability in responding to extreme climate events. The Group promotes the development of specialized physical risk management plans for each business region, ensuring that Group operations can implement appropriate measures based on local geographical and climate characteristics, such as strengthening infrastructure reinforcement, improving emergency response training capabilities, and promoting business operation model diversification and sustainability to reduce uncertainties brought by climate risks. Some subsidiaries have already taken initiative to strengthen their adaptation to physical risks, including regular updates to physical risk response strategies, to ensure long-term market competitiveness and sustainable development.

Transition Risks

As the global low-carbon economic transition accelerates, businesses need to adapt to new market competition landscapes, regulatory requirements, and technological changes. To this end, the Group has conducted an in-depth transition risk assessment for various business departments, including investment construction, engineering procurement construction (EPC), project contracting, prefabricated buildings, and glass façade businesses. This assessment identified eight transition risks and one transition opportunity, and conducted quantitative analysis of their impact levels and business vulnerabilities to formulate corresponding response strategies. The assessment categorized transition risks into five main categories: policy and legal, technology, market, reputation, and opportunities:

Policy and Legal Risks	The Group faces compliance requirements for sustainability information disclosure, changes in energy structure and energy efficiency-related policies, and uncertainties brought by carbon market fluctuations. These policy changes may increase compliance costs and require the Group to adjust its business model to meet new regulatory requirements.
Technology Risks	Low-carbon transition's new technological innovations may affect enterprise production and competitiveness. The Group needs to continuously invest in green technology research and development, such as prefabricated construction technology and intelligent construction technology, to maintain market leadership.
Market Risks	Changes in supply chains and competitive landscapes, as well as uncertainties in technology markets, may lead to business adaptation pressures and investment risks. The Group needs to closely monitor market changes and optimize supply chain management to reduce potential impacts.
Reputation Risks	Stakeholders' focus on corporate sustainability and requirements for environmental and social responsibility will affect corporate image and market trust. The Group needs to maintain good sustainability performance to ensure its corporate sustainability image.
Transition Opportunities	Low-carbon construction and waste management policies bring new market opportunities. The Group can enhance market competitiveness and reduce operational risks through technological innovation and sustainability measures, such as green building projects and carbon finance tools.

After evaluating the importance of transition risks based on two dimensions — "risk impact" and "Group vulnerability to risk" — the results show that the "policy and legal" category of transition risks is relatively more important for the Group and is expected to occur in the short term. Therefore, the Group has conducted quantitative analysis for this risk category. The analysis results show that under four climate scenarios, the financial impact of this category of transition risks on the Group is generally at a low level.

Response Strategies

For extreme weather events that may affect infrastructure and business stability, the Group has implemented a comprehensive set of preventive and response measures, incorporating disaster-resilient urban development into its planning to ensure asset security, business continuity, and employee safety.

At the Group level, the Group has formulated a climate risk project budget plan to maximize the reduction of potential impacts from physical risks on business and asset operations. The Group continuously promotes close cross-departmental cooperation to ensure rapid and coordinated responses when facing sudden physical risks. Furthermore, through technological innovation, the Group has introduced smart monitoring and prediction systems to identify potential extreme weather events in advance.

At the subsidiary level, the Group promotes the development of physical risk management plans across business regions, ensuring each business unit adopts appropriate measures based on its geographical location and specific risk profile, including local infrastructure reinforcement, emergency response training, and supply chain diversification and sustainability, covering measures that may reduce the risk of business interruption. All subsidiaries have and will continue to strengthen their capability to combat physical risks, including regular updates to physical risk response strategies, to ensure they can effectively address various physical risks in the medium and long term.

Regarding transition risks, the Group continuously monitors domestic and international industry trends, integrating green environmental protection and construction industrialization concepts with the Group's development strategy. Through strengthening carbon management capabilities in operations and promoting innovative construction technologies such as green buildings, prefabricated buildings, and glass façade façades, the Group further reduces the construction industry's impact on climate change, creates higher environmental value, and strengthens sustainability competitiveness.

Risk Management

The Group has established a clear and systematic risk management framework that encompasses the Board of Directors, management, Audit Committee, and relevant specialized departments, while maintaining effective communication with external stakeholders to ensure comprehensive, transparent, and efficient risk management measures that support the Group's long-term stable development.

The Board

As the Group's highest governing body, the Board of Directors is responsible for comprehensive oversight of risk management strategy formulation and implementation, ensuring alignment between the Group's risk management system and business development direction.

Risk and Compliance Management Committee

Under the Board's guidance, the Risk and Compliance Management Committee assumes responsibility for coordinating the Group's risk management, leading the Risk Control Team in implementing risk identification, assessment, and response strategy formulation, strengthening the forward-looking and systematic nature of risk management.

Risk Management Team

The Risk Management Team specializes in conducting on-site identification and analysis of Group risks, proposing specific strategies for risk response measures, ensuring the Group can flexibly respond to various potential risks, including but not limited to climate risks, financial risks, and market risks.

Audit Committee

As a supervisory body, the Audit Committee regularly reviews the effectiveness of risk management processes and measures, reporting significant risk matters and improvement recommendations to the Board of Directors, ensuring consistency between risk management policies and implementation.

Risk Classification Management

The Group implements systematic risk classification management, covering climate risks, financial risks, market risks, and other risks (such as regulatory compliance risks, reputational risks, etc.).

Stakeholder Engagement

The Group values stakeholder communication, with the Audit Committee regularly disclosing information on risk management effectiveness and response measures, enhancing transparency and credibility, and promoting stakeholder understanding and support of the Group's risk management efforts.

Under this risk governance framework, the Group has established comprehensive climate risk assessment processes and management mechanisms, with systematic management covering risk inventory construction, risk and opportunity identification and assessment, impact scenario analysis, and strategic resilience, encompassing the Group's core businesses. Through these assessment processes and management mechanisms, the Group can help gain deep insights into potential climate risks and formulate response strategies, ensuring flexible and effective responses when facing uncertainties such as climate change. Meanwhile, it also provides more comprehensive and transparent information disclosure to investors and other stakeholders.

Metrics and Targets

The Group has further optimized its carbon-related targets, advancing its original medium and long-term carbon reduction goals to 2050, while setting more challenging interim targets for 2025 and 2030 to accelerate the low-carbon transition process. Additionally, the Group is comprehensively analyzing energy, water resources, and waste-related data and management measures, with plans to establish clear and quantifiable emission reduction targets by 2025 to strengthen the management effectiveness of both cost and environmental impacts. For details, please refer to page 23 of this report for the Group's five-year strategic plan.

STAKEHOLDER ENGAGEMENT

As an integral part of corporate social responsibility and sustainable operations, sustainable development encompasses various aspects. Due to the diverse operational models and business characteristics across different industries, their focuses and priorities in sustainable development vary accordingly. Stakeholders play a crucial role in both the daily operations and long-term development of enterprises. Not only do stakeholders provide essential support to enterprises, but they are also affected by corporate operational decisions. In view of this, the Group particularly emphasizes stakeholder perspectives and suggestions when formulating sustainable development strategies.

To ensure close connections with stakeholders, the Group has categorized key stakeholders into six categories according to the internationally recognized AA1000SES standard (for details, please refer to the Group's 2022 Sustainability Report): employees, investors, customers, business partners, government and regulatory bodies, and community organizations. The Group establishes diverse communication platforms to actively listen to and collect opinions from all parties, aiming to achieve better interactive exchange.

Main Stakeholders	Value Creation	Concerning Issues	Communication Channels
Employees	Focus on development, talent cultivation, and workplace health and safety	◆ Employment management system ◆ Safe and healthy working environment ◆ Training and development ◆ Labour relations ◆ Anti-corruption	◆ Email notifications ◆ Internal meetings ◆ Training courses ◆ Group communications ◆ Complaint channels
Investors	Create profits through transparent information and responsible commitments	◆ Safe and healthy working environment ◆ Employment management system ◆ Anti-corruption ◆ Training and development ◆ Labour relations	◆ Shareholder meetings ◆ Annual reports, interim reports, and other announcements ◆ Performance roadshows and reverse roadshows ◆ Investor conferences ◆ Indexes and ratings
Customers	Cultivate long-term relationships and provide high-level technology and services	◆ Energy ◆ Materials ◆ Innovative technology and applications ◆ Intellectual property ◆ Preventing anti-competitive behaviour	◆ Bid meetings ◆ Project briefing ◆ Gatherings and industry group activities

Main Stakeholders	Value Creation	Concerning Issues	Communication Channels
Suppliers or subcontractors	Jointly build corporates that focuses on excellent operation, ecological benefits, environmental protection, and technological innovation	◆ Customer privacy ◆ Anti-corruption ◆ Safe and healthy working environment ◆ Preventing anti-competitive behaviour ◆ Innovation technology and application	◆ Procurement procedures ◆ Audit and evaluation ◆ Performance monitoring ◆ Supplier/subcontractor meetings
Government and regulatory bodies	Respond to policy requirements, tailor-made construction solutions and products, and pay attention to leading industry progress	◆ Economic performance ◆ Market performance ◆ Employment management system ◆ Labour relations ◆ Preventing child or forced labour	◆ Public consultation ◆ Working meetings ◆ Reflecting opinions through industry associations
Community groups (e.g. professional organizations, media, and NGOs)	Seek shared value for the community based on dialogue, participation, and inclusion	◆ Materials ◆ Procurement behaviour ◆ Waste ◆ Water resources and wastewater ◆ Biodiversity	◆ Seminars and workshops ◆ Media conferences and press releases ◆ Community surveys ◆ Cooperative hosting and participation in public welfare activities

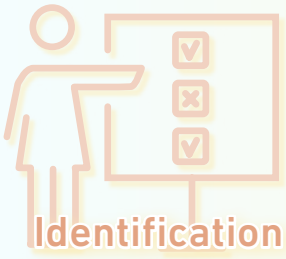
Identification of Material Issues

To ensure the report content is meaningful and targeted, the Group has consolidated stakeholder feedback to identify and determine key material issues. These issues not only reflect stakeholders' primary concerns but also help the Group evaluate the effectiveness of its sustainable development strategies, providing important references for future optimization of related measures.

To this end, the Group has established the following four steps to identify material issues:

Identify relevant sustainability issues

The consulting team refines the sustainability issues list based on global and local standards, incorporating findings from previous feedback collection. From the three major areas of "Economy", "Environment" and "Society", 37 key items most relevant to the Group's operations are selected.



Collect stakeholders' feedback

Through questionnaires and interviews, comprehensive feedback is collected from both internal and external stakeholders regarding various issues.

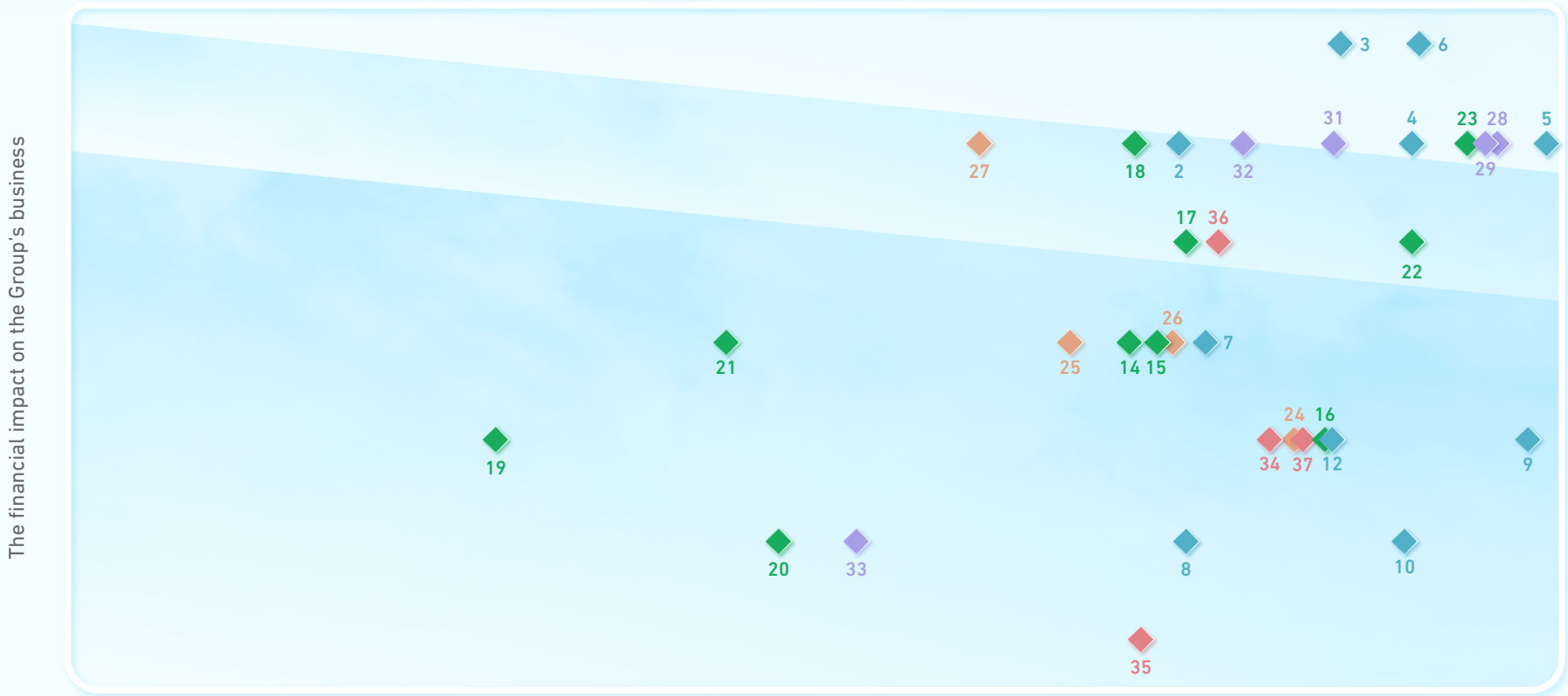
Identify material issues

In response to global trends linking sustainable development with financial performance, the Group has redesigned its assessment framework. A materiality matrix is constructed based on three aspects: financial impact, operational impact on the triple bottom line, and potential for creating sustainable development value.

Confirm assessment results

Analysis results and stakeholder recommendations are compiled into a report and submitted to the Sustainability Committee and the Board for review. Upon confirmation, based on stakeholder opinions, relevance to the Group's development strategy, and significance of impact, 8 material issues are selected as the focus content for the sustainability report.

The material issues of this report are illustrated using a matrix.



Driving Strategic and Innovated Development	1	Innovative Technology and Applications
	2	Business Continuity Management
	3	Construction Workforce
	4	Economic Performance
	5	Customer and Public Health and Safety
	6	Quality Management and After-Sales Service
	7	Respect for Human Rights and Indigenous Rights
	8	Fair and Responsible Marketing Communication and Information
	9	Customer and Data Privacy
	10	Protection of Intellectual Property
	11	Anti-Corruption
	12	Prevention of Anti-Competitive Behavior
	13	Prevention of Child Labour and Forced Labour
Safeguarding the Environment	14	Greenhouse Gases and Other Emissions
	15	Water Resources and Wastewater
	16	Waste
	17	Energy
	18	Materials
	19	Biodiversity
	20	Land Degradation, Pollution and Remediation
	21	Responding to Climate Change
	22	Carbon Neutral Construction
	23	Green Design
Building a Sustainable Supply Chain	24	Supplier Social Assessment
	25	Promotion of Supplier Environmental Protection
	26	Use of Sustainable Materials
	27	Procurement Behaviour
Nurturing and Supporting Talent	28	Employment Management System
	29	Labour Relations
	30	Safe and Healthy Working Environment
	31	Training and Development
	32	Diversity, Equal Opportunities and Anti-Discrimination
	33	Respect for Freedom of Association and Collective Bargaining
Serving the Community	34	Community Participation, Impact Assessment and Investment
	35	Participation in Public Policy
	36	Market Performance
	37	Indirect Economic Impacts

Overall, the Group's 8 material issues this year continue to revolve around three key aspects: environmental, social, and strategic governance, demonstrating the diverse types of value created by the Group, including economic value.

Driving Strategic and Innovated Development

Feature Story

Driving Sustainable Growth Through Dual Engines: Quality Construction and Green Finance

In the global trend towards net-zero emissions, the construction industry faces unprecedented transformation pressures and innovative opportunities. As a leader in the construction sector, China State Construction International actively embraces green transformation and technological innovation, embedding sustainable development principles into construction technology, business expansion, and capital operations, gradually establishing a dual strategic advantage of "Technology-Driven + Green Finance". This feature story will demonstrate, through multiple representative projects and financing examples, how the Group leads the industry towards green and high-quality development through strategic development.

DEEPENING INDUSTRIAL CONSTRUCTION TECHNOLOGY APPLICATIONS, CREATING HIGH-QUALITY CONSTRUCTION BENCHMARKS

The Group focuses on Modular Integrated Construction (MiC) as its core technology, integrated with Building Integrated Photovoltaic systems (BIPV) and Mechanical, Electrical and Plumbing prefabrication technology (MiMEP) to create high-quality construction benchmarks. CSCI, with CSC Hailong as its technological pioneer, and leveraging years of technological accumulation and practical experience, the company has developed three major product systems — Module C, S, and X — covering multiple application scenarios to meet the diverse requirements of different building types in terms of structure, safety, functionality, and deployment efficiency.

Technical Highlights

Introduction to different MiC Module:

C C-MiC Concrete MiC

- **C-High Concrete High-rise Structure System:** Box-form cast-in-place system, suitable for heights ≤150m, applied to high-rise residential buildings, apartments, hotels, etc.
- **Multiple Concrete Multi-story Structure System:** Integrated assembly system, suitable for heights ≤80m, applied to multi-story residential buildings, dormitories, apartments, etc.
- **C-Basic Concrete Multi-story Structure System:** Stacking frame system, suitable for heights ≤27m, applied to multi-story schools, dormitories, etc.

S S-MiC Steel MiC

- **S-High Steel High-rise Structure System:** Grouting stacking-lateral resistance frame system, suitable for heights ≤100m, applied to high-rise hotels, residential buildings, etc.
- **S-Multiple Steel Multi-story Structure System:** Dry stacking-lateral resistance frame system, suitable for heights ≤24m, applied to multi-story apartments, hotels, etc.
- **S-Basic Steel Low-rise Structure System:** Stacking frame system, suitable for heights ≤10m, applied to low-rise hospitals, schools, etc.

X X-Extended MiC

- **X-Elevator Multi-story Elevator Addition System:** Prefabricated elevator shaft and machine room space, resolving traditional on-site construction error issues, improving MEP integration efficiency and construction precision. Applied to elevator additions in old residential areas, schools, villas, etc.
- **X-I Box Digital Mobile Housing System:** Ready for immediate use, rapid deployment, high adaptability. Applied to small medical stations, mobile workstations, public libraries, etc.
- **X-Transformable Multi-functional Self-deploying Building System:** Modules feature dismountable and expandable functions, providing extra-large independent spaces, meeting mobile housing product requirements, compliant with road transport restrictions when contracted, convenient for transportation and assembly. Applied to leisure and vacation facilities, temporary offices, street commercial buildings, etc.
- **X-Water Modular Integrated Water Plant System:** Modules integrate sewage or water treatment systems, suitable for large-volume sewage treatment at 10m water depth, using pure dry connections, module units can be dismantled for secondary use. Applied to water resource utilization, sewage treatment facilities, etc.

Feature Story | Driving Sustainable Growth Through Dual Engines: Quality Construction and Green Finance

In recent years, CSCI's China Overseas Construction and CSC Hailong have jointly advanced the implementation of second-generation Modular Integrated Construction technology (C-MiC). In 2024, the Group achieved significant breakthroughs in C-MiC implementation in Shenzhen, Shanghai, and other locations.

STRATEGIC PRACTICE 1

No. 6 Meilin Road Affordable Housing Project (Anju Jingxin Garden)

The Anju Jingxin Garden project (formerly known as the No. 6 Meilin Road Affordable Housing Project) in Futian District, Shenzhen, is a demonstration project under the national "14th Five-Year Plan" key research and development program. It is also the first 30-story concrete modular residential building completed in a high-density urban core area nationwide. Its main structure was topped out in just 148 days, setting a new record for premium decoration modular construction. The new generation of modules achieves higher standardization, incorporating micro-pipeline gallery systems and plastering-free decoration technology, effectively improving construction efficiency and living quality.

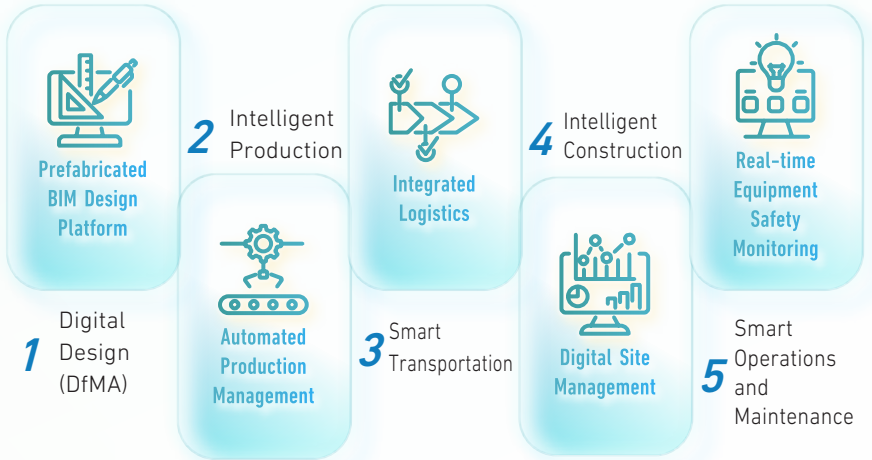
Construction Technology Highlights

- Enhanced module space integration with reduced number of modules per floor, resulting in more rational overall layout and effectively lowering connection error risks.
- Integration of micro-pipeline gallery systems (electricity, water, communications, etc.) within modules, creating an integrated comprehensive pipeline gallery for residential units, achieving flexible layout and convenient maintenance.
- Adoption of standardized module design and "one square meter concept" to optimize unit layouts, improving space utilization efficiency while reducing mold varieties and increasing production and installation efficiency.
- In terms of structural performance, taking the lead in accordance with Shenzhen's "Technical Specification for Concrete Modular Buildings" (SJG 130–2023), the wall formwork was incorporated into the force calculation system as a shear wall protection layer, with continuous structural monitoring implemented to ensure module safety and stability.
- Application of digital equipment such as construction robots, smart tower cranes, and self-balancing hoists in installation, achieving precise hoisting for the "last meter" and enhancing construction safety and efficiency.
- Implementation of digital construction management mode (C-SMART), integrating design, production, transportation, and on-site construction information to achieve module "unique identification codes" and product certification traceability system, comprehensively ensuring quality delivery.

Technical Highlights

Introduction to Integrated Digital Delivery (IDD):

CSC Hailong implements the Integrated Digital Delivery (IDD) concept, encompassing five major aspects: design, intelligent manufacturing, transportation, construction, and operations maintenance, creating a comprehensive lifecycle-integrated smart construction solution. Through the modular BIM design platform, automated production, integrated logistics, C-SMART intelligent construction sites, and remote monitoring systems, the company achieves visualization in design, precision in production, controllability in transportation, intelligence in construction, and digitalization in operations maintenance, comprehensively enhancing construction efficiency and safety levels. This system has helped CSC Hailong earn the honor of "China Industrial Internet Digital Exemplary Enterprise".



STRATEGIC PRACTICE 2

Tianlin Road Urban Renewal Project in Xuhui District, Shanghai

The Tianlin Road Urban Renewal Project in Shanghai's Xuhui District transforms a severely aged housing cluster built between 1958 and 1965 into a modern modular community, marking Shanghai's first concrete modular residential application project. With a construction area of 78,900 square meters, the project utilizes 2,995 modules to provide modern resettlement housing for 1,114 households, becoming one of the nation's largest modular urban renewal projects. It has been designated as a key 2024 project in Xuhui District.

Feature Story

Driving Sustainable Growth Through Dual Engines: Quality Construction and Green Finance

Construction Technology Highlights

- In the implementation process of modular construction, digital technology application centers on the BIM prefabrication coding system, achieving closed-loop digital information transfer and feedback cycles across design, production, transportation, construction, delivery, and operations maintenance through unique item coding.
- The introduction of MOM intelligent production management platform and C-SMART smart site management system enables comprehensive intelligent management, digital delivery, significantly improves construction efficiency, and effectively reduces solid waste emissions by over 75%.
- C-MiC modules feature high-precision intelligent manufacturing advantages, significantly enhancing indoor usable space; unit designs emphasize ventilation, natural lighting, and functional zoning, with added independent kitchen, bathroom, and balcony facilities, substantially improving living comfort.
- Extensive use of low-TVOC green building materials, combined with prefabricated finishing techniques, reduces on-site pollution and construction disturbance, comprehensively enhancing environmental performance.
- Universal mold design enables high product standardization and production efficiency, while supporting flexible variations in unit types and building layouts to address diverse urban renewal challenges.
- Compliant with Shanghai landmark standards such as the "Design Specification for Assembled Monolithic Concrete Residential Buildings," enhancing building durability and seismic performance.
- In addition to residential units, new projects include street-level community activity rooms and underground parking providing over 300 parking spaces, comprehensively improving residents' living conditions and supporting facilities.

STRATEGIC PRACTICE 3

CSC Hailong Longgang Smart Construction Industrial Park

Hailong's most advanced prefabricated 4.0 intelligent construction industrial park is set to officially commence production in mid-2025, covering an area of 68,100 square meters with a total construction area of approximately 229,000 square meters. With digitalization, intelligence, and environmental sustainability at its core, the industrial park focuses on creating a smart manufacturing factory for modular housing based on whole-house intelligence, establishing a future-oriented new construction industrialization chain valued at hundreds of billions in emerging strategic industries.

The park implements comprehensive green carbon reduction technologies, utilizing self-developed green low-carbon building materials from the source. During the production and operation phase, it deeply integrates renewable energy, circular utilization, and smart operation maintenance technologies, establishing an efficient, energy-saving, and replicable intelligent green production system. This creates low-carbon, high-quality, and sustainable MiC products, achieving full-process low-carbon operations and maintenance from material sourcing to end products in the intelligent construction industrial park.

Feature Story | Driving Sustainable Growth Through Dual Engines: Quality Construction and Green Finance

Technology Highlights

- **Self-developed green low-carbon building materials:** High proportion utilization of new ultra-low energy consumption building envelope materials, solid waste-based low-carbon concrete and other green low-carbon building materials, reducing embodied carbon and achieving resource circulation.
- **Renewable energy applications:** Large-scale implementation of Building Applied Photovoltaics (BAPV) and Building Integrated Photovoltaics (BIPV) technologies, innovatively combined with building "photovoltaic storage direct flexibility" technology, greatly improving energy utilization efficiency, promoting local consumption of building photovoltaic power generation, and forming a complete clean energy supply chain.

- **Energy efficiency optimization:** Based on the deployed energy consumption monitoring system, achieving precise management and optimization adjustment of energy usage, formulating emission reduction and energy-saving measures. Aiming to establish a highly efficient and cost-effective production mode, forming standardized solutions for easy replication and promotion, controlling costs from the source, with expected energy savings of 10%–15%.
- **Waste and water resource recycling:** Excluding disposal, general solid waste comprehensive utilization rate ≥92%; excluding losses, water reuse rate ≥92%. Targeting demonstration applications in solid waste regeneration as alternative raw material development and production, and wastewater recycling.
- **Product carbon emissions:** For the process workflow, planning comprehensive carbon emission calculation schemes, constructing scientific data models, inputting detailed data from raw material production and transportation, production and disposal stages into the models, conducting in-depth analysis and precise carbon emission calculations to support product carbon footprint.

TECHNICAL INNOVATION DRIVING GROWTH: RECOGNITION AS SCIENCE AND TECHNOLOGY REFORM DEMONSTRATION ENTERPRISE

As an innovative force under CSCI focusing on modular construction and intelligent building, CSC Hailong drives comprehensive industry development towards green, smart, and industrialized high-quality growth through dual engines of technical innovation and institutional reform. By the end of 2024, CSC Hailong has undertaken 81 research projects, including 8 national-level projects, 16 provincial-level projects, with 2 new national projects and 9 provincial technology projects newly approved. The total approved special funding reached RMB29.44 million. Key achievements include:

- Smooth progress in the National Key R&D Program project "Research and Application of Key Technologies for Modular Integrated Construction", and jointly submitted a key project proposal for "Key Technologies for High Solid Waste-based, Low-Carbon, High-Durability Concrete and Applications in Coastal Engineering Structures";
- Successfully established company-level project "Research on Key Technologies for Dual-source Solid Waste Recycling in Prefabricated Buildings";
- Undertaking one implementation research of industrialization sub-projects in Shenzhen's "Key Technologies for Steel Structure Building Industrialization".

By the end of 2024, CSC Hailong has undertaken

81 research projects

including

8 national-level projects | **16 provincial-level projects**

Newly approved

2 new national projects

and

9 provincial technology projects

Total approved special funding reached

RMB29.44 million

Feature Story

Driving Sustainable Growth Through Dual Engines: Quality Construction and Green Finance

In terms of product systems and design R&D, CSC Hailong continues to advance combined steel cage box-type module systems and embedded steel plate module product systems, completing designs for new interlaced stacking grouting nodes and detachable nodes. For equipment systems, CSC Hailong has completed design solutions for integrated dismantling-construction intelligent equipment and self-balancing hoisting systems, improving on-site construction efficiency and mechanization levels. The company has also completed development of module coding plugins and rapid progress model generation systems, improving operational efficiency by 87% and promoting full-process application of modular BIM. CSC Hailong added 20 design talents, established 7 professional teams, completed technical team reserves in Beijing, Hong Kong and other regions, supporting projects throughout the year, covering steel MiC, concrete MiC, and PC modules.

Leveraging independently developed concrete modular construction technology, CSC Hailong has implemented applications in nearly 100 projects across 11 provinces and 19 cities nationwide, creating exemplary projects such as Beijing Huapi Factory Hutong Building No. 8 and Shenzhen Huazhang Xinzhu, successfully achieving the industrial building transformation of "building houses like manufacturing cars".

In 2024, CSC Hailong achieved historic highs in both quantity and quality of technological achievements: 415 patent applications (including 106 invention patents), 179 authorizations; 21 software copyright authorizations; 34 published papers, 2 published monograph; 7 new enterprise-level construction methods; 19 published standards (including 9 national standards), while editing the first industry standard of its kind "Technical Requirements for Building Concrete Box Module Units and Connection Accessories" as the chief editor. Meanwhile, CSC Hailong won multiple honors including the Second Prize of Huaxia Construction Technology Award, Second Prize of Guangdong Prefabricated Rural House Design Competition, and Gold Award of CSCEC Youth Innovation Competition. Furthermore, it was listed in the State-owned Assets Supervision and Administration Commission's "Tech Reform Enterprise" roster.

ADVANCING WATER AND ENVIRONMENTAL INFRASTRUCTURE UPGRADES TO ENHANCE URBAN RESILIENCE

As urbanization progresses and climate challenges intensify, water resource and waste management have become core issues in sustainable urban development. CSCI actively responds to the green transformation policy directives of the Guangdong-Hong Kong-Macao Greater Bay Area and Hong Kong, focusing on water resource management, sewage treatment, waste recycling, and disaster prevention and mitigation. Leveraging its extensive expertise in large-scale engineering, procurement and construction (EPC) and advanced construction technologies, the company has successfully undertaken multiple regional strategic water and environmental infrastructure projects, continuously driving urban resilience enhancement and sustainable development through its construction capabilities.

STRATEGIC PRACTICE 1

Project of the Tseung Kwan O Desalination Plant

PIONEERING MARINE ENGINEERING: BUILDING HONG KONG'S FIRST REVERSE OSMOSIS SEAWATER DESALINATION PLANT

Project Achievements

To optimize Hong Kong's water resource structure, address water resource shortages, and support sustainable economic and social development, the Hong Kong Water Supplies Department initiated Phase 1 of the Tseung Kwan O Desalination Plant project in 2019. The project is implemented under an integrated "Design, Build, Operate" (DBO) model, marking the Department's first-ever use of this approach and currently stands as the highest-value livelihood project with a total contract sum of HK$9.0 billion. The contract period includes 4 years for design and construction, plus 15 years of operational period.

The project began water supply in December 2023 and is expected to be fully operational by July 2024, becoming Hong Kong's first operational reverse osmosis desalination plant. Phase 1 can produce 135,000 cubic meters of fresh water daily, meeting approximately 5% of Hong Kong's freshwater demand.

The project has achieved remarkable results in industrialization, digitalization, and green construction, earning numerous domestic and international accolades, including the 6th Water China "Star Award — Engineering Star," First Prize in the 5th China Construction Industry BIM Competition, and the Institution of Civil Engineers UK "Edmund Hambly Medal" Merit Award, among a total of 36 awards, marking China State Construction International's successful entry into the seawater desalination market.

Technical Highlights

- ***Prefabricated Components + Modular Installation Method:***

  Pre-fabrication of pump room structures, RO device supports and pipe rack platforms, with single-lift on-site installation, reducing construction cycle by over 25%.

- ***Full-process BIM + GIS Pipeline Collision Detection:***

  Combining 3D pipeline models with on-site space simulation to avoid traditional on-site modification errors, achieving the goal of "zero conflicts, zero rework".

- ***Land-to-Sea Water Intake and Discharge Pipeline Construction:***

  Utilizing MTBM micro-tunneling technology, achieving daily tunneling distances of 6 to 14 meters, adaptable to complex geological conditions while minimizing impact on marine environment.

Project benefits

The project employs green renewable energy and sustainable construction technologies, with water production energy consumption at

3.72 kWh/m³

and an overall prefabrication rate of

40%

Additionally, the project has received

Hong Kong BEAM Plus Platinum certification

setting a new benchmark for local desalination engineering

STRATEGIC PRACTICE 2

Sha Tin Sewage Treatment Plant Relocation Project

ADVANCING UNDERGROUND SPACE DEVELOPMENT THROUGH SMART CAVERN UTILIZATION

Project Achievements

One of Asia's largest sewage treatment plant relocation projects, releasing 28 hectares of land after relocation; new facilities can process 340,000 cubic meters of sewage daily, supporting sewage treatment needs for nearly 1.5 million people. This project pioneers Hong Kong's large-scale sewage facility "underground construction," providing dual references for urban intensive land use and environmental operations. CSCI leverages its technical advantages to lead Hong Kong's sewage system towards smart efficiency.

Project benefits

Annual carbon reduction of

13,000 tonnes of CO_2e-

30% energy self-sufficiency

enhanced land use and community space value

Technical Highlights

- ***Cavern Excavation and Seepage Prevention Technology:***

  Using "New Austrian Tunneling Method (NATM)" for multi-area synchronous excavation, combined with high-pressure grouting waterproof curtain technology, ensuring rock wall stability and durability.

- ***Concrete Prefabrication + Underground Modular Component Assembly Technology:***

  Strictly controlling structural tolerances (±5mm), using self-compacting concrete (SCC) for efficient casting in narrow caverns.

- ***Large-scale Sewage Conveyance Tunnel Shield Technology Application:***

  Applying single shield and double-mode shield machine (TBM) tunnel construction technology, completing 3km transmission main line in one go, traversing complex rock layers and high water pressure areas, maintaining settlement control within 10mm.

- ***Digital Construction + Smart Monitoring Technology:***

  Deploying sensor fibers and unmanned inspection robots throughout the line, real-time monitoring of cavity deformation, gas concentration, and environmental conditions.

STRATEGIC PRACTICE 3

Organic Resources Recovery Centre Phase 2 (O·PARK2)

INTEGRATING ENERGY CONVERSION AND AUTOMATED FOOD WASTE TREATMENT FACILITY CONSTRUCTION

Project Achievements

O·PARK2 processes 300 tonnes of organic waste daily and transforms approximately 110,000 tonnes of organic waste into energy and fertilizer annually, making it one of Hong Kong's most advanced organic waste recycling facilities. China State Construction International's involvement has significantly enhanced Hong Kong's design and construction capabilities in organic waste recycling, successfully establishing an industry benchmark.

Project benefits

Annual carbon reduction of

67,000 tonnes of CO_2e-

with biogas-generated electricity capable of supplying

5,000 households annually

Technical Highlights

- Through optimization of the anaerobic digestion system reaction stages, the food waste processing capacity has been effectively enhanced while significantly reducing the facility footprint. Using Computational Fluid Dynamics (CFD) models to analyze the mixing degree of materials in tanks, energy consumption has been reduced by over 50%.

- ***Resource Recovery Treatment Technology for Digestate — Saving Time and Space:***

  Digestate produced during anaerobic digestion is processed through a dry granulation system, substantially reducing weight and volume to produce soil conditioner, significantly shortening the processing time compared to traditional composting.

- ***Utilizing Advanced Wastewater Treatment Technology for Energy Efficiency:***

  The facility's wastewater treatment system employs anaerobic ammonia oxidation technology, saving 60% of aeration energy consumption and reducing sludge production by 75%.

- ***Green Building Design Principles Demonstrating Energy Efficiency:***

  The project incorporates green building concepts throughout the design phase, resulting in a 32% reduction in operational energy consumption and a 56.2% reduction in total water usage.

STRATEGIC PRACTICE 4

Yuen Long Flood Dam and Channel Improvement Plan

BALANCING FLOOD CONTROL AND ECOLOGY, BUILDING A "RESILIENT RIVER CHANNEL" MODEL

Project Achievements

The project upgrades the existing flood prevention system in Yuen Long district, with newly constructed flood barriers and widened drainage channels spanning approximately 1.5 km, effectively protecting against once-in-200-year rainstorms. Through this project, CSCI has demonstrated its professional capabilities in combining civil engineering disaster prevention with green water conservation, creating a resilient and ecologically compatible flood prevention system for Hong Kong's urban fringe areas.

Project benefits

Protection of

2,000+ households

annual flood damage reduction of

HK$15 million

improved river ecology and water quality

Technical Highlights

- ***C-SMART Intelligent Site Safety Management System:***

  Through digitalization, intelligent technology, and IoT, the system addresses traditional construction industry pain points such as low efficiency, safety hazards, and complex management, achieving refined and sustainable site management.

- ***Digital Twin Smart Flood Prevention System:***

  Utilizing digital twin and AI technology, equipped with remote water level monitoring + automatic gate control + smart pump operation, the system enables pre-drainage flood prevention during rainy seasons and maintains ecological water levels during dry seasons, achieving an 80% increase in annual flood response efficiency while reducing energy consumption and emissions.

- ***DfMA Construction Technology:***

  Factory-manufactured prefabricated components effectively control material usage, reduce on-site cutting and waste, and lower natural resource consumption. Prefabricated components reduce on-site construction time and machinery usage, thereby lowering carbon emissions and energy consumption, promoting green building and sustainable construction. High-risk processes are transferred to factories, reducing on-site high-altitude work and hazardous operations, significantly lowering worker injury risks. Construction speed is accelerated, reducing noise, dust, and traffic disturbance to communities, improving community relations.

- ***World Class Pumps:***

  The project is the first large-scale flood control dam project in Hong Kong. The main pump house is equipped with six super-large water pumps, which can discharge 300 cubic meters of water per second. A single pump can pump as much water as a standard swimming pool in one minute. After completion, it will have the largest rainwater pump house in Asia, comparable in size to other world-class flood control and water conservancy projects.

STRATEGIC PRACTICE 5

West New Territories Landfill Extension Plan (WENTX)

TRANSFORMING INTO AN ENERGY RECOVERY LANDFILL, BUILDING DIGITAL SMART MONITORING AND OPERATION SYSTEM

Key Achievements

WENTX is a key waste disposal facility for Hong Kong that, upon completion, will provide approximately 76 million cubic meters of landfill capacity, processing an estimated 10,000 tonnes of solid waste daily, addressing waste disposal needs for decades to come. China State Construction International's introduction of green construction methods and intelligent facility design is driving landfill construction towards modernization and resource efficiency.

Project benefits

Through the application of green building materials, solar power generation, and landfill gas power generation technologies, an annual reduction of

140 tonnes of CO_2e-

has been achieved, ultimately reaching an annual carbon reduction of

4,000 tonnes of CO_2e-

Technical Highlights

The project revolves around three major themes — green construction, intelligent construction, and smart operations — creating a 3+3+1 intelligent manufacturing system to achieve technology empowerment and efficiency improvement.

Green Construction

Carbon Footprint Measurement and Green Material Application: Comprehensive application of Ground Granulated Blast Furnace Slag (GGBS), Carbon Capture and Storage Concrete (CCUS), Cool coating and smart streetlights among other green building materials, alongside carbon calculations to promote whole life cycle carbon management of building materials.

Solar Power Clean Energy Utilization: The project comprehensively adopts BIPV, BAPV and other technologies in office buildings, leachate treatment plants, and stone conveyor belts. Upon completion, the annual carbon reduction will be approximately 6, equivalent to the CO2 absorption of 149,000 trees.

Biogas Resource Utilization and Energy Cycling: Based on WENT biogas collection forecasts during normal landfill operation of over 20,000 cubic meters per hour, equipped with efficient biogas power generation facilities producing approximately 40MW annually, featuring high reliability and energy self-sufficiency capability, reducing external power dependency.

Intelligent Construction

C-SMART Engineering Management Digital Platform: Creating 4S smart and safe construction sites, implementing intelligent management of safety, environment, quality, personnel, machinery, and materials; automated drone patrols, automatic 3D model generation, enhancing construction site visualization management and safety assessment.

Comprehensive Smart Slope Monitoring System: Developed in collabouration with Chinese Academy of Sciences academician team, the 3D situational safety perception and intelligent slope monitoring system coordinates various slope monitoring equipment including GNSS, radar, multifunctional tilt vibration monitors, and piezoelectric rain gauges to monitor landfill slope safety status in real-time, comprehensively improving slope structure stability and safety risk early warning capabilities.

BIM Innovation Application: Integrating BIM's 3D-6D dimensions throughout the building's lifecycle, incorporating AR, VR and other technologies to enhance construction efficiency.

Smart Operations

Smart Mining Management System: Based on the rock crushing production line, specifically developing production line automatic control system (DCS system), belt fault detection monitoring system, 3D digital twin interaction platform, etc., researching AI-based predictive maintenance to achieve intelligent and efficient operation of the rock crushing production line.

Feature Story | Driving Sustainable Growth Through Dual Engines: Quality Construction and Green Finance

HIGH-STANDARD GREEN BUILDING PRACTICES: EXPANDING THE LOW-CARBON CONSTRUCTION BLUEPRINT

The construction industry is accelerating towards a new phase of integrated development between "net-zero" and "green finance." CSCI closely follows national "dual carbon" strategy and market green transformation trends, starting from the construction products themselves, supporting green building certification and construction practices with high standards, while actively expanding sustainable financial instruments, linking environmental, social and governance performance with capital costs to achieve a win-win situation between corporate economic benefits and climate responsibility.

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STRATEGIC PRACTICE 1

The Expansion of the Affiliated School of the University of Macau

Feature Story

Driving Sustainable Growth Through Dual Engines: Quality Construction and Green Finance

The expansion of the affiliated school of the University of Macau is a representative educational construction initiative. The design team fully integrated green building concepts, combining local environmental characteristics with advanced technologies to promote the development of a sustainable campus. CCE Macau provided full support during construction, adhering to high standards to help the project achieve green building certification. The project incorporates various energy-saving and environmentally friendly designs, including:

- Building uses Low-E double-glazed glass, which effectively reduces heat conduction, enhances thermal insulation performance while maintaining good light transmission.
- Light wells installed at both north and south ends of the basement and light pipe systems in the top floor indoor sports facility introduce natural light, reducing reliance on artificial lighting during daytime, achieving approximately 40% reduction in lighting power consumption.
- Implementation of high Coefficient of Performance (COP) Variable Refrigerant Volume (VRV) air conditioning system, heat recovery processors, and LED energy-saving lighting.
- Actively implementing renewable energy technologies, with approximately 900 square meters of photovoltaic power-generating glass and about 200 square meters of solar panels installed on façades and rooftops. The power-generating glass uses cadmium telluride semiconductor material, with an estimated annual power generation of approximately 17,000 kilowatt-hours, equivalent to offsetting 2% of the building's total power consumption.
- Rainwater recycling system installed, expected to recycle and reuse approximately 260,000 liters of rainwater annually for ground-level landscape irrigation and aquaponics systems, promoting resource circulation.
- Indoor low-flow fixtures implemented, expected to save 50% water annually (approximately 4.00 million liters), significantly reducing water intensity.
- The total green area occupies at least 20% of the site area, employing three-dimensional greening design including vertical green walls in atriums and certain stairwells, with 50% of the roof area utilizing high Solar Reflectance Index (SRI) materials to reduce heat island effect.
- Selection of CFC-free (Chlorofluorocarbon) and HCFC-free (Hydrochlorofluorocarbon) insulation and fire protection materials, as well as low Volatile Organic Compound (VOC) building materials, including paints, carpets, and floor coverings.
- Utilization of 100% recycled outdoor wooden decking and partition wall blocks certified by the Construction Industry Council's green product certification.
- Install carbon monoxide sensors in parking lots to monitor parking lot air quality in real time.

To ensure environmentally friendly construction and support green building certification, CCE Macau has recruited green building experts to participate. Environmental integrated monitoring instruments have been installed on-site to monitor dust and noise in real-time; strict management of timber for temporary works is implemented, with all newly purchased timber for temporary works (such as scaffolding, formwork, hoarding works, etc.) requiring certification from sustainable sources — the Forest Stewardship Council (FSC); recycling classification areas have been established, and a construction waste recycling incentive scheme has been implemented to encourage construction personnel to participate in resource recycling. Outdoor lighting optimized through lighting simulation, such as adjusting light angles to reduce outdoor lighting impact on nearby residences. After completion, the indoor space is mechanically ventilated to ensure that the indoor air quality meets the testing standards.

Feature Story | Driving Sustainable Growth Through Dual Engines: Quality Construction and Green Finance

GREEN FINANCE: LEVERAGING SUSTAINABLE DEVELOPMENT PERFORMANCE TO ENHANCE FINANCING

Beyond physical building green performance, CSCI is also committed to promoting sustainable finance implementation. In 2024, two significant green financing actions were achieved, demonstrating that technical strength and sustainable development performance have become important bases for capital market recognition.

First, CSCI successfully established its second Sustainability-Linked Loan (SLL) with Bank of China (Hong Kong). The loan introduces multiple indicators as interest rate adjustment criteria, including building carbon emission intensity, construction waste recycling rate, and employee sustainable training ratio. If predetermined targets are met, enterprises can enjoy lower loan interest rates, effectively achieving a "performance reduces cost" mechanism.

The loan agreement adopts the United Nations Sustainable Development Goals (SDGs) framework and is audited annually by third-party verification institutions, enhancing its transparency and credibility. This is not only an innovative practice in fund allocation but also a concrete manifestation of CSCI integrating sustainable development into its core financial management.

Additionally, CSCI Hong Kong has also been approved for Social Loans, with funds supporting community construction projects with public value, including elderly care facilities, primary healthcare spaces, and transitional housing projects. The loan fund usage and benefit returns must comply with the Social Loan Principles, requiring regular disclosure and auditing, emphasizing both financial transparency and social benefits.

CSCI builds upon industrial technology and smart management as its foundation, combining with the capital market's high recognition of ESG, establishing a development model that features both technological leadership and financial sustainability. In the future, the Group will continue to advance green technology application scenarios, expand sustainable financial instruments, and strengthen quantitative management of sustainable development performance, leading the construction industry towards a greener, more resilient, and more valuable future through technology and responsibility.

INNOVATIVE TECHNOLOGIES

Innovative Technology Management Structure

CSCI continues to enhance its technological innovation governance system by strengthening top-level design, platform coordination, and achievement implementation. The Group leverages technological innovation as a strategic pillar for sustainable development. Through accelerated development of technology platforms and deeper integration of technology with business operations, the Group has established a comprehensive governance framework that spans research and development, application, and management.

As of the end of 2024, the Group has established eight specialized research Centres, covering key areas including prefabricated construction, Building Information Modelling (BIM), infrastructure construction technology, hotel construction, smart construction, intelligent façade, medical buildings, and green low-carbon initiatives, providing strong support for the company's technological innovation in smart construction, green buildings, and specialized sectors.

Each research Centre demonstrates professional leadership and cross-departmental synergy, promoting the industrial application of innovative technologies. For instance, the Smart Construction Research Centre focuses on core technologies such as 5G, AI, IoT, and digital twins, advancing C-SMART platform development and application to create a full lifecycle digital management system; the Building Information Modelling Research Centre promotes integrated BIM application throughout the process, enhancing design and construction coordination efficiency; while the Green Low-carbon Research Centre concentrates on carbon technology innovation, developing carbon footprint calculation and building carbon reduction solutions to support the Group's dual carbon goals.

Research Centre	Introduction	Key Activities and Achievements
Prefabricated Construction Research Centre	Focuses on integrating and innovating technologies across the entire industry chain, including design, manufacturing, construction, and materials, covering concrete, steel structures, and MiC modular buildings. Promotes standardization and smart construction of prefabricated buildings to enhance construction efficiency and quality while promoting green construction and industrial applications.	◆ Established modular building systems covering concrete (C-MiC) and steel structures (S-MiC). ◆ Advanced MiC seismic system innovation, applied in projects like "Huazhang New Construction" in Shenzhen. ◆ Built Shenzhen Longgang Smart Construction Base to enhance industry-academia-research integration. ◆ Led the development of national and local regulations for modular construction, obtaining multiple patents. ◆ Executed 79 projects nationwide, covering 5.09 million square meters.
Building Information Modelling Research Centre	Focuses on integrated BIM applications throughout the construction process, covering design, construction, and operations. Combines AR, data visualization, and smart analysis to support precise control of assembly, cost, progress, and quality, facilitating digital transformation and intelligent decision-making in construction.	◆ Developed AI Scan to BIM system, improving efficiency and accuracy of building reality-to-BIM conversion. ◆ Integrated BIM with digital twin technology, strengthening design-to-operation applications. ◆ Launched enterprise-level BIM application standards, supporting smart construction platform integration. ◆ Applied technology in 250 projects including Far East Façade, significantly improving construction efficiency. ◆ Actively participated in industry standard development, promoting BIM adoption and industry upgrade.

Research Centre	Introduction	Key Activities and Achievements
Infrastructure Engineering Technology Research Centre	Focuses on technological innovation in infrastructure engineering including roads, bridges, tunnels, and underground spaces. Researches investment models, safe construction, and green construction practices to support quality and efficiency improvements in major municipal and transportation projects.	◆ Developed urban lifeline monitoring platform and underground pipeline smart management system. ◆ Researched new building materials, including ultra-high performance concrete and heavy metal stabilization materials. ◆ Established smart drainage and purification technology systems for municipal and water environment management. ◆ Participated in sponge city and smart municipal infrastructure standard development. ◆ Successfully applied in major projects like Wuhan East Lake Deep Tunnel, deepening industry-academia collabouration.
Hotel Construction Research Centre	Dedicated to high-standard hotel construction technology development, focusing on integrated management of design, construction, and decoration. Enhances project coordination and management capabilities to promote green construction and market competitiveness of high-quality hotel projects.	◆ Explored modular, prefabricated, and rapid construction technologies for hotels. ◆ Promoted BIM and IoT integration for digital lifecycle management. ◆ Applied new ventilation systems and green materials to enhance building health and energy efficiency. ◆ Constructed Ba Guang Eco-Hotel demonstration project, implementing smart solutions with international brands.

Research Centre	Introduction	Key Activities and Achievements
Smart Construction Research Centre	Integrates advanced technologies including 5G, AI, IoT, VR, and robotics to create a full lifecycle smart construction platform. Using C-SMART as the core, achieves data-driven management, intelligent risk control, and project efficiency optimization to promote industry smart upgrade.	◆ Upgraded C-SMART digital platform for comprehensive construction process management. ◆ Developed AI monitoring, safety positioning, and smart site sensor networks. ◆ Invested in automated construction equipment development, including transport and spraying robots. ◆ Established smart site industry guidelines, obtaining multiple technical patents. ◆ Technology applied in over 250 projects, with deep collabouration with universities and telecom enterprises.
Intelligent Façade Research Centre	Focuses on standardized design and smart assembly of façade systems, integrating new materials and intelligent light-adjusting technology to enhance façade design, construction, and performance. Supports green and technological building façade solutions.	◆ Developed Building Integrated Photovoltaics (BIPV) and lightweight energy-efficient façade systems. ◆ Built intelligent façade manufacturing factory achieving digital twin and automated processing. ◆ Introduced Light series photovoltaic modules, achieving nearly 16 tons carbon reduction per year for 600m^2 façade. ◆ Led photovoltaic façade standard development, obtained patent rights and ISO certification. ◆ Technology implemented in premium projects like Dubai Burj Khalifa and Hong Kong Central Two.

Research Centre	Introduction	Key Activities and Achievements
Medical Building Research Centre	Combines medical design, construction, and maintenance expertise to promote standardization, modularization, and smart development of hospital construction. Supports high-quality medical project delivery and develops core medical building technologies and industrial applications.	◆ Built prefabricated MEP factory to enhance hospital construction industrialization. ◆ Developed modular medical space products like I-BOX zero-carbon consultation rooms. ◆ Prefabricated construction reduced project duration by 40%, significantly improving construction safety and quality. ◆ Compiled medical building technical specifications and applied for patents covering clean rooms and support systems. ◆ Technology applied in projects like Hong Kong Chinese Medicine Hospital, deepening collabouration with health authorities.
Low-Carbon Research Centre	Focuses on innovative technology applications under dual carbon goals, launching new corporate carbon emission accounting methods and carbon footprint regional planning design in 2024. Introduced multiple carbon technology solutions supporting enterprise green low-carbon transformation.	◆ Established carbon emission data Centre and carbon asset management platform, comprehensively enhancing group carbon inventory and reporting capabilities. ◆ Developed building carbon emission smart analysis platform, completing carbon footprint assessment and prediction models for 80 projects. ◆ Promoted recycled concrete, low-carbon steel and other green building materials, achieving up to 18% carbon reduction per project. ◆ Participated in developing industry standards including "Building Carbon Emission Assessment Guidelines" and applied for low-carbon construction patents. ◆ Supported group green building certification applications and green supply chain assessment system development. Platform applied in dozens of projects in Shenzhen and Hong Kong for carbon emission monitoring, currently collabourating with research institutions on building material lifecycle carbon emission research.

Digital Innovation Leading Low-Carbon Transformation

With the advent of the digital era, technological transformation in the construction industry has become imperative. CSCI is committed to driving smart upgrades and low-carbon transformation in the construction industry through self-developed platforms and technological solutions, bringing comprehensive improvements to project management. The Group currently has three core digital platforms: C-SMART Intelligent Management Platform, C-SYS+ Smart Construction Platform, and Carbon Neutral Cloud Platform, injecting new momentum into the construction industry.

The C-SMART platform integrates IoT, big data, and AI technologies, applied to project progress, material management, and risk warning, enhancing engineering efficiency and safety levels. C-SYS+ focuses on smart construction, significantly improving project delivery speed and precision through modular construction and automated scheduling. The Carbon Neutral Platform supports the collection and analysis of the Group's carbon emission data, serving as a fundamental tool for achieving carbon peak and neutrality pathway planning. Through the comprehensive implementation of C-SMART, C-SYS+, and Carbon Neutral Cloud Platform, CSCI effectively integrates internal and external resources and data flows, further enhancing project execution efficiency and corporate governance capabilities, achieving more precise strategic management and decision support, providing a solid technological foundation for the construction industry's digitalization and sustainable development.

Technical Highlights

Introduction to Three Core Digital Platforms:

C-SMART Intelligent Management Platform

As the Group's core smart site management system, the C-SMART platform integrates IoT, artificial intelligence (AI), mobile internet, and facial recognition technologies to comprehensively enhance site quality, safety, and progress management. The platform features real-time data transmission and analysis capabilities, allowing construction personnel to access project progress and safety information through mobile devices at any time. The platform can also automatically identify safety hazards on construction sites and issue timely warnings, effectively reducing accident risks. Furthermore, C-SMART provides intelligent analysis through big data applications, optimizing project resource allocation and risk control, promoting the digitalization and smart development of construction sites.

C-SYS+ Smart Construction Platform

The C-SYS+ platform is designed for construction enterprise management, with digital twin technology at its core, providing comprehensive solutions for data collection, analysis, and prediction. The platform can integrate business systems across departments, build comprehensive decision-making models, and achieve automatic tracking and management of indicators such as cost, progress, quality, and safety. Additionally, the C-SYS+ platform effectively promotes data sharing and collabouration across project segments, breaking down internal information silos and helping enterprise leadership make more accurate decisions and risk control. The platform also shares data with suppliers and partners, promoting overall efficiency improvements across the industry chain.

Technical Highlights

Carbon Neutral Cloud Platform

In response to global climate change challenges, CSCI deploys low-carbon transformation strategies through its Carbon Neutral Cloud Platform to support enterprise carbon neutrality goals. The platform uses cloud technology to automate monitoring and precisely calculate enterprise carbon emissions, delivering carbon inventory, footprint analysis, and reduction solutions. Project teams can leverage this platform to track carbon emissions in real-time, identify reduction opportunities, and implement data-driven green construction and sustainable building solutions—all contributing to global carbon reduction targets.

C-SMART Platform Achieves Substantial Breakthrough in Mainland Commercialization

In 2024, CSCI took a crucial step in smart construction, with its subsidiary Shenzhen Haihong Smart Technology Co., Ltd. (referred to as "Haihong Technology") successfully winning the bid for the Industrial Internet Pilot Platform Construction Project for Prefabricated Buildings in Hefei Economic and Technological Development Zone, Anhui Province. This marks the Group's first successful bid for an industrial internet platform construction project, signifying substantial progress in the construction industry's digital transformation and deep integration of prefabricated buildings with industrial internet, also paving the way for C-SMART system's commercialization in the mainland market.

In the Hefei project, Haihong Technology integrates the C-SMART system with cutting-edge technologies such as artificial intelligence (AI), Internet of Things (IoT), and Digital Twin, adopting SOA microservice architecture to create a lifecycle-spanning digital management platform for construction industry internet projects. Through the C-SMART system, users can digitally monitor and manage various stages including design, production, construction, and acceptance, helping reduce construction errors, compress construction periods, and improve safety, holding profound significance for the digital transformation of the traditional construction industry.

CSCI continues to enhance its smart construction layout with C-SMART as the core driver, aligning with national strategic directions. In 2024, the Group's smart construction brand C-SMART portal website officially launched simultaneously in mainland China and Hong Kong, marking another solid step in promoting digital transformation and enhancing industry information service capabilities. The C-SMART website not only showcases the smart construction platform's development progress but also clearly outlines the platform's application scenarios throughout the construction process, providing 24-hour technical support and service guarantee. Currently, the C-SMART platform has developed over 40 smart functions, including AI construction progress recognition, personnel vital signs monitoring, 360-degree mechanical monitoring, and personnel unified code access, widely applied in multiple mainland projects.

C-SMART is about to upgrade to version 4.0, becoming Hong Kong's first platform to fully meet the government's 4S requirements. The new version will introduce tools such as indicator systems, BI billboards, and TransTrack Digital Works Supervision System (DWSS), achieving precise tracking and analysis of multiple dimensions including personnel, progress, and quality, comprehensively empowering management decisions. In the future, CSCI will continue to rely on the C-SMART portal website to expand the boundaries of smart construction applications, promote knowledge sharing and industry exchange, drive digital achievements in broader scenarios, providing strong support for achieving efficient, green, and safe sustainable construction.

Smart Construction Platform Upgrade

Driven by both the "dual carbon" goals and rapid development of the digital economy, CSCI actively promotes smart construction and green low-carbon transformation. In 2024, the Group empowers sustainable development through technological innovation, continuously improving project management effectiveness and environmental performance through its self-developed C-SYS+ Smart Construction Platform and Carbon Neutral Cloud Platform. The two major platforms completed multiple upgrades and optimizations this year, providing strong digital support for the Group's sustainable construction mission, further consolidating the company's leadership position in the construction industry transformation.

The C-SYS+ Smart Construction Platform continues to deepen its intelligent management and data integration capabilities:

Introduction of AI Applications

The platform upgrade has incorporated the latest AI prediction and analysis models, which through real-time data analysis and machine learning, proactively predicts construction risks and implements early preventive measures. Practice has proven that the new features effectively reduce site accident rates by 25%, significantly enhancing project safety and stability

Enhanced Digital Twin and IoT Integration

This year, the platform has further strengthened its capability to integrate digital twin technology with IoT devices, achieving real-time monitoring of equipment operations and material usage during construction, driving on-site resource efficiency up by over 20% and substantially reducing waste

Comprehensive User Experience Optimization

C-SYS+ completed a new user interface design in 2024, making platform operations more intuitive, user-friendly, and supporting multi-device synchronization, enabling personnel in different roles to access required information more quickly and accurately, enhancing cross-departmental collabouration efficiency

With the continued advancement of international carbon reduction trends, the Carbon Neutral Cloud Platform also achieved breakthrough progress in 2024:

Significant Improvement in Carbon Emission Data Accuracy

Through the introduction of internationally recognized carbon footprint quantification models, the platform can more precisely track and analyze carbon emission data from construction projects, with emission reduction efficiency increasing by more than 15% year-on-year, helping multiple projects achieve carbon reduction targets ahead of schedule.

Close Alignment with Policy Regulations and Market Demands

This year, the platform achieved real-time synchronization updates with the latest domestic and international environmental protection policies, helping Group projects more effectively comply with regulatory requirements, successfully obtaining green certifications and carbon credit quotas, while promoting continued benefits from the carbon trading market.

Education, Training, and Industry Chain Collabouration

Through newly added training modules, the Group further enhanced internal staff awareness and skills regarding carbon neutrality. Meanwhile, the platform also promotes upstream and downstream collabouration across the industry chain, establishing strategic partnerships with multiple authoritative third-party certification institutions and technical partners, strengthening the credibility and influence of carbon management data.

Technological Innovation Drives Transformation

As urban development enters a new phase, the renovation and transformation of existing buildings has become a crucial issue in improving residents' quality of life and promoting sustainable urban development. CSCI actively explores and applies cutting-edge technologies such as Modular integrated Construction (MiC), Building Information Modelling (BIM), Building Integrated Photovoltaics (BIPV), and Modular integrated Mechanical, Electrical and Plumbing (MiMEP), which not only significantly improved residents' living conditions but also became a model demonstration for national urban renewal, providing valuable experience and reference for the renovation and enhancement of existing buildings.

Technical Highlights

Introduction to Innovative Technologies:

Modular integrated Construction (MiC)

MiC is a new green construction method where buildings are divided into modules during the design phase, followed by high-standard industrial prefabrication of these modules (including decoration, finishing, and equipment installation), which are then transported to the construction site for assembly into a complete building. By maximizing the transfer of construction from the site to the factory, it achieves a transformation from the traditional "site-centric" project management model to a modern "factory-centric" industrialized construction management model, truly realizing the concept of "building houses like manufacturing cars".

Building Information Modelling (BIM)

BIM is a digital construction information management technology that creates three-dimensional building models, integrating information about geometry, spatial relationships, geographic information, and various building component properties. BIM can be applied throughout the building's lifecycle, including design, construction, and operation phases, improving collabouration efficiency and decision-making quality.

Building Integrated Photovoltaics (BIPV)

BIPV combines photovoltaic power generation technology with building design, incorporating photovoltaic modules as building envelope components such as roofs and façades, serving both power generation and building component functions. This technology helps increase building energy self-sufficiency, reduce carbon emissions, and enhance architectural aesthetics.

Modular integrated Mechanical, Electrical and Plumbing (MiMEP)

MiMEP refers to the prefabrication of mechanical, electrical, and plumbing system components in factories for rapid installation at construction sites. This method improves installation precision, shortens construction cycles, and reduces on-site construction complexity and environmental impact.

Beijing Old Residential Area Renovation Sets New Benchmark

In 2024, CSCI's renovation of Building No. 8 in Huapi Factory Hutong, Xicheng District, Beijing, earned recognition in the Ministry of Housing and Urban-Rural Development's "2024 Collection of Typical Cases of China's Urban Renewal and Existing Building Renovation". This achievement solidifies the Group's leadership in urban renewal and green sustainable development, establishing a new standard for old residential area renovations in China.

Located in Beijing's core Xicheng District, Building No. 8 of Huapi Factory Hutong bears witness to the city's historical transformation. Over time, the community faced deteriorating infrastructure, poor energy efficiency, and declining living conditions—creating an urgent need for environmental improvements. CSCI embraced this challenge, responding to national urban renewal policies by implementing advanced construction technologies to enhance residents' quality of life and achieve sustainable development.

The renovation incorporated cutting-edge technologies, including MiC and BIM. The MiC technology revolutionized construction by shifting to factory prefabrication, where modules are completed off-site before assembly. This approach reduced construction time by 80%, minimized disruption to residents, and improved safety and quality. Simultaneously, BIM technology enabled precise 3D modelling throughout design and construction phases, enhancing accuracy while reducing errors and rework. The reduction in construction waste is attributed to modular green construction technology, with over 70% of processes completed in the factory, reducing on-site construction waste by 75% and material waste by 25%.

To further advance low-carbon energy-saving practices, the project utilizes renewable energy, with solar thermal panels installed on balcony façades, providing 100% of domestic hot water needs for each household, saving 47,000 kWh of domestic hot water energy annually, and reducing 29 tCO2e-per year.

Through the comprehensive application of the above innovative construction techniques, the renovation of No. 8 Huapichang Hutong has achieved significant and concrete results, which can be elabourated through six major features of modular construction, including structural system safety and reliability, speed and efficiency, sound insulation and noise reduction, thermal insulation and waterproofing, healthy living environment, and non-disruptive construction:

- **Structural System Safety and Reliability:** The composite shear wall module-shear wall structural system demonstrates mechanical properties "equivalent to cast-in-place," superior seismic performance, meeting seismic requirements for high-intensity regions.
- **Speed and Efficiency:** With parallel factory production and on-site construction, completion was achieved in 3 months, reducing construction time by 80% compared to traditional methods, enabling residents to move into high-quality new homes faster while reducing on-site labour and relocation costs.
- **Sound Insulation and Noise Reduction:** Stacked modules form double-layer floor slabs, combined with sectioned rubber sound insulation padding creating cavities, forming a "sandwich" structure. This multi-layer structure creates a "vibration system" that significantly reduces noise transmission. Module partition walls utilize a double-wall cavity design. Compared to the high standards specified in the "Civil Building Sound Insulation Design Code" (GB50118–2010), the air sound insulation value of partition walls improved by 7dB, and the impact sound insulation value of floor slabs improved by 5dB, providing a quiet living environment.
- **Thermal Insulation and Waterproofing:** Modules employ integrated window frame pre-embedding technology, allowing window frames and walls to be formed as one piece, achieving airtight effects, effectively reducing heat loss (gain) in rooms, and avoiding window frame leakage risks. Bathroom modules are produced in the factory using waterproof concrete, with integrated casting of base plates and walls, ensuring better integrity. Superior casting conditions and maintenance measures result in concrete with higher impermeability performance and better waterproofing construction quality. The building's overall air tightness reaches Level 8, meeting the requirements for near-zero energy buildings in cold regions as specified in the "Technical Standard for Nearly Zero Energy Buildings" (GB/T51350–2019).
- **Healthy Living Environment:** MiC unit decoration works are completed three months before delivery, allowing sufficient time and conditions for over 50% of TVOC (Total Volatile Organic Compounds) and free formaldehyde to dissipate, ensuring compliance with health standards at delivery.
- **Non-disruptive Construction:** With over 70% of processes conducted in the factory, construction disruption is minimized, relieving traffic pressure, reducing construction site occupation, enabling quiet operations in busy urban areas, and reducing construction noise by 8–10dB.

Innovation Transformation System Powered by Institutional Mechanisms

CSC Hailong has established a new technological achievement transformation mechanism, clearly defining the process from proposal to transformation of technological achievements and introducing a new revenue-sharing model to encourage collabouration between transformation teams and implementing units in advancing practical applications.

In 2024, the focus is primarily on self-invested transformation, with patent licensing introduced as a new method of achievement transformation. This effectively promotes the industrialization and application of intellectual property rights and technical achievements related to the company's leading products: concrete modular integrated construction and steel structure modular integrated construction. The transformed achievements have been successfully applied in the Longgang District Smart Construction Industrial Park and several key projects in the Greater Bay Area, effectively improving construction efficiency and green building standards. Following successful technology application and benefit generation, relevant personnel involved in achievement transformation receive economic rewards based on their contribution weights, incentivizing continuous innovation.

"Open Bidding" System Focuses on Tackling Challenges

To enhance technological innovation efficiency, CSC Hailong introduced an enterprise version of the "Open Bidding" system in 2024. The system is problem-oriented, stimulating technical teams' independent research through open solicitation and internal bidding, promoting cross-departmental collabouration. Core mechanisms include:

- **Technical Demand List Publication:** Research centres and project departments regularly publish their research needs, including special module components, energy-saving steel structures, and building carbon emission optimization technologies;
- **Voluntary Team Project Acceptance:** Technical experts and young research personnel from any department or rank can form teams to undertake projects by submitting technical solutions and research plans;
- **One Project, One Responsibility, One Reward-Penalty Principle:** Each project has clearly defined objectives, delivery timelines, and stage assessments. Completion performance is considered during the annual performance evaluations.

"Intellectual Property Management System" Protects Technical Achievements, Strengthens Asset Accumulation

CSC Hailong has established a comprehensive intellectual property management system that creates a closed-loop process from technical achievement identification through rights protection, fully integrated with legal compliance systems. The main system components include:

- **Internal Patent Application Review Process:** All technical innovation achievements undergo a three-level approval process—technical department initial review, legal compliance department review, and senior management decision.
- **Classification and Grading Protection Mechanism:** Achievements are categorized based on their innovation and commercial value into core technology, improvement-type applications, and general-type methods. Each category has specific confidentiality and commercial transformation measures.
- **Patent Incentive Policy:** The system offers varied rewards, promotion points, and achievement bonuses for invention patents, utility models, and software works, while promoting team joint authorship and school-enterprise cooperation.

Enhancing Industry-Academia Collabouration

In 2024, CSCI actively promoted industry-academia collabouration through close cooperation with academic institutions, industry associations, and professional organizations, achieving multiple significant outcomes that further consolidated the Group's leading position in the construction industry while contributing to the industry's sustainable development.

Promoting Resource Utilization of Construction Waste

In active response to the national "dual carbon" strategy and to promote green low-carbon transformation of the construction industry, the Group, in collabouration with the Institute of Sustainable Development at Macau University of Science and Technology, China Green Building and Energy Conservation (Macau) Association, and the Faculty of Innovation Engineering at Macau University of Science and Technology, jointly published a research report titled "Analysis of Comprehensive Utilization of Construction Waste in the Guangdong-Hong Kong-Macau Greater Bay Area.", which has been successfully published in the "Proceedings of the 2024 International Conference and Technology Equipment Exhibition on Zero-Carbon Cities, Villages and Buildings".

This study focuses on the scale of construction waste generation, resource utilization technologies, and current industry development status in the Guangdong-Hong Kong-Macao Greater Bay Area. The research indicates that frequent construction activities in the region generate a substantial volume of waste, placing higher demands on resource processing capacity. Therefore, multiple typical cases of construction waste resource utilization were analyzed, including the Macau Elderly Apartment project. The study points out that the construction waste management system in the Greater Bay Area has taken initial shape, gradually forming a comprehensive governance framework covering generation, collection, transportation, treatment, and utilization through management systems, policy implementation, and technological applications. However, there remains room for further optimization in terms of coordination mechanisms, resource utilization efficiency, and market development.

To address this, the study proposes four aspects to deepen development strategies, including establishing a unified classification and quality standard system to promote the formation of a unified construction waste resource product market in the Greater Bay Area; strengthening inter-regional information exchange and technical communication to encourage coordinated development of innovative technologies and application models; promoting regional collabourative disposal to achieve intensive and efficient utilization; and improving policy and financial support measures through tax incentives, professional talent training, and market stimulation to expand the application scenarios of recycled building materials. The study emphasizes that if the Greater Bay Area can strengthen institutional guidance and urban cluster collabouration, it is expected to further enhance the comprehensive utilization of construction waste and promote the resource recycling system toward professionalization, scale expansion, and intelligent development. Through this project, the Group fully leverages the synergy between corporate resources and research institutions' professional expertise, promoting an innovative cooperation model that deeply integrates industry, academia, and research, providing forward-looking practical pathways and theoretical references for the industry.

Additionally, the Group published a paper titled "Construction Waste Reduction Practices Based on Zero-Waste Site Concept" during the year, which was successfully included in the "Construction Technology" journal. This paper, co-authored by CCE Macau and the Institute of Sustainable Development at Macau University of Science and Technology, discussing Macau's urban and engineering waste reduction strategies and characteristics, and exploring the practice and technical application of zero-waste construction site management for a residential building project in the Macau region.

The research finds that establishing dedicated management structures with clear division of responsibilities, along with implementing construction waste classification, on-site monitoring, and resource recycling utilization, can effectively enhance waste management effectiveness. During the construction process, through refined management measures including source reduction, real-time classification, information-based supervision, and recycled material reuse, construction waste can be significantly reduced while improving resource circulation efficiency. Furthermore, technological applications such as MiC, modular construction, and BIM design optimization help reduce waste generation from the design source. The research also indicates that advance planning of permanent facility works and reducing temporary facilities can further decrease construction waste on site. Overall, promoting zero-waste construction sites requires coordinated efforts across multiple aspects including system design, construction management, technological innovation, and resource recycling, while emphasizing the importance of continuous improvement and intelligent management systems. This study provides empirical reference for promoting green transformation in the construction industry and enhancing construction waste reduction.

Expanding Industry-Education Integration

In June 2024, CSCI was invited to participate in the 15th International Infrastructure Investment and Construction Forum, where it signed strategic cooperation framework agreements with the University of Macau and Macau University of Science and Technology. This collabouration marks an important step in CSCI's active expansion of university-enterprise cooperation. According to the agreements, CSCI will leverage respective advantages with both universities to conduct in-depth cooperation in areas such as collabourative technological R&D, joint innovation platform construction, technology achievement transformation, and talent cultivation, committed to building a full-chain service system for research achievement transformation, promoting efficient connection between research and markets, and driving technological innovation and industry advancement.

In recent years, CCE Macau, under CSCI, has initiated multiple collabourations with both universities and achieved preliminary results. For example, the high-performance nano-foam concrete material independently developed by the University of Macau has been successfully applied in multiple CCE Macau engineering projects; meanwhile, Macau University of Science and Technology has collabourated with CCE Macau on researching and implementing "zero-waste construction" and other green low-carbon construction technologies in the Macau Senior Housing project. Both parties have been frequently invited to share their experiences at high-end forums, receiving widespread industry recognition and acclaim.

Participation in China Construction Technology Exhibition Premiere and Macau International Environmental Protection Exhibition

In 2024, the Group participated in two major exhibition events — the China Construction Technology Exhibition Premiere and Macau International Environmental Protection Exhibition, comprehensively showcasing the Group's latest technologies and achievements in smart construction, green buildings, and sustainable development.

China Construction Technology Exhibition Debut

The inaugural China Construction Technology Exhibition was held in Beijing in 2024, guided by the Ministry of Housing and Urban-Rural Development and hosted by China State Construction Group. The exhibition themed "Technology Empowers Better Life, Innovation Leads Chinese Construction" featured three major themed areas: "Building Harmonious Cities", "Expanding Happy Spaces" and "Empowering Chinese Construction". The exhibition brought together leading domestic and international construction technology enterprises and experts to promote technological innovation and exchange in the construction industry. As an invited exhibitor, the Group established a large exhibition area showcasing 18 latest technological achievements, demonstrating its strong capabilities in advancing construction industry industrialization, intelligence, digitalization, and green development. Key innovative technologies and projects showcased included:

1. **C-SMART Intelligent Construction Platform:** This platform integrates Internet of Things (IoT), Artificial Intelligence (AI), and big data analytics technologies to achieve full lifecycle management of construction projects. Through real-time data monitoring and analysis, C-SMART can optimize construction processes, improve resource utilization efficiency, reduce costs, and enhance engineering quality and safety.

2. **Prefabricated Construction Technology:** The Group showcased its latest R&D achievements in prefabricated construction, including Modular integrated Construction (MiC) and precast component technology. These technologies significantly reduce construction cycles, minimize on-site operations, improve building quality, while reducing environmental impact.

3. **Green Building Cases:** The Group shared multiple successful green building project cases, demonstrating practical experience in energy conservation, renewable energy utilization, and green material applications, highlighting the Group's efforts and achievements in promoting sustainable construction.

During the exhibition, Group representatives also participated in multiple thematic forums and seminars, engaging in in-depth exchanges with industry experts on future development trends, challenges, and opportunities in construction technology, further expanding industry vision and providing new perspectives for the Group's technological innovation.

Macau International Environmental Protection Exhibition

The Macau International Environmental Protection Exhibition is an influential environmental protection industry event in the Asia-Pacific region, aimed at promoting exchange and cooperation in environmental protection technologies and products. The Group established a dedicated exhibition area in the 2024 exhibition, showcasing innovative achievements in environmentally friendly building materials, energy-saving technologies, and renewable energy applications, specifically including:

1. **Building Integrated Photovoltaics (BIPV) Technology:** The Group showcased BIPV technology that combines photovoltaic power generation systems with building design, achieving clean energy self-supply for buildings, reducing carbon emissions, and improving building energy efficiency.

2. **Green Building Material Applications:** Various environmentally friendly building materials were exhibited, such as low-carbon concrete, renewable wood, and high-performance insulation materials, which play important roles in reducing building energy consumption and improving indoor environmental quality.

3. **Sponge City Construction Solutions:** The Group shared innovative solutions in urban rainwater management and utilization, including permeable paving, green roofs, and rainwater collection systems, helping cities enhance flood prevention and drainage capabilities while achieving sustainable water resource utilization.

Additionally, the Group organized multiple special lectures and interactive activities to introduce the latest environmental protection technologies and practices to attendees, and engaged in in-depth exchanges with environmental protection experts and enterprise representatives from around the world to explore cooperation opportunities and jointly promote the development of the environmental protection industry.

Through participation in these exhibition activities, the Group not only demonstrated its innovative capabilities in construction technology and environmental protection but also strengthened connections and cooperation with the industry, laying a solid foundation for future technology research and development and market expansion. The participation in these activities fully demonstrates the Group's active role and responsibility in promoting sustainable development in the construction industry.

BEST GOVERNANCE PRACTICES

CSCI upholds excellent corporate governance practices to promote stable corporate development. This section will detail CSCI's best practices in anti-corruption, business ethics, and quality assurance, demonstrating the Group's concrete achievements on its sustainable development journey.

Anti-corruption

CSCI consistently adheres to the business philosophy of "integrity, self-discipline, and legal compliance," continuously strengthening disciplinary systems, deepening integrity culture, and solidifying risk prevention foundations to provide robust disciplinary safeguards for high-quality and sustainable development. In 2024, the Group comprehensively promoted the integration of integrity principles into daily management and implemented practical actions, with institutional governance as the foundation, educational guidance as the means, and cultural construction as the support.

The Group fully implements the principle of "governing and managing through systems", continuously advancing the "abolition, modification, establishment, and interpretation" of corporate governance systems. Throughout 2024, 46 systems were improved, covering core areas such as business management, contract performance, financial control, human resources, and disciplinary supervision, providing clear behavioural guidelines and risk prevention measures for corporate operations. The Group also actively employs the "case-based warning mechanism," regularly conducting disciplinary inspections, violation reports, and system reviews to strengthen early warning and disciplinary deterrence. For major matters, a dual management system of "prior declaration + post-verification" is implemented, further clarifying employee behavioural red lines and accountability requirements, strengthening the first line of defense, and promoting a compliant and clean working atmosphere.

To further strengthen internal control supervision, the Group has established a dedicated supervision department with full-time personnel responsible for review and investigation, and has made reporting channels public to all employees, with reporting links set up on the company's intranet for convenient problem reporting. For different regions and employee groups, the Group handles various corruption cases according to mainland China and Hong Kong/Macau local laws and regulations, referring cases to local law enforcement agencies such as the Hong Kong Independent Commission Against Corruption when appropriate. In 2024, the Group conducted 14 supervision actions, focusing on key areas such as responsibility implementation, execution of higher-level deployments, system implementation, and compliance with the Central Government's eight-point regulation, identifying and providing feedback on over 200 issues and proposing over 200 improvement suggestions. Throughout the year, a total of 20 problem leads were addressed, resulting in the termination of employment contracts for 3 individuals, dismissal of 4 persons, with 1 case being referred to local public security authorities for handling.

To effectively address integrity compliance challenges in global business expansion, the Group developed the "Guidelines for Overseas Integrity Compliance Supervision System Construction", referencing the Hong Kong ICAC's integrity risk management materials, while also revising the "Site Integrity Compliance Supervision Manual." The manual outlines 65 risk inspection points and 146 preventive measures, covering four core areas: materials management, quality management, contract management, and personnel management, providing clear guidance for overseas and Hong Kong/Macau business operations and further strengthening integrity and compliance management.

Regarding cultural training, the Group continues to normalize integrity education. Throughout the year, 6 specialized integrity training sessions were held with over 2,400 participants, and 7 integrity education sessions were conducted for management cadres, including "First Integrity Lesson for New Employees" and "Construction Sea Children" integrity education for new-generation employees, helping employees establish integrity consciousness from the start of their employment, "buttoning up the first button" in their mindset. To enhance the influence and penetration of integrity culture, the Group actively expanded innovative cultural construction forms. In 2024, 22 creative cultural works were launched, including "i-Box Integrity Space", "3D Scene Design", and "Warning Education Theme Exhibition," with content closely tied to corporate realities, position risks, and typical cases, strengthening visual communication and situational teaching effects.

Meanwhile, the Group continues to promote the "Virtue in Construction, Integrity as Foundation" integrity culture project, creating "Clean Engineering Front-line Models", with educational content widely applied in corporate internal classrooms, bulletin boards, and smart construction site displays, achieving deep integration of integrity concepts with daily operations and cultivating a foundation of integrity culture.

For overseas business development, the Group simultaneously strengthens integrity compliance construction, establishing a multi-level overseas supervision system to effectively prevent cross-border corruption risks. The company actively responds to national policies, focusing on strengthening behavioural supervision of overseas "key minorities," improving financial management and major project monitoring, and continuously optimizing system frameworks and process design.

Additionally, the Group regularly conducts anti-corruption training in overseas regions to enhance employees' legal awareness and moral standards, and establishes reporting mechanisms encouraging internal personnel to report violations either by name or anonymously, ensuring timely discovery and handling of issues. These measures have effectively enhanced CSCI's integrity governance level in the global market, providing solid compliance guarantees for enterprise internationalization.

Abide by Business Ethics

Regarding fair competition, CSCI strictly complies with anti-monopoly and anti-unfair competition laws to ensure market fairness. The company has established clear competition policies prohibiting any form of price manipulation or market segmentation. In data security, CSCI has established comprehensive data protection mechanisms, clearly defining control measures for data collection, transmission, exchange, storage, processing, and destruction, and specifying emergency response procedures for network security incidents to ensure information security of customers and partners. For intellectual property protection, the company respects and strictly follows relevant laws, establishing internal policies to prevent intellectual property infringement while actively applying for and maintaining its own intellectual property rights. In advertising and promotion, CSCI adheres to principles of truthfulness, accuracy, and non-misleading information, ensuring all promotional materials comply with relevant regulations and industry standards, protecting consumers' right to know and choose.

The Company focuses on reviewing business ethics and anti-corruption policies for both internal operations and suppliers. Through internal audits, the Company conducts anti-corruption and business ethics-related audits of all operations at least once every three years, and requires all suppliers to provide anti-corruption related policies or management measures, regularly assessing their own compliance. In the first half of 2025, the company completed its first business ethics audit (see page 168 for details).

Clawback and Penalties

The Company has established a performance compensation clawback and penalty mechanism for directors and senior management, with a certain proportion of performance compensation reserved for deferred payment. For directors and senior management who violate national laws and regulations or fail to fulfill their duties resulting in corporate asset losses, the Company will, based on disciplinary outcomes and asset loss liability, deduct current year performance compensation or recover part or all of the performance compensation already paid to relevant personnel.

Creating Extraordinary Quality

Over the years, the Group has upheld its commitment to quality, love for cities, and social responsibility, actively participating in regional urban renewal and public space construction, achieving a balance between historical inheritance and innovation promotion.

The Macau M8 Project

As CSCI's landmark project in Macau, M8 is not only a paradigm of cultural and commercial integration but also embodies the enterprise's practice of high-quality construction, historical culture preservation, and sustainable development concepts. Through the pursuit of engineering excellence and innovative construction technology application, the M8 project has successfully created an "organically grown building," injecting new life into the World Heritage protection area and establishing a new benchmark for Macau's urban renewal and quality construction.

The M8 project, formerly the Postal and Telecommunications Staff Quarters, is located in the core area of Macau's Historic Centre, a UNESCO World Heritage site, just 50 meters from the main entrance of the Ruins of St. Paul's — Senado Square, with 8 heritage sites within a 100-meter radius. Therefore, reconstruction and revitalization must strictly follow the Cultural Heritage Protection Law guidelines. Combined with surrounding old buildings, narrow streets, and a basement excavation depth of 17 meters, construction conditions were extremely challenging.

The construction team demonstrated ultimate craftsmanship, precisely controlling construction processes, pursuing perfection in material selection, finishing details, and joint design, successfully achieving architectural results that preserve historical texture while incorporating modern functions. For example, the project's façade features "curved thermally bonded composite stone glass" developed over three years, setting a global precedent and earning Guinness World Records certification, demonstrating the Group's technological breakthrough in innovative materials and construction craftsmanship.

M8 is not just a manifestation of architectural quality but also an innovative operational platform. The project introduced an autonomous management leasing mechanism, successfully attracting international and local brands and cultural institutions, fully leveraging the potential of combined commercial and cultural development, creating a third transformation path for Macau's urban space, achieving both sustainable operations and enhanced social value.

The M8 project has received numerous international awards for its design, construction, safety, and social impact. As of 2024, it has won over ten major industry awards, including the Guinness World Record (2023) for the largest curved thermally bonded composite stone glass, RLI Global Retail & Leisure Awards (2024) Most Anticipated Opening of the Year Gold Award, and PropertyGuru Asia Property Awards (2023) Best Retail Development for Asia and Hong Kong/Macau Gold Award.

CSCI Bridge Operation Management Platform

The Group has established an intelligent monitoring and maintenance system covering three major modules: electromechanical operation and maintenance, asset maintenance, and toll management, fully implemented in 2024. The platform promotes operational process standardization and digitalization through technological means, effectively improving inspection efficiency, early warning capabilities, and operational decision-making scientific nature, marking a significant achievement in promoting smart operations in the transportation industry. Notably, starting in October of the same year, due to construction closure of the Beijing-Kunming Expressway, two operating highways of Shanxi Company accommodated large volumes of diverted traffic. To address the sudden traffic increase, Shanxi Company quickly established an emergency task force, held "One Road Three Parties" joint meetings with traffic police and road administration units, and developed detailed traffic diversion emergency plans, ensuring no safety incidents during the diversion period. This resulted in an increase of 277,900 vehicle passes within 28 days, generating over RMB4 million in additional toll revenue.

On another front, the Group continues to deepen the application of technological overload control and smart toll collection. Following the completion of Niangziguan Province's first unmanned toll station in 2023, in 2024, the technological overload control system was successfully piloted at Pingding North Station, achieving fully automatic, round-the-clock monitoring and early warning processing of overloaded vehicles, further advancing cost reduction, efficiency improvement, and digital upgrade of toll management.

Respect for Human Rights

Against the backdrop of increasing global corporate emphasis on social responsibility, CSCI adheres to its "people-oriented" philosophy, committed to upholding respect for human rights across its global operations. In 2024, the Group achieved significant results in preventing child and forced labour and respecting indigenous peoples' rights, demonstrating its firm stride on the path of sustainable development.

Prevention of Child and Forced Labour

The Group strictly complies with local labour laws and regulations, establishing and implementing a series of internal policies to ensure the elimination of child and forced labour across all global operations. The Group's Human Resources Department strictly verifies applicants' age and identity documents during recruitment to ensure all employees meet legal employment age requirements. Furthermore, all labour contracts are signed on a fair and voluntary basis, clearly stating labour conditions and rights and obligations, preventing any form of forced labour.

To further strengthen this commitment, the Group regularly conducts internal audits of various projects and subsidiaries to ensure strict implementation of labour standards. Additionally, anonymous reporting channels have been established to encourage employees to report any violations, ensuring issues can be identified and resolved promptly.

Respecting Indigenous Peoples' Rights

During project development, the Group places high importance on relationships with local indigenous communities, respecting their culture, traditions and rights. Before project initiation, the Group proactively engages with indigenous communities to understand their concerns and needs, fully considering these factors in project design and implementation to ensure their legal rights are not infringed. In 2024, the Group conducted comprehensive labour standard audits across all projects, finding no instances of child or forced labour. Meanwhile, employees received the trainings of labour standards to enhance compliance awareness among them.

The Group has also established regular communication mechanisms with indigenous community representatives to discuss project progress and potential impacts, whilst hiring local indigenous people to participate in project construction, providing employment opportunities and promoting local economic development. Furthermore, to protect indigenous cultural heritage, the Group has implemented special measures during construction to avoid damaging culturally significant sites.

Safeguarding the Environment

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In the global trend of actively promoting sustainable development, CSCI has demonstrated significant achievements in carbon management and waste recycling through its exceptional environmental management capabilities, further consolidating its leading position in the industry.

HYDROGEN TECHNOLOGY INNOVATION DRIVING LOW-CARBON CONSTRUCTION SITES

In response to increasingly severe climate change, global industries are actively exploring alternative energy solutions to reduce carbon emissions. Hydrogen energy, as an efficient and clean renewable energy source, is gaining increasing attention. It produces only water when burned, with zero carbon emissions, earning it the title of "ultimate clean energy." With the "Carbon Neutrality" target clearly defined in the Hong Kong Climate Action Blueprint 2050, the construction industry urgently needs to find paths for low-carbon transformation.

CSCI's subsidiary CSCI Hong Kong launched the "CSCI Hong Kong Clean Energy Program" in 2023, committing to actively introducing hydrogen technology into the construction industry and promoting new standards for green construction. In February 2025, CSCI Hong Kong officially launched three hydrogen energy applications at the Hong Kong-Shenzhen Innovation and Technology Park site project, including hydrogen generators, hydrogen forklifts, and hydrogen vehicles, establishing key indicators and safety standards for hydrogen energy applications in the construction industry.

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Hydrogen Generator:

Traditional construction sites rely heavily on diesel generators for temporary power, resulting in high carbon emissions, significant noise, and substantial impact on the surrounding environment. Hydrogen generators only emit water vapor during operation, significantly reducing carbon footprint and air pollution.

Hydrogen Forklift:

Hydrogen forklifts feature advantages of rapid refueling (taking only minutes) and extended range, making them ideal for high-frequency material handling. Compared to electric forklifts, the hydrogen versions operate longer, refuel faster, making them more suitable for busy construction sites while achieving zero emissions and low noise.

Hydrogen Vehicles:

Traditional construction site vehicles typically rely on diesel power, resulting in high carbon emissions and noise pollution, burdening the environment and surrounding communities. Hydrogen vehicles utilize fuel cells as their power source, combining high performance with environmental protection features, effectively meeting frequent site transportation needs and gradually becoming a crucial enabler for the construction industry's sustainable transformation.

The Group has already introduced various hydrogen vehicles, including 12-meter and 8-meter hydrogen coaches, to meet diverse on-site transportation needs.

- **12-meter Hydrogen Coach:** Equipped with advanced hydrogen fuel cell technology, featuring powerful performance and a range of up to 600 kilometers, effectively meeting corporate commuting and transportation needs. The hydrogen refueling process takes only 5–10 minutes, significantly improving operational efficiency; meanwhile, the vehicle operates with zero emissions, effectively reducing the carbon footprint for construction sites and urban environments.
- **8-meter Hydrogen Coach:** Designed with environmental protection as the primary consideration, suitable for various commuting and transportation scenarios, providing convenient and comfortable riding experience.

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ZERO-ENERGY BUILDING RENOVATION: FAR EAST FAÇADE DORMITORY AND OFFICE BUILDING SETS NEW STANDARD FOR LOW-CARBON DESIGN

CSCI has successfully completed the zero-energy building renovation of the Far East Façade dormitory and office building in Zhuhai, Guangdong, obtaining national zero-energy building certification. It has become Guangdong Province's largest existing building renovation zero-energy project, covering employee accommodation, dining, and office areas, with a total building area of 5,205 square meters. In 2024, the project generated nearly 1.6 million kWh of clean energy, achieving energy self-sufficiency.

The project adopts a multi-strategy integration approach, including high-performance façade design, photovoltaic systems, and efficient mechanical and electrical equipment, ultimately achieving energy consumption self-sufficiency and generating surplus green electricity for feedback to the public energy system.

In terms of envelope structure optimization, the project implements different solutions for the building's east, west, and south façades. The south façade and restaurant skylight are installed with Cadmium Telluride (CdTe) photovoltaic modules, achieving Building Integrated Photovoltaic (BIPV) design that combines shading and power generation functions. The east and west façades utilize triple-silver Low-E insulated glass with high light transmission and thermal insulation performance, effectively improving building thermal performance and reducing cooling load demands.

Regarding energy system configuration, the project fully utilizes the building's roof and façade space to install Building Attached Photovoltaic systems (BAPV), with an estimated annual power generation of 249,000 kWh, covering the entire building's annual energy consumption needs.

For the mechanical and electrical systems, the cafeteria and office areas are equipped with Grade 1 energy-efficient multi-split air conditioning units and independent fresh air units, while the dormitory section uses integrated fresh air equipment, effectively balancing indoor comfort and energy efficiency. Additionally, the overall lighting system underwent zonal optimization and LED energy-saving fixture replacement, reducing lighting power density by over 30%.

To further enhance energy management levels, the project has introduced an intelligent monitoring system that enables real-time monitoring and dispatch management of building energy consumption. Through simulation and analysis technology, it achieves collabourative optimization of shading, ventilation, power generation, and lighting, improving overall operational efficiency. According to assessment data, the project's building envelope energy savings rate reaches 32.62%, with a comprehensive energy savings rate of 167.28% and a renewable energy utilization rate as high as 199.84%, demonstrating the Group's leading capability in green transformation of existing buildings.

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Technical highlights

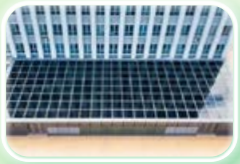
Technical Application Overview:

High-Efficiency Air Conditioning and Fresh Air System

To address different indoor usage requirements, the cafeteria and office areas are equipped with Grade 1 energy-efficient multi-split air conditioning and independent fresh air units, while employee dormitories are fitted with integrated fresh air units, ensuring indoor thermal comfort and energy efficiency.

Lighting System Optimization

The lighting system underwent internal and external zonal control optimization, with LED fixtures replacement, reducing lighting power density by over 30% compared to energy-saving standards.



Photovoltaic Power Generation System

BAPV and façade BIPV photovoltaic systems are installed throughout various building areas, expected to provide 249,000 kWh of green electricity annually, achieving balance between energy production and consumption.

Façade Renovation

Comprehensive optimization design of the building façade, with perforated aluminum panels and photovoltaic module panels on the upper façade wall, and inclined perforated aluminum panels at the bottom, using control modules to meet indoor air quality requirements across different seasons.

Material Selection

Triple-silver Low-E glass is used for east and west façades, while cadmium telluride photovoltaic modules are installed on the south façade and restaurant skylight, enhancing renewable energy utilization efficiency.

Information Technology Application

Various simulation calculation methods are utilized to achieve optimal balance between energy conservation, thermal engineering, power generation, ventilation, and shading.

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EXPLORING NEW PATHS FOR CONSTRUCTION WASTE REDUCTION — CREATING "ZERO-WASTE SITES"

With the acceleration of urban development, the resource waste and environmental burden caused by construction waste have become increasingly severe. In the construction of the Elderly Apartment project, CCE Macau has fully implemented the "Zero-Waste Site" concept, focusing on waste reduction, resource utilization, and harmless treatment of construction waste, exploring a viable path for promoting urban green construction and sustainable development.

The Elderly Apartment project is located in Macau, with a total construction area of approximately 125,000 square meters, comprising a 3-story podium, 34-story residential tower, and 3-story basement parking garage, with 1,815 residential units planned. As a high-density large-scale public welfare project, its construction process demands higher requirements for construction resource allocation, waste management, and environmental impact control. CCE Macau, based on the Group's green construction concept, has deployed various technical and management strategies according to local conditions to implement zero-waste site construction requirements.

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Implementation of Prefabricated Construction Technology

The project extensively adopts prefabricated components, including approximately 16,300 interior wall panels, 1,870 exterior wall panels, and 340 staircases, achieving standardized production of major components in mainland factories for direct assembly on-site. This significantly reduces on-site wet operations, controls construction waste generation, and improves construction efficiency.

Resource Recycling

The project retains the original pile structure as part of the foundation structure, effectively reducing excavation volume and new material consumption, decreasing carbon emissions, and embodying the concept of maximum resource utilization.

On-site Energy Conservation and Emission Reduction Management

Through on-site construction management and equipment selection optimization, concrete usage was ultimately reduced by approximately 400 truck loads, construction waste was reduced by over 100 tons, on-site labour was reduced by 20%, while saving about 380 tons of water and 80,000 kWh of electricity, achieving substantial environmental benefits.

Smart Management Technology Implementation

BIM technology is applied for construction simulation and node pre-control, coupled with the C-SMART intelligent construction management platform for full-process monitoring, further enhancing refined management and green construction performance.

The CCE Macau Elderly Apartment project has won the national first batch of "Zero-Waste Site" two-star certification and third prize in the 5th Construction Industry BIM Competition, becoming a representative demonstration project for green building and construction waste reduction in Macau. Additionally, the project team's experience and technical research results in construction waste reduction were published in the core journal "Construction Technology" under the title "Construction Waste Reduction Practices Based on Zero-Waste Site Concept," receiving recognition from industry experts.

Meanwhile, the project team actively participates in academic and technical exchanges, delivering keynote speeches at the 21st China Housing Expo to introduce practical experiences in "Low-carbon Construction of Age-friendly Living Spaces" and promoting the application value of this technical system. They also shared zero-waste site concepts and implementation technologies at the "Construction Waste Reduction — Innovative Approaches to Promoting Urban Sustainable Development" symposium.

As the construction industry enters a new phase of digital and green development, CCE Macau will continue to deepen the research and optimization of the "Zero-Waste Site" technical system, combining smart construction with regional policy orientation to accelerate the promotion and application of green site standards in the Guangdong-Hong Kong-Macau Greater Bay Area, helping regional construction steadily progress toward energy-efficient, highly effective, and environmentally friendly directions.

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PRECISE IMPLEMENTATION OF ENERGY MANAGEMENT LEADS TO SIGNIFICANT REDUCTION IN ENERGY COSTS

CSC Hailong actively promotes energy structure optimization, energy conservation management, and photovoltaic power generation project construction, fully implementing green operation concepts. Through a series of concrete measures and system innovations, the Zhuhai Production Base has achieved significant results in energy cost control, energy efficiency improvement, and clean energy substitution.

In 2024, the Zhuhai Base officially completed its power supply transformation, switching from traditional diesel power generation to municipal grid power supply, saving up to RMB1.21 million annually while significantly reducing carbon emissions and operational pressure. The Zhuhai Production Base has vigorously developed green energy, launching a rooftop photovoltaic power generation project in 2024, implemented in two phases: Phase One has completed the installation of 1.6MW photovoltaic modules covering 7,517m^2, which is now successfully connected to the grid, meeting the base's basic daytime operational power needs; Phase Two plans to add 3.834MW photovoltaic capacity covering 18,083m^2, with cable laying completed and currently in the grid connection approval process, which will enable power supply to external users. Upon completion of both phases, the expected monthly power generation will reach 482,000 kWh, not only meeting the daytime power demands of the base but also feeding excess power back to the municipal grid. Based on the contracted electricity price (RMB0.752/kWh), this can save the company approximately RMB240,000 in electricity costs annually, significantly improving energy self-sufficiency and green power ratio.

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RECYCLING AND REUSE OF WASTE STEEL MATERIALS TO PROMOTE RESOURCE CIRCULATION

As one of the major sources of resource consumption and carbon emissions, the construction industry is actively seeking paths for green and low-carbon transformation. CSCI Hailong, under CSCI, fully leverages its systematic advantages in the complete prefabricated construction process, establishing a recycling management system that is "controllable at source, clearly classified, and traceable in flow," achieving efficient allocation and reuse of old steel materials across multiple regional projects within the group. In 2024, the group processed 217.74 tons of waste steel and rebar, and 570.9 tons of waste steel formwork throughout the year, which were recycled and remelted by steel mills for circular use, avoiding large amounts of new steel procurement and smelting carbon emissions, effectively supporting green construction.

Continuous Improvement in Environmental Performance at Zhuhai Production Base

To continuously improve operational environmental management levels and promote energy conservation and environmental compliance, CSC Hailong's Zhuhai Production Base significantly strengthened waste classification and production management in 2024, achieving notable results. Throughout the year, through precise classification, source reduction, and system implementation, waste treatment costs were significantly reduced, providing strong support for the company's dual improvement in green operations and cost control.

According to statistical data, since 2024, the Zhuhai Production Base has fully implemented a refined waste classification system covering multiple areas including production lines, office areas, dormitories, and canteens. Each unit conducts sorting according to four categories: "recyclables, hazardous waste, food waste, and other waste," while complementing with educational promotion and on-site supervision to ensure proper implementation.

The changes in "production waste treatment costs" throughout the year show that the treatment cost in January 2024 was RMB150,000, which decreased to just RMB31,000 by December. The overall annual total cost was also significantly lower than the same period in 2023, demonstrating substantial results from classification reduction and process optimization.

Additionally, the Zhuhai Production Base Production Management Department also promotes the three principles of "reduction, resource utilization, and harmless treatment," establishing clearly marked waste storage points, developing transportation plans, and introducing third-party compliance disposal institutions to ensure proper handling of all types of waste and prevent environmental risks.

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HUANGGU THERMOELECTRICITY ACHIEVES BREAKTHROUGH IN CARBON TRADING, PROMOTING SMART TRANSFORMATION

In 2024, Huanggu Thermoelectricity, under CSCI, significantly reduced energy consumption and carbon emissions through system upgrades and smart management, successfully achieving the first carbon rights trading in Shenyang's thermoelectricity industry, setting a new paradigm for regional energy transformation.

Technical highlights

Introduction to Three Major Control Systems:

- **Supervisory Information System (SIS):** A monitoring information platform for integrating equipment data across the plant. Supports real-time production monitoring, data visualization, and intelligent decision-making, serving as the core hub for digital plant management.
- **Distributed Control System (DCS):** An automation control system for turbines and auxiliary equipment. Through distributed architecture, it enhances control accuracy and system stability, achieving intelligent control throughout the entire process of unit start-up, shutdown, and load regulation.
- **Automatic Control System (ACS):** A control system for safe, efficient, and automated boiler operation. It automatically adjusts combustion conditions, improves thermal efficiency, reduces energy consumption, while monitoring anomalies in real-time to ensure operational safety.

Huanggu Thermoelectricity has completed upgrades to all three control systems — SIS, DCS, and ACS, comprehensively enhancing data integration capabilities and control precision, achieving plant-wide smart operations, with significant improvements in heating coverage and energy efficiency.

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System Upgrades Drive Smart Operations

In 2024, Huanggu Thermoelectricity completed plant-wide SIS system upgrades, including server hardware and software, operating systems, and database updates, significantly improving data processing capabilities and system stability. After the renovation, control data from boilers, turbines, water treatment, and electrical systems achieved comprehensive integration, eliminating information silos from the source and enabling plant-wide centralized monitoring and data sharing, providing real-time support for energy dispatch and production decisions.

Meanwhile, the DCS system, renovated in 2023, became fully operational in 2024, adopting domestic advanced hardware and MiC structure, enhancing anti-interference capabilities and system security, ensuring stable unit operation throughout the year with zero failures.

The ACS system also further optimized its application scenarios in 2024, effectively achieving precise boiler combustion control. During the heating season, it saves 431 tons of standard coal and reduces carbon emissions by approximately 1,284 tons per heating season, while reducing risks from manual intervention and operational errors, improving both economic efficiency and safety.

Dual Improvements in Heat Network Dispatch and Terminal Energy Efficiency

The intelligent heat network dispatch management system, constructed in three phases since 2018, has continuously optimized its applications since implementation, combining video monitoring and data analysis functions to achieve comprehensive remote control and unmanned operations, reducing operational costs and improving control efficiency. Since the system's implementation, heating energy consumption per unit area has decreased by 10%, and electricity consumption has reduced by over 30%.

Additionally, the group continues to promote secondary network balance technology upgrades, combining internet technology, control algorithms, and traditional heat network adjustment techniques to effectively improve terminal thermal efficiency. Since 2021, the plan has been to renovate 1.5 million square meters of heating area annually; by 2024, cumulative renovations covered 4.5 million square meters of heating areas, effectively alleviating uneven heating distribution and reducing energy consumption, with post-renovation communities showing average reductions of about 10% in electricity consumption and 3% in heat consumption.

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Historic Breakthrough in Carbon Trading

Through continuous technical upgrades and energy conservation management, Huanggu Thermoelectricity's total carbon emissions have decreased year by year. Carbon emissions in 2023 dropped to 302,100 tons, a reduction of over 30,000 tons compared to 2021, demonstrating steady carbon reduction effectiveness.

In 2024, after fulfilling its carbon quota obligations, Huanggu Thermoelectricity had a surplus quota of 42,796 tons, and successfully completed its first carbon quota trading on November 27th in the national carbon emissions trading system, with an average transaction price of RMB104.33 per ton, totaling RMB4.465 million. This milestone marks the group's first successful participation in carbon market trading and represents Shenyang's Thermoelectricity industry's first successful sale of carbon quotas, demonstrating clear market exemplary value and industry influence.

Taking 2024 as a new starting point, Huanggu Thermoelectricity has achieved dual breakthroughs from system upgrades to carbon market participation. Looking ahead, Huanggu Thermoelectricity will further expand smart operations and maintenance, green energy, and carbon finance applications, driving multiple objectives of energy conservation, carbon reduction, economic benefits, and sustainable development, providing exemplary support and practical experience for CSCI under the "dual carbon" strategic context.

GREEN OPERATIONS

CSCI has always taken sustainable development as its mission and places high importance on the environmental impact of its corporate operations. In 2024, the Group continued to promote and deepen its environmental management system, fully implemented sustainable development policies, focused on practicing green operations, and achieved harmonious win-win outcomes between corporate development and environmental protection.

Environmental Management System

CSCI has established and continues to improve its environmental management system based on the ISO 14001 international environmental management standard. In 2024, the Group further enhanced environmental monitoring effectiveness and practical implementation on existing foundations, continuing to promote a green management strategy that emphasizes environmental compliance, smart monitoring, and risk prevention.

In 2024, the Group comprehensively advanced annual environmental management reviews of subsidiaries and project sites, including 43 holiday inspections, 57 night inspections, and 119 routine inspections. Reviews were conducted according to the latest version of the "Site Comprehensive Inspection Checklist (Environmental Protection)," covering core areas such as operational monitoring, on-site construction, waste management, and pollution prevention, introducing a point deduction system and increasing the proportion of on-site environmental performance to 80%. The safety and environmental management system recorded areas requiring improvement at construction sites, such as unclear chemical labeling, poor oil pollution management, insufficient dust control measures, and incomplete noise labels, with improvement requirements and follow-up situations clearly stated. All major subsidiaries passed rigorous internal and external audits, including successfully helping China Construction Foundation expand ISO 14001 certification coverage to large-scale piling works to meet Hong Kong Housing Authority license requirements.

Regarding safety production planning, the Group requires site management to develop plans such as "New Site Safety and Environmental Management Plan", "Site Safety Construction Plan", "Site Special Construction Plan Review" and "High-Risk Procedure Handling" to understand potential site risks and establish systematic monitoring measures for high-risk procedures and potential risks, ensuring implementation of all management measures. During the year, the Group held 18 safety and environmental construction plan review meetings for new sites. Besides, the Group received five prosecution cases related to mosquito and insect issues.

To further strengthen monitoring of construction and demolition material disposal at sites, the Group continues to optimize management measures to prevent potential risks such as illegal dumping and overloaded dump trucks, avoiding "zero overload" management implementation on all sites under related companies due to violations. During the year, the Group added a "Site Construction and Demolition Materials Disposal Record Form" to the company's intranet safety and environmental management system, requiring all sites to report relevant data biweekly, including total outbound construction and demolition material vehicles, number of mud trucks used for filling areas, landfills, screening facilities and transfer stations, number of overweight vehicles and vehicles alleged to be carrying slurry, number of Alternative Disposal Facilities (DDF) issued by sites and received DDF quantities.

Through this system, the Group can monitor material disposal dynamics at all sites in real-time, identify and control potential risks in advance, effectively preventing illegal disposal and overload transportation incidents. Since the system's implementation, no sites have received warnings from the Civil Engineering and Development Department regarding overweight issues, demonstrating the significant effectiveness of this management measure and further enhancing the Group's ability to control environmental compliance risks.

Environmental Management Objectives

The Group has initiated multiple action plans, including formulating specific energy consumption and water resource management plans to promote consumption reduction and efficiency improvement, as well as developing specific waste recycling and reduction plans to promote institutionalized management of waste reuse and classified disposal. For example, the Group has established more targeted environmental and energy management objectives based on the operational characteristics of Hong Kong construction sites and offices. In March 2024, the Group won the "2023 Hong Kong Construction Association Environmental Excellence Award," with winning units including CSHK, China Overseas Building Construction, China State Mechanical & Electrical Engineering, Alchmex International, and Treasure Construction, fully affirming the Group's outstanding performance in green building and environmental management.

The table below lists the main environmental management indicators and shows the achievement status for 2024 and management targets for 2025.

Category	Environmental Management Indicators	2024 Management Targets	2024 Achievement Status	2025 Management Targets
Environmental and Energy Management Targets	Site timber usage reduction	Below 110 cubic meters/100M HKD revenue	Annual target achieved	Below 105 cubic meters/100M HKD revenue
	Site paper usage reduction	Below 320 A4 equivalent reams/100M HKD revenue	Annual target achieved	Below 305 A4 equivalent reams/100M HKD revenue
	Site water conservation	(General sites) Below 52K/100M HKD revenue (Piling sites) Below 570K/100M HKD revenue	Reason: One site failed to meet target; relatively high water consumption during building water testing in final construction phase.	(General sites) Below 50K/100M HKD revenue (Piling sites) Below 540K/100M HKD revenue

Annual target achieved

Annual target not achieved; reviewing current practices

- Annual target achieved
- Annual target not achieved; reviewing current practices

Category	Environmental Management Indicators	2024 Management Targets	2024 Achievement Status	2025 Management Targets
Environmental and Energy Management Targets	Site electricity conservation	Below 190K/100M HKD revenue	Reason: Extended night construction work required, leading to increased electricity consumption for lighting and equipment.	Below 180K/100M HKD revenue
	Concrete waste reduction	(General sites) Below 1.5% (Piling sites) Below 5.5%	Annual target achieved	(General sites) Below 1.5% (Piling sites) Below 5.5%
	Steel reinforcement waste reduction	(Housing sites) Below 3.8% (Civil sites) Below 2.3% (Foundation sites) Below 3.3%	Reason: One site failed to meet target; structural design changes by client consultant during construction led to processed reinforcement materials becoming unusable, requiring disposal.	(Housing sites) Below 3.8% (Civil sites) Below 2.3% (Foundation sites) Below 3.3%
	Office electricity conservation	Annual electricity consumption per square meter 1% lower than 2023 (i.e. <111kWh/m^2)	Annual target achieved	Annual electricity consumption per square meter 1% lower than 2024 (i.e. <110kWh/m^2)
	Office paper conservation	3% less than 2021–2023 average total paper consumption	Reason: Four departments failed to meet target	3% less than 2022–2024 average total paper consumption

Category	Environmental Management Indicators	2024 Management Targets	2024 Achievement Status	2025 Management Targets
Energy Management Indicators	Total office electricity conservation	Annual electricity consumption per square meter 1% lower than 2023 (i.e. below 111kWh/m^2)	◆ Annual target achieved	Annual electricity consumption per square meter 1% lower than 2024 (i.e. below 110kWh/m^2)
	Continuous improvement in construction energy performance indicators (EnPI)	2.0% improvement in all EnPI items	◆ Annual target achieved	2.0% improvement in all EnPI items
	Use of energy-efficient lighting	All new site offices to use T5 or LED lighting	◆ Annual target achieved	Not included in targets as this is now a basic site energy-saving measure

◆ Annual target achieved

◆ Annual target not achieved; reviewing current practices

To continuously enhance the Group's environmental management standards, the following eight key focus areas have been identified for 2025:

1. ***Key Management***

   Focus on sites with higher environmental risks, peak construction periods, and active operations, strengthening daily and weekly inspections to strictly control environmental management implementation.

2. ***Construction Site Environmental License Application Support and Follow-up***

   Specifically for construction waste permits and disposal certificates, enhance support and compliance management for client applications and execution.

3. ***Targeted Data Monitoring***

   Strengthen green building inspections and site implementation monitoring, including internal network material data reporting and site environmental inspection system utilization, to accurately track site environmental performance.

4. ***Enhanced Training***

   Strengthen professional training for site environmental management personnel to improve management capabilities. Arrange annual corporate environmental management system training, along with internal CNP and Housing Authority-specific ISO 50001 training.

5. ***Professional Certification Encouragement***

   Support staff in obtaining environmental professional qualifications such as MCIWEM and BEAM Pro, enriching talent reserves and optimizing environmental personnel deployment at construction sites.

6. ***Continuous Management System Enhancement***

   Deepen environmental and energy management systems, proactively follow up on internal and external audit findings, ensure China Construction M&E successfully completes first quarter ISO 14001 certification.

7. ***Industry Exchange Enhancement***

   Actively participate in industry collabouration, such as partnerships with HKGBC, HKCA and other organizations, to promote company green building innovations.

8. ***Problem Follow-up Mechanism Optimization***

   Improve the follow-up mechanism for issues identified during IMS inspections, strengthen rectification effectiveness, and enhance management closed-loop systems.

Environmental Digitalization Upgrade

The Group actively promotes innovative environmental protection measures and continues to apply "Smart Site" technology. Through IoT monitoring equipment, real-time sensors, intelligent early warning systems, and platform data integration, the following benefits are achieved:

- Real-time monitoring of environmental parameters (such as dust, noise, water quality, etc.) to achieve early warning of pollutant concentration limits;
- Data visualization analysis to support dynamic adjustment of on-site environmental risks;
- Enhanced management transparency and resource utilization efficiency, reducing on-site energy consumption and material waste.

Air Pollutant Management

The Group resolutely implements air pollution prevention and control principles, striving to reduce air pollution emissions through multiple innovative measures. In 2024, the Group fully implemented the use of high-efficiency energy-saving equipment and clean energy, strengthened waste gas emission control for various construction projects, and ensured effective control of dust and exhaust emissions during project construction through strict monitoring and on-site management.

Following ISO 14064 standards, the Group continues to engage external consultants for independent auditing and verification to ensure the accuracy and reliability of greenhouse gas emission data. The total direct greenhouse gas emissions and energy indirect greenhouse gas emissions in 2024 was 962,505.1 tCO_2e-.[10]

The Group actively promotes the use of renewable energy, including solar and biomass energy, effectively reducing greenhouse gas emissions. The total energy consumption for 2024 was 1,052,892.3 MWh.

[10] Includes scope 1 and scope 2 emissions.

Water Resource Management

As a crucial component of the Group's sustainable development, the Group continued to strengthen water resource protection and conservation efforts in 2024. Through increased wastewater recycling and reuse efforts, and optimization of on-site wastewater treatment systems, the Group significantly improved water efficiency and reduced wastewater discharge.

In 2024, the Group's total water withdrawal reached 10,155,236.5 cubic meters, including 454,963.8 cubic meters of surface water, 1,500,797.0 cubic meters of groundwater, and 8,199,415.8 cubic meters of municipal or third-party water supply. The Group also actively promoted water resource recycling, with annual wastewater reuse reaching 400,262.7 cubic meters. Due to enhanced drainage data recording and collection efforts during the year, total drainage volume increased compared to the previous year.

Waste Management

To effectively reduce construction and operational waste, the Group further strengthened on-site waste classification and management in 2024, actively promoted circular economy concepts, encouraged the recycling and reuse of construction waste, and collabourated with relevant enterprises and institutions to develop more recyclable materials and environmentally friendly construction solutions.

In 2024, the Group generated a total of 14,056,439.2 tonnes of non-hazardous waste, including 13,452,396.1 tonnes of inert construction materials and 128,369.6 tonnes of non-inert construction materials. Meanwhile, the Group actively strengthened the management and safe handling measures for hazardous waste, successfully reducing the annual total hazardous waste volume to 532.4 tonnes, accounting to a decrease of 92.6% compared with last year's performance. The significant reduction in hazardous waste is mainly due to decreased construction procedures, coupled with the Group's improved management effectiveness of dangerous waste, further reducing potential environmental risks.

Environmental Education and Professional Training

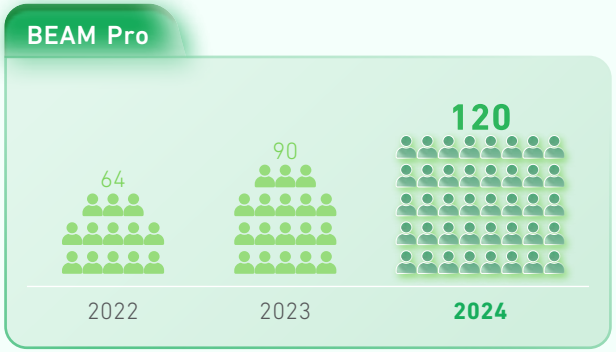
CAT Operator Training Course

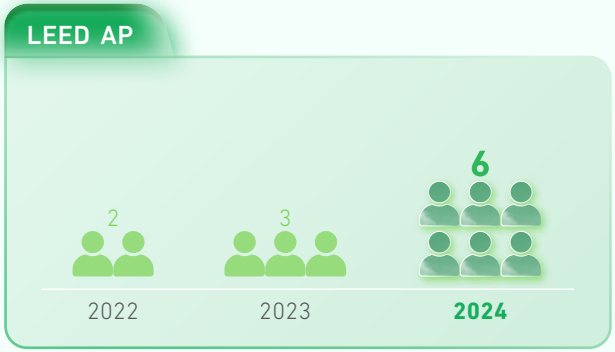
In compliance with the Housing Authority's new environmental management requirements, starting from Q3 2024, new project tenders (including housing, foundation, and demolition works) will mandate the use of the Construction Industry Council Carbon Assessment Tool (CAT) to quantify carbon emissions from construction materials and environmental impacts at construction sites. The assessment scope covers: electricity consumption, waste treatment, landfill usage, public fill facilities, sorting facilities, fuel consumption, gas consumption, water usage, welding and flame cutting, newly planted trees, etc., until project completion and issuance of the completion certificate.

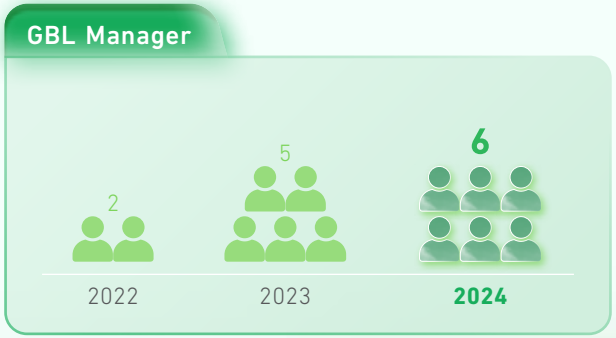
To ensure compliance, contractors must appoint dedicated personnel to complete the CAT operator training course designated by the Construction Industry Council and be responsible for monthly data entry and quarterly report preparation. The Group actively supports staff participation in training, and during the year, successfully assisted five environmental colleagues in completing both Part 1 and Part 2 of the CAT course, meeting the Housing Authority's CAT operator requirements and providing strong support for subsequent environmental management work.

Green Building Professional Qualifications

In 2024, the Group had 52 Hong Kong projects requiring implementation of green building assessment standards. To further enhance the Group's environmental management capabilities, we continue to promote environmental professional training and talent pool development. During the year, the Group actively encouraged staff participation in BEAM Pro certification courses and examinations, encouraging project team members to obtain green building professional qualifications to meet increasingly stringent owner and regulatory requirements for green building projects. Additionally, the Group regularly disseminates training information to various departments, assists in screening and arranging suitable personnel for course enrollment, building more professional expertise for future green building project bidding, construction, and management work, and strengthening the company's competitive advantage in green building technology.







Furthermore, to further enhance project management effectiveness, the Group has completed updating its environmental personnel database, comprehensively organizing and filing staff resumes, professional qualifications, and training records to ensure environmental personnel deployment at various sites meets requirements. Through database management, this not only effectively improves staff allocation efficiency but also helps maintain real-time awareness of personnel qualification status, facilitating response to project needs and emergency deployment. The Group will continue to improve relevant systems, establish dynamic update mechanisms, and support the continuous optimization and professional development of the Group's ecological and environmental management work.

Environmental Promotion and Industry Exchange

In 2024, the Group actively promoted various environmental awareness campaigns and industry cooperation activities to strengthen employee environmental consciousness and promote the implementation of sustainable development concepts.

Regarding environmental promotion activities, on June 7, the Group organized "China Construction Hong Kong Environmental Day", responding to World Environment Day with a special visit to Mai Po Nature Reserve, themed "Focus on Land Restoration, Stop Desertification and Enhance Carbon Sink Capacity". The activity deepened employees' understanding of nature conservation and biodiversity, increasing engagement in sustainable development issues, attracting 43 employees and family members to participate. In the same month, the site recycling safety inspection campaign was launched simultaneously, aiming to increase employee awareness of material recycling and sorting. The campaign collected approximately 1,937 expired safety helmets, setting a new record.

In terms of industry exchange, the Group actively participated in industry technical testing. At the invitation of the Hong Kong Productivity Council, we assisted the Environmental Protection Department in launching a six-month "Non-road Mobile Machinery Diesel Particulate Filter (DPF) Trial Scheme" to test the emission reduction performance of the device in various generators and large-scale ventilation equipment. The trial results will be announced to the industry through a press conference, helping to improve the management of construction equipment exhaust emissions.

Building a Sustainable Supply Chain

Feature Story

Driving Sustainable Development of the Industry Chain through Excellence in Supply Chain Management and Green Procurement

CSCI continues to deepen its supply chain management, committed to building an efficient, green, and responsible sustainable supply chain. Through a comprehensive supplier and subcontractor management system, CSCI not only promotes its own sustainable development but also actively influences upstream and downstream enterprises in the industry chain to grow together, creating a green and harmonious industrial ecosystem.

COMPREHENSIVE SUPPLY CHAIN MANAGEMENT

The Group has established a "Sustainable Procurement Policy" and "Supplier Code of Conduct" to clearly define its procurement standards and expectations for all major business partners while reducing their environmental and social impacts. In 2024, CSCI comprehensively reviewed and updated its supplier selection and audit mechanisms, further strengthening cooperation with suppliers committed to social responsibility and environmental protection, implementing the management philosophy of "managing risks from the source and ensuring quality through material selection."

Feature Story

Driving Sustainable Development of the Industry Chain through Excellence in Supply Chain Management and Green Procurement

Before entering the supplier register, suppliers must undergo a comprehensive assessment, including criteria such as capability, reputation, service performance, safety and health, and environmental performance. After selection, site and material departments will submit annual assessment results, categorizing them into four levels for the General Manager of Materials Department to review for renewal. Additionally, underperforming suppliers will be placed on a watch list and required to implement improvements within a specified timeframe.

Furthermore, anti-corruption requirements are imposed on suppliers during the admission process, requiring them to sign "Integrity Cooperation Agreements" and other anti-corruption documents when entering the supplier database, clearly stipulating the company's business ethics standards and anti-corruption clauses, and urging suppliers to comply with these standards. During major holidays, integrity open letters are issued to all employees and intermediaries, explicitly prohibiting staff and cadres from accepting or providing any form of benefits to subcontractors or suppliers under any pretext.

In 2024, the Group further conducted annual sustainability questionnaires to gain an in-depth understanding of supply chain partners' sustainability status, ensuring the implementation of corporate environmental and social responsibilities. The questionnaire covers three major areas: environmental management, social responsibility, and corporate governance, with particular emphasis on key issues such as carbon reduction and climate change, resource recycling, occupational safety and health management, and corporate compliance. Through regular risk identification and performance evaluation, the Group effectively enhances the overall environmental awareness and management capabilities of the supply chain. The Group encourages supply chain enterprises to actively manage and disclose their carbon emission data, including direct emissions (Scope 1) and indirect emissions (Scope 2), promoting partners to set specific carbon reduction targets and gradually achieve low-carbon transformation.

Feature Story Driving Sustainable Development of the Industry Chain through Excellence in Supply Chain Management and Green Procurement

BUILDING A GREEN SUPPLY CHAIN

In terms of resource management, the Group actively promotes supply chain enterprises to improve resource efficiency, set energy conservation, water saving, and waste reduction targets, and encourages partners to obtain environmental certifications such as ISO 14001, Hong Kong Green Organisation Certification, and waste reduction certificates to fulfill their environmental commitments.

Feature Story

Driving Sustainable Development of the Industry Chain through Excellence in Supply Chain Management and Green Procurement

In recent years, to promote the low-carbon transformation of construction project materials and equipment usage, the Group has continued to strengthen the data collection and management of low-carbon materials and products, and actively established relevant databases to provide a basis for procurement strategy and carbon reduction management. The Hong Kong region focuses on implementing clean energy and low-carbon building materials at the project level, with all green and low-carbon product procurement uniformly managed through the CDMS system for contract, inventory records, payment processing, and other processes to ensure data accuracy and completeness. The main achievements for 2024 are as follows:

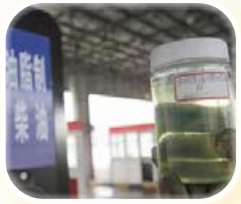
Electric Vehicles and Small Electric Machinery:
New electric vehicles account for 76% of the company's self-use vehicle fleet, meeting the 2024 target (70%). The usage ratio of electric excavators, site electric lifts, electric forklifts, and other equipment reaches 80%.

Low-carbon Transformation of Diesel Generators:
80% of diesel generators have been converted to NRMM (Non-road Mobile Machinery) standard equipment, reaching the 2024 target of 80%, with plans for complete replacement by 2026.

Paper and Timber:
All copying paper has been switched to environmentally friendly paper (FSC, recycled paper), and all board materials and timber purchased comply with PEFC or FSC certification for office areas and renovation works.

Concrete Carbon Reduction Application:
Introduction of low-carbon concrete blocks, utilizing carbon capture and storage technology, each ton of CCUS concrete blocks can store 50kg CO_2, reducing carbon emissions by up to 80% compared to traditional concrete blocks. Usage ratio reached approximately 0.02% in 2024.

GGBS (Ground Granulated Blast-furnace Slag) Concrete:
Replaces 80% of traditional concrete cement usage, reducing average carbon emissions by about 30%. Usage ratio reached approximately 1% in 2024.



B5 Biodiesel:
Reduces carbon emissions by 25% compared to traditional diesel, improving air quality. Usage ratio reached approximately 52% in 2024.

BESS Energy Storage System:
Applied to site power supply systems, reducing noise by 32 times with carbon reduction potential exceeding 85%. In 2024, the usage ratio reached 13%. The Group aims to achieve a 20% target through continued promotion of BESS energy storage systems.

Green Steel:
Carbon emissions equivalent per ton of green steel is below 1.5235 tons. Usage ratio reached approximately 0.14% in 2024.

Feature Story Driving Sustainable Development of the Industry Chain through Excellence in Supply Chain Management and Green Procurement

PROMOTING SUPPLY CHAIN INTEGRATION

The Group values the social responsibility performance of supply chain enterprises, particularly in occupational safety and health, actively promoting partners to implement safety management systems according to international standards (such as ISO 45001), and regularly reviewing employee injury and mortality rate data to encourage partners to continuously improve occupational safety and health performance.

The Group also encourages supply chain enterprises to implement employee training and development programs to enhance corporate competitiveness, while supporting suppliers and subcontractors to obtain social responsibility-related certifications (such as SA8000, Caring Company, etc.), further promoting equality and inclusion in the supply chain.

To further strengthen communication and connections with partners, CCE Macau held the "2024 Partner Recognition Conference" to express high recognition and sincere gratitude to suppliers and subcontractors who demonstrated excellence over the past year. This recognition conference was not only an accolade for outstanding partners but also a concrete manifestation of the Group's commitment to promoting high-quality supply chain management and fostering win-win cooperation. Through this recognition and communication platform, the Group further consolidated partnerships with core supply chain partners, promoting the formation of a stable, efficient, and responsible supply chain system.

SUPPLY CHAIN RISK MANAGEMENT AND CONTINUOUS IMPROVEMENT

CSCI continues to optimize its supply chain risk management mechanism, formulating and implementing "Procurement Policy" and "Supplier Code of Conduct" to manage supply chain risks. When selecting suppliers, the Group prioritizes partners with good business ethics and corporate social responsibility commitments, and promotes local procurement to reduce resource waste and carbon emissions. Additionally, the Group conducts regular annual supplier assessments, evaluating quality, timeliness, service, safety, and environmental performance, and adjusts supplier ratings based on assessment results to ensure supply chain quality and safety environmental requirements are met. Through annual questionnaires, the Group monitors supply chain enterprises' compliance with business ethics, anti-corruption, and data security, and requires partners to establish effective reporting channels and violation handling mechanisms.

Furthermore, to further promote supply chain system synergy and resource integration efficiency improvement, CSCI actively strengthens business linkages with Leading Supply Chain Company. In 2024, the Group focused on centralized procurement and price negotiation management, achieving dual optimization of procurement efficiency and cost. As of October 31, 2024, both parties conducted over 10 business exchange activities and jointly held the Third Leading Supply Chain Partners Conference on November 1, further strengthening upstream and downstream communication mechanisms and strategic cooperation relationships, enhancing supply chain response efficiency and performance capability. On the other hand, the Group fully relies on the Leading Supply Chain resource platform, unifying procurement plans and centralizing order initiation to reduce procurement costs and internal operational burden. As of October 31, 2024, the Fifth Platform issued centralized procurement orders totaling RMB124.51 million through the Leading system, a 49% increase compared to the same period in 2023, showing significant collective procurement benefits and greatly improved cost control capabilities.

Building a Sustainable Supply Chain

PROCUREMENT OF SUSTAINABLE MATERIALS

As a promoter of green buildings, CSCI aims not only to vigorously promote the application of low-carbon building materials at the project implementation level but also takes a long-term view by starting with source management. Through CSC Hailong's development of the "Low-carbon Materials and Products Database," the sustainability of the entire supply chain has been effectively enhanced.

Establishing Group-wide Low-carbon Materials Database to Strengthen Green Procurement

In recent years, to promote the low-carbon transformation of construction project materials and equipment usage, the Group has continuously strengthened the collection and management of data on low-carbon materials and products, actively establishing relevant databases to provide a basis for procurement strategy and carbon reduction management. At the project level, the implementation of clean energy and low-carbon building materials usage is ensured, with all green and low-carbon product procurement being uniformly managed through the CDMS system for contracts, inventory records, payment processing, and other processes, ensuring data accuracy and completeness. Additionally, CSC Hailong has completed the initial construction of the low-carbon materials and products database, covering the following aspects:

- **Database Entry Evaluation System:** Integrates major domestic green building material certification systems and product certification catalogs from key provinces and cities, such as the national-level "Notice on Green Building Material Product Certification Implementation Plan" and regional-level examples like Guangdong Province's "Green Building Material Product Classification Certification Implementation Rules," to establish a product rating system for database entry.

- **Materials and Products Catalog Determination:** Based on company business development, catalogs are determined according to the first and second batches of the "Green Building Materials Product Classification Certification Catalog," with gradual improvement of product and supplier evaluations based on factors such as material usage requirements.

- **Green Procurement Guidelines:** Priority is given to localized, nearby-produced, certified low-carbon building materials, such as CCUS precast concrete blocks, GGBS concrete, B5 biodiesel, etc., balancing carbon reduction and resource circulation.

Furthermore, in 2024, the Group provided sustainability training for material procurement personnel, including sustainable development concepts, carbon footprint background knowledge, and specific work process considerations.

Comprehensive Application of Database Materials: Creating Smart, Low-Carbon Construction Sites

The Yuen Long Flood Wall and Drainage Channel Improvement Project, constructed by CSHK, has implemented multiple low-carbon building materials from the database, combining smart construction, digital management, and BIM modeling to successfully achieve a green closed loop from platform data to site practice, providing a new model for the modernization and carbon reduction transformation of Hong Kong's water conservancy construction.

The Yuen Long Flood Wall and Drainage Channel Improvement Project is one of the flagship blue-green infrastructure projects in Hong Kong's "Northern Metropolis," with a total contract value of approximately HK$3.003 billion and a construction period of 53 months, jointly undertaken by CSHK and ATAL Engineering in a joint venture. As CSHK's first large-scale water conservancy flood control project, this project represents not only a breakthrough in engineering scale but also an extension in the technical domain—encompassing automated flood barriers, stormwater pump houses, central control centers, landscape revitalization, and pipeline drainage facilities.

At the project's inception, CSHK proposed "Technology Empowerment" and "Green Leadership" as core engineering strategies. The team thoroughly studied the Drainage Services Department and Hong Kong SAR Government's policy objectives for climate adaptation and carbon neutrality, combining their experience in industrialized construction and smart sites to design an overall construction plan led by low-carbon building materials, digital monitoring, and MiC, striving to achieve urban flood control functions while minimizing carbon emissions and environmental disturbance.

The project design and procurement team selected a batch of certified, locally sourced, low-carbon footprint building materials based on the database's internal rating system, closely integrating them with construction requirements to achieve several breakthroughs:

CCUS Concrete Blocks: Applied to flood wall and drainage channel structures, capable of storing 50kg CO_2 per ton, achieving up to 80% carbon reduction compared to traditional concrete, while featuring recyclable material properties.

GGBS (Ground Granulated Blast-furnace Slag) Concrete: Widely applied in foundation and stormwater pump house structures, replacing up to 80% of cement content, effectively reducing total building material carbon emissions while improving durability.

B5 Biodiesel: All site vehicles switched to B5 biodiesel, effectively reducing carbon emissions and suspended particle pollution, achieving a 4.25% reduction in fuel carbon footprint.

FSC and PEFC Certified Timber: Used for temporary facilities and control center interior finishing, ensuring material health and traceable sourcing.

The procurement team has also introduced solar-powered rest pavilions, converting solar energy into DC power to supply electricity to multiple site workers' rest pavilions. The pavilions are equipped with ¾ HP air conditioners, fan lights, exhaust fans, and power outlets, and can also be connected to the power grid/generator for continued use when sunlight is insufficient. Furthermore, the office furniture purchased by the procurement team complies with green product certification (GB/T 35607–2017), CFCC timber sourcing (mutually recognized with PEFC), and requirements for restricted use of harmful substances, meeting the environmental E0 grade formaldehyde standard (GB/T 39600–2021), with formaldehyde emission E0 grade <=0.05 mg/m^2.

Beyond material innovations, the project extensively applies smart construction technologies to improve efficiency and resource utilization. For example:

C-SMART Smart Site Platform:

Real-time monitoring of site energy consumption, emissions, safety, and drainage conditions, combined with AI prediction of flooding risks to enhance emergency management capabilities.

Digital Twin and BIM Model:

Establishing a three-dimensional digital twin system to simulate construction and water flow effects, improving flood control design accuracy while reducing rework and material waste.

Design for Manufacturing and Assembly (DfMA):

Over 90% of construction processes are transferred to factories for standardized industrial production, which not only brings manufacturing industry quality standards to the construction industry but also reduces construction time by over 60%, waste emissions by 75%, and on-site labour requirements by 70% compared to traditional construction methods.

As the Drainage Services Department's first flood control project to introduce large-scale low-carbon building materials and smart management systems, the Yuen Long Flood Wall and Drainage Channel Improvement Project has become an important demonstration of Hong Kong construction industry's green transformation. CSHK's proactive innovation and management optimization have earned high recognition from clients and industry stakeholders.

Nurturing and Supporting Talent

Feature Story

Building New Momentum for Diversity and Inclusion in the Construction Industry through Dual Strategy of Talent Attraction and Integration

Against the backdrop of Hong Kong SAR's active promotion of global high-end talent attraction policies, CSHK, as a key member of CSCI, fully embraces its responsibilities as a state-owned enterprise by establishing the "China State Construction Hong Kong Professionals Association," dedicated to providing comprehensive support for newly arrived professionals, facilitating their integration into local society and corporate culture, and fostering long-term talent development in Hong Kong to contribute to both corporate growth and the city's advancement.

LEADING THE PATH OF INTEGRATION FOR NEWLY ARRIVED PROFESSIONALS

The China State Construction Hong Kong Professionals Association supports newly arrived talent by strengthening their social connections, broadening their horizons, and encouraging active participation in Hong Kong's development. Through structured activities and support systems, the Association helps newcomers adapt to Hong Kong's life and work environment while fostering multicultural integration within the organization. By the end of 2024, the Association has organized numerous themed activities covering career development, culture, social networking, and policy awareness, reaching over a thousand participants.

Feature Story

Building New Momentum for Diversity and Inclusion in the Construction Industry through Dual Strategy of Talent Attraction and Integration

Supporting Talent Development in Hong Kong

On 25 November 2024, the HKSAR Government and DAB jointly organised a "Talent Visa Briefing Seminar" to provide visa renewal guidance for talents in Hong Kong. Distinguished attendees included National People's Congress Standing Committee member Starry Lee, HKSAR Government Secretary for Labour and Welfare Sun Yu-bin, Director of Immigration Kwok Chun-fung, Director of Talent Service Office Lau Chun-hon, and DAB Chairman Chan Hak-kan. The seminar attracted more than 300 in-person participants and reached a broader audience through online livestreaming, receiving enthusiastic engagement. The China State Construction Hong Kong Professionals Association received a certificate of appreciation as a co-organiser, recognising its significant contribution to Hong Kong's talent development initiatives.

Fostering Integration through Activities and Enhancing Understanding of Hong Kong

Coinciding with Hong Kong's 27th anniversary of return to the motherland, to deepen new young employees' understanding of Hong Kong's development journey, the Professionals Association and DAB jointly organised the "Hong Kong Experience Series — Visit to the Legislative Council of the Hong Kong Special Administrative Region" on 15 June 2024. The event was attended by various political and business leaders, including Tam Yiu-chung, former member of the Standing Committee of the National People's Congress and Secretary-General of Hong Kong Coalition, Starry Lee, member of the Standing Committee of the National People's Congress and Hong Kong Deputy to the National People's Congress, Chan Hak-kan, Chairman of DAB, and Zhang Haipeng, Chairman of the Board and Executive Director of China State Construction International. Through guided tours and interactive exchanges, the activity enabled young representatives to understand the history and systems of the Hong Kong Special Administrative Region from different perspectives, encouraging newly arrived youth to actively enhance themselves and participate in local public affairs, providing strong support for the enterprise's high-quality development, and injecting new momentum into Hong Kong's long-term prosperity and stable development.

May Fourth Youth Sports Day Promotes Team Integration

To promote the May Fourth spirit and celebrate COHL Group's 45th anniversary, the China State Construction Hong Kong Professionals Association organised the "May Fourth Youth Sports Day" in May 2024, attracting nearly 300 local, mainland-seconded, and newly arrived young employees to participate. Through entertaining sports competitions, the event facilitated cross-cultural exchange and emotional connections among employees, strengthening team spirit. Ho Kai-ming, Under Secretary for Labour and Welfare of Hong Kong, attended the award ceremony in person and expressed recognition and gratitude for China State Construction Hong Kong's work in introducing and nurturing newly arrived talents.

The China State Construction Hong Kong Professionals Association actively organises various cultural integration, capability enhancement, and social experience activities regularly, and provides a comprehensive development system for newly arrived talents, including pre-arrival training, guidance for work and life in Hong Kong, professional exchange and training, and career planning guidance, comprehensively improving the work and life quality of newly arrived talents. More customised development programmes will be launched in the future to support talents from different backgrounds in achieving their long-term career goals.

Feature Story

Building New Momentum for Diversity and Inclusion in the Construction Industry through Dual Strategy of Talent Attraction and Integration

INTEGRATION INTO GREATER BAY AREA TO EXPAND YOUTH DEVELOPMENT OPPORTUNITIES

The Group actively organizes employee cultural activities to strengthen team building, create a positive work atmosphere, and continuously enhance young employees' cohesion and sense of belonging. Over 70 cultural integration activities were held throughout the year. As the first Hong Kong construction enterprise to integrate into the Greater Bay Area development, CSHK actively responds to the HKSAR Government's "Greater Bay Area Youth Employment Scheme" and "Home Affairs Bureau's Mainland and Overseas Summer Internship Programme," providing opportunities for young talents to exchange and learn in the Greater Bay Area. On one hand, through organizing visits to featured projects and construction technology experiences, young people gain in-depth understanding of industry dynamics in the Greater Bay Area, stimulating their interest and innovative potential. On the other hand, CSHK provides Greater Bay Area employment opportunities for ambitious and capable young people, enabling them to access broader development platforms. The company has already sent a group of outstanding young talents to Qianhai, Nansha, and other Hong Kong-Shenzhen integration construction projects, helping to build a better future for the Greater Bay Area.

Furthermore, to promote exchange and integration between Hong Kong, Macau, and mainland youth, inspire young people to learn the May Fourth spirit, understand China Overseas' history, and promote pioneering culture, the Group organized the "China Overseas Group Mainland Youth Hong Kong Root-seeking Journey" in April 2024, leading 29 outstanding mainland youth to visit landmark projects such as Hong Lok Yuen, Seapower Garden, and Hong Kong Palace Museum, tracing the historical context of pioneering culture and witnessing the Group's development achievements in Hong Kong firsthand.

Meanwhile, the "China Construction Volunteer Camp" organized China Overseas Group's "Praise New China, Forge Ahead in the New Era" flag-raising ceremony and Tiananmen national flag welcoming event, patriotic education base learning trips, and the "Fun Sailing" Chinese-funded youth networking activity, further deepening youth patriotic education and cultural exchange.

The "China State Construction Youth Club" organized the "New Quality Productive Forces in Construction Industry" youth forum, inviting Legislative Council members and industry experts for face-to-face exchanges with young talents, and organized various social responsibility and cultural integration activities such as auxiliary police recruitment talks, auxiliary police headquarters visits, and overseas talent fellowship gatherings, actively promoting multi-dimensional growth and development of youth.

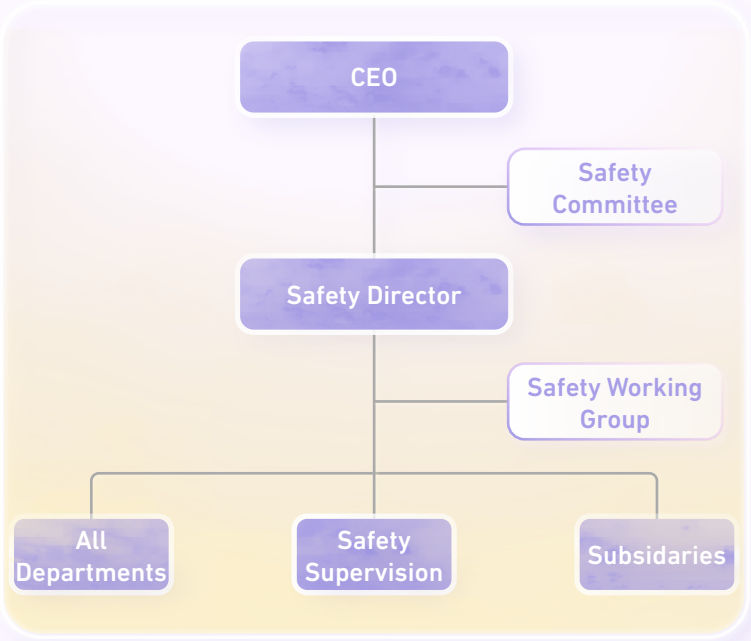
WORK SAFETY AND HEALTH

In the high-risk construction and infrastructure industry, safety management remains one of the key elements of corporate sustainable development. CSCI has always integrated the concept of "Life First, Safety First" into corporate governance and project management, while continuously improving its safety management system and organizational structure, striving to achieve the safety vision of "Zero Fatalities". The Group's health and safety policies cover all employees, including full-time, part-time, and contract workers. In 2024, guided by clear safety objectives, the Group promoted the implementation of various management measures, enhanced safety awareness among all employees, and established a modernized corporate safety governance system.

Clear Management Structure

The Group has established a safety management organizational structure with clear division of responsibilities at all levels, demonstrating the enterprise's high emphasis on safety work and its systematic advancement. Overall safety management is headed by the General Manager who serves as the highest responsible person, coordinating and advancing from the top-level design perspective. The Sustainability Committee is responsible for monitoring the company's health and safety policies. Daily operations are led by the Safety Director as department head, implementing various safety and environmental protection management tasks to achieve top-down management integration. The safety and environmental protection management network is divided into two major regions — "Mainland" and "Hong Kong-Macau," achieving parallel operation of safety and environmental protection work, with clear regional responsibilities and distinct functional divisions, ensuring orderly connection and efficient execution of work between different regions and functions.

Furthermore, the Group strictly conducts its work according to national standards and international safety management systems, with its subsidiary companies successively obtaining ISO 45001 Occupational Health and Safety Management System certification, and establishing a safety supervision system led by the Safety Production Supervision and Management Committee (Safety Committee). The Safety Committee is the highest leadership and decision-making body of the Group's safety management system, chaired by the company's Chief Executive Officer, leading other key responsible persons, adopting the principle of "Safety First, Prevention as Priority, Comprehensive Management" to make decisions on the Group's overall safety management system. The Safety Committee's decisions are implemented by members according to their areas of responsibility; the Safety Director and Safety Production Supervision and Management Department are responsible for monitoring implementation and regularly reporting to the Board and Safety Committee.



To implement safe production, the Group has established a "Safety Production Management System" and "Safety Production Responsibility List" encompassing all departments and projects, clearly defining the scope of responsibilities at each level. Furthermore, the "Safety Production Supervision and Management System" stipulates safety management approaches for different types of projects and subsidiaries. For projects involving professional technology construction, infrastructure facilities and operational units, it establishes specific management requirements for safety risk identification and prediction, equipment safety, safety inspections and hazard detection, emergency management, subcontractor management and occupational health, whilst also addressing safety incidents, safety assessments and continuous improvement.

Safety Control Objectives and Effectiveness

To comprehensively implement the Group's control objectives in safety and environmental protection, the 2024 safety performance assessment utilises three core performance indicator dimensions, with corresponding weightings assigned to different management aspects to reflect their importance and implementation priorities. "Safety and Environmental Control Objectives" comprises 50% of the overall score as the primary assessment indicator, followed by "Safety and Environmental Inspections and Activities" and "Safety and Environmental Systems and Framework Development" at 30% and 20% respectively. 10% of the CEO's annual performance compensation is linked to the company's health and safety performance.

Assessment Category	Specific Objectives Summary	Performance Achievement
Safety and Environmental Protection Control Targets	◆ No major or above production safety responsibility accidents (such as fire, traffic, poisoning, etc.) ◆ Control death rate per 100 million RMB revenue within 0.0025, striving for "zero deaths" ◆ No major social incidents or occupational health damage events	The Group continued to advance high-standard safety governance, with no production safety-related fatalities in 2024, successfully achieving the key "zero deaths" target, further consolidating the stability and reliability of corporate safety management. The Group also recorded no major or above safety incidents, nor any significant social impact events, marking comprehensive improvements in hazard warning, risk prevention, and on-site execution capabilities, securing the safety baseline for high-quality development. Safety achievements gained widespread external recognition, with a total of 199 safety and environmental protection awards received throughout the year, including 6 national (international) level awards, 62 provincial level awards, and 131 municipal (industry) level awards. The Group has also continuously received important national awards such as the "AAA_" construction site certification for multiple years, fully reflecting its excellence in safety risk control and construction quality assurance.

Assessment Category	Specific Objectives Summary	Performance Achievement
Safety and Environmental Protection Inspections and Activities	◆ Implement comprehensive safety responsibility system and strengthen assessments ◆ Annual coverage of Group safety risk projects and enhance joint inspection quality ◆ Strengthen risk control for projects in key regions (such as Beijing, Shenzhen) ◆ Implement equipment safety rectification action plan ◆ Organize company-level training activities no less than 4 times per year ◆ Promote safety technology applications and best practices	In 2024, CSCI achieved significant results in safety inspections and activity promotion, building a multi-level, comprehensive safety supervision system focused on four main directions: responsibility system implementation, risk investigation, key rectification, and technology application. The Group issued the "2024 Safety Production Work List" and organized various levels to sign "Safety Production Responsibility Letters," implementing safety management responsibilities at each level and incorporating them into platform annual assessment and management evaluation systems. Group leaders and managers at all levels conducted supervisory inspections, forming a top-down supervision mechanism. CCE Macau further developed "Personal Safety Behaviour Control Measures," refining assessment and penalty rules to strengthen on-site behaviour supervision. In terms of risk investigation, the Group achieved comprehensive coverage of Group-level safety risk projects and enhanced joint inspection efficiency through the "Same-City Joint Inspection" mechanism. CSCI Hong Kong and CCE Macau conducted monthly special inspections with scoring rankings to promote continuous project improvement; CSCI Investment introduced third-party safety spot-check mechanisms, conducting safety discussions with high-risk projects and upstream units to strengthen full-chain risk prevention and control. China State Construction Development projects also implemented hierarchical management and on-site supervision, applying refined monitoring for high-risk projects to ensure controlled risks and traceable responsibilities. Additionally, the Group strengthened control over high-risk projects and areas, conducting routine monthly inspections covering 53 key projects throughout the year. To address management challenges, cross-safety production inspections were organized, covering 6 platform companies and 36 key projects across Hong Kong, Macau, and mainland regions. Eight special inspection campaigns were also implemented throughout the year, focusing on high-risk scenarios such as fire prevention, confined space operations, and large mechanical equipment, targeting specific hazard rectification.

Assessment Category	Specific Objectives Summary	Performance Achievement

In terms of governance improvement, the Group actively promoted safety production enhancement initiatives, strengthening systematic rectification capabilities. CSCI Hong Kong explored the application of 5G remote-controlled tower cranes and mechanical intelligent systems to enhance remote operation safety; CCE Macau focused on daily management and hazard point rectification; CSCI Investment introduced third-party comprehensive inspections for 425 tower cranes, strengthening closed-loop management of risk sources; China State Construction Development deeply promoted labour safety special rectification actions. Additionally, the Fifth Platform issued operational guidelines for dangerous work scenarios to enhance operational safety standardization; the Nanjing Second Bridge project also obtained national-level safety production standardization first-class certification, establishing a benchmark model and providing practical support for the Group's high-standard governance promotion.

Regarding education and training, eight sessions of "Safety Lecture Hall" were held throughout the year, attracting a total of 11,437 participants, with learning effectiveness reinforced through post-session assessments. Throughout the year, over 1,400 participants attended regulatory compliance education and external expert lectures. China State Construction Hong Kong and China State Construction Macau conducted multi-level training for new employees and frontline staff; while China State Construction International Investment implemented morning meetings and pre-shift education systems to strengthen daily risk prevention.

In terms of technology application, the Group conducted safety technology best practice collection and promotion activities, with six projects receiving China Overseas Group annual excellence case recognition, demonstrating innovative safety management effectiveness. CSCI Hong Kong also developed the C-SMART system and 4S safety management solution, becoming Hong Kong's first 4S solution fully meeting government requirements.

Assessment Category	Specific Objectives Summary	Performance Achievement
Safety and Environmental Protection System and Framework Development	◆ Revise the "Safety Production Management Measures" and related systems ◆ Enhance safety and environmental protection framework development at all company levels ◆ Improve natural disaster and emergency management systems ◆ Organize exchange of excellent management experiences to enhance team capabilities	In 2024, the Group comprehensively advanced its safety management system construction, progressing from system revision, organizational structure enhancement, and emergency mechanism improvement to experience sharing, gradually achieving standardization, systematization, and early warning capabilities. At the system level, the Group revised several key management documents, including the "Safety Production Management Measures," and formulated the "Production Safety Incident Information Reporting Management Rules" to further standardize incident reporting and information transmission processes. CSHK updated its "Internal Safety Incident Reporting Process Management System" to enhance cross-departmental response efficiency; CSCIIL released a new version of "Comprehensive Safety Assessment Measures (2024 Edition)" to make safety assessments more targeted and operational. Additionally, the Fifth Platform's implementation of the "Ten Safety Production Prohibitions," early shift meeting patrol system, and eight-hour external duty system further strengthened project frontline daily supervision and behavioural standards. Regarding personnel systems, as of 2024, the total number of full-time safety management personnel reached 832, among which 384 held professional qualifications, accounting for 46.1%, an increase of nearly 2% compared to the previous year, demonstrating achievements in personnel professionalization and steady expansion. CSHK actively strengthened mechanical safety management team training; CCE Macau established a dedicated large equipment organization; CSCIIL created a safety director position at headquarters and added over 30 full-time safety personnel; China State Construction Engineering and the Fifth Platform also continued to optimize safety supervision resource allocation and establish independent safety supervision systems. In emergency management, the Group strengthened natural disaster response preparation by developing the "Natural Disaster Emergency Response Plan" and establishing supporting early warning linkage and risk notification mechanisms. The Hong Kong and Macau regions took the lead in establishing emergency command centres and implementing a two-hour reporting system to enhance response efficiency. Emergency response personnel from regional subsidiaries were also included in the China State Construction Group communication network to ensure information sharing and lateral support. Throughout the year, there were no casualties or major property losses due to natural disasters, demonstrating the effectiveness of the emergency response system. Regarding management experience exchange, in 2024 the Group established 21 safety and environmental protection benchmark projects and organized 4 observation exchange activities and 2 benchmarking learning sessions. CCE Macau arranged safety supervision personnel and project managers to visit CSHK for benchmarking observations in batches; CSCIIL held standardized site observation activities to promote on-site experience exchange and mutual learning.

Standardization Construction Certification

Multiple projects under the Group actively applied for and obtained authoritative safety certifications, establishing benchmarks for the enterprise. The Nanjing Second Bridge project successfully obtained Safety Production Standardization Level One Certification in 2024, demonstrating that the company has reached high industry standards in risk identification, site control, and emergency management. This project enhanced safety control through systematic, refined, and digital means, providing valuable experience for similar large-scale transportation infrastructure projects.

In the Macau region, CCE Macau developed control measures to strengthen personal safety behavior based on local conditions, enhancing employee self-management and responsibility awareness at the system level. In 2024, CCE Macau issued 7 safety management guidelines covering various aspects including personal unsafe behaviour control, adverse weather prevention, scaffold modification, refuse chute construction, and mechanical management. Throughout the year, 22 safety plan reviews were organized, involving high-risk procedures such as safety planning, large machinery assembly and disassembly, MiC hoisting, and scaffold dismantling. CCE Macau underwent multiple inspections from external and superior units in 2024 without any corrective actions being required. The company established a comprehensive, multi-level safety inspection system through various methods including leadership supervision inspections, monthly comprehensive inspections, safety supervision department key project oversight, special inspections, and routine checks, ensuring continued stability in safety conditions. In November 2024, CCE Macau successfully obtained ISO 45001 Occupational Health and Safety Management System certification, marking the company's safety management reaching international standards.

Building an Intelligent Safety System

Technological innovation is becoming a key pathway to enhance safety governance effectiveness. In 2024, CSCI Hong Kong actively promoted "Smart Site" construction, taking the lead in applying Smart Safety systems at multiple new sites, integrating 5G remote control technology, Internet of Things, and artificial intelligence to achieve remote monitoring and precise operation of high-risk work scenarios, significantly reducing personnel exposure to dangerous environments and lowering accident risks.

Taking 5G remote-controlled tower cranes as an example, CSCI Hong Kong can remotely control large lifting equipment through its mechanical management intelligent system, comprehensively improving hoisting efficiency and safety. Combined with smart safety helmets, high-definition cameras, and real-time alarm systems, the system immediately issues warnings when on-site personnel enter high-risk zones and notifies management for immediate handling, truly achieving a dual defence line of "human prevention + technical prevention".

Meanwhile, the intelligent safety system automatically divides site risk zones, detecting operational anomalies or equipment operation errors through AI, triggering notifications and instant photo records uploaded to the platform for management review and employee retraining, achieving closed-loop behavioural control and accident prevention. To further enhance digital management effectiveness, CSCI Hong Kong also developed the "Happy Worker Mobile Application," fully integrating information technology into workers' daily workflows. This application features electronic work permits, training databases, personal safety record management, and other functions, effectively simplifying work processes while strengthening workers' safety awareness and operational standards, reducing accident risks. Through this platform, workers can more conveniently access safety information, complete electronic training, and upload records, achieving real-time synchronization and feedback in smart management.

CSCI Hong Kong has now established a team of over 200 professional safety management personnel, providing strong support for the Group's intelligent safety management. As the industry gradually moves toward intelligence and digitalization, CSCI Hong Kong continues to explore innovative management models, striving to transform traditional construction sites into safer, more efficient, and smarter future workplaces.

Strengthening Safety Culture Foundation

Beyond system and technical upgrades, the Group also highly values safety culture building, committed to cultivating proactive safety awareness of "I Want Safety" among all personnel. To enhance the safety literacy of employees and partners, the Group provides diverse safety education and training, establishing effective communication and consultation channels with employees to reduce accident rates. Furthermore, to continuously improve safety performance, the Group regularly assesses potential hazards and risks of construction works to safety and health, optimizing site behaviour standards through safety climate surveys and behavioural observations, and implementing innovative and feasible technical and management measures.

In 2024, the Group held 8 sessions of "Safety Lecture Hall" activities throughout the year, covering accident case analysis, legal regulation interpretation, and new technology applications, further enhancing safety awareness and emergency response capabilities of management personnel and frontline workers. Meanwhile, multiple regulatory system training sessions were conducted according to different department and project characteristics, ensuring safety concepts are integrated into daily management and construction practices. Additionally, in June 2024, the Group held the 2024 "Safety Production Month" launch ceremony and site observation exchange meeting at the Shenzhen Qianwan Unit 10 Nine-year Consistent School project, attended by Xie Huihui, Deputy Director of Shenzhen Qianhai Administration Bureau, and Wang Xiaoguang, Executive Director and CEO of CSCI.

The Group also values workers' voices, encouraging employees to report potential safety management gaps through multiple channels. Any work harmful to health will be immediately stopped upon reporting, with confidentiality of report content promised to protect relevant personnel's rights. For verified cases, the Group will provide appropriate rewards to reporters, creating a positive safety culture atmosphere.

Beyond safety management, the Group also focuses on employees' physical and mental health, promoting various health protection measures, including regular physical examinations, stress relief activities, and medical benefits for senior employees, helping employees better balance work and life, reduce stress, and prevent health risks from overwork. The Group also provides life, accident, medical, and dental insurance benefits for employees, and regularly organizes and subsidizes physical examinations.

In 2024, the Group recorded 177 cases of employee and worker injuries, with one serious work injury and no work-related fatalities. Other cases were mainly accidents caused by slipping, tripping, and object collisions. The Group properly handled accidents according to safety management procedures and legal regulations, including initiating investigations, recording accident processes, collecting on-site photos, drawings, and witness testimonies as evidence, and submitting reports with improvement suggestions to prevent similar incidents from recurring.

EMPLOYMENT AND TREATMENT

CSCI adheres to the talent philosophy of "people-oriented, talent-driven enterprise development," firmly believing that employees are the cornerstone of the enterprise's sustained growth and innovative development. In 2024, the Group continued to optimize its employment system, compensation and benefits, career development, and employee care, striving to create a fair, safe, respectful, and opportunity-filled work environment for employees while building an inclusive and mutually prosperous corporate culture.

As of 31 December 2024, the Group employed a total of 15,738 employees, all of whom were full-time employees[11]. The following shows the statistical distribution of employees:

			Male	Female
Total number of Employees				
By Employment Contract	Unlimited term/ permanent	CSHK	5,290	1,115
		CCE Macau	203	87
		CSC Development	1,843	306
		Other Chinese Subsidiaries	673	228
	Fixed term/ temporary	CSHK	350	273
		CCE Macau	528	135
		CSC Development	1,646	301
		Other Chinese Subsidiaries	2,193	567

	Total Employee Number (Monthly-paid)	Employee Turnover Rate (Monthly-paid)
Male	11,850	12.85%
Female	2,704	12.02%
Hong Kong	5,998	17.36%
Macau	588	19.39%
Chinese Mainland	7,733	8.24%
Others[12]	141	9.09%

[11] Includes the monthly-paid and other full-time employees.

[12] Including the United States, Portugal, UAE and Singapore.

Employment System and Benefits Protection

CSCI adheres to a "people-oriented" talent philosophy, actively supporting reasonable wage initiatives and striving to provide fair, reasonable, and competitive compensation packages for all employees and supply chain partners. The Group strictly complies with applicable regulatory standards in Hong Kong and other regions, including the Hong Kong Employment Ordinance, Macau Labour Relations Law, and the Labour Law of the People's Republic of China. All employees sign written employment contracts in accordance with local laws and undergo strict recruitment, review, and approval procedures to prevent false employment and hiring mistakes.

The Group continuously reviews and optimizes its compensation system to ensure employees' basic living needs are properly protected and promote work-life balance. To safeguard employees' basic rights, the Group's Employee Handbook clearly outlines wage structure, working hour arrangements, leave policies, and duty entitlements. In addition to regular holidays, the Group offers marriage leave, maternity leave, bereavement leave, examination leave, paternity leave, vacation leave, and long service award leave, demonstrating humanized management. Employees also enjoy diverse allowances such as overseas posting allowance, relocation allowance, and children's education subsidies. Mainland employees contribute to social insurance and housing fund as required by law, while Hong Kong and Macau employees enjoy multiple protections including MPF, medical insurance, and accident insurance. An assistance mechanism is in place where employees facing financial difficulties can apply for emergency aid.

Upholding the concept of "We Operate Happiness," the Group is committed to creating a positive workplace ecosystem that emphasizes both career development and physical-mental well-being. Various employee care activities are continuously organized, including festival-themed workshops, Chinese medicine therapy, and movie screenings, enriching employees' physical and mental experiences. Meanwhile, the Group has established an employee sports club, regularly organizing team-building activities such as basketball, football, athletics, hiking, and badminton, while continuing to promote the "Fun Fun Construction Site" frontline employee care program, bringing diverse health care activities to the work front.

Furthermore, the Group places high importance on worker care, organizing Happiness Committee care dinners and hosting the Master Lu Ban Birthday celebration for 20,000 workers for the fourth consecutive year. The Group also implements various activities through "Site Happiness Stations," such as summer cooling relief and safety-health themed workshops, effectively bringing care to frontline employees and workers, creating a warm and inclusive work atmosphere.

The Group also places high emphasis on protecting the legal rights and interests of subcontracted workers, appointing the platform company to establish the comprehensive subcontractor employment management system. The company holds regular monthly labour relations review meetings with all subcontractors on site and has established a dedicated team to handle subcontractor labour disputes, monitoring whether subcontractors comply with legal wage payments, insurance purchases, and accurate recording of worker attendance and wage situations. For cases involving non-compliant employment or violations of workers' rights, the company will immediately report and rectify the situation, and assess whether to suspend cooperation eligibility based on circumstances. To protect workers' right to information and complaints, the company explicitly requires posting grievance channels, rights notifications, and wage payment standards at construction sites. Regarding issues raised by workers, the company also conducts questionnaire surveys or individual interviews to understand whether there are situations such as wage deductions or inadequate work injury compensation, and assists with referrals or handling.

Cultivating New Forces in Construction

To promote youth development in Hong Kong, the Group launched the "China Construction Hong Kong Student Development Programme," actively inviting local universities and secondary school students to participate in company study exchanges, internships, and STEAM (Science, Technology, Engineering, Arts, Mathematics) workshops. These activities aim to enrich students' technological knowledge and practical experience while sparking their interest and passion for the construction industry. Furthermore, in active response to Hong Kong construction industry's pressing demand for young professionals, China Construction Hong Kong implemented the "Double Hundred" Youth Talent Development Programme, providing a broad platform for young people aspiring to develop careers in construction, and organized the "China Construction Scholarship Award Ceremony and Construction Technology Experience Workshop" to further support local higher education development and strengthen the industry's youth talent pool.

Hong Kong Student Development Programme

In 2024, the Group's "CSHK Hong Kong Youth Development Scheme — Construction Technology Exploration Tour @ Beijing" successfully concluded, providing valuable learning experiences for Hong Kong young students and further promoting both professional skills and national identity development.

The study tour, themed around "Construction Technology" and "National Culture," carefully arranged for 31 students from various Hong Kong universities studying architecture and related disciplines to participate in a four-day in-depth exchange. During the trip, students visited the "China Construction Technology Exhibition" organized by China State Construction Group, gaining deep insights into the country's cutting-edge developments in construction technology. They also conducted a site visit to the first MiC renovation project of an old building, "No. 8 Huapi Factory Hutong," constructed by CSCI, experiencing firsthand how technological innovation effectively shortened the construction period to just about three months while significantly reducing construction waste and improving urban renewal efficiency.

The delegation also visited Tsinghua University, engaging in discussions with faculty and students from the architecture department about construction technology trends, career planning, and architectural cultural differences between the two regions, inspiring students to think about and plan their future careers. For cultural exchange, students visited the Forbidden City, Bird's Nest, Water Cube, and National Museum, learning about traditional Chinese architectural essence and modern iconic constructions, broadening their multicultural perspectives.

Cultivating New Forces in Construction

Additionally, since 2021, the Group has partnered with various stakeholders to organize the "Hong Kong Future Builders Little Engineers STEAM Workshop," successfully hosting over 15 events serving more than 700 primary and secondary school students. The activities extensively cover different communities, including participants from the HKSAR Government's "Create Our Teens" programme and Security Bureau Youth Uniform Team Leaders Forum members, using interactive experiences to help students deeply understand construction industry innovations and career prospects. Participating students not only get hands-on experience with relevant equipment and deepen their understanding of construction technology but also develop team spirit and problem-solving abilities, comprehensively enhancing their overall competencies.

Cultivating New Forces in Construction

Scholarship Award Ceremony and Construction Technology Experience Workshop

CSHK established the "China State Construction Scholarship" aimed at alleviating students' financial pressure, supporting personal growth, and nurturing professional talents for the construction industry. In the 2023–2024 academic year, over 60 students received this honor, covering four institutions including the Hong Kong University of Science and Technology, Hong Kong Polytechnic University, City University of Hong Kong, and Hong Kong Institute of Vocational Education.

Under Secretary for Education Dr. Jeff SZE, JP, and Principal Assistant Secretary of Development Bureau Mr. CHAN King-tak, Alfred, served as award presenters, jointly witnessing this significant moment.

"Double Hundred" Youth Talent Development Programme

Since 2021, the Group has actively promoted the "Hong Kong 'Double Hundred' Youth Talent Development Programme" (referred to as the "Double Hundred" Programme), aiming to provide at least 100 Greater Bay Area employment positions annually for Hong Kong tertiary institution graduates and 100 Greater Bay Area internship and exchange opportunities for Hong Kong students, offering young people broad career opportunities in the construction engineering field.

The company has established a comprehensive "5+3+x" youth talent development system, encompassing clear career pathways, systematic professional training, mentorship programs, construction technology practice, competitive compensation and benefits, Greater Bay Area development opportunities, employee care activities, social welfare participation, and youth-initiated activities, comprehensively supporting young professionals' growth and injecting continuous new momentum into the construction industry.

Employee Children Scholarship Programme

To fulfill corporate social responsibility and demonstrate humanitarian care, China Construction International continues to implement the "Employee Children Scholarship" programme, now entering its third year of implementation. This year's programme maintains its original advantages while further improving the evaluation mechanism and expanding its coverage to provide more comprehensive support for employees' children's growth and development.

For primary and secondary school students, the company has established the "Primary and Secondary School Academic Excellence Scholarship," where awarded students receive between HKD3,000 to 5,000 based on their overall performance.

For outstanding students about to enter university, the company has established the "University Entrance Scholarship." This award is comprehensively evaluated based on Hong Kong Diploma of Secondary Education Examination (DSE) results, with recipients receiving HKD10,000 to provide substantial support for their university life.

In 2024, the company's Happiness Committee organized the second "Employee Children Scholarship" award ceremony to commemorate China Overseas Group's 45th anniversary, recognizing 65 outstanding students with excellent academic performance and conduct, demonstrating the company's support and encouragement for employees' family responsibilities.

China Overseas Group 45th Anniversary Celebration

On June 6, 2024, China Overseas Group reached the important milestone of its 45th anniversary, with various subsidiaries and business units organizing a series of celebratory activities, reviewing the enterprise's development journey and fully demonstrating the corporate spirit of "Advancing with All Our Heart Every Day" and the mission of "We Operate Happiness".

Inheriting Cultural Care, Building a Happy Enterprise

China Construction International Fellowship Association and China Construction Hong Kong Fellowship Branch jointly organized various themed activities, such as green living and traditional pastry workshops. China Construction Macau also launched DIY perfume workshops, inviting employees and their families to participate, creating a warm atmosphere. Several subsidiaries further strengthened employee belonging and cohesion through family open days and parent-child carnivals.

Sports Competition Inspires Vitality, Consolidates Team Spirit

Sports activities became a highlight of this celebration. China Construction Hong Kong organized the "May Fourth Youth Sports Day," with nearly 300 young employees actively participating; companies in Zhejiang and Guizhou held basketball and football friendly matches; while Sichuan and Chongqing employees participated in cycling and mountain climbing challenges, demonstrating vitality and cooperative spirit. These activities not only enriched employees' physical and mental well-being but also strengthened cross-departmental communication and teamwork.

China Overseas Group 45th Anniversary Celebration

Fulfilling Social Responsibility, Conveying Corporate Warmth

Adhering to the original intention of giving back to society, many group companies actively engaged in public welfare actions: China Construction International Investment Zhejiang Company donated stationery to Hope Primary School, Shaanxi Company joined with the Women's Federation to care for left-behind children, and China Construction Engineering with Far East Hong Kong jointly organized environmental protection public welfare activities, practicing corporate social responsibility and conveying care and hope.

Cultural Creativity Injects Vitality, Radiates Corporate Charm

During the celebration, local companies also launched various cultural creative activities, such as Guangdong Company's "Trendsetting Cultural Exchange Camping Music Festival," Jiangxi Company's corporate culture fun games design, and Fujian Company's succulent plant landscape creation, further enriching corporate culture content and enhancing employee participation and identification.

This 45th anniversary celebration is not only a warm review of the Group's "Careful and Pragmatic, Excellence in Construction" development journey but also a firm declaration of future vision. All China Overseas staff will maintain an uplifting attitude, uphold the "Trendsetting" cultural spirit, and work together towards the grand goal of "becoming a world-class investment construction operation service provider," continuing to write new chapters in China Overseas' glory.

Performance Evaluation and Promotion System

To align with the Group's rapid development and diverse staffing needs, the Group emphasizes talent pipeline development, creating clear and sustainable career development paths for employees through comprehensive performance evaluation and promotion systems.

The Group adopts the "MAPS" professional development framework (Management, Administration, Professionals, Sales) grade system, covering different functions and promotion paths, allowing employees to plan according to their expertise and aspirations, and gradually grow through departmental rotation, educational advancement, and skill development.

In 2024, the Group conducted talent inventory and key position succession planning, selecting high-potential employees for the talent pool to provide strong support for management team succession. The Group also promotes employee participation in overseas rotations and mid-to-senior level training programs to expand international perspectives. China Construction Hong Kong has established an internal selection and promotion platform, allowing excellent workers to advance from technical positions to management roles, opening up promotion channels and enhancing employee belonging and loyalty.

Diversity, Inclusion and Equal Environment

The Group is committed to building a diverse and inclusive workplace, respecting employee differences in gender, age, ethnicity, background, and beliefs, creating an equal, inclusive, and open work atmosphere. The "Prevention of Discrimination and Harassment Policy" establishes clear criteria for recruitment, promotion, compensation, rewards and penalties, and transfer decisions, ensuring equal treatment for all personnel.

Regarding gender equality, the Group actively promotes female management personnel, with steadily increasing proportions of women in middle and senior management structures; in Hong Kong and Macau regions, female representation in professional technical and safety management fields continues to strengthen. For family caregivers, the Group provides flexible working hours, remote work arrangements, and family-friendly benefits to help employees balance family and work.

TRAINING AND DEVELOPMENT

The Group upholds the principle that "talent is the first resource" and is committed to building a competency-based, systematic, and sustainable talent development system. Through well-defined training policies and objectives, the Group continuously enhances employees' professional skills, leadership abilities, and innovative thinking to build an exceptional team that combines global perspective with local expertise.

The Group maintains a dual-driven approach of "social recruitment" and "campus recruitment" focusing on attracting corporate governance talent, high-end professionals, technology R&D talent, and outstanding young talent, recruiting globally to build a diverse talent allocation system. Through internal regulations such as the "Employee Handbook", "Human Resources Management System," and "Training Work Procedures", the Group clearly defines training directions and scope, covering new employee orientation, job-specific skills training, management development, leadership talent cultivation, overseas rotation programs, and succession pipeline development. The Group continuously improves its exclusive training system for employees at different development stages and position types, optimizes course design, and comprehensively enhances talent quality.

In recent years, the Group has launched several key training programs, including the "High-Quality Development" workshop, "Construction Leaders Program" project manager development camp, MiC "Marketing Class", "Research Journey Program" professional study class, "Young Talent Launch Program" and "Tides of Hong Kong" intensive training camp, while continuing to deepen the development of the "Leading Trends" micro-course platform and "Leading Trends Academy" training brand to comprehensively improve talent team quality and competitiveness.

Furthermore, the Group continuously explores innovative mechanisms for talent team building and enriches talent identification methods through the monthly "Eight-Minute Topics" outstanding employee showcase program, establishing a platform for employee exchange and experience sharing. Meanwhile, it formulates diverse talent retention strategies, implementing multiple measures to further enhance the Group's ability to attract and retain talent.

"Sons of the Sea" Programme Helping Youth Spread Their Wings

"Sons of the Sea" is the Group's talent brand for fresh graduates and serves as a strategic reserve talent pipeline for the Group's future development. With over 20 years of history, it has extraordinary industry influence.

- **Clear career development goals:** Becoming international professional managers who are versatile, well-rounded, skilled in management, and capable of handling challenging tasks;
- **Systematic training plan:** Coordinated management by Group headquarters, centered on mentorship system, with high standards, high control, and comprehensive support;
- **Rapid development path:** Ocean's Child participants account for 90% of Group's Hong Kong and Macau site managers; and 60% of post-80s leadership in mainland subsidiaries;
- **Quality development resources:** Post-doctoral innovation base and academician expert resources provide excellent development paths for professional technical talents.

"Hong Kong Management Academy" Building a Continuous Learning and Strategic Empowerment Platform for Middle and Senior Management

The Group has established the Hong Kong Management Academy to provide training for senior management, key personnel and young participants, dedicated to cultivating high-quality teams whilst researching major issues in enterprise development. The training focuses on the Group's strategic development needs, expanding international perspectives and strengthening innovation and governance capabilities. We also emphasise values education, cultivating corporate culture, conducting belief education and aiming to establish excellent conduct. The Academy invites senior leadership and external lecturers to organise comprehensive capability courses targeting key participants, enhancing overall abilities including time management, leadership and emotional management; it also offers two series of training courses in engineering management and functional management for young participants. The Group builds and manages a knowledge base, compiling various training content, question banks, courseware and videos, including work guidelines, engineering summaries and research reports, whilst also organising workshops for internal sharing and exchange of learning outcomes, and conducting external exchange visits.

Serving the Community

Feature Story

Deepening Corporate Social Responsibility Through Infrastructure, Livelihood, and Community Integration

As a construction and urban integrated services enterprise deeply rooted in Hong Kong, Macau, and mainland China, CSCI has always upheld "Building with Love, Sharing Responsibility" as its core corporate social responsibility value. Over the years, the Group has actively participated in government livelihood construction, community care, and public service, committed to fulfilling its promise to serve society through professional capabilities and actions. In 2024, the Group achieved substantial results in three areas: public welfare infrastructure, community engagement, and volunteer services, helping to build livable, resilient, and inclusive community environments.

6 MEILIN ROAD AFFORDABLE HOUSING PROJECT (ANJU JINGXIN GARDEN)

The Anju Jingxin Garden project is located in Meilin Street, Futian District, Shenzhen, and has been selected as a demonstration project under the "14th Five-Year Plan" National Key Research and Development Program, constructed by China State Construction International Group. As the first concrete modular high-rise residential building in a high-density urban area in China, the project has a total construction area of 44,500 square meters, providing 696 units of affordable rental housing, expected to be delivered in June 2025, precisely targeting low and middle-income families and new urban residents, effectively alleviating housing pressure in the central urban area. The project is equipped with basic community service facilities, balancing livelihood needs and green construction, adopting modular construction methods to breakthrough construction bottlenecks in high-density urban areas, providing a benchmark demonstration for "fast and quality construction" of affordable housing in the Guangdong-Hong Kong-Macao Greater Bay Area, and serving as a model for "rapid delivery and long-term operation" of affordable housing nationwide.

Feature Story Deepening Corporate Social Responsibility Through Infrastructure, Livelihood, and Community Integration

PINGSHAN COMPREHENSIVE EPC PROJECT IN NANSHAN DISTRICT

This project is Shenzhen's first whole-village transformation project, which upon completion will resolve talent housing and industry-academia-research supporting facilities issues for the Xili Lake International Science and Education City area—a major strategic platform jointly built by municipal, provincial, and ministerial levels. The project is located at the intersection of Liuxian Avenue and Lishan Road in Nanshan District, Shenzhen, Guangdong Province, adjacent to Shenzhen University Town. While preserving the characteristics of the traditional Guangfu village, the project adopts a combined demolition and renovation approach to promote comprehensive village transformation, creating a diverse talent residential district. After renovation, the buildings will be managed and operated by a third party, effectively addressing the chaotic rental and utility fee collection issues in urban villages and protecting residents' basic rights. It aims to transform Pingshan Village into a "Creative Green Valley" that integrates industry-academia-research, provides comprehensive facilities, offers convenient transportation, promotes community inclusiveness, and maintains vibrant energy.

This renovation project covers 382 buildings with a total construction area of approximately 160,000 square meters. The main renovation contents include improvement of the village's natural/traffic environment, construction of pocket parks/roof gardens, historical building preservation, small-scale demolition and reconstruction of old buildings, repair of old tile houses, structural reinforcement and waterproofing of buildings, elevator installation, enhancement of old building façades, interior decoration and renovation, and infrastructure improvement (water supply and drainage, electrical, and fire protection systems). After renovation, it is expected to provide around 6,000 units of affordable housing, with the permanent resident population increasing by approximately 10%.

FOCUS ON LIVELIHOOD NEEDS

CSCI has always emphasized its commitment to social responsibility, striving to integrate its corporate mission of "We Operate Happiness" into daily operations, actively promoting volunteer culture, and spreading positive corporate energy. Under the guidance of China Overseas Group's "Care for Society" Volunteer Association, since the official establishment of the "China Construction Care for Society Volunteer Branch" (referred to as the "Volunteer Branch") in June 2019, the team has grown to over 2,600 volunteers.

In 2024, the Volunteer Branch organized various volunteer activities under the "4+X" social service themes of "Support for the Elderly", "Empowerment for Adults", "Care for the Youth", "Home Maintenance" and "Innovation Space". Throughout the year, over 4,600 volunteers were mobilized, contributing more than 15,000 service hours, fully demonstrating the company's deep care for the community.

Among these, the "Home Maintenance" sector was particularly outstanding, completing voluntary housing repairs for 485 households and reaching a cumulative renovation count of 1,041 households. Building on years of practice, the Group has developed three major professional voluntary repair sectors: "Minor Home Repairs", "Community Beautification and Renovation" and "Community Emergency Support and Repairs" with service results widely praised by the State-owned Assets Supervision and Administration Commission, the Liaison Office, the SAR Government, and various sectors of society.

Furthermore, platform companies under the Group actively conduct diverse community care activities based on local social conditions and livelihood needs. In response to the impacts of extreme weather, Anhui Hailong's Hefei and Suzhou bases took swift action, rapidly mobilizing employees to participate in snow and ice removal operations. The volunteer team braved the cold to clear snow from roads and assist community residents in safe travel, fully demonstrating the positive image of state-owned enterprises in shouldering social responsibility, further strengthening the close ties between the enterprise and community, and spreading warmth and care.

To strengthen community emergency response capabilities and daily support, CSCI gathered over 650 professional volunteers in 2024, divided into five major regions: Hong Kong Island, Kowloon, New Territories East, New Territories West, and the Islands, while establishing two specialized teams for mechanical & electrical and glass curtain wall works, forming a total of seven professional emergency response teams. The volunteer teams follow the "360 Management System" of "three-tier command system, six management mechanisms, and zero safety incident operation" to ensure emergency response work is orderly, efficient, and accident-free. The Group also collaborated with the Fire Services Department to organize community emergency volunteer training, inviting professionals to share rescue experience and first aid skills to enhance the professional standards of emergency voluntary work, with over 60 employees actively participating.

STRENGTHENING PUBLIC WELFARE FORCES

CSCI continues to develop volunteer culture, promoting employee participation in diverse public welfare actions, with service footprints across Hong Kong, Macau, Guangdong, Sichuan, Shaanxi, and other regions.

In 2024, CSC Hailong continued to promote local care initiatives, focusing on poverty alleviation, environmental protection, and community welfare, transforming practical actions into a force that warms communities, demonstrating corporate humanitarian care and responsibility. During the construction of local modular projects in Jiangmen, Guangdong, CSC Hailong actively addressed the living and production challenges of nearby farmers. To improve conditions for a farming household in Shadui Town, the company donated a set of care facilities for auxiliary installations, significantly enhancing their rain and wind resistance capabilities and farming safety. This project not only reflects the enterprise's support for community economic activities but also demonstrates the spirit of local integration and warm construction. Adhering to green construction concepts, the Group widely conducted Tree Planting Day, environmental protection, and green market activities. For example, CSC Hailong conducted voluntary tree planting at Nanshan Forest Farm, collectively planting over 700 trees covering more than 20 mu of forest land; the Hong Kong-Shenzhen Science Park project team participated in low-carbon lifestyle promotion markets, using innovative "stall setup" formats to bring green concepts to thousands of households; the company also conducted agricultural support activities in Jinxiang, Jining, Shandong, helping farmers with harvesting and purchasing agricultural products to alleviate sales pressure.

Based on its construction expertise and integrating social responsibility with humanitarian care, CSCI implemented a series of cross-sector public welfare and community building actions in 2024. Whether in infrastructure poverty alleviation, emergency support, talent cultivation, or community participation, the Group promotes positive social development with a long-term perspective and action, achieving enterprise-society integration and progress. Due to outstanding contributions in home repairs, community emergency support, and youth education, CSCI Group was awarded the "Hong Kong Volunteer Award 2024 — Outstanding Enterprise Award" by the Home and Youth Affairs Bureau of the Hong Kong SAR Government and the Agency for Volunteer Service. This honor not only demonstrates the Group's excellent volunteer service achievements and high recognition from all sectors of society but also fully reflects the company's firm commitment to continuously promoting employee participation in social services, giving back to the community, and building a harmonious society.

About This Report

CSCI is committed to implementing sustainable development concepts in its daily operations, incorporating green low-carbon, talent development, good governance and social contribution principles into the Group's culture. The Group actively communicates with various stakeholders and publishes its Sustainability Report annually, disclosing work progress and related performance. This aims to present the Group's policies, measures and achievements in economic, environmental and social aspects in a comprehensive and diverse manner, enabling stakeholders to better understand the Group's development strategies and commitments on the path of sustainable development. The 2024 Sustainability Report (this Report) outlines the Group's inputs and achievements in environmental, social and governance aspects, allowing stakeholders to understand the Group's development and operational approaches, whilst also providing opportunities for the Group to understand their opinions and needs, thereby developing corresponding policies to respond to and meet their expectations.

REPORTING PERIOD AND SCOPE

This Report covers the period from 1 January 2024 to 31 December 2024, consistent with the reporting period of the Group's annual report. The reporting scope encompasses the Group's operations in Mainland China, Hong Kong and Macau, as well as the performance data of China State Construction Development. China State Construction Development (stock code: 00830) also separately publishes an Environmental, Social and Governance ("ESG") Report, which stakeholders can refer to for detailed ESG policies and measures. This Report does not include data from joint venture or associate projects not led by the Group.[13]

REPORTING STANDARDS AND PRINCIPLES

This Report complies with the Environmental, Social and Governance Reporting Guide ("ESG Guide") issued by the Stock Exchange and follows the "Core" option of the Global Reporting Initiative (GRI) Sustainability Reporting Standards ("GRI Standards"). It also references the Construction and Real Estate Sector Disclosures of the GRI G4 Sustainability Reporting Guidelines ("GRI CRE"). A complete content index of the ESG Guide and GRI Standards is attached at the end of this Report for stakeholders' reference.

[13] The Group holds less than 50% interest.

In the preparation process of the Sustainability Report, to make reasonable decisions on report content and ensure the quality of disclosed information, the Group adopts internationally recognised reporting principles and provides the following responses.

Stakeholder Inclusiveness	The Group identifies key stakeholders with reference to the AA1000 Stakeholder Engagement Standard. Through various communication methods including meetings, workshops and questionnaires, the Group understands stakeholders' opinions and expectations and responds to them in the report content.
Sustainability Context	The Group discusses sustainability issues with reference to international trends, industry practices and long-term risks and opportunities. The Report content also specifically demonstrates the Group's response to global trends and the performance of various business divisions and regional companies.
Materiality	The Group identifies key sustainability issues relevant to core business and broad stakeholders through stakeholder communication. These issues are highlighted in the report.
Completeness	The report covers all key sustainability issues, avoiding omission of any details important to stakeholders.
Accuracy	The Group has established internal control and review procedures to ensure all information is accurate and reliable.
Balance	The Group describes both achievements and challenges objectively and in a balanced manner.
Clarity	The report's presentation enables understanding by all stakeholders with basic knowledge of the Group and its activities.
Comparability and Consistency	The Group uses consistent disclosure methods to allow stakeholders to compare the Group's sustainability performance year-on-year.
Reliability	Information contained in the report is clearly presented without misleading or deceptive intent. The Group aims to obtain external assurance for future sustainability reports.
Timeliness	The Group regularly reports on its sustainability performance. The time period for information in each report is clearly indicated.
Quantitative	The Group presents its performance quantitatively wherever possible and provides comparative data where appropriate.

CONTENT MANAGEMENT

To coordinate reporting work, the Group has established a Sustainability Report Writing Committee. The Group continuously updates its ESG cloud platform and provides training to responsible staff to address their queries. The Group has also engaged an independent sustainability consultant, Hong Kong Sustainability Consultancy Limited, to assist with stakeholder engagement, materiality assessment, data collection, statistics compilation and content development, striving to present accurate, reliable and complete information in this Report.

CECEP (HK) Advisory Company Limited and China Chengxin Certification Co., Ltd as the third-party institutions, provides independent assurance opinion for this Report. This Report has been reviewed by the Sustainability Committee and approved for publication by the Board of Directors in April 2025.

PUBLICATION

This Report is published electronically in both Chinese and English versions, with the Chinese version taking precedence should there be any discrepancy in meaning between the two versions. Stakeholders can download this Report from the sustainability section of China State Construction International's website and the HKEXnews website of Hong Kong Exchanges and Clearing Limited. The Group also publishes a summary of this Report on its official WeChat account. Stakeholders can access the Group's latest sustainability information through these channels.

FEEDBACK

The Group firmly believes that stakeholder feedback can help the Group move towards a sustainable future and hopes to promote stakeholder communication through this Report. We hereby sincerely invite you to provide valuable opinions. If you have any questions or suggestions regarding this Report or the Group's sustainability work and performance, please email csci_esg@cohl.com to reach out to the Group.

Assurance Statement

Independent Third Party Assurance Statement

2024 Business Ethics Management

Statement No.: CCXC_SDV_202504011

中國建築國際集團有限公司
CHINA STATE CONSTRUCTION INTERNATIONAL HOLDINGS LIMITED
(Incorporated in the Cayman Islands with limited liability)

China Chengxin Certification (Shenzhen) Co., Ltd.("CCXC") was engaged by China State Construction International Holdings Limited ("CSCI " or "Reporting organization") to provide Type II Moderate Assurance of CSCI's Business Ethics Management and disclosed information of 2024 ESG report to the reporting period of 1 January 2024 to 31 December 2024 in accordance with AA 1000 Assurance Standard (v3).

Business Ethics Management and disclosed information of 2024 ESG report has been prepared by CSCI in accordance with the Code of Business Ethics, Human Rights policy, Anti-Corruption policy, Sustainable Procurement policy, Sustainability Strategy and Approach.

CCXC has formulated the following verification implementation plan in accordance with the AA1000AS (v3) requirements, as to the agreed verification programme.

Type of assurance: Type II
Assurance Level: Moderate
Assurance Principles: Inclusiveness, Substance, Responsiveness, Impact
Scope: Consistent with the scope of the reporting organization's 2024 ESG report
Objective: To verify the organization's business ethics management (policy/approach/objectives/indicators/performance management) mechanisms and practices and performance data in line with the disclosures in the 2024 ESG Report.
- To verify that the organization's business ethics management is in line with relevant international management standards.
- To confirm the authenticity, integrity and reliability of the organization's ethics management, and to verify the business ethical management performance and practices of the organization and the contents of the 2024 ESG report, and provide a 'limited assurance'; this declaration document is for the use of the reporting organization and its stakeholders.

Our Conclusion & Opinion

On the basis of the work undertaken, nothing came to our attention to suggest that the selected information is not fairly stated and has not been prepared, in all material respects, in accordance with the Criteria. This conclusion relates only the selected information, and is to be read in the context of this Independent assurance report, in particular the inherent limitations explained below. We performed a " Type II Moderate" assurance engagement of specified data and information using relevant international standard and reporting guideline. A statement with a " limited assurance level" was issued for use by CCSI and its stakeholders.

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Independent Third Party Assurance Statement

2024 Business Ethics Management

Statement No.: CCXC_SDV_202504011

中國建築國際集團有限公司
CHINA STATE CONSTRUCTION INTERNATIONAL HOLDINGS LIMITED
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Selected information for quality evaluation

Environment Management - GHG emissions - Waste treatment - Green design and construction	- Human rights protection - Copyright protection - Information security and privacy protection - Green Procurement	- Anti-Corruption - Whistleblowing policy - Code of business Ethics

During the verification process of the above performance data, no systematic or material errors were found.

Limitations

Due to the absence of internationally recognized and universal standards for the assessment and measurement of non-financial information, different but acceptable assessment methods and measurement techniques may have a certain impact on the comparability of data among different institutions;

CCXC did not conduct verification on other key performance indicators beyond those indicated in the verification statement;

This verification only involved interviews with management team members of CCSI, desk review, and did not extend to external stakeholders.

Independence and Competence

CCXC is an independent organization specializing in providing third-party certification and verification, and the verification team is composed of professionals in the ESG industry, and has a full understanding of AA1000AS v3 and the ability to implement ESG verification. The members of the verification team of CCXC do not have a business relationship with the reporting organization and its directors and senior management, and under the control measures of CCXC, there is no conflict of interest with the reporting organization, which can ensure the independence of this verification work.

Effective Date: 2025/04/25

Approved by

China Chengxin Certification (Shenzhen) Co., Ltd.

Unified Social Credit Identifier: 91110101MA01GU3E06

37th Floor, Shenzhen Bay Venture Capital Building, No. 25, Haitian 2nd Road, Binhai Community, Yuehai Street, Nanshan District, Shenzhen, P.R. China

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This verification statement is based on the information provided by the organization to CCXC and the aforementioned agreed conditions, CCXC shall not be liable to any party that relies on or uses this

中誠信綠金國際有限公司
CCX GREEN FINANCE INTERNATIONAL LIMITED

Verification
Sustainability-Linked Loan

China State Construction International Holdings Limited

中国建筑国际集团有限公司

Assessment Summary

Key Performance Indicators (KPIs)

CSCI selected GHG emissions intensity (Scope 1 & 2), percentage of FSC or PEFC certified wood purchases (purchased by CSHK) and work-related injury rate per 1,000 workers as its KPIs.

Performance of Sustainability Performance Targets (SPTs)

SPT 1: CSCI's GHG emissions intensity (Scope 1 & Scope 2) was 8.36 tCO_2-eq / million HKD in 2024.
SPT 2: CSHK's percentage of FSC or PEFC certified wood purchases was 99.9% in 2024.
SPT 3: CSCI's work-related injury rate per 1,000 workers was 3.58 in 2024.

Loan Characteristics Implications

The Facility Letter includes a detailed description of the adjustments in financial characteristics in relation to SPTs. The margin adjustments include step-down(s).

Reporting

CSCI will annually report its SPTs performance to the Lender until the termination of all loan characteristic triggering events.

Verification

The SPT performance will be verified by an External Reviewer or disclosed in the latest externally assured ESG report.

Relevant UN Sustainable Development Goals (SDGs):

Assessment Type

Sustainability-Linked Loan Verification

Company Location

Hong Kong, China

Date

April 28, 2025

Alignment

Sustainability-Linked Loan Principles 2025

Analysts

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Quality Review

Vivia Wang
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GHG Emissions Verification Statement

No.: CCXC-GHGVS001202504

中國建築國際集團有限公司
CHINA STATE CONSTRUCTION INTERNATIONAL HOLDINGS LIMITED
(於開曼群島註冊成立之有限公司)
(Incorporated in the Cayman Islands with limited liability)

Locations

1) Main Contract Works for Proposed Residential Development At 391 Chai Wan Road and Adjoining Government Land, Chai Wan Inland Lot No. 178
2) CEN - Hong Kong International Airport Aerospace Corridor- Elevated Bridge Project Connecting the Hong Kong Port of Entry and the Airport Aerospace City
3) Foundation and Site Formation for Public Housing Development at Ka Wai Man Road Phase 1
4) BJY - Design and Construction of TCM Hospital in Tseung Kwan O and Government TCM Testing Center
5) Macau De Lisson Street 1C.1D and 1E Lot Happiness Building Residential Development General Contracting Project
6) Phase 4 lot 4 new integrated resort development of Galaxy Resort & Casino in Cotai, Macau (P4004 Main Contract)
7) Innovation Industrial Park, Taizhou, Zhejiang, China
8) Yu Nan Garden Project, Jiaxing, Zhejiang, China
9) China State Construction International Investments (Hunan) Limited Office Building
10) China State Construction Hailong Technology Co., Ltd. Shenzhen Guanlan Base

has been verified in accordance with ISO 14064-3:2019 as meeting the requirements of ISO 14064-1:2018.

Following activities were conducted during verification: Document review, interview, site visit and recalculation.

Based on the information we have received and evaluated, it was verified by China Chengxin Certification that:

- The level of assurance carried out in this GHG verification was agreed by both parties is Reasonable Assurance Level.
- Required materiality of the verification is 5% and GWP value is following IPCC AR6. Data and information, which support this GHG verification, are from historical in nature.
- The total GHG emissions (direct & energy indirect) of the organization in 2024 amounted to 17,886.91 tons of carbon dioxide equivalent (tCO2-eq), of which: direct emissions accounted for 36.64% (6,554.10 tCO2-eq)), and energy indirect emissions accounted for 63.36% (11,332.80 tCO2-eq);
- The total other indirect emissions (Scope 3) amounted to 292,376.20 tons of carbon dioxide equivalent (tCO2-eq), of which: Category 1 emissions accounted for 93.53% (273,460.59 tCO2-eq), Category 3 emissions accounted for 5.67% (16,585.27tCO2-eq), Category 4 emissions accounted for 0.26% (753.69 tCO2-eq), Category 5 emissions accounted for 0.38% (1,097.89 tCO2-eq), Category 6 emissions accounted for 0.004% (12.88 tCO2-eq), Category 7 emissions accounted for 0.16% (466.00 tCO2-eq).

Effective Date: 2025/04/25

Approved by

China Chengxin Certification (Shenzhen) Co., Ltd.

Unified Social Credit Identifier: 91110101MA01GU3E06

37th Floor, Shenzhen Bay Venture Capital Building, No. 25, Haitian 2nd Road, Binhai Community, Yuehai Street, Nanshan District, Shenzhen

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This verification statement is based on the informaton provided by the organization to CCXC and the aforementioned agreed conditions. CCXC shall not be liable to any party that relies on or uses this verification statement.

Independent Assurance Statement

To the Board of Directors of China State Construction International Holdings Limited:

CECEP (HK) Advisory Company Limited ("**CECEPAC (HK)**" or "**We**") has been engaged by China State Construction International Holdings Limited ("**CSCI**") to conduct an independent limited assurance engagement (the "**Assurance Engagement**") on the information and data related to sustainable development in the *2024 Sustainability Report* (the "***Sustainability Report***") of CSCI.

CECEPAC (HK) has conducted the Assurance Engagement on the *Sustainability Report* of CSCI in accordance with the *AA1000 Assurance Standard v3* (the "**AA1000AS v3**"). Moreover, CECEPAC (HK) has also been engaged to conduct limited Assurance Engagement on the reliability and quality of specified performance information disclosed in the *Sustainability Report*.

This independent assurance statement has been prepared in Chinese and English versions. Should there be any discrepancies between these versions, the Chinese version shall prevail.

I. Independence and Competence

CECEPAC (HK) was not involved in collecting and calculating data disclosed in the *Sustainability Report*, or the development of the *Sustainability Report*. CECEPAC (HK)'s activities of Assurance Engagement are independent of CSCI. There is no relationship between CECEPAC (HK) and CSCI beyond the contractual agreement for providing proper assurance service.

The assurance team of CECEPAC (HK) is composed of experienced professionals in the industry who have received professional training on the standards related to sustainable development, including *GRI Sustainability Reporting Standards* issued by Global Reporting Initiative, AA1000AS v3, *Sustainability Reporting Guide* issued by SEHK, ISO 14064, ISO 9001, etc.

The assurance team of CECEPAC (HK) has extensive experience in conducting Assurance Engagement and has sufficient understanding and capabilities of implementation of AA1000AS v3. Moreover, the Assurance Engagement related to sustainable development issues is carried out in line with CECEPAC (HK)'s internal assurance protocol.

II. CSCI's Responsibilities

CSCI is responsible for implementing relevant internal control procedures to ensure that the contents of the *Sustainability Report* are free from material misstatement, whether due to fraud or error.

III. Assurance Provider's Responsibilities

CECEPAC (HK) is responsible for issuing an independent assurance statement in accordance with AA1000AS v3 to the Board of Directors of CSCI. This independent assurance statement applies solely to the *Sustainability Report* of CSCI in the specified scope, expresses a conclusion on the assurance work, and does not serve any other intents or purposes.

CECEPAC (HK) ensures that all personnel involved in the Assurance Engagement meet professional qualification, training, and experience requirements, and are demonstrably competent in conducting Assurance Engagements. All results of assurance are internally reviewed by senior staff to ensure that methodologies used in the process are sufficiently stringent and transparent.

IV. Assurance Scope

- The scope of the Assurance Engagement is limited to information and data in the *Sustainability Report* that relates to CSCI and its subsidiaries only and does not include CSCI's suppliers, contractors, and information or data provided by other third parties;
- AA1000AS v3 Type 2 Moderate Level of Assurance was adopted to evaluate the nature and extent of CSCI's adherence to the four principles (Inclusivity, Materiality, Responsiveness and Impact) in accordance with AA1000AS v3;
- Specified performance information disclosed in the *Sustainability Report* was selected and agreed upon between CSCI and CECEPAC (HK) for assurance. The selected specified performance information is as follows:
  - Total energy consumption
  - Work-related injury rate (employee)
  - Number of work-related fatalities (employee)
  - Rate of employee turnover
  - Scope 3: Other indirect emissions (Business travel)
- CECEPAC (HK)'s assurance work was with respect to information disclosed from 1 January 2024 to 31 December 2024. Any information disclosed in the *Sustainability Report* that falls outside this period is not included within the scope of the Assurance Engagement. Therefore, we do not express any conclusions on this information; and
- The scope of the Assurance Engagement is confined to the information provided by CSCI only. Any queries regarding the content or related matters within this independent assurance statement should be addressed to CSCI only.

V. Methodology

CECEPAC (HK) conducted Assurance Engagement for CSCI and its subsidiaries, and the assurance work included:

- Evaluating the appropriateness of CSCI's stakeholder engagement process;
- Conducting online interviews[1] with personnel involved with sustainability management, the preparation of the *Sustainability Report* and the provision of relevant information and data;
- Assessing whether the reporting and management approach for the *Sustainability Report* responded to the principles of Inclusivity, Materiality, Responsiveness and Impact as defined in the AA1000AS v3;
- Conducting sampling of evidence pertaining to data reliability and quality for selected specified performance information;
- Recalculating and verifying selected specified performance information; and
- Performing other procedures we deemed necessary.

Assurance Engagement was performed and the conclusions within were based upon information and data provided by CSCI to CECEPAC (HK), and on assumptions that the information provided was complete and accurate.

VI. Limitations

The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measures and measurement techniques and can affect comparability between entities.

VII. Conclusions

In accordance with the principles of Inclusivity, Materiality, Responsiveness and Impact in the AA1000AS v3, our findings and conclusions are as follows:

Inclusivity
CSCI has identified key stakeholders, and continuously understood the expectations and concerns of key stakeholders in various ways of communication. In our professional opinion, CSCI adheres to the Principle of Inclusivity.

Materiality
CSCI has conducted a materiality assessment for its *Sustainability Report* and collected the opinions of internal and external stakeholders. Appropriate methods were used to identify material topics, and the materiality assessment process was disclosed in the *Sustainability Report* with the materiality of the topics presented in a matrix. In our professional opinion, CSCI adheres to the Principle of Materiality.

Responsiveness
CSCI has established routine communication channels for its key stakeholders to understand their expectations and concerns. Moreover, CSCI has identified material topics and responded to stakeholders' requests for information. In our professional opinion, CSCI adheres to the Principle of Responsiveness.

Impact
CSCI has included "The financial impact on the Group's business" and "The impact of the Group's business on the environment, society and the economy" as two dimensions in its materiality assessment, so that the content of the *Sustainability Report* can reflect its impacts on economy, environment, and society to the maximum extent. In our professional opinion, CSCI adheres to the Principle of Impact.

Specified Performance Information
Based on the assurance procedures that CECEPAC (HK) has performed and the evidence we have obtained, no specific issue has come to our attention that causes us to believe that the disclosures of selected specified performance information of the *Sustainability Report* is unreliable or unqualified.

CECEP (HK) ADVISORY COMPANY LIMITED 中國節能環保(香港)咨詢有限公司

AA1000 Licensed Report 000-259/V3-N1UHA

28 April 2025
Hong Kong SAR, China

[1] Interviews were conducted in the form of teleconferences.

Summary of Key Performance Indicators

OPERATION PERFORMANCES

Categories		Units	CSHK	CSCIIL	CSC Development	CSC Hailong	China Overseas Construction	CSIAM	CCE Macau	Total
Green Building										
Green Building Certification	Number of Completed Projects Receiving Green Building Certification This Year	Projects	12	4	Not applicable due to business nature	1	0	Not applicable due to business nature	1	**18**
	Total Area of Completed Projects Receiving Green Building Certification This Year	m^2	492,040	767,748.77		173,000	0		20,000	**1,452,788.77**
	Number of Completed Projects This Year	Projects	23	41		2	4		0	**70**
	Total Area of Completed Projects This Year	m^2	4,213,063	5,491,779		3,294	130,800		0	**9,838,936**
	Cumulative Number of Projects with Green Building Certification	Projects	52	5		1	1		3	**62**
	Cumulative Total Area of Projects with Green Building Certification	m^2	3,881,204.91	1,014,331.77		173,000	61,300		671,500	**5,801,336.68**
Low-carbon Materials	Low-carbon Materials Usage	Tonnes	35,649	0	Not applicable due to business nature	6,103	0	Not applicable due to business nature	0	**41,752**
	Percentage of Low-carbon Materials in Total Raw Materials Usage	%	0.89%	0		1.26%	0		0	**0.93**

Categories		Units	CSHK	CSCIIL	CSC Development	CSC Hailong	China Overseas Construction	CSIAM	CCE Macau	Total
Employment Relations										
Employee Satisfaction	Number of Employee Satisfaction Surveys Conducted This Year	Times	No formal employee satisfaction survey was conducted this year	2	1	2	2	1	No formal employee satisfaction survey was conducted this year	**N/A**
	Employee Satisfaction Survey Results/Score	Score		Relatively Satisfied	Relatively Satisfied	Relatively Satisfied	Relatively Satisfied	Relatively Satisfied		**N/A**
	Number of Employees Participating in Satisfaction Survey This Year	People		Issued 2,357 surveys and collected 68 responds	Issued 4,002 surveys and collected 60 responds	Issued 775 surveys and collected 147 responds	Issued 209 surveys and collected 140 responds	Issued 320 surveys and collected 240 responds		**N/A**
Labor Practices	Number of Employee Complaints Related to Discrimination This Year	Cases	0	0	0	0	0	0	0	**0**
	Number of Employee Complaints Related to Labor Rights This Year	Cases	0	0	0	0	0	0	0	**0**
Supply Chain Management										
Supplier ESG Risks	Number of Suppliers Identified with Significant Environmental Risks This Year	Cases	0	0	0	0	0	0	0	**0**
	Number of Suppliers Terminated Due to Significant Environmental Risks	Companies	0	0	0	0	0	0	0	**0**

ENVIRONMENTAL PERFORMANCES

Air Emissions

Category	CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total	Unit
Nitrogen oxides	3,398,369.4	24,760.2	36,251.9	192,622.2	113,625.7	1,184.2	**3,766,813.5**	kg
Sulphur oxides	223,263.3	1,611.9	4,636.0	63,187.7	7,440.9	67.5	**300,207.2**	kg
Respirable suspended particulates	20,851.9	161.2	270.4	8,145.3	701.4	11.1	**30,141.2**	kg

Greenhouse Gas Emissions[14]

Scope	Emission source	CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total	Unit
Scope 1: Direct emissions	Combustion of fossil fuels-stationary source and non-road mobile source	114,395.9	974.3	1,520.9	692,790.3	4,907.0	347.0	**814,935.5**	tonne of CO_2-e
	Combustion of fossil fuels-mobile source	1,962.1	159.9	1,161.5	315.4	356.6	258.3	**4,213.9**	

[14] GHG emissions quantification process and emission factors refer to the national standards and guidelines of the People's Republic of China (Guidelines for Accounting and Reporting Greenhouse Gas Emissions China Public Building Operation Units (Enterprises) (Trial) and Guidelines for Accounting and Reporting Greenhouse Gas Emissions Other Industrial Enterprises (Trial)), Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings (Commercial, Residential or Institutional Purposes) in Hong Kong prepared by the Environmental Protection Department and the Electrical and Mechanical Services Department of Hong Kong, SME Carbon Audit Toolkit compiled by the University of Hong Kong and the City University of Hong Kong, and the international standards ISO 14,064–1 and the Greenhouse Gas Protocol.

Scope	Emission source	CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total	Unit
Scope 1: Direct emissions	Fugitive emissions[15]	73.2	24.8	37.9	272.9	160.4	27.4	**596.6**	tonne of CO_2-e
	Industrial production processes — welding	138.0	0.1	56.5	27.2	164.6	0.0	**386.5**	
	Carbonate	0.0	0.0	0.0	2,155.4	0.0	0.0	**2,155.4**	
Scope 2: Energy indirect emissions	Purchased electricity	14,726.1	17,113.7	63,444.3	19,529.4	13,345.3	8,025.7	**136,184.5**	
	Purchased heat	0.0	0.0	0.0	0.0	4,032.8	0.0	**4,032.8**	
Total GHG emissions (Scope 2)									
	— Location-based				**140,217.3**				
	— Market-based				**140,217.3**				
Total GHG emissions (Scope 1 & Scope 2)					**962,505.1**				
GHG intensity (Scope 1 & Scope 2, by revenue)					**8.36**				tonne of CO_2-e/ HKD million

[15] Including emissions from fire suppression systems and refrigerant emissions within the reporting scope. While fugitive GHG emissions from BTM (bromotrifluoromethane) used in fire suppression systems are not included in the six Kyoto Protocol GHG categories, they are included in this carbon assessment to provide a true and fair picture of GHG-related information. BTM is one of the controlled substances listed in Annex A of the Montreal Protocol, with a conversion factor of approximately 1.0 metric ton of CFC-11 (trichlorofluoromethane) equivalent.

Scope	Emission source	CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total	Unit
Scope 3: Other indirect emissions	Business travel[16]	58.8	26.3	1,227.9	276.1	259.1	15.9	**1,864.1**	tonne of CO_2-e
	Building materials	1,712,737.6	336,772.3	4,731,044.6	472,539.9	2,107,269.5	3.3	**9,360,367.3**	
	Subcontractor energy use	37,310.8	1,817.2	43,614.2	0.0	3,708.1	0.0	**86,450.2**	
	Water resource use	402.3	94.6	324.3	379.5	203.6	5.8	**1,410.1**	
	Wastewater treatment	568.5	135.0	1,227.4	44.3	509.1	40.5	**2,524.8**	
	Waste disposal	59,327.6	6,312.1	22,774.6	3,755.5	7,683.0	504.5	**100,357.3**	
	Fuel- and energy- related activities (not included in Scope 1or Scope 2)[17]	62,876.9	24,694.7	101,650.3	250,986.3	22,534.9	23,252.5	**485,995.6**	
	Employee commuting[18]	5,151.9	704.8	1,761.2	1,819.3	407.6	313.8	**10,158.7**	
	Upstream transportation and distribution[19]	0.0	264,989.8	26,763.7	203.3	4,948.8	0.0	**296,905.7**	
Total GHG emissions (Scope 3)					**10,346,033.7**				
Total GHG emissions (Scope 1, Scope 2 & Scope 3)					**11,308,538.9**				
GHG intensity (Scope 1, Scope 2 & Scope 3, by revenue)					**98.2**				tonne of CO_2-e/ HKD million

[16] Including airplanes, trains, and ships.

[17] Fuel- and energy-related activities (not included in Scope 1 or Scope 2), a new Scope 3 emission category quantified in 2024, are measured based on the group's actual energy consumption in Scope 1 and 2.

[18] Employee commuting emission, a new Scope 3 emission category quantified in 2024, are measured by collecting commuting data from a group sample. The total emissions are estimated using the sample ratio and employee number to meet a 95% confidence interval.

[19] Upstream transportation and distribution emissions, a new Scope 3 category quantified in2024, are measured by collecting data on typical transportation methods for building materials.

Hazardous Waste

Category	CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total	Unit
Total hazardous waste	480.6	0.0	0.0	12.0	39.7	0.0	**532.4**	tonne
Hazardous waste intensity (by revenue)				**0.005**				tonne/ HKD million

Non-hazardous Waste

Category		CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total	Unit
Non-hazardous waste generated	Inert C&D materials	6,014,433.3	101,528.8	4,688,162.2	0.0	2,648,271.7	0.0	**13,452,396.1**	tonne
	Non-inert construction waste	61,188.9	45,715.8	12,996.2	3,258.2	5,210.6	0.0	**128,369.6**	
	Other nonhazardous waste	89,220.4	12,983.9	166,977.9	194,993.2	10,224.9	1,273.3	**475,673.5**	
Total non-hazardous waste					**14,056,439.2**				
Non-hazardous waste intensity (by revenue)					**122.1**				tonne/ HKD million

Energy

Category	CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total	Unit
Gasoline	4,331.4	597.0	4,694.8	1,188.1	1,390.2	812.8	**13,014.2**	
Diesel	338,643.2	3,695.9	5,327.3	1,996.4	16,914.6	361.3	**366,938.6**	
Liquefied petroleum gas	0.0	69.0	224.4	0.0	532.3	0.0	**825.7**	
Liquefied natural gas	0.0	0.0	74.3	0.0	0.0	0.0	**74.3**	
Pipeline gas	0.0	0.0	0.0	0.0	0.0	406.7	**406.7**	
Acetylene	557.6	0.5	18.1	111.4	302.6	0.0	**990.2**	
Natural gas	0.0	0.0	88.2	587.8	1,693.8	863.6	**3,233.5**	
Lignite	0.0	0.0	0.0	1,845,031.2	0.0	0.0	**1,845,031.2**	
Methanol	0.0	0.0	59.6	0.0	0.0	275.7	**335.3**	MWh
Towngas	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	
Sold electricity	33,030.9	28,606.3	118,233.9	37,214.6	24,870.1	14,956.6	**256,912.3**	
Sold heating	0.0	0.0	0.0	0.0	10,183.8	0.0	**10,183.8**	
B5 biodiesel	103,490.0	0.0	14.1	0.0	56.2	0.0	**103,560.2**	
Sold electricity	0.0	0.0	0.0	69,739.7	0.0	0.0	**69,739.7**	
Sold heating	0.0	0.0	0.0	1,478,483.1	0.0	0.0	**1,478,483.1**	
Self-generated photovoltaic grid-connected electricity[20]	0.0	0.0	0.0	187.8	261.0	0.0	**448.8**	

[20] Disclosure of the Group's self-generated photovoltaic grid-connected electricity is newly added this year.

Category	CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total	Unit
Propane	0.0	0.0	9.9	0.0	30.5	0.0	**40.4**	
General kerosene	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	
Coke oven gas	0.0	0.0	0.3	0.0	0.0	0.0	**0.3**	MWh
Fuel oil	0.0	0.0	17.1	0.0	0.0	0.0	**17.1**	
Total energy consumption				**1,052,892.3**				
Energy intensity (by revenue)				**9.1**				MWh/HKD million
Renewable energy	0	0	0	1,360.1	1,079.6	0	**2,439.7**	MWh

Water

Category	CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total	Unit
Total water consumption[21]	2,474,781.5	563,002.0	3,554,247.2	2,257,714.7	1,218,643.7	86,847.5	**10,155,236.5**	cubic metre
Water consumption intensity (by revenue)				**88.2**				cubic metre/ HKD million
Total wastewater discharge	812,169.7	192,880.1	1,717,411.0	59,870.8	727,269.7	57,924.8	**3,567,526.0**	cubic metre
Wastewater discharge intensity (by revenue)				**31.0**				cubic metre/ HKD million
Total water reused[22]	37,839	0	17,034.0	312,454	32,935.7	0	**400,262.7**	cubic metre
Reused water intensity (by revenue)				**3.5**				cubic metre/ HKD million

Packaging Materials

Category	CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total	Unit
Total consumption of packaging materials	0	0	0	976.4	7.5	0	**983.9**	tonne
Packaging Material Intensity (by revenue)				**0.0086**				tonne/ HKD million

21 Including freshwater supplied to contractors at construction sites by the Group.

22 Reused in construction sites of the Groups, not used by other organisations.

Use of Raw Materials

Category		CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total	Unit
Non-renewable materials	Concrete	1,497,898.8	374,121.0	2,811,135.2	0	613,009.8	0	**5,296,164.7**	cubic metre
	Cement mortar	7,485.5	1,889.2	155,978.9	0	9,967.1	0	**175,320.7**	cubic metre
	Reinforced steel bar	318,856.5	50,509.9	539,132.2	0	85,910.0	0	**994,408.6**	tonne
	Steel beams	0	0	0	0	0	0	**0.0**	tonne
	Iron sheet pile	8,103.1	149.0	8.6	0	21,000.0	0	**29,260.7**	tonne
	Wooden sheet pile	6,857.5	0	8,692.2	0	0	0	**15,549.7**	tonne
	Cement	32,644.6	24,052.2	88,441.1	0	114,405.4	4.3	**259,547.6**	tonne
	River sand	23,383.8	15,322.3	74,918.2	0	111,807.0	13.5	**225,444.8**	tonne
	Stones	376,776.7	6.9	142,031.4	0	427,720.0	0	**946,534.9**	tonne
	Bricks	0	32,505.0	54,837.6	0	4,380.9	0	**91,723.5**	tonne
	Concrete floor materials	0	0	0	0	951.8	0	**951.8**	tonne
	Aluminium products	0	107.1	1,906.3	15,811.0	152.9	0	**17,977.2**	tonne
	Steel products	0	0	110.0	3,079.8	40.4	0	**3,230.2**	tonne
	Silica gel	0	0	14.6	444.3	0	0	**458.9**	tonne
	Timber for packaging	0	1.3	0	274.0	0	0	**275.3**	tonne
	Other timber	9.5	0	29,867.8	0	0	0	**29,877.4**	cubic metre
	Other Steels	73,620.3	1,949.6	282.0	0	1.0	0	**75,852.9**	tonne

Category		CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total	Unit
Non-renewable materials	Steel tubes	8,311.2	91.9	771,361.8	0	8,621.4	0	**788,386.2**	tonne
	Paper	190.6	40.2	169.7	15.1	85.7	1.4	**502.6**	tonne
	Insulation material	0	0	33,787.1	0	4,163.1	0	**37,950.1**	tonne
	Cable	0	665,840.8	3,307,338.5	0	211,222.0	0	**4,184,401.3**	metre
	Prefabricated board	0	9,449.4	52,789.4	0	2,727.2	0	**64,966.0**	cubic metre
	Prefabricated column	0	3,205.0	7,421.4	0	2,644.2	0	**13,270.6**	cubic metre
	Prefabricated beam	0	0	529.5	0	4,653.0	0	**5,182.5**	cubic metre
	Prefabricated stairs	0	2,163.4	4,099.9	0	864.3	0	**7,127.6**	cubic metre
	Asphalt	0	0	10,321.4	0	924.1	0	**11,245.5**	tonne
	Industrial oxygen	0	0	4,971.0	0	62.6	0	**5,033.6**	tonne
	Block	0	10,265.4	239,602.9	0	10,825.4	0	**260,693.7**	cubic metre
	Section steel	45,099.3	677.5	2,296.2	0	6,200.0	0	**54,273.0**	tonne
	Gypsum board	0	268.5	4,152.1	0	1,543.8	0	**5,964.4**	tonne
	Light steel stud	0	29.4	3,271.5	0	214.7	0	**3,515.6**	tonne
	Angle steel	0	300.3	241.3	0	38.3	0	**579.8**	tonne
	Decorative furring channel: Aluminum material (aluminum alloy)	0	0	13,841.1	0	794.6	0	**14,635.8**	tonne

Category		CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total	Unit
Non-renewable materials	Decorative furring channel: Steel material (stainless steel, galvanized steel)	0	4.7	632.6	0	2.8	0	**640.0**	tonne
	Decorative furring channel: Material unknown	0	0	134.9	0	152,493.7	0	**152,628.6**	tonne
	Glass (including curtain wall)	0	11,195.9	16,846.5	11,605.0	49.8	0	**39,697.3**	tonne
	Stone tiles	0	65.3	38,727.8	0	138,123.9	0	**176,917.0**	tonne
	Stone tiles	0	150,570.8	23,802.5	0	2,830.6	0	**177,203.9**	cubic metre
	Coating	0	139.3	11,297.7	0	154.3	0	**11,591.3**	tonne
	Sound insulation materials (mineral wool, glass wool, felt, etc.)	0	0	36,866.5	0	121.0	0	**36,987.4**	tonne
	Sound insulation material (material unknown)	0	2.2	0	0	0	0	**2.2**	tonne

Category		CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total	Unit
Renewable materials	Bamboo flooring	0	0	0	0	7.2	0	**7.2**	tonne
	Cork flooring	0	2.2	0	0	0	0	**2.2**	tonne
	Straw bale insulation	0	0	0	0	0	0	**0.0**	tonne
	Cotton insulation material	0	0	0	0	0	0	**0.0**	tonne
	Straw board	0	0	0	0	0	0	**0.0**	tonne
	Sunflower seed board	0	0	0	0	0	0	**0.0**	tonne
	Soy foam insulation	0	0	0	0	0	0	**0.0**	tonne
	Sound insulation materials (felt, wood, etc.)	0	0	563.6	0	0	0	**563.6**	tonne
Recycled materials	Recycled Wood	0	0	563.6	0	0	0	**563.6**	tonne
	Recycled Steel	0	259.7	186.0	0	153.0	0	**598.7**	tonne
	Recycled concrete	0	0	0	0	172.5	0	**172.5**	tonne
	Recycled aggregate	0	0	20.0	0	0	0	**20.0**	tonne
	Other recycled materials	0	0	2.0	0	0	0	**2.0**	tonne

SOCIAL PERFORMANCE

Category			CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total
Employment									
Current employees[23]	Gender	Male	5,640	731	1,855	3,489	822	191	**12,728**
		Female	1,388	222	502	607	162	129	**3,010**
	Age group	30 or below	1,980	234	570	1,187	306	22	**4,299**
		31–40	2,230	378	1,367	1,378	480	207	**6,040**
		41–50	1,229	155	319	983	125	65	**2,876**
		51 or above	1,589	186	101	548	73	26	**2,523**
	Employment rank	Senior	15	4	11	12	5	2	**49**
		Middle	90	16	129	43	26	14	**318**
		Executive	1,128	253	1,324	816	363	49	**3,933**
		General employees	5,795	680	893	3,225	590	255	**11,438**

[23] Total number of employees as of 31 Dec 2024. It includes the monthly-paid employees and other employees.

Category			CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total
Current employees[9]	Region	Hong Kong	6,450	0	0	442	105	17	**7,014**
		Macau	0	716	0	29	0	0	**745**
		Chinese Mainland	569	229	2,357	3,485	879	303	**7,822**
		USA	0	0	0	11	0	0	**11**
		Canada	0	0	0	108	0	0	**108**
		Others[24]	9	8	0	21	0	0	**38**
Others workers[25]	Gender	Male	16,342	5,442	585	0	6,184	1	**28,554**
		Female	4,085	413	159	0	546	2	**5,205**

[24] Including the United Kingdom, Portugal, the United Arab Emirates and Singapore.

[25] Including contractors, subcontractors, interns, and other workers whose workplace or work content is controlled by the Group.

Category			CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total
Monthly paid employees[26]	Gender	Male	4,859	634	1,855	3,395	822	191	**11,756**
		Female	1,153	151	502	607	162	129	**2,704**
	Age	30 or below	1,918	219	570	1,093	306	22	**4,128**
		31–40	2,086	334	1,367	1,378	480	207	**5,852**
		41–50	985	127	319	983	125	65	**2,604**
		51 or above	1,023	105	101	548	73	26	**1,876**
	Employment rank	Senior	18	4	11	12	5	2	**52**
		Middle	92	16	129	45	26	14	**322**
		Executive	973	253	1,324	530	363	49	**3,492**
		General employees	4,929	512	893	3,415	590	255	**10,594**
	Region	Hong Kong	5,434	0	0	442	105	17	**5,998**
		Macau	0	559	0	29	0	0	**588**
		Chinese Mainland	569	218	2,357	3,407	879	303	**7,733**
		USA	0	0	0	11	0	0	**11**
		Canada	0	0	0	108	0	0	**108**
		Others[27]	9	8	0	5	0	0	**22**

[26] Total number of monthly-paid employees as of 31 Dec 2024. In order to align with the Group's roadmap for setting target statistics, data related to new hires, lost employees, and training is only applicable to monthly-paid employees.

[27] Including the United Kingdom, Portugal, the United Arab Emirates and Singapore.

Category			CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total
New hires	Gender	Male	670	39	111	204	130	2	1,156
		Female	152	8	42	76	26	2	306
	Age	30 or below	289	19	103	123	53	0	587
		31–40	326	19	44	95	100	4	588
		41–50	119	6	6	46	3	0	180
		51 or above	88	3	0	16	0	0	107
Rate of new hires[28]	Gender	Male	13.79%	6.15%	5.98%	5.85%	15.82%	1.05%	9.76%
		Female	13.18%	5.30%	8.37%	12.52%	16.05%	1.55%	11.32%
	Age	30 or below	15.07%	8.68%	18.07%	11.25%	17.32%	0.00%	14.22%
		31–40	15.63%	5.69%	3.22%	6.89%	20.83%	1.93%	10.05%
		41–50	12.08%	4.72%	1.88%	4.68%	2.40%	0.00%	6.91%
		51 or above	8.60%	2.86%	0.00%	2.92%	0.00%	0.00%	5.70%

[28] Rate of new hires = (Number of new hires in 2023/Number of monthly paid employees as of 31 Dec 2024) x 100%.

Category			CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total
Number of employee turnover	Gender	Male	702	142	70	501	108	0	**1,523**
		Female	151	15	29	113	17	0	**325**
	Age	30 or below	256	62	38	248	58	0	**662**
		31–40	328	56	42	190	40	0	**656**
		41–50	122	16	17	87	16	0	**258**
		51 or above	147	23	2	89	11	0	**272**
	Region	Hong Kong	852	0	0	136	53	0	**1,041**
		Macau	0	99	0	15	0	0	**114**
		Chinese Mainland	1	58	99	407	72	0	**637**
		USA	0	0	0	1	0	0	**1**
		Canada	0	0	0	55	0	0	**55**
		Others[22]	0	0	0	0	0	0	**0**

Category			CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total
Rate of employee turnover[29]	Gender	Male	14.45%	22.40%	3.77%	14.36%	13.14%	0.00%	**12.85%**
		Female	13.10%	9.93%	5.78%	18.62%	10.49%	0.00%	**12.02%**
	Age	30 or below	13.35%	28.31%	6.67%	22.69%	18.95%	0.00%	**16.04%**
		31–40	15.72%	16.77%	3.07%	13.79%	8.33%	0.00%	**11.21%**
		41–50	12.39%	12.60%	5.33%	8.85%	12.80%	0.00%	**9.91%**
		51 or above	14.37%	21.90%	1.98%	16.24%	15.07%	0.00%	**14.50%**
	Region	Hong Kong	15.68%	0	0	30.77%	50.48%	0	**17.36%**
		Macau	0	17.71%	0	51.72%	0	0	**19.39%**
		Chinese Mainland	0.18%	26.61%	4.20%	11.95%	8.19%	0	**8.24%**
		USA	0	0	0	9.09%	0	0	**9.09%**
		Canada	0	0	0	50.93%	0	0	**50.93%**
		Others[30]	0.00%	0.00%	0	0	0	0	**0.00%**

[29] Rate of employee turnover = (Number of employee turnover in 2,024/Number of monthly paid employees as of 31 Dec 2024) x 100%.

[30] Including the United Kingdom, Portugal, the United Arab Emirates and Singapore.

Category		CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total
Health and Safety[31]								
Employees	Number of recordable work-related injuries	4	1	3	6	10	0	**24**
	Work-related injury rate[32]	0.05	0.07	0.13	105.82	2.47	0.00	**0.21**
	Number of high-consequence workrelated injuries[33]	0	0	1	0	0	0	**1**
	High-consequence work-related injury rate[34]	0	0	0.04	0	0	0	**0.01**
	Number of work-related fatalities	0	0	0	0	0	0	**0**
	Work-related fatality rate[35]	0	0	0	0	0	0	**0**
	Lost days due to work-related injuries	5,197	0	192	808.50	592	0	**6,789.50**
	Number of hours worked[36]	14,625,985.50	2,797,125.00	4,732,856.00	11,340.50	809,064.00	0.00	**22,976,371.00**
	Rate of injury per thousand people	0.57	1.05	1.27	1.50	10.16	0.00	**1.53**

31 The Group did not have any employees or other workers who suffered from occupational diseases during the year.

32 Work-related injury rate = (Number of recordable injuries/Number of hours worked) x 200,000.

33 An injury that cannot or is not expected to recover fully to pre-injury health status within 6 months.

34 High-consequence work-related injury rate = (Number of high-consequence injuries/Number of hours worked) x 200,000.

35 Work related fatality rate = (Number of work-related fatalities/Number of hours worked) x 200,000.

36 The estimate is based on each employee working 8 hours per day, excluding hours lost due to sick leave and similar absences.

Category		CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total
Other workers[37]	Number of recordable work-related injuries	148	0	0	0	5	0	**153**
	Work-related injury rate[32]	0.50	0.00	0.00	0.00	0.13	0.00	**0.36**
	Number of high-consequence work related injuries[33]	0	0	0	0	0	0	**0**
	High-consequence work-related injury rate[34]	0	0	0	0	0	0	**0**
	Number of work-related fatalities	0	0	0	0	0	0	**0**
	Work-related fatality rate[35]	0	0	0	0	0	0	**0**
	Lost days due to work-related injuries	0	0	0	0	581	0	**581**
	Number of hours worked[38]	59,034,030	15,808,500	1,493,952	166,664	7,578,864	0	**84,082,010**
	Rate of injury per thousand people	7.25	0.00	0.00	0.00	0.24	0.00	**11.48**
Total Workforce	Lost time injury rate (LTIR)[39]	0.41	0.01	0.10	6.74	0.36	0.00	**0.33**

[37] Including contractors/sub-contractors, interns, and other workers whose work or venue of work are controlled by the Group.

[38] Estimated based on the working hours per workday for each worker, depending on their Region, working either 7 or 8 hours per day and excluding hours lost due to sick leave and similar absences.

[39] LTIR = (Number of recordable injuries of total workforce/Number of hours worked of total workforce) x 200,000.

Category			CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total
Training and Development									
Trained Employees	Gender	Male	4,859	634	1,855	3,395	822	191	**11,756**
		Female	1,153	151	502	607	162	129	**2,704**
	Employment rank	Senior	18	4	11	12	5	2	**52**
		Middle	92	16	129	45	26	14	**322**
		Executive	973	253	1,324	530	363	49	**3,492**
		General employees	4,929	512	893	3,415	590	255	**10,594**
Training percentage	Gender	Male	100%	100%	100%	100%	100%	100%	**100%**
		Female	100%	100%	100%	100%	100%	100%	**100%**
	Employment rank	Senior	100%	100%	100%	100%	100%	N/A	**100%**
		Middle	100%	100%	100%	100%	100%	100%	**100%**
		Executive	100%	100%	100%	100%	100%	100%	**100%**
		General employees	100%	100%	100%	100%	100%	100%	**100%**
Average training hours	Gender	Male	8.77	9.42	18.18	48.29	13.09	0.82	**22.09**
		Female	5.29	4.70	22.33	44.24	7.27	0.37	**17.05**
	Employment rank	Senior	8.67	35.00	19.05	16.62	89.70	N/A	**22.18**
		Middle	10.71	46.66	35.27	25.92	36.35	8.57	**26.44**
		Executive	6.51	3.63	17.65	72.53	15.27	1.47	**21.39**
		General employees	8.37	9.52	18.80	45.55	8.48	0.05	**21.09**

Category		CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total
Supply Chain Management[40]								
Number of suppliers	Hong Kong	5,207	0	0	128	16	0	**5,351**
	Macau	0	642	0	33	0	0	**675**
	Chinese Mainland	0	0	11,252	929	2,500	1	**14,682**
	Others[41]	0	0	0	76	0	0	**76**
Anti-corruption[42]								
Number of people receiving information on anti-corruption policies and procedures	Board Members				**7**			
	Senior	18	4	11	12	5	2	**14,460**
	Middle	92	16	129	45	26	14	
	Executive	973	253	1,324	530	363	49	
	General employees	4,929	512	893	3,415	590	255	

[40] The Group consistently applies supplier recruitment, management and monitoring practices to all suppliers of the same category to ensure fairness of the system.

[41] Including USA, Canada and Europe.

[42] Including data of employee turnover who has received information or training in the Reporting Period.

Category		CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total
Percentage of people receiving information on anti-corruption policies and procedures	Board Members				100%			
	Senior	100%	100%	100%	100%	100%	100%	100%
	Middle	100%	100%	100%	100%	100%	100%	
	Executive	100%	100%	100%	100%	100%	100%	
	General employees	100%	100%	100%	100%	100%	100%	
Number of people receiving anticorruption training	Board Members				7			
	Senior	18	4	11	12	5	2	14,460
	Middle	92	16	129	45	26	14	
	Executive	973	253	1,324	530	363	49	
	General employees	4,929	512	893	3,415	590	255	
Percentage of people receiving anticorruption training	Board Members				100%			
	Senior	100%	100%	100%	100%	100%	100%	100%
	Middle	100%	100%	100%	100%	100%	100%	
	Executive	100%	100%	100%	100%	100%	100%	
	General employees	100%	100%	100%	100%	100%	100%	

Category		CSHK	CCE Macau	CSCIIL	CSC Development	China Overseas Construction & CSC Hailong	CSIAM	Total	
Average anticorruption training hours	Board Members				**3.30**				**1.44**
	Senior	0.10	2.12	3.45	0.88	2.12	7.00	**1.60**	
	Middle	0.14	3.91	5.26	2.39	3.91	7.47	**3.32**	
	Executive	0.18	2.61	2.20	1.26	1.32	1.60	**1.42**	
	General employees	0.30	1.33	2.92	2.62	1.30	1.40	**1.40**	
Community Investment									
Total amount of investment	HKD	75.10	234.72	0	0	0	0	**309.81**	
Number of participating volunteers	number of participants	15,878	407	362	24	149	100	**169.20**	
Number of volunteer participation hours	hours	4,632	148	231	322	20	140	**5,493**	

SEHK ESG Reporting Guide Content Index

Main Areas, Aspects, General Disclosures and KPIs	Disclosure requirement	Chapter of Disclosure (Page)	Remark
A. Environmental			
Aspect A1: Emissions			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	Sustainability Governance (24); Safeguarding the Environment (113)	Important laws and regulations applicable to the Group include the Environmental Protection Law of the People's Republic of China, the Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution, the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste, the Air Pollution Control Ordinance, the Water Pollution Control Ordinance, the Waste Disposal Ordinance, the Noise Control Ordinance, the Environmental Impact Assessment Ordinance, the Dumping at Sea Ordinance of Hong Kong, and the Environmental Law of Macau, the Construction Waste Management System. These laws and regulations stipulate standards relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste. Any non-compliance may result in fine penalty, mandate to suspend operation and/or legal action imposed by regulators on the Group. During this year, the Group did not identify any significant compliance violations.
A1.1	The types of emissions and respective emissions data.	Summary of Key Performance Indicators (174)	
A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity.	Summary of Key Performance Indicators (174–176)	

Main Areas, Aspects, General Disclosures and KPIs	Disclosure requirement	Chapter of Disclosure (Page)	Remark
A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Summary of Key Performance Indicators (177)	
A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Summary of Key Performance Indicators (177)	
A1.5	Description of emission target (s) set and steps taken to achieve them.	Safeguarding the Environment (113)	
A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	Safeguarding the Environment (113)	
Aspect A2: Use of Resources			
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	Sustainability Governance (24); Safeguarding the Environment (113)	
A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in' 000s) and intensity (e.g. per unit of production volume, per facility).	Summary of Key Performance Indicators (178–179)	
A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	Summary of Key Performance Indicators (180)	
A2.3	Description of energy use efficiency targets and steps taken to achieve them.	Sustainability Governance (24); Safeguarding the Environment (113)	

Main Areas, Aspects, General Disclosures and KPIs	Disclosure requirement	Chapter of Disclosure (Page)	Remark
A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target (s) set and steps taken to achieve them.	Sustainability Governance (24); Safeguarding the Environment (113)	During the year, the Group did not have any problem in obtaining suitable water sources.
A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	Summary of Key Performance Indicators (174)	
Aspect A3: The Environment and Natural Resources			
General Disclosure	Policies on minimising the issuer's significant impact on the environment and natural resources.	Sustainability Governance (24); Safeguarding the Environment (113)	
A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Sustainability Governance (24); Safeguarding the Environment (113)	
Aspect A4: Climate Change			
General Disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	Sustainability Roadmap (13); Sustainability Governance (36)	
A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	Sustainability Roadmap (13); Sustainability Governance (36)	

Main Areas, Aspects, General Disclosures and KPIs	Disclosure requirement	Chapter of Disclosure (Page)	Remark
B. Social			
Aspect B1: Employment			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	Sustainability Governance (24); Nurturing and Supporting Talent (146)	Important laws and regulations which are applicable to the Group include Labour Law of the People's Republic of China, The Labour Contract Law of the People's Republic of China, the Employment Ordinance in Hong Kong and the Labour Relations Law in Macau. These laws and regulations stipulate the requirements for compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare, clearly stating employers' legal obligations and responsibilities. During this year, the Group did not identify any significant compliance violations.
B1.1	Total workforce by gender, employment type, age group and geographical region.	Summary of Key Performance Indicators (185–188)	
B1.2	Employee turnover rate by gender, age group and geographical region.	Summary of Key Performance Indicators (189–190)	

Main Areas, Aspects, General Disclosures and KPIs	Disclosure requirement	Chapter of Disclosure (Page)	Remark
Aspect B2: Health and Safety			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	Sustainability Governance (24); Nurturing and Supporting Talent (139)	Important laws and regulations which are applicable to the Group include the Production Safety Law of the People's Republic of China, the Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases, Regulation on Work Related Injury Insurances of the People's Republic of China, the Occupational Safety and Health Ordinance in Hong Kong and Amendment to the Employees' Compensation Insurance Ordinance in Macau. These laws and regulations stipulate the requirements for production business units and employers in providing a safe working environment and protecting employees from occupational hazards. The Group complies with relevant laws and regulations. During the year, the Group did not identify any cases of non-compliance in relation to health and safety.
B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	Summary of Key Performance Indicators (191–192)	In 2022, there was one work-related fatality, with a rate of 0.006. There were no work-related deaths in both the current year and 2023.
B2.2	Lost days due to work injury.	Summary of Key Performance Indicators (191–192)	
B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	Nurturing and Supporting Talent (139)	

Main Areas, Aspects, General Disclosures and KPIs	Disclosure requirement	Chapter of Disclosure (Page)	Remark
Aspect B3: Development and Training			
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	Nurturing and Supporting Talent (155)	
B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	Summary of Key Performance Indicators (193)	
B3.2	The average training hours completed per employee by gender and employee category.	Summary of Key Performance Indicators (193)	
Aspect B4: Labour Standards			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	Driving Strategic and Innovative Development (99)	Important laws and regulations which are applicable to the Group include the Labour Law of the People's Republic of China, the Law of the People's Republic of China on the Protection of Minors, the Employment Ordinance in Hong Kong and the Labour Relations Law in Macau. These laws stipulate the prohibition of using child labour or forced labour and clearly outline employers' legal responsibilities. The Group complies with relevant laws and regulations. There were no cases of non-compliance relating to labour standards within the Group during the year.
B4.1	Description of measures to review employment practises to avoid child and forced labour.	Driving Strategic and Innovative Development (99)	
B4.2	Description of steps taken to eliminate such practises when discovered.	N/A	There were no such cases of non-compliance discovered in our operations during the year.

Main Areas, Aspects, General Disclosures and KPIs	Disclosure requirement	Chapter of Disclosure (Page)	Remark
Aspect B5: Supply Chain Management			
General Disclosure	Policies on managing environmental and social risks of the supply chain.	Sustainability Governance (24); Building a Sustainable Supply Chain (122)	
B5.1	Number of suppliers by geographical region.	Summary of Key Performance Indicators (194)	
B5.2	Description of practises relating to engaging suppliers, number of suppliers where the practises are being implemented, and how they are implemented and monitored.	Sustainability Governance (24); Building a Sustainable Supply Chain (122)	
B5.3	Description of practises used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	Sustainability Governance (24); Building a Sustainable Supply Chain (122)	
B5.4	Description of practises used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	Sustainability Governance (24); Building a Sustainable Supply Chain (122)	

Main Areas, Aspects, General Disclosures and KPIs	Disclosure requirement	Chapter of Disclosure (Page)	Remark
Aspect B6: Product Responsibility			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	Sustainability Governance (24); Driving Strategic and Innovative Development (93)	Important laws and regulations which are applicable to the Group include the Company Law of the People' Republic of China, the Patent Law of the People's Republic of China, Buildings Ordinance in Hong Kong and the Personal Data (Privacy) Ordinance. These laws and regulations stipulate the requirements for the health and safety, as well as privacy matters of products and services. The Group complies with relevant laws and regulations. There were no cases of non-compliance relating to product responsibility within the Group during the year.
B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	N/A	There were no recalls concerning the provision and use of products and services for safety and health reasons within the Group during the year.
B6.2	Number of products and service related complaints received and how they are dealt with.	N/A	There were no substantiated complaints received relating to the provision and use of products and services that have a significant impact on our operations during the year.
B6.3	Description of practises relating to observing and protecting intellectual property rights.	Driving Strategic and Innovative Development (93)	
B6.4	Description of quality assurance process and recall procedures.	Driving Strategic and Innovative Development (93)	
B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	Driving Strategic and Innovative Development (93)	

Main Areas, Aspects, General Disclosures and KPIs	Disclosure requirement	Chapter of Disclosure (Page)	Remark
Aspect B7: Anti-corruption			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	Sustainability Governance (24); Driving Strategic and Innovative Development (93)	Important laws and regulations which are applicable to the Group include the Anti-Unfair Competition Law of the People's Republic of China, Anti-Money Laundering Law of the People's Republic of China, Criminal Law of the People's Republic of China, Prevention of Bribery Ordinance in Hong Kong and the Criminal Code in Macau. These laws and regulations stipulate the prevention of bribery, extortion, fraud and money laundering, outlining the legal responsibility of maintaining a clean and fair society and curbing unfair competition.
B7.1	Number of concluded legal cases regarding corrupt practises brought against the issuer or its employees during the reporting period and the outcomes of the cases.	N/A	During the year, the Group was not aware of any corruption lawsuits that were filed and concluded.
B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	Driving Strategic and Innovative Development (93)	
B7.3	Description of anti-corruption training provided to directors and staff.	Summary of Key Performance Indicators (194–196)	
Aspect B8: Community Investment			
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	Serving the Community (158)	
B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	Summary of Key Performance Indicators (196)	
B8.2	Resources contributed to the focus area (e.g. money or time).	Summary of Key Performance Indicators (196)	

GRI Standards Content Index

GRI Standards	Content	Chapter (Page)	Remarks
GRI 1: Foundation 2021 (excluding any disclosures)			
General Disclosure			
GRI 2: General Disclosures 2021			
The Organisation and its reporting practices			
2–1	Organisational details	About the Group (2)	Detailed information is set out on page 3 of the 2024 Annual Report of CSCI.
2–2	Entities included in the organisation's sustainability reporting	About the Group (2)	
2–3	Reporting period, frequency and contact point	About this Report (165)	
2–4	Restatements of information	Not Applicable	This report did not include restatements of information from previous reports.
2–5	External assurance	About this Report; Assurance Statement (168)	For certification statement, please see page 168.
Activities and workers			
2–6	Activities, value chain and other business relationships	About the Group (2)	There were no significant changes in the Group's industry, value chain and business relationships during the year.
2–7	Employees	Nurturing and Supporting Talent (134)	
2–8	Workers who are not employees	Summary of Key Performance Indicators	

GRI Standards	Content	Chapter (Page)	Remarks
Governance			
2–9	Governance structure and composition	Sustainability Governance (28)	Please refer to pages 76–81 of the 2024 Annual Report of CSCI for details.
2–10	Nomination and selection of the highest governance body	Sustainability Governance (28)	Please refer to pages 76–81 of the 2024 Annual Report of CSCI for details.
2–11	Chair of the highest governance body	Not Applicable	Please refer to pages 76–81 of the 2024 Annual Report of CSCI for details.
2–12	Role of the highest governance body in overseeing the management of impacts	Sustainability Governance (28)	Please refer to pages 76–81 of the 2024 Annual Report of CSCI for details.
2–13	Delegation of responsibility for managing impacts	Sustainability Governance (28)	
2–14	Role of the highest governance body in sustainability reporting	Sustainability Governance (28); About the Group (2)	
2–15	Conflicts of interest	Not Applicable	Please refer to pages 77 of the 2024 Annual Report of CSCI for details.
2–16	Communication of critical concerns	Sustainability Governance (44)	
2–17	Collective knowledge of the highest governance body	Sustainability Governance (24)	
2–18	Evaluation of the performance of the highest governance body	Sustainability Governance (28)	
2–19	Remuneration policies	Sustainability Roadmap	Please refer to pages 98 of the 2024 Annual Report of CSCI for details.

GRI Standards	Content	Chapter (Page)	Remarks
2–20	Process to determine remuneration	Not Applicable	Please refer to pages 96 of the 2024 Annual Report of CSCI for details.
2–21	Annual total compensation ratio	Incomplete data	The Group will collect and organise relevant data in the future, and plan to dispose them in the next report.
Strategies, policies and practises			
2–22	Statement on sustainable development strategy	Message from the Chairman (10)	Please refer to page 194–201 of the 2024 Annual Report of CSCI for details.
2–23	Policy commitments	Sustainability Governance (24–25)	
2–24	Embedding policy commitments	Sustainability Governance (24); Driving Strategic and Innovative Development (93)	
2–25	Processes for remediate negative impacts	Sustainability Governance (36)	
2–26	Mechanisms for seeking advice and raising concerns	Sustainability Governance (36)	
2–27	Compliance with laws and regulations	SEHK ESG Reporting Guide Content Index (197)	
2–28	Membership associations	Driving Strategic and Innovative Development (50)	
Stakeholder Engagement			
2–29	Approach to stakeholder engagement	Sustainability Governance (44)	
2–30	Collective bargaining agreements	Not Applicable	The Group's employees were not covered by collective bargaining agreements.

GRI Standards	Content	Chapter (Page)	Remarks
Material Topics			
GRI 3: Material Topics 2021			
3–1	Process of determine material topics	Sustainability Governance (44)	
3–2	List of material topics	Sustainability Governance (44)	
Economic Performance			
GRI 3: Material Topics 2021			
3–3	Management of material topics	Sustainability Governance (44)	
Prevent anti-competitive behaviour			
GRI 201: Economic Performance 2016			
201–1	Direct economic value generated and distributed	About the Group (8)	
201–2	Financial implications and other risks and opportunities due to climate change	Sustainability Governance (32)	
201–3	Defined benefit plan obligations and other retirement plans	Not Applicable	Low relevance to the Group's material issues
201–4	Financial subsidies from the government	Not Applicable	Low relevance to the Group's material issues

GRI Standards	Content	Chapter (Page)	Remarks
Anti-corruption			
GRI 3: Material Topics 2021			
3–3	Management of material topics	Sustainability Governance (44); Driving Strategic and Innovative Development (50)	
GRI 205: Anti-corruption 2016			
205–1	Operations assessed for risks related to corruption	Driving Strategic and Innovative Development (32, 93)	
205–2	Communication and training of anti-corruption policies and procedures	Driving Strategic and Innovative Development (94); Summary of Key Performance Indicators (194–196)	
205–3	Confirmed incidents of corruption and actions taken	Driving Strategic and Innovative Development (93); SEHK ESG Reporting Guide Content Index (194–196)	
Safe and healthy working environment			
GRI 3: Material Topics 2021			
3–3	Management of material topics	Sustainability Governance (44); Nurturing and Supporting Talent (139)	

GRI Standards	Content	Chapter (Page)	Remarks
GRI 403: Occupational Health and Safety 2018			
403–1	Occupational health and safety management system	Nurturing and Supporting Talent (139)	
403–2	Hazard identification, risk assessment, and incident investigation	Nurturing and Supporting Talent (139)	
403–3	Occupational health services	Nurturing and Supporting Talent (139)	
403–4	Worker participation, consultation, and communication on occupational health and safety	Nurturing and Supporting Talent (139)	
403–5	Worker training on occupational health and safety	Nurturing and Supporting Talent (139)	
403–6	Promoting worker health	Nurturing and Supporting Talent (139)	
403–7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Nurturing and Supporting Talent (139)	
403–8	Workers covered by the occupational health and safety management system	Nurturing and Supporting Talent (139)	All workers of the Group are protected by the occupational health and safety management system
403–9	Work-related injuries	Nurturing and Supporting Talent (139); Summary of Key Performance Indicators (191–192)	
403–10	Work-related ill health	Summary of Key Performance Indicators (191–192)	

GRI Standards	Content	Chapter (Page)	Remarks
Prevention of Child and Forced labour			
GRI 3: Material Topics 2021			
3–3	Management of material topics	Sustainability Governance (44); Driving Strategic and Innovative Development (99)	
GRI 408: Child Labour 2016			
408–1	Operations and suppliers at significant risk for incidents of child labour	Not Applicable	During the year, the Group did not identify any operations and suppliers that are at significant risk for incidents of forced or compulsory labour.
GRI 409: Forced or Compulsory Labour 2016			
409–1	Operations and suppliers at significant risk for incidents of forced or compulsory labour	Not Applicable	During the year, the Group did not identify any operations and suppliers that are at significant risk for incidents of forced or compulsory labour.

GRI Standards	Content	Chapter (Page)	Remarks
Customer and Public Health and Safety			
GRI 3: Material Topics 2021			
3–3	Management of material topics	Sustainability Governance (44); Driving Strategic and Innovative Development (50)	
GRI 416: Customer Health and Safety 2016			
416–1	Assessment of the health and safety impacts of product and service categories	Not Applicable	The Group does not have significant products and services that need to improve health and safety impacts.
416–2	Incidents of non-compliance concerning the health and safety impacts of products and services	Not Applicable	The Group has no non-compliance incidents involving health and safety impacts of products and services.
Customer and Data Privacy			
GRI 3: Material Topics 2021			
3–3	Management of material topics	Sustainability Governance (44); Driving Strategic and Innovative Development (93)	
GRI 418: Customer Privacy 2016			
418–1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Not Applicable	During the year, the Group had no substantiated complaints concerning breaches of customer privacy or losses of customer data.

GRI Standards	Content	Chapter (Page)	Remarks
Issues Not Covered by GRI Standards			
Business Continuity Management			
GRI 3: Material Topics 2021			
3–3	Management of material topics	Sustainability Roadmap (13–23); Sustainability Governance (44)	
Carbon-neutral Construction			
GRI 3: Material Topics 2021			
3–3	Management of material topics	Sustainability Roadmap (13–23); Sustainability Governance (32)	
Construction Workforce			
GRI 3: Material Topics 2021			
3–3	Management of material topics	Sustainability Roadmap (13–23); Sustainability Governance (139)	

GRI Standards	Content	Chapter (Page)	Remarks
Quality Management and After-sales Services			
GRI 3: Material Topics 2021			
3–3	Management of material topics	Sustainability Governance (44); Driving Strategic and Innovative Development (93)	
Innovative Technology and Application			
GRI 3: Material Topics 2021			
3–3	Management of material topics	Sustainability Governance (44); Driving Strategic and Innovative Development (75)	
Protection of Intellectual Property Rights			
GRI 3: Material Topics 2021			
3–3	Management of material topics	Sustainability Governance (44); Driving Strategic and Innovative Development (87–89, 95)	

中國建築國際集團有限公司

CHINA STATE CONSTRUCTION INTERNATIONAL HOLDINGS LIMITED

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