



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)

Leaping Towards a Sustainable Future

2020 Sustainability Report



精築幸福

創領潮流

*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

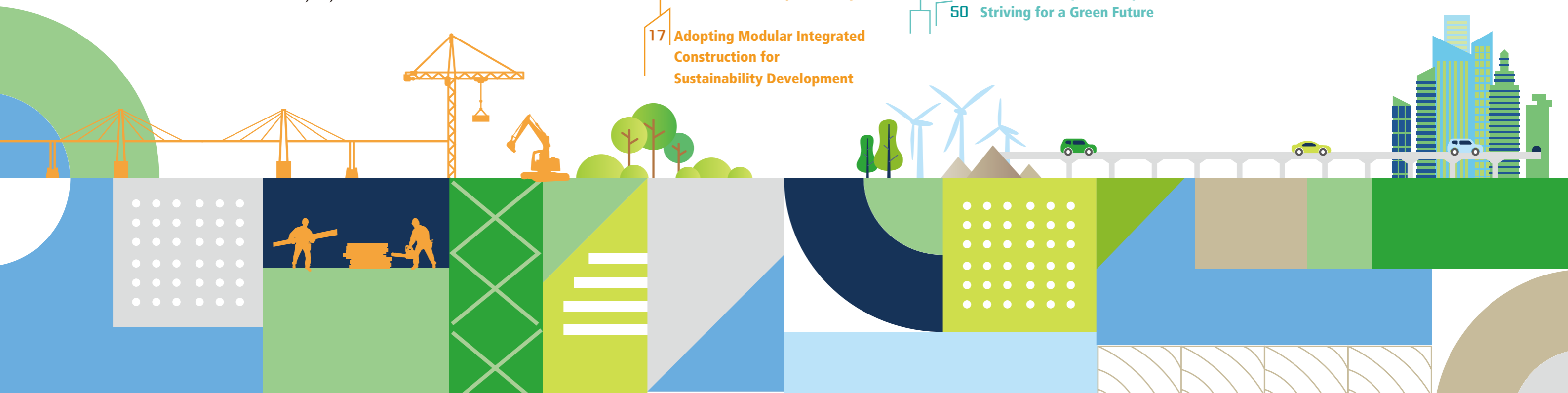
Hong Kong-rooted, China-based. Global-oriented Keep going beyond, Lead the trend, Stand at the forefront

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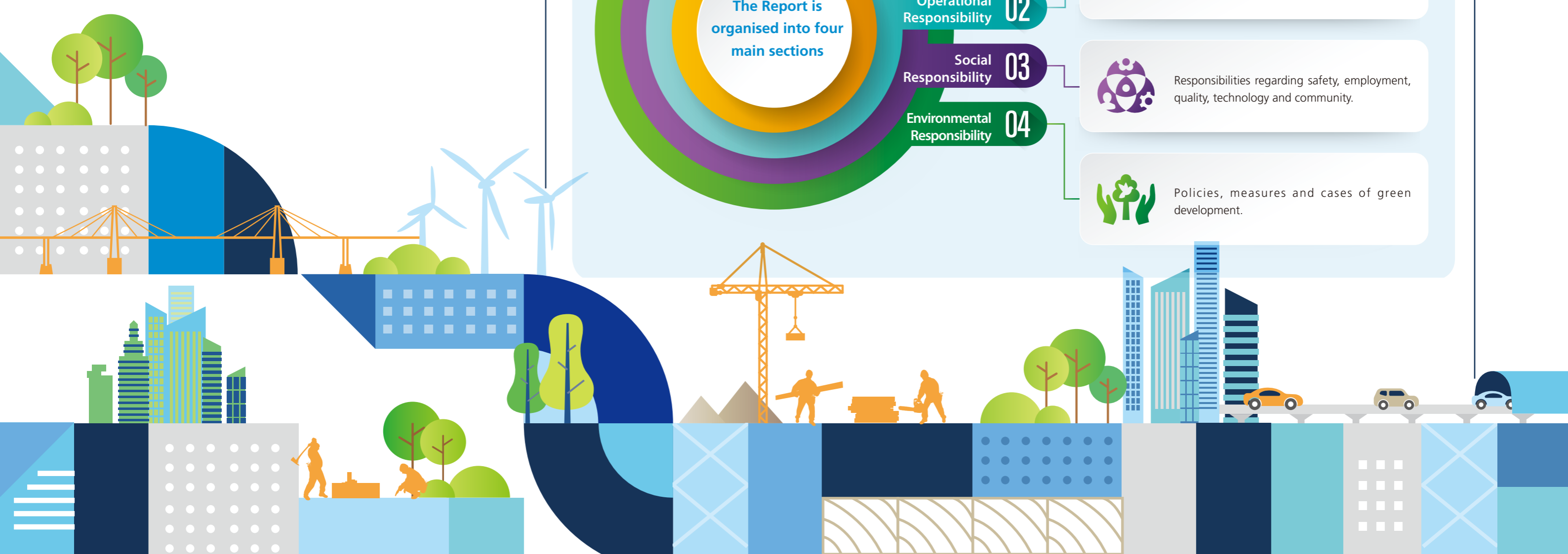
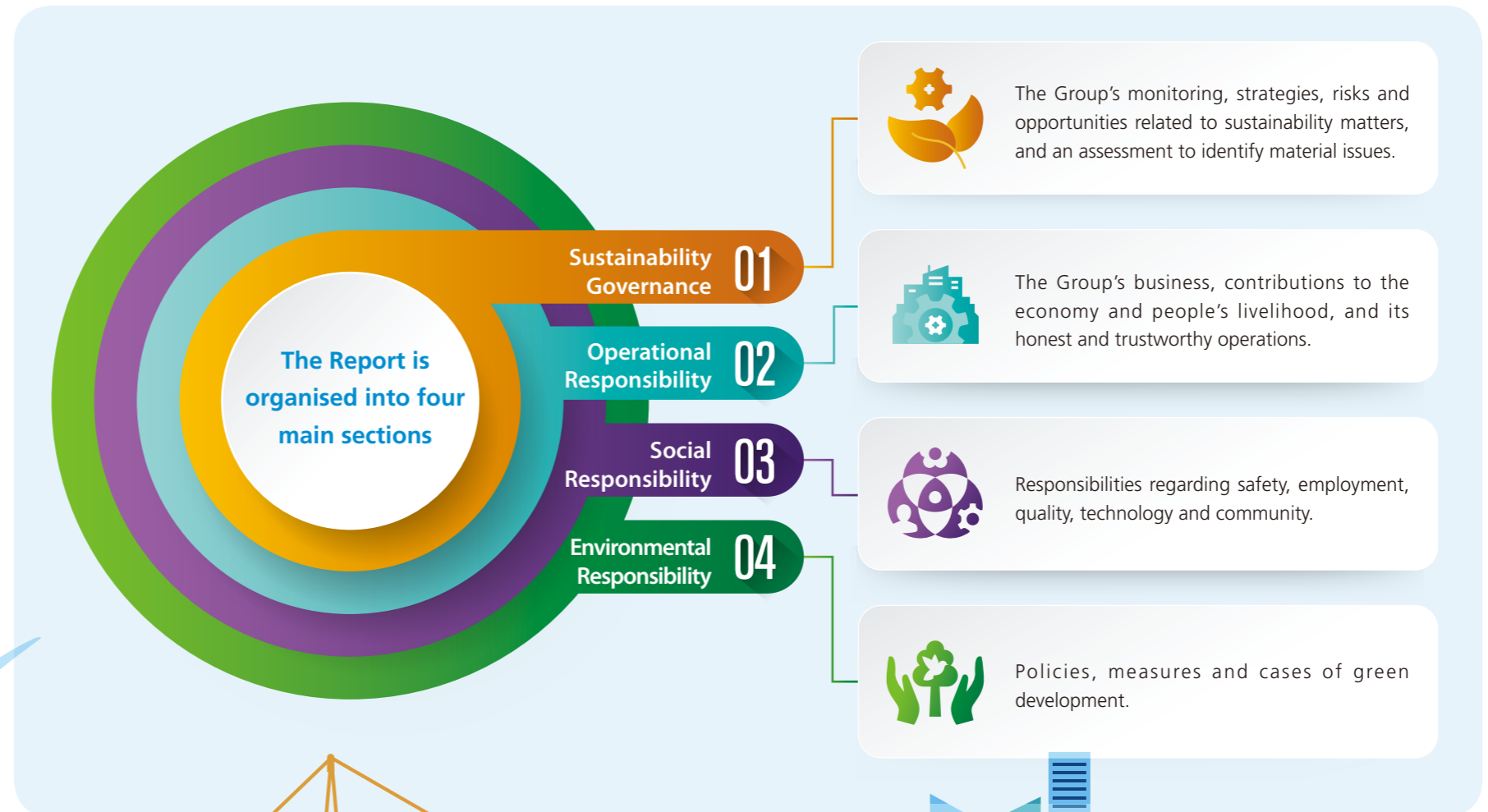
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ABOUT THIS REPORT

China State Construction International Holdings Limited ("CSCI"), listed on the Main Board of The Stock Exchange of Hong Kong Limited ("SEHK") (stock code: 3311), together with its subsidiaries (collectively, the "Group"), is engaged in the construction, infrastructure investment, facade contracting and infrastructure operation businesses in Mainland China, Hong Kong, Macau and overseas.

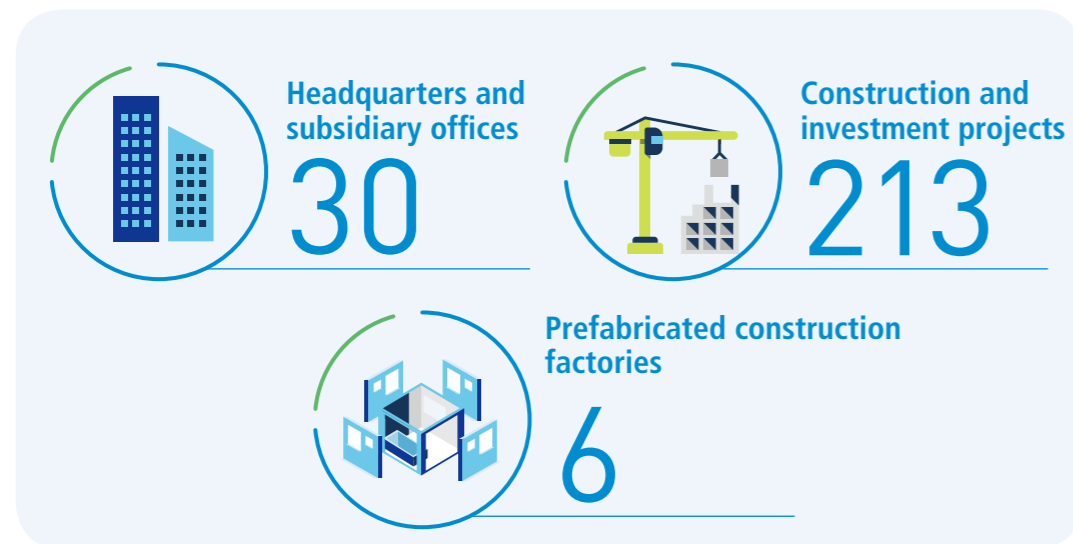
The Group recognises the importance of sustainable development and is committed to implementing this concept in its daily operations. It has been communicating with various stakeholders and publishing the annual Sustainability Report to continuously disclose its progress and performance. The Sustainability Report 2020 (the "Report") outlines the Group's efforts and achievements in sustainability, as well as its management approaches, policies and initiatives in economic, environmental, and social aspects. The Report is organised into four main sections, including:



ABOUT THIS REPORT

Reporting Period and Boundary

The Report covers the financial year from 1 January 2020 to 31 December 2020 (the "Reporting Year"), the same period as the Group's Annual Report, and also provides reviews and outlooks. It covers the performance of the Group's operations in Mainland China, Hong Kong and Macau, as well as the China State Construction Development Holdings Limited¹ ("CSCD"). CSCD also publishes a separate Environmental, Social and Governance ("ESG") Report, which stakeholders can refer to for the details of its ESG policies and initiatives. This Report does not include data on jointly operation projects that are not led by the Group². The environmental and social data in this Report covers the following areas.



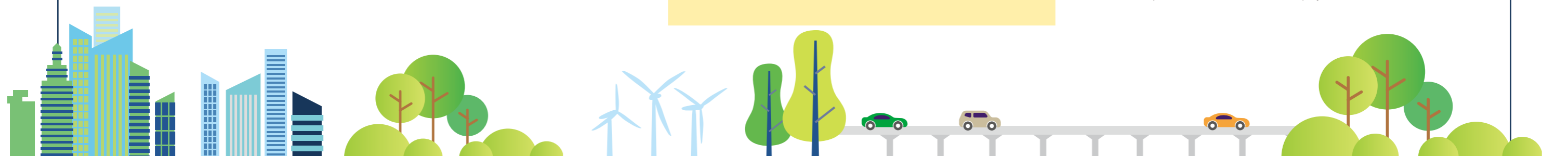
Reporting Standards

The Report complies with the Environmental, Social and Governance Reporting Guide ("ESG Guide") issued by SEHK and follows the Global Reporting Initiative ("GRI") Standards: Core option. It has also been prepared with reference to the GRI G4 Construction and Real Estate Sector Disclosures ("GRI CRE"). A complete ESG Guide Content Index and GRI Standards Content Index is included at the end of this Report for stakeholders' reference.

While preparing this Report, the Group has adopted the following reporting principles to determine the content and ensure the quality of the Report.

Stakeholder Inclusiveness With reference to the AA1000 Stakeholder Engagement Standard, the Group identified key stakeholders; used various engagement methods such as interviews, workshops, and questionnaires to understand stakeholder views and expectations; and accordingly determined the content of this Report to respond.	Clarity This Report is intended to be concise and easy for stakeholders to understand. Graphics and tables are used to help visualise its content.
Sustainability Context With a focus on international trends and peer practices, the Group describes in this Report the relationship between its business and the economic, environmental and social conditions in the locations where it operates. This Report also describes the impact and contribution of the Group's regional subsidiaries through case studies.	Comparability and Consistency This Report uses a consistent statistical and disclosure methodology as in previous years and defines the scope of reporting with consistent considerations, allowing stakeholders to make meaningful comparisons with the performance of the same period in previous years.
Materiality Material issues were identified and ranked through internal and external stakeholder engagement and with reference to various standards, guidelines and industry considerations, which are presented in this Report.	Reliability A system to collect the information required for reporting is in place, and third-party external assurance is obtained for this Report.
Completeness This Report includes the Group's significant economic, environmental and social impacts on all material issues to avoid omitting information of concern to stakeholders.	Timeliness In order to provide stakeholders with timely and up-to-date information on the Group's performance, the Sustainability Report is published annually and the reporting period is aligned with the financial report.
Accuracy The Group's internal controls and review procedures are in place to ensure the accuracy and reliability of reporting.	Quantitative This Report covers measurable key performance indicators and targets, and provides comparative data where appropriate.
Balance This Report discloses the Group's performance (both positive and negative), achievements and challenges.	

¹ The listed subsidiary (stock code: 830) of the Group has operations mainly on the business of curtain wall system and related operational management.
² The Group holds less than 50% of the equity interests.



ABOUT THIS REPORT

Content Management

A Sustainability Report Editorial Committee has been established to coordinate the reporting process. The Group continues to update its electronic data collection platform and provide training to responsible personnel to address their questions. An independent sustainability consultant, Carbon Care Asia Limited, has also been engaged to assist the Group in stakeholder engagement, materiality assessment, information collection, data quantification and content compilation with a view to presenting accurate, reliable and complete information in this Report.

The British Standards Institute provided an independent assurance on this Report as a third party. This Report was also reviewed by the Sustainability Committee and approved by the Board for release in May 2021.

Publication Channels

This Report is published electronically in both Chinese and English, and can be downloaded from CSCI's sustainability webpage and the HKEXnews website. A summary of this Report has also been published on the Group's WeChat official account. Stakeholders can obtain the Group's latest sustainability information through the above channels.

English Version



WeChat



HKEXnews



Opinions and Feedback

Through this Report, the Group hopes to facilitate communication with stakeholders and seek their views which it believes are critical in helping the Group move towards a sustainable future. If you have any questions or suggestions about this Report or the Group's sustainability efforts and performance, please contact the Group at csci_esg@cohl.com.



SUSTAINABILITY GOVERNANCE

As a responsible corporate citizen, the Group believes that sustainable economic growth can only be achieved through environmental and social sustainability. The Group acknowledges and incorporates the views of various stakeholders and is committed to establishing a sustainability strategy and management model that meets its needs. It will also continue to integrate environmental and social considerations into its daily operations in order to enhance its competitiveness in sustainable development.

Board Statement

With the spread of the COVID-19 pandemic around the world, global economic activity was hit or even stalled in 2020. In addition, trading was affected by continued unilateralism, while extreme weather events, such as flooding in southern China, occurred in various places on the planet. Sudden changes post challenges to the resilience of all parties, while the lingering pandemic sowed huge and far-reaching impacts internationally, and pushed the world into an era of "new normal".

In this particular context, the Group, upholding its role as a state-owned enterprise, has leveraged its strengths and seized unique opportunities to make a breakthrough in the application of innovative technologies, including developing and utilising Modular Integrated Construction ("MiC") technology to help build anti-epidemic medical facilities in Hong Kong. This provides an opportunity for the Group to grow sustainability in all aspects.

The Board is ultimately responsible for the sustainability of the Group. Meanwhile, the Sustainability Committee (the "Committee") provides recommendations and advice to assist the Board in monitoring relevant issues. In the past, the Group has established sustainability approach and policies, of which policies are reviewed and revised annually by the Committee and approved by the Board. Stakeholders can learn more about the Group's sustainability governance and terms of

reference in the "Governance Structure" section below and on the Group's sustainability webpage.

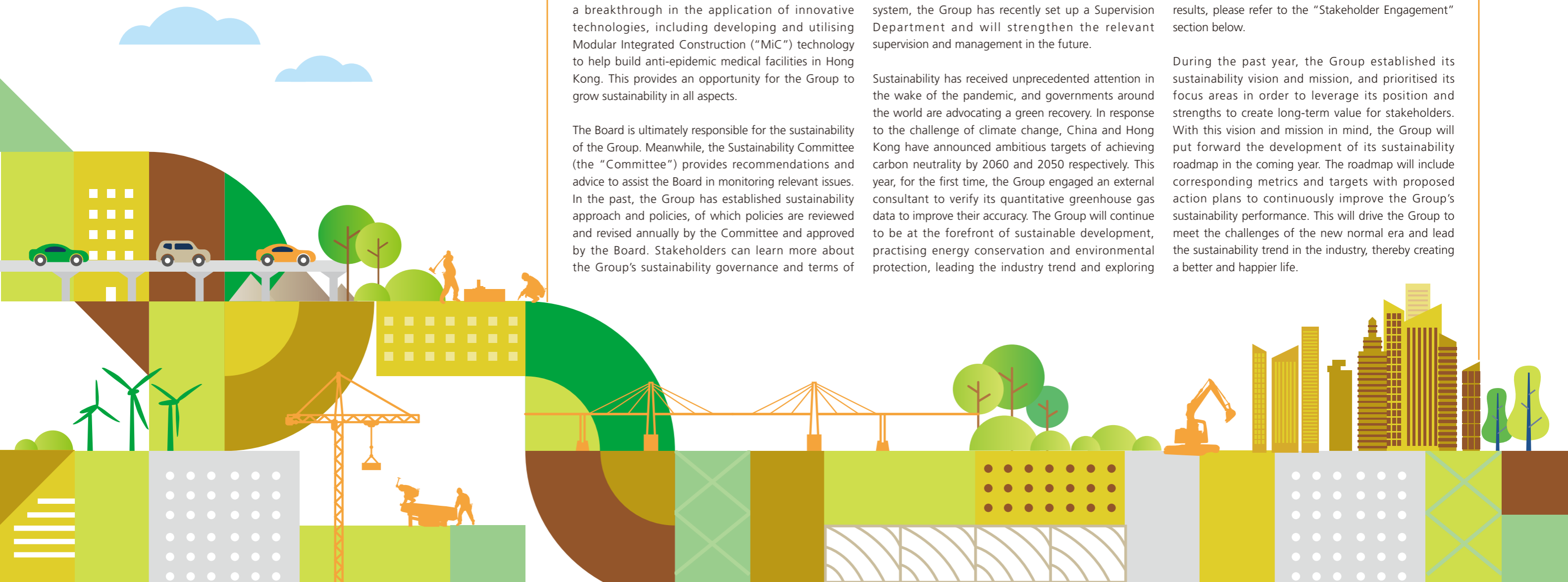
With its people-oriented management approach, the Group is meticulous in construction management, pursuing "safety and quality first". It implements green development through technological innovation, practising green procurement, and guiding business partners to join its actions. Furthermore, a positive contribution is made to society by improving people's livelihood through construction and actively participating in community activities. In order to strengthen the construction of an integrity supervision system, the Group has recently set up a Supervision Department and will strengthen the relevant supervision and management in the future.

Sustainability has received unprecedented attention in the wake of the pandemic, and governments around the world are advocating a green recovery. In response to the challenge of climate change, China and Hong Kong have announced ambitious targets of achieving carbon neutrality by 2060 and 2050 respectively. This year, for the first time, the Group engaged an external consultant to verify its quantitative greenhouse gas data to improve their accuracy. The Group will continue to be at the forefront of sustainable development, practising energy conservation and environmental protection, leading the industry trend and exploring

new opportunities for the construction industry in the era of moving towards the goal of carbon neutrality.

Based on social changes and market trends, the Group identifies sustainability issues and risks relevant to itself with reference to international standards and industry practices, and continues to collect stakeholders' opinions through various stakeholder engagement channels in order to analyse and respond to their needs and expectations. Through stakeholder engagement, the Board identified the Group's material sustainability issues and disclosed them in this Report accordingly. For details of the stakeholder engagement process and results, please refer to the "Stakeholder Engagement" section below.

During the past year, the Group established its sustainability vision and mission, and prioritised its focus areas in order to leverage its position and strengths to create long-term value for stakeholders. With this vision and mission in mind, the Group will put forward the development of its sustainability roadmap in the coming year. The roadmap will include corresponding metrics and targets with proposed action plans to continuously improve the Group's sustainability performance. This will drive the Group to meet the challenges of the new normal era and lead the sustainability trend in the industry, thereby creating a better and happier life.



SUSTAINABILITY GOVERNANCE

Sustainability Strategy

The Group has been actively fulfilling its corporate social responsibility and is one of the first companies in Hong Kong to proactively disclose relevant matters. During the Reporting Year, the Group reviewed its overall business and coordinated its sustainability strategy to meet the corporate development needs in the new era. The Group has set out its sustainability vision and mission to reflect its commitment and dedication to sustainable development.

Compliance



Maintain sound corporate governance, establish a comprehensive anticorruption system, continuously enhance prevention of legal risks, abide by all local laws, regulations and related policies where the business operates, and ensure the interests of the Group.

People-oriented approach



Prioritise the overall development of employees by incorporating employees' personal pursuit into long-term corporate development, focusing human resources tasks on "selection, nurturing and utilisation of talents". Strive to provide employees with a good development environment, a comprehensive training system, competitive salary, welfare and incentive system and to create a safe, healthy and positive workplace.

Safety first



Maintain precise management, adhere to the approach 'safety first, prevention based', and enhance the safety management system to prevent injuries, serious incidents and prosecutions.

Quality first



Quality first Honour promises and maintain quality by continuously evaluating and improving the Group's quality management system, and provide customers with quality services and products according to the principle of 'alright for one time, alright for all times'.

Green development



Uphold the balance between construction and environmental protection, and harmony between development and ecology. Conserve and utilise resources, reduce the negative environmental impact and carbon emissions of construction through scientific management and improvement in building technology.

Supply chain management



Adhere to the mindset of 'prioritising green purchase' to procure environmentally-friendly materials from sources in the proximity. Expect business partners to abide by the Group's sustainability approach and list it in their code of conduct as guidance.

Community care



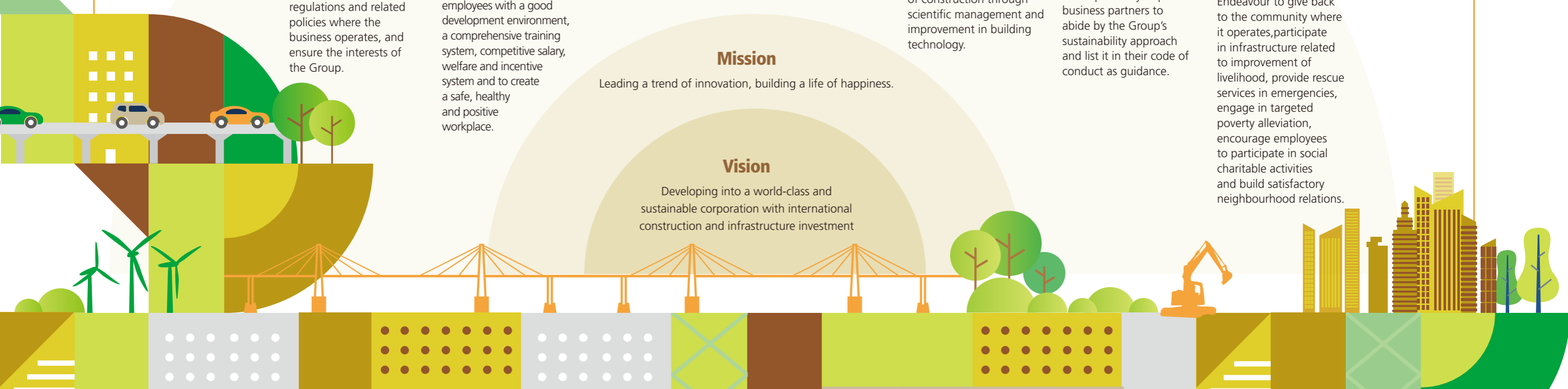
Endeavour to give back to the community where it operates, participate in infrastructure related to improvement of livelihood, provide rescue services in emergencies, engage in targeted poverty alleviation, encourage employees to participate in social charitable activities and build satisfactory neighbourhood relations.

Mission

Leading a trend of innovation, building a life of happiness.

Vision

Developing into a world-class and sustainable corporation with international construction and infrastructure investment



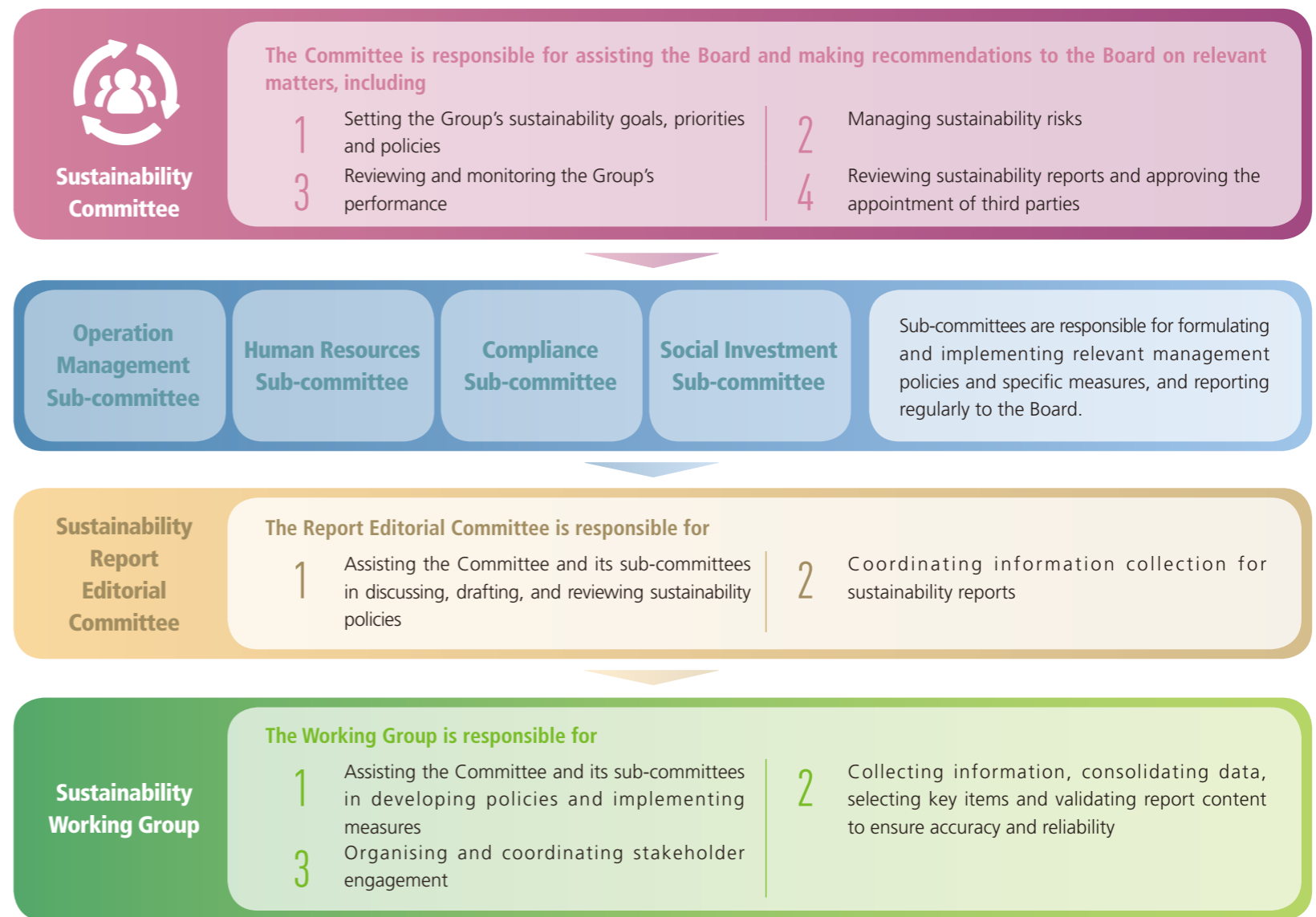
SUSTAINABILITY GOVERNANCE

Corporate Governance

The Board, who governs the Group, is responsible for setting the overall strategies, policies and business directions of the Group; and is overseeing the financial performance and effective governance of the Group. It understands that the diversity of the Board in terms of gender, age, educational background, professional experience, knowledge, culture and tenure, helps to provide a more objective and balanced perspective that is conducive to the Group's achievement of its strategic objectives and sustainable development. The current Board members have extensive experience in China, Hong Kong and Macau construction industry, as well as experience in engineering, banking, finance, accounting, global marketing, company executive and public administration.

A Remuneration Committee, a Nomination Committee, an Audit Committee and a Sustainability Committee have been established under the Board and are authorised to assist the Board in performing its corporate governance functions. The Nomination Committee, when refreshing or renewing board membership, will continue to follow the principle of meritocracy and take into account the development needs of the Group in accordance with the Group's Board Diversity Policy. Further information on the Board and its committees is set out in the Corporate Governance Report in the Group's Annual Report.

A Sustainability Committee was established in 2018 and elevated to the Board level in early 2020. The Committee has sub-committees and a working group, whose structure and responsibilities are shown in the chart below.



SUSTAINABILITY GOVERNANCE

Risk Management

Sound risk management and internal controls help safeguard the Group's reputation and interests, enhance the resilience of its business and lays a solid foundation for the Group's business development. The Group attaches importance to the development of the risk management and internal control system and has established a risk management framework with clear responsibilities defined. A Risk Management Control Committee has been established to identify the major risks of each business segment, assess the impact of strategic, financial, market and operational risks, and formulate control measures. Each department regularly submits reports to this committee for review in order to continuously identify risks and strengthen management.

Through the Audit Department, the Audit Committee regularly reviews the Group's risk management and internal control system to ensure its effectiveness. The Board determines the nature and extent of risks it is willing to take considering the Group's strategic objectives. In order to continuously improve the quality and effectiveness of the risk management system, the Board also reviews reports submitted by the Audit Department annually to identify deficiencies, provide recommendations for improvement and monitor the results of such improvements. For details on the Group's risk management, stakeholders can refer to the Corporate Governance Report in the Group's Annual Report.

Recent years have seen an increasing public awareness of sustainability risks, and the 2020 pandemic outbreak has prompted widespread concern about environmental and social risks. These risks are closely related to the Group's sustainable development and play an important role in its sustainability governance. Failure to manage these risks effectively could undermine the Group's sustainability efforts, jeopardize past achievements and erode its leadership position. The Sustainability Committee regularly reviews management reports on environmental and social issues, identifies sustainability risks and their control strategies, makes recommendations to the Board on the Group's sustainability risk appetite³ and capacity, and ensures that potential catastrophic risks have been adequately considered.

In order to better manage ESG risks associated with the industry, thereby protecting the Group's reputation and interests and meeting stakeholders' expectations, the Group conducted a dedicated assessment of the relevant risks during the Reporting Year. Referring to reports, standards and guidelines of international organisations and taking into account industry and peer practices, the Group evaluated the impact and likelihood of these risks. Finally, through management discussions, the six ESG risks that have the greatest impact on the Group were identified.



³ Level of risk that an organization is prepared to accept in pursuit of its objectives.



SUSTAINABILITY GOVERNANCE



Contagious diseases

Risk factors

- The large number and mobility of people at construction sites make it a high-risk environment for the spread of infectious diseases.
- The infection of workers on site may affect the project progress and cause losses.

Current measures

- Taking strict infection prevention measures, including temperature measurement and disinfection at the entrance and exit of sites.
- Improving the workers' rest areas.
- Requiring mandatory virus test at some construction sites, and only those with negative test results are allowed to enter.



Occupational health and safety, and labour force

Risk factors

- There are many safety risks at construction sites. Workplace accidents can cause financial and reputational damage to the Group and affect client confidence and project progress.
- The construction industry is facing a worker shortage and an aging population, putting pressure on the quality and efficiency of projects.

Current measures

- Using new technologies to monitor and reduce safety hazards at construction sites, and shifting processes to areas with a larger workforce.
- Improving site environment and safety measures to attract young people and new entrants to the industry.



Scientific and technical innovation

Risk factors

- Emerging technologies are disrupting every aspect of the traditional construction industry. Companies need to balance the risk of falling behind with the cost of investing in technology development.
- The Group's operations are located in regions where the application of new construction technologies is late and backward.

Current measures

- Utilising emerging construction technologies and accumulating practical experience with reference to industry cases.
- Encouraging employees to propose innovative solutions, which are then selected by experts for trial.



Climate change

Risk factors

- Extreme weather endangers the safety of site workers and impede the progress of projects.
- Building materials have a high carbon footprint and therefore may face the challenge of stricter regulations and market changes in the transition to a low carbon economy.

Current measures

- Using new construction technologies such as MiC and Design for Manufacture and Assembly ("DfMA") to reduce on-site and outdoor processes.
- Adopting low-carbon building materials proactively, and promoting and participating in green building projects.



Supply chain management

Risk factors

- Supply chain in the construction industry are complex with outstanding environmental, labour and quality risks.
- There is a need to further raise awareness of sustainability among upstream and downstream suppliers and contractors.

Current measures

- Increasing communication with suppliers and subcontractors to help them improve their ESG performance.
- Leveraging big data to aid in supply chain management.



Cyber security

Risk factors

- With the use of information technology in a variety of business activities and processes, cyber attacks can lead to work stoppages or confidentiality breaches.
- Because of the COVID-19 outbreak, online meetings and telecommuting have increased dramatically, increasing vulnerabilities and risks.

Current measures

- Enhancing review and assessment, and conducting tests and rehearsals of the Group's cyber security level.
- Providing remote work support for employees and raising awareness of cyber security through enhanced training.

The Group will consider the relevant ESG risks when planning sustainability action plans to enhance its overall sustainability governance and performance.



SUSTAINABILITY GOVERNANCE

Sustainability Opportunities

Growing demands for sustainability have brought new directions and opportunities for companies. Many countries are advocating a green economic recovery, taking on a new dimension of sustainable development in the aftermath of the pandemic. The Group has always been open in capturing external changes and building on its competitive advantages to meet new challenges.

During the Reporting Year, the Group fulfilled its social responsibility by leveraging its resources and technologies to support the governments of Hong Kong and Macau in response to the pandemic, including building several key epidemic prevention projects. In the same year, it extended affordable housing to a number of locations across the country and continued to invest in infrastructure projects such as roads and industrial parks to help urbanisation. In addition, new construction technologies were developed and applied by the Group, such as the launch of projects using MiC technology in Guangdong, Hong Kong and Macau. In terms of green finance, the Group participated in the development of the Hong Kong Construction Industry Council's ("CIC") "Sustainable Construction Certification Scheme for Green Finance" and has a green loan project in the pipeline, details of which will be announced in due course.

Committed to sustainability disclosure and the provision of relevant information to investors and other stakeholders, the Group received the "Top Improvement Award on Climate Action" from CDP Worldwide in the Reporting Year in recognition of its efforts in environmental information disclosure and its significant progress in addressing climate change. It was also selected as a constituent of the FTSE4Good Index by FTSE Russell for the fourth consecutive year, the Hang Seng Corporate Sustainability Benchmark Index for the sixth consecutive year and the Hang Seng ESG 50 Index for the first time. In addition to continuing to receive the CarbonCare ESG Label, the Group's subsidiary, China State Construction Engineering (Hong Kong) Limited, was also awarded the label for the first time.

Furthermore, the Group's performance in safety, environmental protection and technology application at various construction sites has been recognised by the industry and owners, for which it has received awards such as CIC's BIM Achievement and MTR Corporation's Safety Award. In the future, the Group will continue to enhance its sustainability performance and strive to achieve and maintain a world-class leadership in the industry.



Stakeholder Engagement

Sustainability covers a wide range of issues, with different industries and companies having different concerns and priorities depending on their specific business and operations. Both the GRI Standards and ESG Guide consider materiality as one of the core principles of sustainability disclosure. With reference to the AA1000 Stakeholder Engagement Standard, the Group systematically conducts stakeholder engagement activities to identify and prioritise sustainability issues. The results are validated by the Board and serve as the basis for preparing sustainability reports to address stakeholder concerns. They also provide an important reference for management to develop relevant measures and plans.

Stakeholder Analysis




A corporate is formed by a wide range of stakeholders. They have different roles and responsibilities, and are also affected by the operation and development of the corporate. Maintaining close communication with stakeholders and understanding their opinions and expectations helps the Group to grasp trends, manage risks, and improve performance.




The Group identified its key stakeholders through the following seven criteria.



SUSTAINABILITY GOVERNANCE

Based on the above criteria, the Group has identified its key stakeholders and classified them into six categories, namely employees, investors, customers, suppliers or subcontractors, government and regulatory authorities, and community groups. It maintains communication with these internal and external stakeholders through a variety of channels. The table below outlines these communication channels, the concerns of the stakeholders and which chapters of this Report are relevant to them.

Key stakeholders	Issues of concern ⁴	Engagement channels and frequencies	Relevant chapters
 <p>Employees</p>	<ul style="list-style-type: none"> • Employment management system • A safe and healthy working environment • Training and development • Employer-employee relations • Anti-corruption 	<ul style="list-style-type: none"> • Emails and announcements (routine) • Internal meetings (routine) • Training courses (regular) • Corporate newsletters (quarterly) • Grievance mechanism (as needed) 	<ul style="list-style-type: none"> • Standing for Trust and Integrity • Caring about Safety Details • Carrying out People-Oriented Approach
 <p>Investors</p>	<ul style="list-style-type: none"> • A safe and healthy working environment • Employment management system • Anti-corruption • Training and development • Employer-employee relations 	<ul style="list-style-type: none"> • General meetings (annual) • Annual reports, interim reports and announcements (quarterly) • Roadshow and reverse roadshow (occasional) • Investor meetings (occasional, refer to annual report) • Indices and ratings (annual) 	<ul style="list-style-type: none"> • Standing for Trust and Integrity • Caring about Safety Details • Carrying out People-Oriented Approach
 <p>Customers</p>	<ul style="list-style-type: none"> • Energy • Materials • Innovative technologies and their applications • Intellectual property rights • Prevention of anti-competitive practices 	<ul style="list-style-type: none"> • Tender meetings (as needed) • Project briefings (regular) • Tea gatherings and industry activities (occasional) 	<ul style="list-style-type: none"> • Standing for Trust and Integrity • Leading in Technology Development • Striving for a Green Future

Key stakeholders	Issues of concern ⁴	Engagement channels and frequencies	Relevant chapters
 <p>Suppliers or subcontractors</p>	<ul style="list-style-type: none"> • Customer privacy • Anti-corruption • A safe and healthy working environment • Prevention of anti-competitive practices • Innovative technologies and their applications 	<ul style="list-style-type: none"> • Procurement process (routine) • Review and evaluation (annual) • Performance monitoring (routine) • Supplier and subcontractor meetings (regular) 	<ul style="list-style-type: none"> • Standing for Trust and Integrity • Caring about Safety Details • Leading in Technology Development
 <p>Government and regulatory authorities</p>	<ul style="list-style-type: none"> • Economic benefits • Market performance • Employment management system • Employer-employee relations • Prevention of child labour or forced labour 	<ul style="list-style-type: none"> • Public consultation (as needed) • Working meetings (routine) • Feedback through industry associations (occasional) 	<ul style="list-style-type: none"> • Business Overview • Carrying out People-Oriented Approach
 <p>Community groups (e.g., professional groups, media, and non-governmental organisations)</p>	<ul style="list-style-type: none"> • Materials • Procurement practices • Waste • Water and effluents • Biodiversity 	<ul style="list-style-type: none"> • Seminars and workshops (occasional) • Press conferences and news releases (occasional) • Community opinion surveys (as needed) • Charity event planning and participation (occasional) 	<ul style="list-style-type: none"> • Pledging to Quality Construction • Striving for a Green Future

⁴ Five sustainability issues of greatest concern to each category of stakeholders in the Group's 2020 sustainability survey.



SUSTAINABILITY GOVERNANCE

Identifying Material Issues

Other than the daily communication channels mentioned above, during the preparation of this Report, the Group commissioned an independent consultant to conduct a series of stakeholder engagement activities, including questionnaires, workshop discussions and management interviews, to determine the focus of this Report. These activities also helped the Group to identify areas where stakeholders felt it could make a more positive contribution, thereby assisting the Group in developing sustainability strategies and measures, and making appropriate disclosures to respond to stakeholder expectations.



Related Case

The China State Construction Engineering (Macau) Company Limited ("CSC Macau") is the Group's subsidiary in Macau. This year, the Group continued to hold seminars in Macau to raise employees' awareness of sustainability and to collect their suggestions on the Group's sustainable operations, which were then reported in management interviews for deciding related follow-up issues.



Workshop on sustainability for employees in Macau

Upon receiving instructions to improve office ventilation and night lighting as suggested by employees, CSC Macau immediately sent people to relevant departments and sites for inspection and reporting. The office arranged for special personnel to clean and disinfect the air conditioning vents, dust nets, as well as chillers and their chassis, filters and dirt inside, and checked whether the air conditioners were damaged to prevent the spread of diseases and protect the health of employees. In addition, the windows are also properly opened during weekends and at night after work to ensure air circulation.

The lack of lighting can affect a worker's ability to identify visual details and increase the risk of a collision or fall. It is important to ensure adequate lighting at night to reduce the chance of accidents. In Macau, construction sites use outdoor scales and spotlights, as well as indoor lighting systems such as LED strip lights. Some sites are set up with automatic timer switches to save energy and protect the environment. Meanwhile, sufficient portable lights and headlamps are provided on site to facilitate workers' work needs and flexibility.



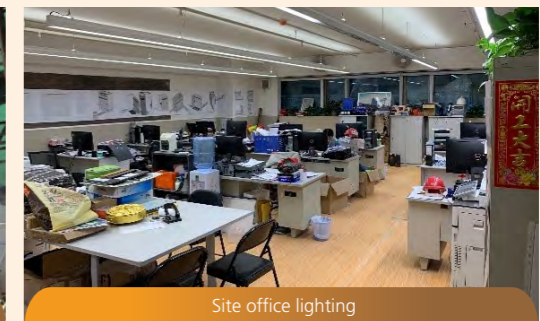
Mobile lighting equipment



Evening tower crane lights and spotlights at construction sites



The headlamps and LED strip lights at construction sites



Site office lighting



Portable Lamp



Headlamp



SUSTAINABILITY GOVERNANCE

The following are the four steps taken by the Group to identify the material issues in this Report.

1 Updating the list of sustainability issues

- With reference to international sustainability standards and guidelines, local and industry trends and peer practices, and the results of previous stakeholder engagement, the consultant identified 33 sustainability issues in five main areas of “Economy”, “Environment”, “Employment and Labour Practices”, “Operating Practices” and “Community Investment” that are most relevant to the Group’s business and its impact.

2 Collecting stakeholders’ opinions

- The Group gathered a total of 802 valid responses from internal and external stakeholders who were invited to participate in an online survey to assess the 33 sustainability issues identified.
- Furthermore, three internal stakeholder workshops were held and five in-depth interviews were arranged between the consultant and the CEO and senior management. The consultant discussed the Group’s sustainability strategy and risks with stakeholders and collected their recommendations

3 Identifying material issues

- Based on the feedback collected, the consultant weighted and balanced the opinions of internal and external stakeholders, and then conducted a comprehensive analysis of stakeholders’ concerns, dividing them into three levels: “very important issues”, “important issues” and “other issues”. Among them, a total of 17 “very important issues” and “important issues” were identified.

4 Confirming material issues

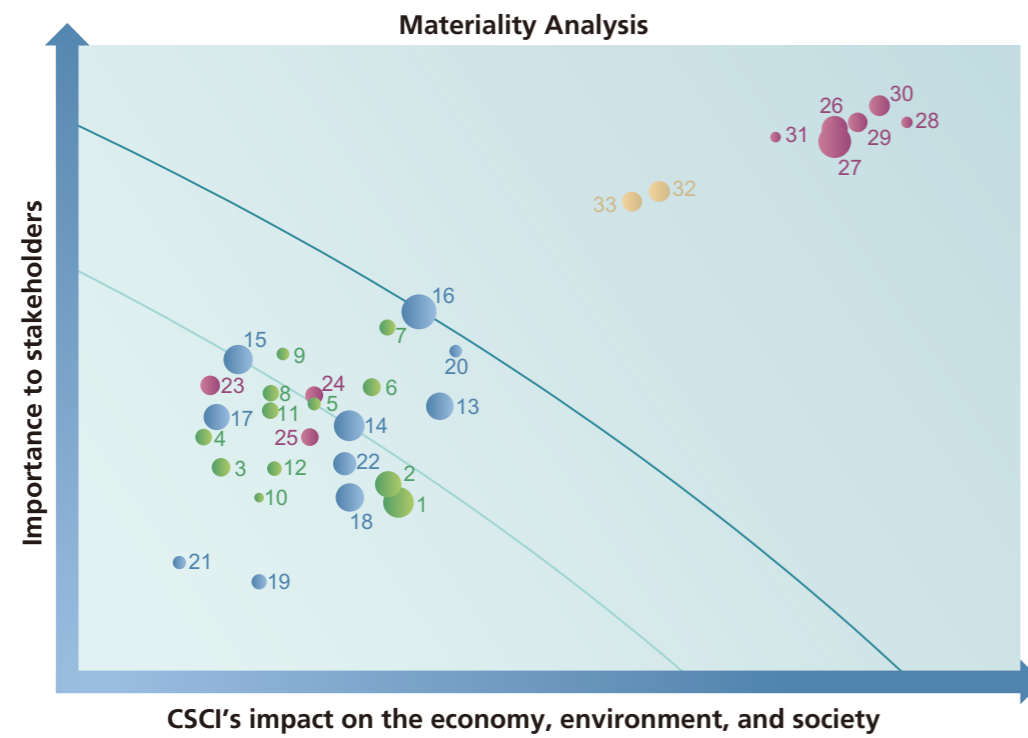
- The consultant reported the analysis results and the stakeholder recommendations to the Committee and the Board. After discussion, these 17 issues were identified as material issues to be disclosed in this Report.





SUSTAINABILITY GOVERNANCE

The 17 material sustainability issues are listed below in order of importance. A materiality matrix is also presented to further indicate the importance of the issue to stakeholders, the extent of the Group's economic, environmental and social impact, and the potential for the Group to make a positive contribution.

2020 Materiality Matrix



	Material issues	Issues to which the Group can make a positive contribution	New material issues (compared to 2019)
 Very important issues	30 Anti-corruption		
	28 Customer privacy		
	29 Intellectual property rights		
	27 Innovative technologies and their applications	✓	✓
	26 Quality management and after-sales service		
	31 Prevention of anti-competitive practices		
	32 Community engagement, impact assessment and investment		✓
	33 Participation in public policy		✓
	16 A safe and healthy working environment	✓	
	 Important issues	20 Prevention of child labour or forced labour	
7 Waste			
13 Employment management system		✓	
6 Water and effluents			✓
9 Materials			✓
5 Greenhouse gases			✓
15 Labour force at construction sites		✓	✓
24 Health and safety of customer and public			



SUSTAINABILITY GOVERNANCE

A prominent material issue this Reporting Year is “innovative technologies and their applications”, which will be addressed in a dedicated chapter of this Report. After this chapter, the Report is divided into three parts, “Operational Responsibility”, “Social Responsibility” and “Environmental Responsibility”, with eight chapters. The impact boundaries of the 17 material sustainability issues, their corresponding GRI Standards and chapters are shown in the table below.

Material issues	GRI Standards	Impact boundaries		Relevant chapters
		Inside the Group	Outside the Group	
30 Anti-corruption	GRI 205	✓	✓	Operational Responsibility — Standing for Trust and Integrity
28 Customer privacy	GRI 418	✓	✓	Operational Responsibility — Standing for Trust and Integrity
29 Intellectual property rights	Not applicable	✓	✓	Operational Responsibility — Standing for Trust and Integrity
27 Innovative technologies and their applications	Not applicable	✓	✓	Social Responsibility — Leading in Technology Development
26 Quality management and after-sales service	Not applicable	✓	✓	Social Responsibility — Pledging to Quality Construction
31 Prevention of anti-competitive practices	GRI206	✓	✓	Operational Responsibility — Standing for Trust and Integrity
32 Community engagement, impact assessment and investment	GRI 413	✓	✓	Social Responsibility — Investing in Community Building
33 Participation in public policy	GRI 415	✓	✓	Social Responsibility — Investing in Community Building

Material issues	GRI Standards	Impact boundaries		Relevant chapters
		Inside the Group	Outside the Group	
16 A safe and healthy working environment	GRI 403	✓	✓	Social Responsibility — Caring about Safety Details
20 Prevention of child labour or forced labour	GRI 408, GRI 409	✓	✓	Social Responsibility — Carrying out People-Oriented Approach
7 Waste	GRI 306	✓	✓	Environmental Responsibility — Striving for a Green Future
13 Employment management system	GRI 401	✓		Social Responsibility — Carrying out People-Oriented Approach
6 Water and effluents	GRI 303	✓	✓	Environmental Responsibility — Striving for a Green Future
9 Materials	GRI 301	✓	✓	Environmental Responsibility — Striving for a Green Future
5 Greenhouse gases	GRI 305	✓	✓	Environmental Responsibility — Striving for a Green Future
15 Labour force at construction sites	Not applicable	✓	✓	Social Responsibility — Carrying out People-Oriented Approach
24 Health and safety of customer and public	GRI 416	✓	✓	Social Responsibility — Caring about Safety Details, Pledging to Quality Construction



SUSTAINABILITY GOVERNANCE

Sustainability Roadmap

As a response to the growing global focus on sustainable development, the Group has embarked on the development of a sustainability roadmap, thereby setting its short and long-term goals. The Group's initiatives and action plans are to be implemented in phases so that the Group can review its sustainability performance and progress in a timely manner. Its sustainability approach and policies form the basis for the development of the roadmap.

Whilst the pandemic has limited direct communications of people, it has reinforced the Group's commitment to sustainable development. The Group will continue to formulate the sustainability roadmap, engage with stakeholders and make reference to industry best practices. The Group will set targets and develop specific action plans to continuously improve its sustainability performance.

The Group has identified the following five focus areas as the framework for its sustainability roadmap.

Framework for Sustainability Roadmap

Focus areas

1 Strategic development
Developing and utilising construction technologies to create differentiation and enhance the Group's core competencies by leading innovation and deployment along the industry chain.



2 Superior environmental management
Environmental issues such as the proper management of the environmental impact of construction work have always been important issues for the industry, and have become even more important in the context of climate change leading to frequent extreme weather and the transition to a low-carbon economy.



4 Sustainable supply chain creation
This industry involves multiple processes and partners such as raw material suppliers and contractors, so achieving sustainability requires a concerted effort from all parties.



3 Talent development support
Human resources are the foundation of corporate development. The Group attaches great importance to the recruitment and cultivation of talents to ensure that it is always leading in the industry and stays world class.



5 Social contribution
Given that construction and infrastructure projects are inextricably linked to social development, the Group is actively engaged in social responsibility to improve people's livelihood and contribute to the communities where it operates.



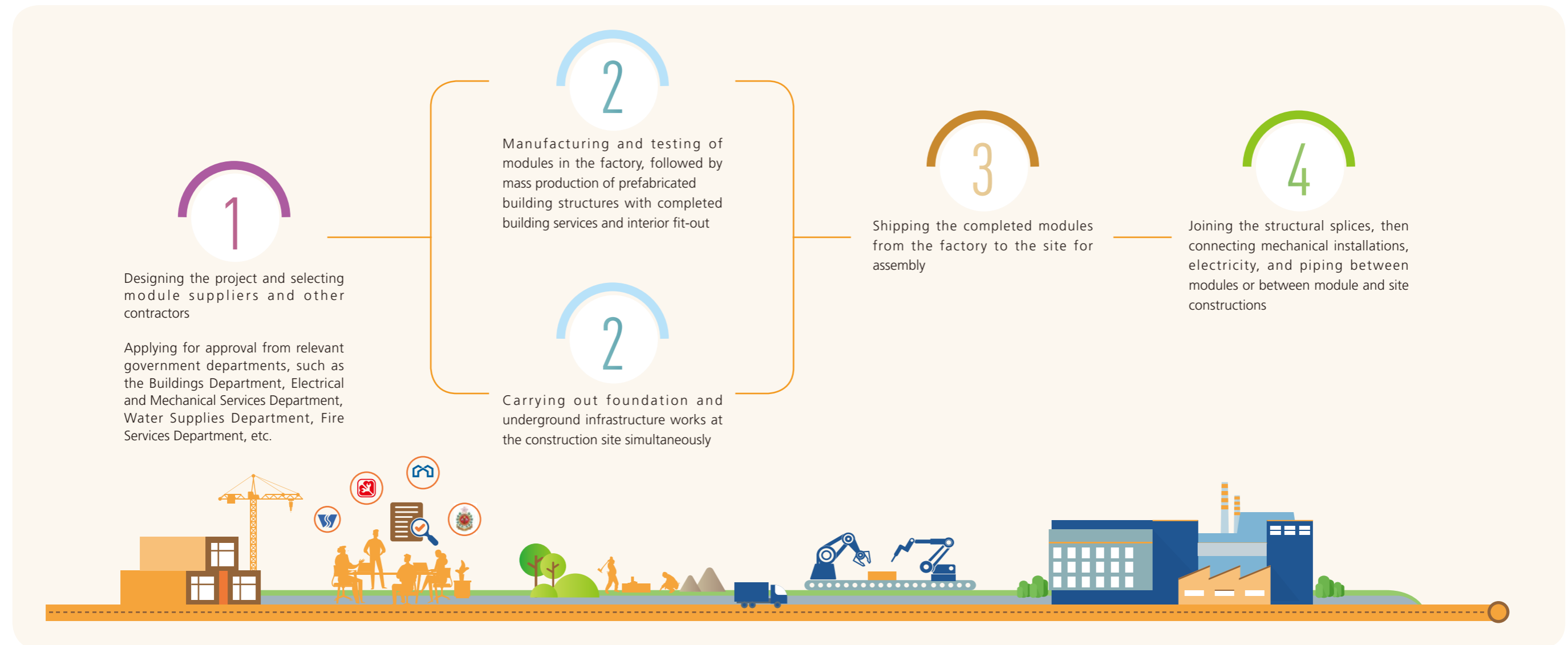
Relevance to the Group's business



Adopting modular integrated construction for sustainability development

The Group has been developing prefabricated construction technology for over 20 years and is one of the leaders in the industry. In this Reporting Year, it has diligently applied MiC to embrace the revolutionary future of the construction industry.

In recent years, the construction industry in Hong Kong has faced many challenges, including high construction costs, labour shortages, an ageing workforce, and increasing demands for quality, safety and environmental protection. The adoption of MiC technology can alleviate these difficulties by shifting most of the workflow from the construction site to the factory, with the following steps.



There are many advantages of MiC technology compared to traditional construction

Time-saving: foundation works and fabrication of different modules can be carried out simultaneously; structural works and interior fit-out can be completed in one go. All these speed up the project progress and shorten the construction period, thus also reduce the impact of bad weather.



Labour demand: reducing the number of workers needed on site helps address the shortage and ageing of construction workers.



Cost control: the shorter construction period results in lower total costs than traditional construction by reducing site management costs, while shortening the payback period of the project.



Construction safety: Under the MiC mode, it is easier to implement safety management because some processes are done in the factory, which especially helps to avoid the risk of workers working at height and reduce accidents.



Quality assurance: the modules are produced in industrialised mass production after prototyping. Standardised production guarantees quality, reduces errors, and makes it easier to check and correct errors than on-site construction.



Higher efficiency: standardised modules can be produced repeatedly, achieving economies of scale and improving production efficiency. Modules can also be reused in other projects, reducing resource consumption and making it easier to accumulate design and construction experience.



Environmental protection: working in an indoor factory reduces the impact of on-site construction on the surrounding environment, such as reducing air pollutants, dust, noise, and construction waste. It also facilitates the recycling of construction waste.



Because of the multiple advantages mentioned above, the Group believes that MiC technology is a major trend in the future construction industry and will drive the Group's sustainability in terms of business operation, project quality, construction safety, environmental protection and carbon reduction. The Group's subsidiary, China State Hailong Construction Technology Company Limited ("CS Hailong"), has six production bases for prefabricated buildings in Mainland China. The modules produced by the production base in Zhuhai have helped complete several epidemic prevention projects in Hong Kong within a very short construction period, among which the Temporary Quarantine Facilities at Lei Yue Mun was the first project in Hong Kong to use MiC.

The Group has been sparing no efforts to promote MiC technology. It has participated in video sharing meetings organised by the Architectural Services Department, seminars on transitional housing organised by the Transport and Housing Bureau, and consultation sessions organised by the Construction Industry Training Authority. In addition, a number of site visits have been arranged by the Group for industry professionals. From the delivery of relatively simple quarantine facilities to negative pressure wards in the hospital, the Group has successfully mastered the most advanced MiC technology and laid a solid foundation for its future business development.

Looking ahead, it is expected that MiC technology will help alleviate the tight supply and high cost of housing in Hong Kong. The Group will continue to promote the application of MiC and enhance the performance of sustainability. It is willing to work with all parties to fight the epidemic, build a better society and create a better life together.



Scan the QR code to watch the interview with Mrs Lam Yu Ka-wai, former Director of Architectural Services of Hong Kong



OPERATIONAL RESPONSIBILITY

Doing business well is a fundamental responsibility of an enterprise to its stakeholders. Only with stable business growth can a company bring long-term value to stakeholders and society. The Group understands that the construction and infrastructure investment business it engages in is the foundation of social and economic development. Therefore, it adheres to the “Good Quality and Value Creation” philosophy of its parent companies, China State Construction Engineering Corporation Limited (“China State”) and China Overseas Holdings Limited (“China Overseas”), and emphasises bringing economic contributions to the locations where it operates and sharing the value created with its stakeholders. To this end, the Group promotes integrity, develops policies and systems, adheres to compliance management and maintains good corporate governance.

Business Overview



1

Significance to the Group:

COVID-19 is ravaging the world. The construction industry, as a foundation industry, plays an important role in fighting the epidemic, maintaining the economy, stabilising employment and improving people’s livelihood. While maintaining business growth, the Group is committed to contributing to the local economy and livelihood.

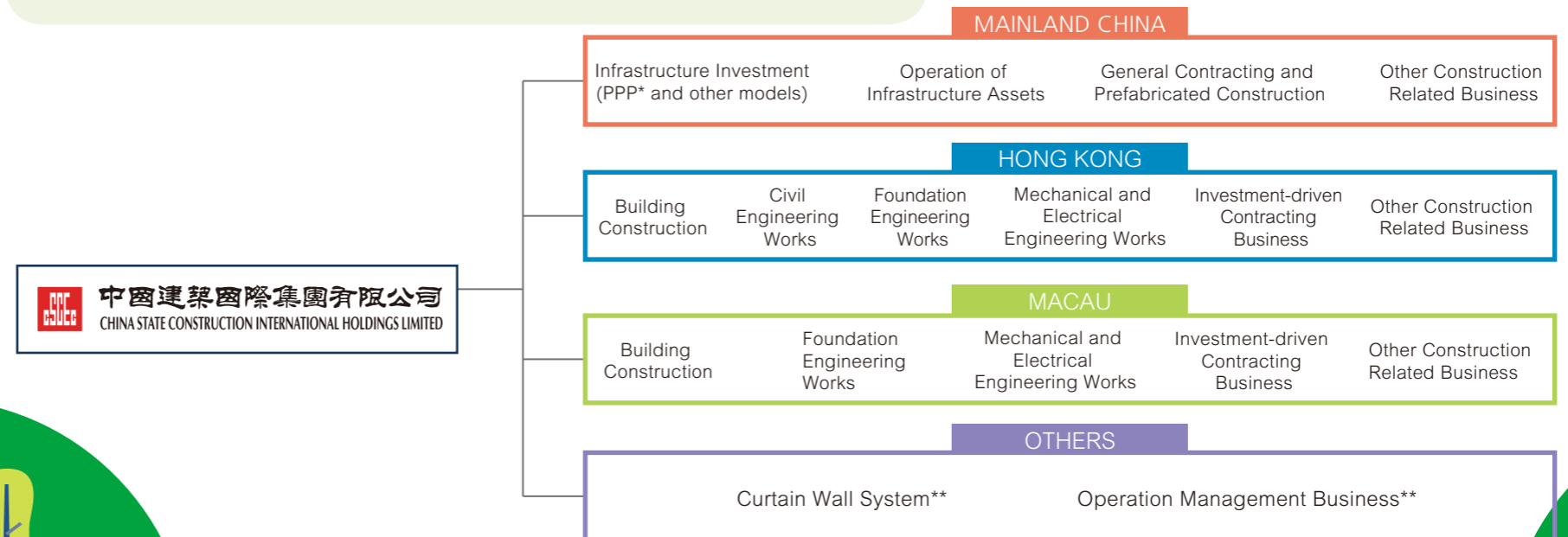


2

Performance highlights:

- Awarded 126 new projects with an attributable contract value of HK\$111.08 billion
- Completed 63 projects
- Revenue: HK\$62.46 billion (+1.3%)
- Gross profit: HK\$9.28 billion (+0.5%)

The Group, headquartered in Hong Kong, has been engaged in the construction business in Hong Kong since 1979. As a subsidiary of China State, it is responsible for the construction business of China Overseas. Listed in Hong Kong in 2005, over the years, the Group has undertaken large-scale projects in Hong Kong and Macau and developed infrastructure investment business in Mainland China. In addition, by acquiring CSCD, the Group has developed its curtain wall business.



* “PPP” means “Public-Private-Partnership”

** Operate through a listed subsidiary, China State Construction Development Holdings Limited (Stock Code: 00830)

OPERATIONAL RESPONSIBILITY

The main activities of the Group's different business segments are summarised below.



Hong Kong and Macau

The largest contractor with business scale in Hong Kong and Macau, undertaking public and private housing, civil, mechanical and electrical, and foundation projects.



Mainland China

Investing in domestic infrastructure, affordable housing and other public building projects, and construction of industrial parks and production of prefabricated constructions business.

Others

CSCD provides one-stop curtain wall and facade solutions for property developments in North America, Asia, Australia and the United Kingdom.

During the Reporting Year, the Group has completed major projects such as The Chinese University of Hong Kong Medical Centre and won the tender for large-scale projects such as Studio City Macau Phase 2 in Macau. While preventing and controlling the spread of the virus, all efforts were made to ensure the resumption of construction work and a reasonable construction schedule. The pandemic also

affected the infrastructure market, but the Group took advantage of its brand and seized the opportunity against the backdrop of the public sector seeking economic stability, thereby achieving counter-trend growth. It contracted a total of 126 new projects with a total contract value of HK\$111.08 billion. The Group's annual turnover was HK\$62.46 billion and gross profit was HK\$9.28 billion, representing an increase of 1.3% and 0.5% respectively.

Completed Projects



New projects



Projects under construction



Direct economic value generated



Natural resource investment



Human resources



Capital and social investment

Fundraising through various sources; and long-term cooperation with customers, suppliers and subcontractors

Economic value distributed:



For details of the Group's business strategies and financial performance, please refer to the Group's 2020 Annual Report.



Projects to Better People's Livelihood: Construction of Several Large-Scale Epidemic Prevention Facilities in Hong Kong



China State Construction Engineering (Hong Kong) Limited ("CSHK") has been rooted in Hong Kong for over 40 years and is a leading contractor in the construction industry. In the face of the pandemic, the Group stood on the front line of the fight against it, mobilising the manpower and resources of its subsidiaries to complete the Temporary Quarantine Facilities at Lei Yue Mun Site A and Site B and the Temporary Quarantine Facilities at Penny's Bay Phase 1B and Phase 3B, as well as constructing the North Lantau Hospital Hong Kong Infection Control Centre (the "Temporary Hospital") and the Community Treatment Facility (the "Mobile Cabin Hospital") at AsiaWorld-Expo ("AWE") with the support of the Central Government. All these projects were completed

within a very short construction period, embodying the Group's efforts in working together with all walks of life to fight the epidemic in Hong Kong. Its efforts were publicly appreciated and commended by government officials, including the Chief Executive of Hong Kong.

Temporary Quarantine Facilities at Lei Yue Mun is the first new quarantine centre in Hong Kong, with its Site A being completed in just 600 hours from design to handover, filling a design gap in quarantine centres and setting a benchmark for fast-track construction in Hong Kong. The project was awarded the Brunel Medal — Highly Commended in the ICE Awards 2020 by the Institution of Civil Engineers, United Kingdom and was mentioned in the Chief Executive's 2020 Policy Address. To date, the Group has built over 2,000 quarantine units, accounting for half of the new quarantine centres built in Hong Kong.



In the third wave of the epidemic, the Hong Kong government received support from the Central Government to initiate the construction of the Mobile Cabin Hospital at Hall 8-11 of AWE and the Temporary Hospital in September 2020. Among them, the Mobile Cabin Hospital at Hall 8-11 of AWE completed planning, design, construction, testing and acceptance in only 472 hours, which was 200 hours ahead of schedule. It provides 952 beds (160 of which are negative pressure beds) and 31 public facilities that meet World Health Organization ("WHO") standards and the operating practices currently used by the healthcare workers in Hong Kong, greatly enhancing the admission level of community treatment facilities. The hospital is the first high-standard, smart negative pressure mobile cabin hospital in China.



Projects to Better People's Livelihood: Construction of a Number of Large-Scale Epidemic Prevention Facilities in Hong Kong

The Temporary Hospital took only 120 days to complete planning, design, construction, testing and acceptance and was delivered 2 days ahead of schedule with 136 wards and 816 negative pressure beds. The completion of the Temporary Hospital greatly enhanced Hong Kong's response to the outbreak, with a 75% increase in the number of negative pressure beds on the front line and a 15% increase in nucleic acids testing capacity. Hospital construction standard in Hong Kong is a paragon for high quality hospital construction worldwide. Requirements for constructing a hospital are complex and stringent, in addition to a three-tier approval process for designs and drawings, the building has to be inspected and accepted by the Hong Kong Architectural Services Department and the Buildings Department upon completion. In general, a hospital would take years to complete, but the Group has now managed to compress the construction period to just four months. This speed was beyond imagination. Moreover, the construction team has overcome adverse weather conditions such as black rainstorm warning and tropical cyclone warning signal No. 8 during the construction period. All these were made possible thanks to the comprehensive application of MiC technology.

CS Hailong mobilised employees from everywhere and procured various building materials and facilities to the Zhuhai base. With the use of Building Information Modelling ("BIM") technology, it carried out industrial production of modules day and night to ensure the timely completion and construction quality of the project. As the weight of a single module is close to 30 tonnes, the land transportation capacity in Hong Kong is insufficient. To solve this problem, the Group discussed with the government and then developed sea transportation to speed up the delivery of modules to Hong Kong. It has also adopted a smart site system to monitor site conditions, construction progress and safety. More than 4,000 people worked in 24-hour shifts during peak periods. Besides, the construction period coincided with the fourth wave of the epidemic in Hong Kong. During this period, the Group further strengthened its epidemic prevention and management measures and successfully ensured zero infection on-site and good hygiene in the Temporary Hospital.



Constructed in accordance with the standards of permanent buildings, the Temporary Hospital is designed to withstand hurricane-force wind under No. 10 tropical cyclone warning signal in Hong Kong, and its drainage system can cope with severe rainstorms of a 50-year return period. The fire protection system is also well developed. Except for the absence of operating theatres at the request of the Hong Kong Hospital Authority, the hospital is fully equipped with facilities including nursing stations, diagnostic and treatment rooms, and pathology laboratories, which is no different from a general infectious disease hospital. It is the first hospital in Hong Kong to adopt the MiC technology, the largest negative pressure isolation ward hospital in Hong Kong, and the first infectious disease hospital with negative pressure isolation wards in the world to fully adopt MiC technology.

The successful completion of such projects has proven the Group's strong capabilities in mobilisation, coordination, organisation, medical planning, engineering design, construction, and innovative development.



Scan the QR code to watch an interview with the engineering staff, learning more about the construction of the Temporary Hospital



Scan the QR code to watch an interview with Dr Lily Chiu from the Group's medical company



Projects to Better People's Livelihood: Residence for Senior Citizens in Macau

To improve the living conditions of the elderly, the Macau Government has launched a new project embedded with the concept of "Residence for Senior Citizens", which will be rented to senior citizens with limited mobility living in tenement buildings. The building will be equipped with elderly-friendly meals and medical services, alleviating the pressure on nursing homes and providing privacy for the elderly. Featuring the "design-and-build" approach, it is the first public works project in Macau to adopt prefabricated components in its construction, which will shorten the construction cycle and speed up the construction process, allowing the elderly to move in early.

Having a team with rich experience in project design and prefabricated construction, CSC Macau draws on the Group's practical experience in Hong Kong and the Mainland and introduces relevant technologies into Macau public constructions. To promote this construction method, the residence for senior citizen is used as a demonstration project. As prefabricated construction reduces on-site work, it is estimated that more than 1,000 tonnes of water can be saved, while construction consumables and waste can also be reduced, helping to relieve the burden on landfills.

BIM will be used to coordinate the construction of this project to reduce conflicts and errors. BIM as-built models will be delivered to the government to facilitate future operators to apply smart devices such as motion, water overflow and light sensors. These smart systems are expected to facilitate the daily life of seniors while helping operators protect their health and safety. The Group will continue to contribute to the improvement of people's livelihood in communities where it operates, and create a better and happier life for the citizens.



OPERATIONAL RESPONSIBILITY

Standing for Trust and Integrity



1

Significance to the Group:

The long-term interests of an enterprise are built on good business integrity. Maintaining good corporate governance and integrating business ethics throughout its value chain are the keys to establish an excellent brand reputation and to ensure a stable corporate development. Therefore, adherence to integrity plays an important part in the Group's corporate culture. The Group values the spirit of contract and business compliance, pursues profits in an open and above board manner, and provides high quality services to customers.



2

Material issues:

Anti-corruption, customer privacy, intellectual property rights and prevention of anti-competitive practices



3

Performance highlights:

- 2,677 employees participated in anti-corruption-related training
- No violations of the Group's disciplinary code were found

Combating Corruption for Integrity

Adhering to integrity is essential in the Group's corporate culture and ethos. The Group is committed to upholding the highest standards of governance and ethics, and opposes all forms of corruption, including but not limited to bribery, extortion, fraud, and money laundering. The Employee Handbook clearly sets out the Code of Conduct which employees are prohibited from using their power to solicit or accept advantages. To ensure the expectations are presented, guidelines are also provided to guide employees in handling conflicts of interest and accepting hospitality. The Group's senior management staff are required to sign a Letter of Integrity Responsibility and are accountable for any corruption found under their supervision.

The Group has formulated the Management Methods of Letters and Visits Matters and Clues, which stipulates the channels for reporting violations of law and regulations, including letter, visit, hotline and online; the procedure of inspections and audits on the work flow and reports from the government departments, as well as the timeline and the format of the reporting. Underreporting and information leakage are strictly prohibited. All reports will be transferred to the Group's Human Resources Department for handling and review. Where reports are being verified as substantiated, the Group will take disciplinary action based on the nature of the case, which a dismissal may be imposed for serious cases. Suspected violations will be referred to local law enforcement departments for follow-up investigation.

The Group actively implements anti-corruption practices, following its parent company, China Overseas. The Group organises integrity promotion activities, such as learning case studies through anti-corruption videos, and employee warning education. The Group regularly invites the Hong Kong Independent Commission Against Corruption to provide new employees with a talk on corruption prevention, with a focus on the construction industry. Even in the most difficult time of the pandemic, the Group continued to provide related training online.

Laws and regulations of significance to the Group include the Criminal Law of the People's Republic of China, the Anti-Money Laundering Law of the People's Republic of China, the Prevention of Bribery Ordinance of Hong Kong and the Penal Code of Macau. During the Reporting Year, the Group had no confirmed incidents and violations related to corruption, and there were no concluded legal cases regarding corrupt practices brought against the Group or its employees.



Ensuring a Level Playing Field

The Group supports healthy competition in the industry and is committed to creating a fair competition order for its suppliers. It requires its employees to handle all business transactions based on the principles of integrity and fairness, and to avoid behaviours that could be considered anti-competitive. Bid rigging is strictly prohibited. The Group regularly evaluates and updates its list of qualified suppliers. All suppliers are required to confirm in writing their commitment to business ethics and fair competition. The Group's internal control system regularly reviews the procedures to ensure its compliance with statutory requirements. Depending on the needs of business development, the Group will identify high-risk anti-competitive behaviours and establish relevant guidelines and procedures.

The Group complies with the laws and regulations related to anti-competition, including the Anti-Unfair Competition Law of the People's Republic of China, the Anti-Monopoly Law of the People's Republic of China and the Competition Ordinance of Hong Kong. During the Reporting Year, the Group was not involved in any litigation relating to anti-competitive conduct or monopolistic practices. It hopes to maintain an orderly and transparent market and to promote the healthy development of the industry through fair competition.



OPERATIONAL RESPONSIBILITY

Safeguarding Customers' Privacy

The use of information technology in business operation continues to grow. While remote working and meeting have become the norm during the pandemic, the risk of information leakage has increased accordingly. The Group has developed an information security management system in accordance with ISO 27001, which specifies a prudent approach to collect, process, store and use information. Meanwhile, it continuously tests and updates information system infrastructure and security measures. These actions support the development and application of the Group's innovative technologies, as well as protecting the privacy of customers, business partners and employees. The Group tests the security of its information systems with cyberattack simulation. The Group also provides appropriate training and support to its employees and responds to the national cybersecurity education campaign in the hope to raise employees' information security awareness to meet the challenges posed by changing work patterns.

The Group complies with relevant laws and regulations, such as the Cybersecurity Law of the People's Republic of China and the Personal Data (Privacy) Ordinance of Hong Kong. During the Reporting Year, the Group did not receive any substantiated complaints about infringement of customers' privacy or loss of customers' data.

Protecting Intellectual Property Rights

Beyond tangible investments, there are many intangible assets, such as patents and technologies, involved in the completion of a construction project and the creation of a physical building. The brand names of the Group and its business partners, the design concepts of buildings, the engineering plans, the innovative construction techniques, the research and development of new construction materials and the application of technology in the construction industry are all creative and intellectual achievements of many people. The Group respects intellectual property rights. It protects its interests by applying for patents in a timely manner, while stipulating in the Employee Handbook that employees are not allowed to use the ideas and products of others without permission. The Group has formulated its Rules for Intellectual Property Management and reviewed the implementation in accordance with the provisions.

Related Case 1

- >The Group independently developed and patented high-quality modular hospital products that meet international standards, including: The "Venus", DfMA indoor negative pressure isolation cabin module, which has been installed in the community treatment facilities at AsiaWorld-Expo in Hong Kong.
- >The "Athena" I, II and III, MiC negative pressure isolation units, with the Athena III was used at the North Lantau Hospital Hong Kong Infection Control Centre.
- >The "Aurora" I, II and III, MiC operation theatres.



Related Case 2

CSC Macau uses virtual reality ("VR") technology to assist occupational safety training for construction projects. It is a portable device that can be moved around and its system has been improved by CSC Macau to be easier to operate and experience, and more in line with the actual situation on site. It has been granted a utility model patent by the State Intellectual Property Office.



SOCIAL RESPONSIBILITY

The Group has been interacting closely with various stakeholder groups in the society and maintains and strengthen long-term mutually beneficial relationships with employees, customers, business partners and the public. Adhering to the core values of “putting customers first, guaranteeing quality, and creating value”, it has been building a happy life for stakeholders and achieving a win-win situation with each group.

Caring about Safety Details



1

Significance to the Group:

Health and safety have always been key issues in the construction industry, and their importance has become even more pronounced in the COVID-19 pneumonia outbreak. The Group understands that good health and safety management is vital to gaining the support of employees and partners, earning the trust of customers and the public, and maintaining the Group’s operations. It has adopted various measures and advanced technologies to minimise safety hazards and protect the safety and health of employees, business partners, customers and the public.



2

Material issues:

A safe and healthy working environment, health and safety of customer and public

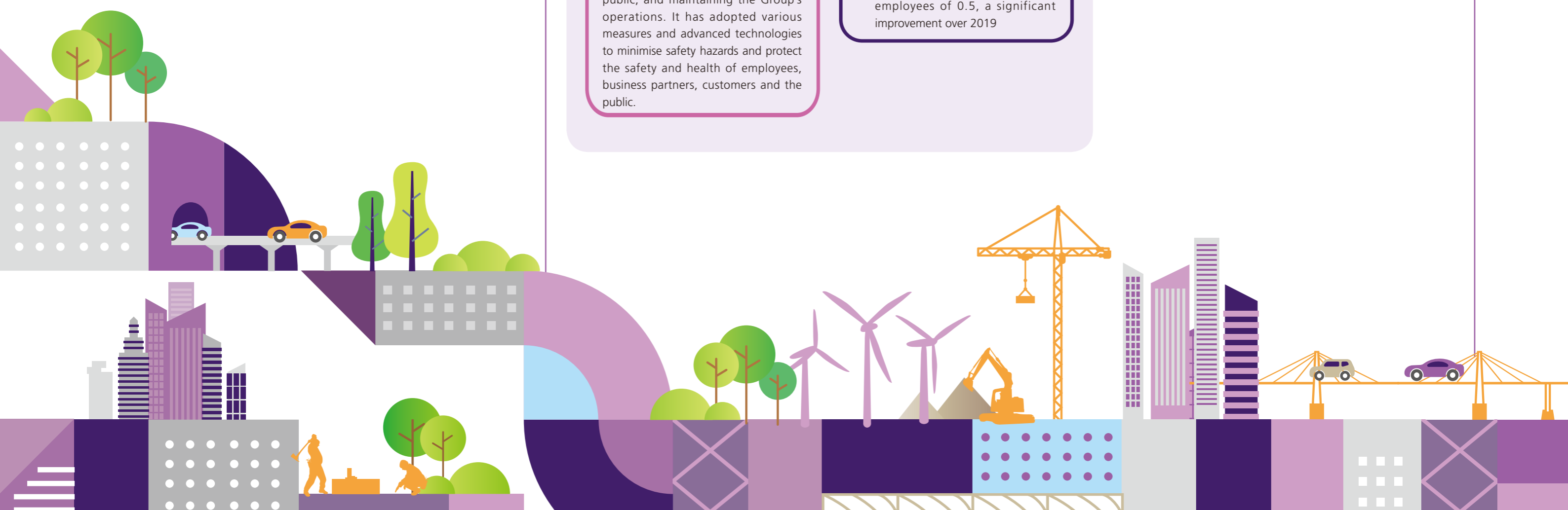


3

Performance highlights:

- Work-related injury rate per 1,000 employees of 0.5, a significant improvement over 2019

A Production Safety Supervision Management System and a Production Safety Responsibility List have been established, which clearly define the responsibilities of all departments and personnel throughout the Group. Under this system, the Group has established a Production Safety Supervision and Management Committee (the “Safety Committee”), chaired by the Chief Executive Officer, who leads other key principals, including the Vice President, Financial Controller, Safety Director and Assistant Chief Human Resources Officer of each subsidiary, to adopt a policy of “safety first, prevention based and comprehensive governance” to make decisions on the Group’s overall safety management system.













SOCIAL RESPONSIBILITY

The responsibilities of the Safety Committee are:

- > Implementing the safety management related regulations and policies of the country and the region of operation;
- > Implementing the safety management system and approaches of the parent company;
- > Listening to reports on production safety and formulating the Group's production safety objectives and medium and long-term development plans;
- > Approving the annual work plan for production safety and ensuring funding is available;
- > Improving the production safety rules, regulations and operation procedures of the Group;
- > Equipping the Group with production safety supervisory and management personnel;
- > Organising production safety assessment for all departments and subsidiaries of the Group.
- > Formulating the Group's production safety education and training plan;
- > Developing and improving the Group's emergency rescue plan for safety accidents.

The implementation of decisions is the duty of each member of the Safety Committee in accordance with his or her area of responsibility. The Safety Director and the Production Safety Supervision Management Department (the "Safety Supervision Department") are responsible for monitoring the implementation and reporting regularly to the Board and the Safety Committee. The Production Safety Supervision Management System sets out the safety management practices for different types of subsidiaries and project, such as management requirements for production safety planning, training, technology, costs, hazard identification and risk assessment, equipment safety, safety inspection and risk investigation, emergency management, subcontractors and occupational health for four types of businesses, including construction, professional and technical, infrastructure investment and operating businesses. Safety incident management, safety evaluation and continuous improvement are also specified. Taking the Group's construction business as an example, its safety management requirements are as follows.

Production Safety Management in Construction Business

 Planning	Within one month after the start of the project, production units need to prepare a safety plan, submit it to the relevant departments and the Safety Director for review and approval by the competent supervisors for implementation. The plan includes targets and indicators, organisational system, hazard identification and risk assessment, technical assurance measures and acceptance plan, education and training, cost input, emergency management, etc.	 Safety Inspection and Risk Investigation	Production Units should establish a safety inspection system to ensure that the safety issues and major risks specified in the notice of safety risks are rectified, and penalise units and personnel who fail to rectify the situation promptly or repeatedly fail to improve. Production units at all levels are managed by the Group in a hierarchical manner. The Safety Supervision Department conducts supervision and inspection of the highest-level units at least twice a year, followed by key supervision and special inspection of the other levels.
 Training	Production units establish a production safety education and training system, clarify the type, object, time and content of training, and specify the training planning, responsibilities and authority, work procedures, records of implementation and certificate management, and assess then improve the effectiveness of training. Site Managers are responsible for arranging and keeping records of safety training and assessment for staff and workers, and arranging special safety training for new workers.	 Emergency Management	All production units develop emergency plans, define personnel responsibilities, handling methods and preventive measures, prepare materials and equipment, conduct training and drills, assess problems and correct them. These units also report emergencies, form on-scene command teams, evacuate people unrelated to the emergency, report to local authorities, and alert surrounding businesses and the public as necessary.
 Technology Management	Production units are responsible for identifying and timely updating applicable laws and regulations, technical standards and specifications, and developing corresponding safety measures which are codified in the project design and technical plans. Safety production managers are required to supervise and sign to confirm the technical briefing. Special construction plans require on-site supervision, immediate rectification if any deviation from the plan, and in case of emergency, organisation of evacuation of workers from areas with potential personal safety hazards.	 Equipment Management	The bidding method, the list of qualified suppliers and the acceptance criteria for equipment procurement or leasing are formulated by each production unit. Trial runs should be conducted before acceptance, and daily operation is carried out by a special Equipment Management Department for regular inspection, repair and maintenance.
 Cost Management	The Safety Supervision Department is responsible for monitoring and verifying the extraction and use of the production safety budget, including the cost for training and activities, to ensure that it is properly used and not encroached.	 Contractor Management	Each production unit confirms the professional and safety qualifications of subcontractors before they are shortlisted, establishes elimination system and blacklisting, conducts supervision and inspection of site operations, and prohibits further subcontracting. Subcontractors are required to submit safety reports to prove their safety management and technical measures.
 Hazard Identification and Risk Assessment	Depending on the progress of the project, each production unit continues to identify hazards and assess risks in the construction process, update and report results, and prepare a checklist for important hazards, which is updated and publicised quarterly. Hazard risks are rated according to the severity of the consequences and the likelihood of occurrence. Hazard identification also includes consideration of personnel in the vicinity of the workplace and employees in locations not under the direct control of the company.	 Occupational Health Management	Each production unit identifies and evaluates occupational disease hazards annually, establishes an inventory, and develops prevention plans and implementation plans; sets warning signs in workplaces where occupational disease hazards may arise, and regularly monitors the level of hazards; provides appropriate protective facilities and supplies, and conducts inspection and maintenance; ensures that workers understand the hazards, protective and emergency measures; conducts body check. For personnel with abnormal indicators, the unit will arrange follow-up consultation, diagnosis and job relocation.



SOCIAL RESPONSIBILITY

The principal laws and regulations with which the Group is required to comply 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, the Administrative Regulations on the Work Safety of Construction Projects of the People's Republic of China, the Occupational Safety and Health Ordinance of Hong Kong, the Factories and Industrial Undertakings Ordinance of Hong Kong and the Regulations for the Safety and Hygiene of the Construction Industry of Macau. During the Reporting Year, the Group was not involved in any occupational health and safety related offences.

Subsidiaries that achieved ISO 45001:2018 certification in 2020:

---> CSHK	---> Shenzhen Hailong Construction Technology Company Limited
---> China Overseas Building Construction Limited	---> Anhui Hailong Construction Technology Company Limited
---> China State Mechanical & Electrical Engineering Limited	---> Shangdong Hailong Construction Technology Company Limited
---> Alchmex International Construction Limited	---> Guangdong Hailong Construction Technology Company Limited
---> China Overseas Construction Company Limited	---> Chongqing China State Hailong — Liang Jiang Construction Technology Company Limited
---> China State Construction International Engineering Limited	---> China Overseas Supervision Company Limited

The Group's occupational safety and health management system complies with internationally recognised standards and its subsidiaries are gradually updating from OHSAS 18001 certification to ISO 45001 certification. The following is a summary of the safety management policies and practices of the subsidiaries in Hong Kong, Macau and Mainland.

CSHK and CSC Macau review and update annually their Safety and Health Policy, which are issued by the subsidiary's general manager and include safety and health commitments and safety management goals for the year.

The Standard Working Procedures of CSHK include the Internal Audit Procedures for Safety Management and the Safety and Health Management Procedures, which specify applicable regulations and codes, organisational structure, training, inspections, risk assessments, protective equipment and accident handling procedures. Safety audits are conducted on a semi-annual basis. Site safety committees, which includes site managers, engineers, foremen, subcontractor safety representatives and worker representatives, enable workers participation and consultation in implementing and improving the safety and health management system. Committees conduct weekly safety inspections and reports,

with follow-up discussions at monthly organisation meetings. On-site front-line management is carried out under a zoning responsibility system to implement safety management and prevent accidents. In implementing corrective and preventive measures, improvement proposals are considered with priorities as the following order: hazard elimination, substitution, isolation and segregation, restraint procedures, establishment of warning systems and provision of personal protective equipment.

CSHK gives rewards and punishments impartially. It gives bonuses to construction sites and their managers who have received honours such as the Hong Kong Construction Industry Safety Award Scheme and the Development Bureau's Considerate Contractors Site Award Scheme, rewards subcontractors, front-line managers and site workers for good performance, and issues warnings and penalties to those responsible for poor performance.

CSC Macau has been a long-time signatory to the Macau Government's Occupational Safety and Health Charter and was the first construction company to sign the Charter. Each site signs Production Safety Responsibility Letter annually, stipulates management responsibilities, and conducts monthly review and reporting. CSC Macau has also developed standardised project safety manuals, established safety guidelines and codes for fire prevention measures and various work processes, and set up a task force for safety promotion activities and smart site projects. It has implemented the Site Safety Management Award Assessment and Reward Scheme to score and rank the safety performance of each site and give rewards.

During the daily morning meeting and exercise, workers are reminded to always put safety first. Also, daily briefings of on-site operation safety are given. A permit system is in place for special processes and related equipment, and only after inspection of the equipment and explanation of the process can the work be performed according to the work plan. A site performance rating system is used to rate site performance based on suggestions for improvement and the number of violations recorded in the inspection reports of the Labour Affairs Bureau of Macau.

China State Construction International Investments Limited ("CSCIIL") is responsible for the Group's business in the Mainland. Its Production Safety Management Methods stipulates the management principles and philosophy, organisational responsibilities, risk management, training and communication, emergency response, accident reporting and handling, accountability, rewards and penalties related to safety management. CSCIIL signs a safety responsibility letter every year, sets safety goals and incorporates them into performance assessment to implement management responsibilities.

Under the Production Safety Management Methods, the projects or functional departments of each subsidiary allocate safety management personnel and related qualification requirements according to the project type, ensure the correspondence of job authority and responsibility, supervise, reward and punish responsible persons, and set the budget plan and its use scope standard. Hierarchical risk control is implemented according to the project safety risks. Each subsidiary carries out monthly safety inspections, scores all projects under construction in its jurisdiction by region. Projects with low scores will be stopped for rectification.

The Group values feedback from workers and welcomes them to report potential safety management loopholes through various reporting channels, and stop any works that pose health hazards, to help the Group strive for excellence in production safety. It also undertakes to keep the report confidential to protect the rights and interests of the relevant personnel. If the reports are true, appropriate rewards will be given.



SOCIAL RESPONSIBILITY

There were 139 employees and workers injured at work during the Reporting Year, and no accidental deaths occurred. The major causes of injuries are slips, trips, falls, lifting injuries and collisions with objects. The Group provided relief and compensation to the parties involved in accordance with the safety management process and the laws and regulations of the places of operation. Detailed procedures for handling accidents and work-related injuries have been established, including investigating serious accidents, recording the accident process, site photos, relevant drawings and witness testimonies, and reporting on improvement proposals to prevent the recurrence of similar accidents.

In addition to continuous improvement in production safety management and occupational disease prevention, the Group also pays attention to the physical and mental health of its employees. Medical and health benefits such as life, accident, medical and dental insurance are provided, medical check-ups are subsidised or organised. The Group encourages employees to adopt healthy habits such as exercising to relieve work stress. Elder workers in construction sites are selected for simple body checks such as blood pressure measurement, and are reminded to take good care of their health.



Related Case 1



In face of the critical situation of the COVID-19 pandemic, the Communist Youth League members of Hubei Company set up a Youth Team under the leadership of the party branch to procure epidemic prevention materials, disinfect office premises, transport personnel safely, publicise protective measures and care for employees. The first batch of youth members returned to the project to prepare for the resumption of work and production, including making emergency plans for epidemic prevention,

setting up temperature measurement points and temporary isolation points, disinfecting office areas, living areas and canteens, distributing various epidemic prevention materials, posting epidemic prevention banners, posters and slogans on construction sites and living areas, and organising epidemic prevention inspection teams in office areas and construction sites to ensure the implementation of measures. These measures guarantee the health and safety of colleagues during the pandemic and support the resumption of business operations.

The Youth Team also carries out innovative activities such as online birthday parties, cooking showcase competitions, releasing the "Gas Station for Prevention" online series, as well as issuing energy packs with nuts and vitamin C tablets for returning project employees, etc., so as to do all-round youth care work from psychological guidance, home protection, activity care and material consolation.



SOCIAL RESPONSIBILITY

Related Case 2

The Group has adopted strict epidemic prevention measures to protect the health of its employees and workers. During the peak of the pandemic, all offices of the Group adopted a work-from-home mode, grouped employees to minimise physical contact and restricted visits from outsiders. At construction sites managed by the Group, epidemic prevention and control plans were formulated, personnel were arranged to guide and carry out epidemic prevention work. Once suspected cases of infection were found, timely arrangements were made to deal with them. Formal resumption of work can only be arranged when preparations are made.

Prevention efforts at each site include the following measures.



Completing the declaration form

1 Installs infrared body temperature testing at the site entrance, replaces palmpoint turnstile with facial recognition to reduce contact and measure body temperature at the same time.



Measuring body temperature with infrared light

2 Requires all employees to test their temperature and fill out a health declaration upon entering the site, and wear a mask while on site.



Cleaning and disinfecting gates

3 Puts up epidemic prevention posters and sets up displays to play epidemic prevention videos and other information on the site.



Promoting epidemic prevention information at construction sites

4 Adds mask disposal points and hand-washing areas, and requires personnel to wash their hands regularly to maintain hygiene.



Distributing masks

5 Upon resumption of work, first thoroughly cleans and disinfect vehicle gates, site offices, meeting rooms, workers' lounges and other areas where personnel gather, then continues to disinfect surfaces frequently touched by personnel, and provides hand sanitiser or alcohol.

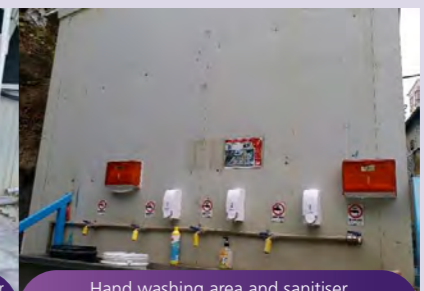


Storing supplies for epidemic prevention and disinfection

6 Takes measures to limit the gathering of personnel, such as reducing meetings and unnecessary face-to-face communication, partitioning of working areas, staggering mealtimes, and enhancing indoor ventilation to reduce the risk of infection transmission.



Cleaning and disinfecting areas where personnel gather



Hand washing area and sanitiser

7 Requires subcontractors to stock sufficient infection prevention supplies, such as masks, disinfectants, bleach, cleaning utensils, etc.

Furthermore, due to the long interval between the Spring Festival holiday and the resumption of work, all units and subcontractors are required to cooperate with the Safety Department on-site to conduct comprehensive inspections, eliminate hidden dangers, and make proper reporting and rectification before resuming on-site construction to ensure safety.

As a result of the Group's strict prevention and control of the epidemic, CSCIL and CSC Macau have achieved an excellent result of zero confirmed infections. At the same time, the Group prioritises vaccinations for employees who need to work abroad to protect their health.



SOCIAL RESPONSIBILITY

Related Case 3

The Group has been taking various measures to improve workplace safety.

1 Develops and promotes the use of prefabricated building technologies to reduce on-site construction and move processes to indoor factories, allowing for a better controlled environment and easier implementation of safety management.



VR safety training

2 Uses VR or hands-on experience to improve the effectiveness of safety training, so that personnel receive safety education in a near-realistic environment to identify and remember safety hazards



Heat protection workwear

4 In response to the high temperature caused by global warming, each site monitors the temperature and humidity at all times, reminds workers to stay hydrated and take proper rest, and promotes the use of heat protection clothing and sun protection caps developed by the Hong Kong Polytechnic University to prevent heat stroke.



Crane collision avoidance system

7 Develops a crane collision avoidance system that automatically monitors the distance of crane arms and tails from surrounding objects, making it safer and more reliable than the traditional reliance on workers to sound alarms at the side of the crane.

5 Each site has formulated a typhoon plan to check whether the scaffolding is firm and the drainage is clear before and after the typhoon, and pay attention to the wind and water resistance of structures under construction and temporary structures.



Workers' morning Baduanjin exercise



Cross-check and learning at construction sites in Macau

3 Adopts various forms and types of safety inspections and special inspections, organises cross-inspections between sites so that they can learn from each other, exchange safety management implementation measures and situations, and improve safety management.



Smart bracelet

6 Develops ultra-wideband (UWB) personnel location system to use smart bracelets for monitoring workers' work in enclosed spaces without public network signals, such as tunnels, including monitoring their location, heart rate, falls, etc. Workers can also activate help signals.



Facial and fingerprint recognition

8 Uses facial recognition or fingerprint recognition technology to ensure that only trained workers can operate designated machinery, such as suspended working platforms and lift platforms.



SOCIAL RESPONSIBILITY

Related Case 4



The Group organises safety promotion activities every year, such as “Spring Welcome”, “Summer Rainbow” and “Autumn and Winter Care”. Take “Summer Rainbow” as an example, the hot and rainy working environment in summer makes it one of the high-risk seasons for site safety.

The Group has strengthened its safety management by:

- --> Displaying signs with monthly themes prominently at construction sites every month
- --> Conducting special safety training on the month's theme and high-risk processes
- --> Having managers and subcontractors conduct thorough inspections of work processes and rectify hidden dangers
- --> Caring for workers' health and requiring those who are unwell to seek medical attention
- --> Rehearsing emergency measures such as fire prevention, wind prevention and first aid

Related Case 5

Production safety has always been a top priority for the Group. During the Reporting Year, several construction sites won safety awards from the industry. Some examples are summarised below.

Recognized by safety awards in the construction industry

- --> The Upper Structure Project of Light-Rail Train Plant in Macau won the International Safety Awards 2020 (Distinction and Overall Country Winner-China) issued by the British Safety Council.



- --> The LOHAS Park Package 10 Residential Development Project in Tseung Kwan O, Hong Kong, won the 2019 MTR Contractor Safety Performance Award. It is the third consecutive year MTR has awarded the highest honour for safety to the Group.



- --> CSC Hong Kong received several awards in Construction Industry Safety Week 2020, including the Innovative Safety Initiative Award (Gold) for the Relocation of Sha Tin Sewage Treatment Works to Caverns — Site Preparation and Access Tunnel Construction.



SOCIAL RESPONSIBILITY

Carrying out People-Oriented Approach



1

Significance to the Group:

A business is formed and run by employees, and policies and initiatives are implemented by employees, so they are who create value for the business. The Group understands that attracting and nurturing talents is the key to its prosperity. It is committed to safeguarding the well-being of its employees and is willing to share the results with them. Efforts are made to create a diverse and inclusive work environment where employees can fully express their talents and grow together with the Group.



2

Material issues:

Employment management system, prevention of child labour or forced labour, labour force at construction sites



3

Performance highlights:

- Provided over 80,000 hours of training for all types of employees

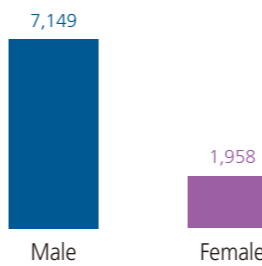
Adopting Good Employee Management

Upholding China Overseas' human resources mission of "To Assemble the Enterprising Ones and Motivate the Promising Ones", the Group has formulated human resources management policies and systems, which are implemented by the Human Resources Department. The Group provides competitive remuneration packages and employee benefits, regularly reviews the remuneration system, establishes a talent echelon, implements assessment and incentives, and builds a talent pool. As of 31 December 2020, a total of 9,107 employees⁵ were employed, all of whom were full-time employees. The chart below shows the statistical distribution of employees.

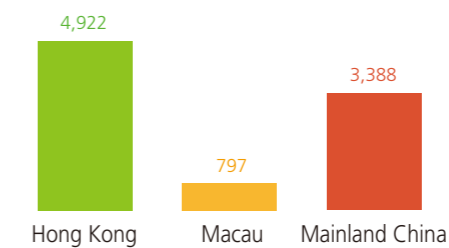
⁵ Only employees within the reporting boundary are included. Employees of CSCD are not counted.

Employee related statistics

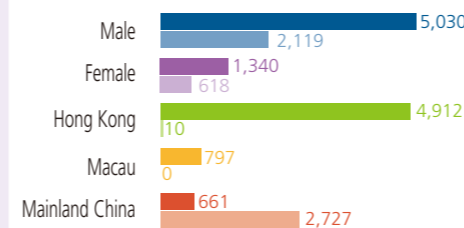
By gender



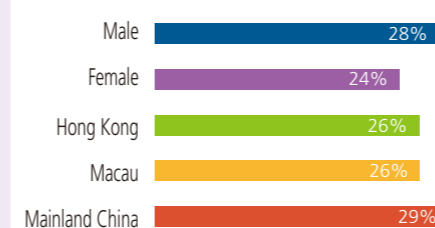
By region



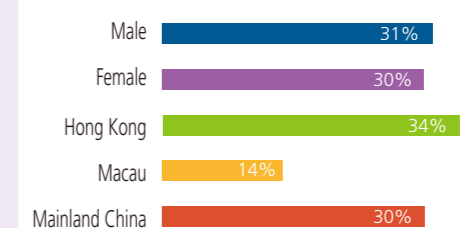
By employment contract



Rate of new hires



Rate of employee turnover



■ ■ ■ ■ Unlimited term/permanent
■ ■ ■ ■ Fixed term/temporary



SOCIAL RESPONSIBILITY

The Group concludes employment contracts with its employees that comply with the laws of the places of operation. The rights and responsibilities of employees are also set out in the Employee Handbook, which stipulates employees' salaries, working hours, holidays and benefits. In addition to a basic salary and statutory entitlements, the Group provides employees with various leaves such as paid annual leave, wedding leave, bereavement leave, examination leave and birthday leave, as well as benefits such as travel allowance, relocation allowance, marriage vouchers and long service awards. It also pays for five social insurances and one housing provident fund for mainland employees. Besides, professional qualification subsidies, employee canteen or meal subsidies, and corporate annuities are provided.

Through a variety of channels, the Group maintains communication and builds mutual trust with its employees, such as organising team building and employee care activities. It also publishes internal newsletters to keep employees up-to-date with the latest developments of the Group, strengthen their cohesion and enhance their sense of belonging, thus building a united and efficient collaborative team.

The principal laws and regulations relating to the Group's employment management include the Labour Law of the People's Republic of China, the Labour Contract Law of the People's Republic of China, the Employment Ordinance of Hong Kong and the Labour Relations Law of Macau. The Group complies with the relevant laws and regulations and has established appropriate procedures in the recruitment process, including the examination of candidates' identity cards and other supporting documents to prevent wrongful recruitment of child labour, and the confirmation of the willingness of candidates to work in order to eliminate forced labour. During the Reporting Year, no cases of violation of the law relating to employment were identified. The Group regularly reviews its risk management and internal control systems to ensure that effective measures are in place to avoid employment risks such as child labour, forced labour and discrimination.

Considering the large number of subcontractors involved in the construction industry, the Group is committed to protecting the rights and interests of the workers concerned. It has Labour Officers at construction sites to handle labour relations matters, including receiving workers' complaints, maintaining workers' attendance records in the registration system, proactively following up on subcontractors' wages, and managing and monitoring subcontractors' labour rights. Statements are posted at conspicuous locations on the construction sites listing the complaint channels to ensure that workers are aware of their rights and access to assistance.

Attracting Talented People

The diverse and inclusive culture of the Group, which respects the different characteristics and backgrounds of individuals, has attracted and brought together many talented people, helping the Group to better understand and meet challenges and build competitive advantages. The Group has established an Anti-discrimination and Anti-harassment Policy to guide the behaviour of employees and eliminate all kinds of discrimination or harassment in the workplace. Uniform selection criteria are followed to provide equal opportunities in recruitment, promotion, training, dismissal and employment conditions. No differences in personnel decisions or treatment based on race, disability, gender, marital status, pregnancy or family status will be tolerated. The policy also includes definitions and examples of harassment, as well as ways to file complaints and handle them if an employee experiences discrimination or harassment.

The Group recruits extensively through various channels, such as job boards, media, job fairs, online platforms, headhunters and campus recruitment. When recruiting, the educational background, experience, skills, professional qualifications of candidates and job requirements are taken into consideration. Competitive salaries and benefits are set based on the above criteria and the level of responsibilities of the positions, and then reviewed and adjusted based on the performance, length of service and the Group's business in an effort to retain talent. The Group regularly evaluates the performance of its employees. Performance-based bonuses and other rewards are provided based on the evaluation results to encourage employees to make positive contributions to the Group.

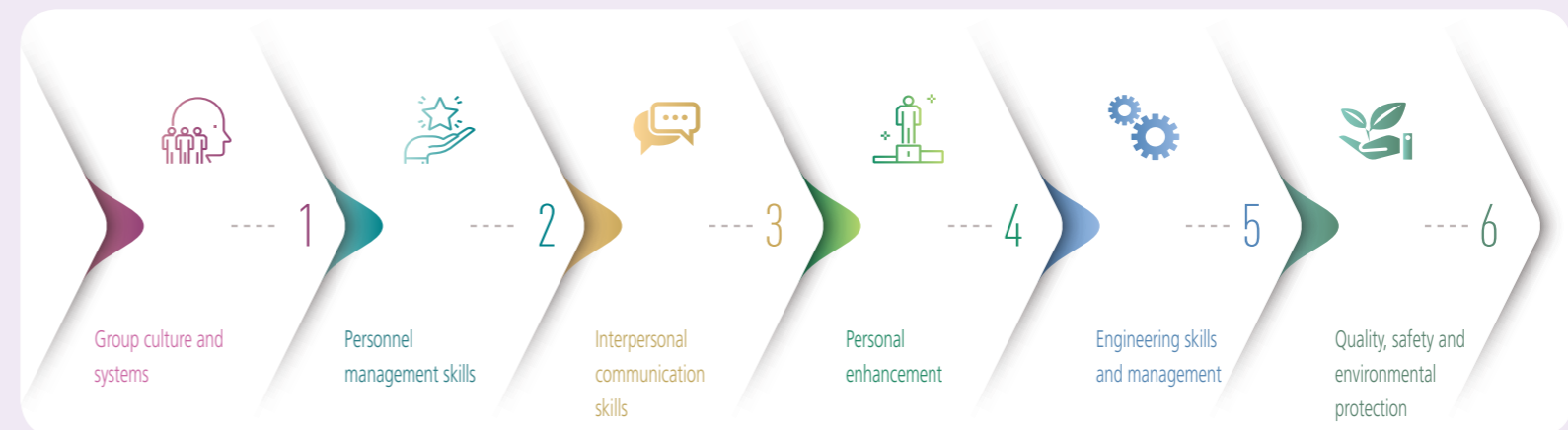
When developing business in new regions, the Group not only deploys management staff, but also focuses on recruiting talents locally to provide employment and development opportunities for local people and promote the development of the local economy, so that the local community can grow together with the Group's business. It maintains ties with universities in the regions where it operates and hires fresh graduates through campus recruitment every year to assist in local employment.

Facilitating Employees' Development

The increasingly sophisticated social developments are constantly changing the business environment. Except for attracting external talents, enterprises should also pay attention to the cultivation of internal talents and improve the professional skills and competitiveness of employees, so as to keep pace with the times and meet opportunities and challenges in the future. The Group cares about the development of its employees and actively implements talent cultivation plans to establish talent pools and echelons. By closely integrating the personal growth of employees with the Group's business expansion, it strives to enhance employees' sense of identity and belonging.

The Group formulates policy documents such as Employee Handbook, Training Manual, Human Resources Management Policy and Training Work Procedures to explain the purpose and role of training and set out the requirements for internal and external training. Employees may apply to the Group for tuition assistance for external training in accordance with the relevant requirements. The Group has also established an education subsidy for employees who wish to obtain a job-related diploma or degree.

With regard to internal training, the Human Resources Department is responsible for investigating training needs, formulating annual training plans and coordinating their implementation. The training plan is developed based on the Group's development needs, employee assessments and questionnaires, combined with senior management's discussions and Human Resources Department's observation and analysis, and is centred on the following six main categories. (infographic)



This is a reflection of the fact that in addition to engineering specialities, the Group offers management and other soft skills courses for its employees to equip them for all-round development.



SOCIAL RESPONSIBILITY

The Group participates in China Overseas' talent attraction and training programs, such as Haina professional recruitment program and Haizhizi Graduate recruitment program. The Haizhizi Graduate recruitment program provides campus recruits with a comprehensive assessment and development program that trains them in four phases on a variety of qualities. The program lasts three to four years and develops participants into key individuals capable of assuming significant responsibilities in the front line and achieving personal career development. Over the years, this program has trained many managers at different levels for the Group, some of whom have been promoted to management positions in main subsidiaries.

In 2020, CSC HK continued to promote the "Talent Pool Scheme", completing the review and introduction of 130 talents in 3 professional lines of engineering management, construction and equipment, and quantity surveying. It identified and trained key talents, and carried out more than 100 training programs for high-end talents, including English speech training and leadership training.

Besides the above training programmes, the Group has also been participating in the Scheme "A" Trainee Engineer Training Scheme registered by the Hong Kong Institution of Engineers, the Apprenticeship Training Scheme of the Vocational Training Council and the Hong Kong Construction Institute Collaborative Training Scheme to nurture talents with professional knowledge and skills, and to cope with the shortage and ageing of talents of the construction industry in Hong Kong.

Located in Kwun Tong, Hong Kong, the Group's training centre is over 4,000 square feet in size and is equipped with professional audio-visual systems and equipment to accommodate over 200 people, providing a good and comfortable environment for holding various training and conferences.



SOCIAL RESPONSIBILITY

Related Case 1



Distributing children's masks to employees' families to protect their health

Epidemic prevention materials were once very scarce in the initial stage of the pandemic. The Group has always cared for its employees and attached great importance to protecting the well-being of them and their families. Therefore, recognising the difficulties of employees in purchasing supplies, the Group has organised several campaigns to purchase and distribute epidemic prevention materials, providing employees with masks and disinfectant alcohol. After the supply of materials stabilised, masks were also handed out to employees every week to protect their hygiene and health.

Related Case 2

Concerned about the physical and mental health of construction workers, the Group strives to improve the working environment of construction sites and provide rest spaces for workers. For some construction sites with erratic working hours and remote locations, it provides three meals a day and even late-night snacks, as well as transportation.

In August 2020, CSHK launched the “Refreshing summertime, Fighting Pandemic with Love” campaign at 35 construction sites to promote information on epidemic prevention among workers and distribute cool drinks and fruits to relieve their work fatigue.



Handing out refreshing beverage at construction sites in Macau



Watermelon Day at construction sites in Macau



Distributing herbal tea and fruits at the Infrastructure Works for Public Housing Developments at Tuen Mun site and the Hong Kong Organic Waste Recycling Centre site.



SOCIAL RESPONSIBILITY



Related Case 3

The Human Resources Department visits the site regularly to have direct dialogue with employees, to understand and listen to them, and to express care and concern. The Group also organises team building activities, birthday parties, ball games and other recreational activities for construction sites. In the case of the Temporary Hospital project, for example, a weekly visit was made to the site to hold meetings with the management team and to organise team building activities and mindfulness-based stress reduction ("MBSR") events for employees to participate in.



Team building activity at the Central Kowloon Route site in Hong Kong



Birthday party held on a construction site in Macau



Mid-Autumn Festival activity at a construction site in Macau



Related Case 4

Owing to the immigration restrictions and quarantine in Hong Kong and Macau, Hong Kong employees stationed in Macau have been unable to reunite with their families for a long time. Therefore, after the Dragon Boat Festival in 2020, the Group sent care letters and gift packs to the families of these employees to thank them for their dedication and express care and warmth.



Related Case 5

CSC Macau has long been rooted in Macau and has made it its mission to build and serve Macau. After the outbreak, various countries and regions adopted quarantine measures, causing great damage to Macau's tourism and gaming-related industries. In view of this, CSC Macau has made efforts to enhance the recruitment of local employees by offering jobs to Macau residents through various channels. It recruited nearly 300 unemployed local workers throughout the year, increasing labour costs by approximately \$50 million, while its subcontractors recruited over 700 local employees to work at CSC Macau's construction sites. In addition to professional jobs related to the construction industry, these include administrative, labour relations and safety personnel at all levels, as well as site clerks, supervisors, drivers and workers for various processes. The Group has demonstrated its sense of responsibility as a state-owned enterprise and fulfils its social responsibility by helping re-employment.



Attendance of newly hired employees and workers in training



SOCIAL RESPONSIBILITY

Related Case 6

International Women's Day in 2020 coincided with the special period of the pandemic. Without group gathering activities, Fujian Company held a cooking contest online to enrich the spiritual and cultural life of the company's female employees.



Related Case 8

Miss Liu Yan, a toll collector of Shanxi Company, was awarded the title of "China's Most Beautiful Road Toll Collector". Her outstanding business performance made her stand out among tens of thousands of toll collectors on 76 expressways in Shanxi Province. She won this award with the fastest average release in the province and the lowest average error rate for four consecutive years. In the first half of 2020, the youth league branch of Shanxi Company focused on Liu Yan's deeds to establish the example and leading role of outstanding youth, so as to inspire the enthusiasm of young employees to be diligent and motivated in their posts.



Related Case 7

Zhejiang Company carried out the "May 4 Youth Day, Running in Zhejiang" team activity in late April 2020, where employees formed a 10-member team to complete the 54-kilometre relay run challenge. On April 28, representatives of young employees gathered on the banks of Qiantang River and poured the water of this mother river into the "CSCEC" style container, dedicating the water of Zhejiang to the leaders and all employees of the Group.



SOCIAL RESPONSIBILITY

Pledging to Quality Construction



1

Significance to the Group:

Buildings and infrastructures support human life in various aspects, including housing, work and travel. They have a service life of tens or even hundreds of years. As society develops, so do expectations and demands for construction quality. The construction industry consists of lengthy and complex processes with a long supply chain, which poses a management challenge. In line with the principle of "Good Quality and Value Creation", the Group continues to establish a quality management system to make users life better through first-class construction quality.



2

Material issues:

Quality management and after-sales service, Health and safety of customer and public



3

Performance highlights:

- Strengthen quality control through the use of new construction technologies, such as MiC and Smart Construction Site technology

Maintaining Robust Quality Management

The quality of construction has always been a top priority for the Group in order to demonstrate the Group's excellent brand image in the industry. Many of the Group's subsidiaries, including CSHK and its major subsidiaries, CSC Macau and some prefabricated construction companies, have obtained the international standard ISO 9001:2015 Quality Management System certification. With the management policy of "alright for one time, alright for all times", the Group conducts regular internal audits to monitor quality performance, proposes improvement measures and continuously improves its quality management processes. Besides, the Human Resources Department organises quality management training for new employees to ensure they are familiar with the Group's quality management system and related work procedures.

Subsidiaries that achieved ISO 9001:2015 certification in 2020:

- | | |
|--|---|
| • --> CSHK | • --> CSC Macau |
| • --> China Overseas Building Construction Limited | • --> China State Mechanical & Electrical Engineering Limited |
| • --> China State Civil Engineering Limited | • --> Alchmex International Construction Limited |
| • --> China State Foundation Engineering Limited | • --> Treasure Construction Engineering Limited |
| • --> Guangdong Hailong Construction Technology Company Limited | • --> Anhui Hailong Construction Technology Company Limited |
| • --> Shangdong Hailong Construction Technology Company Limited | • --> China Overseas Construction Company Limited |
| • --> China State Construction International Engineering Limited | |

At CSHK, a Quality Management Work Team is responsible for recommending quality management policies and measures to senior management, preparing and reviewing annual quality audit plans and work, thereby improving the management systems and quality performance, whereas the Quality and Technical Department is responsible for quality management and control, implementation of CSHK's quality policies and management systems, and collection, compilation and analysis of quality information from the sites. The Chief Engineer of each unit is also the Quality Director to ensure the centrality of quality management in operation. Each site has a Quality Control Group, where the Site Manager works with the Quality Manager or Quality Engineer to implement monitoring on-site.

CSHK has formulated institutional documents such as Quality Management Manual and Standard Working Procedures that include bidding management, contract management, material procurement, construction management, project planning, accident notification and other quality-related contents. At the same time, the Construction Key Process Quality Monitoring Procedures has been formulated, which put forward specific construction requirements and inspection contents for each key process such as housing, civil, foundation and electromechanical works. This enables on-site workers, site managers, as well as internal auditors of the Quality and Technical Department, to conduct triple inspections and audits to strengthen quality control, improve on-site management and eliminate major quality accidents.

The Quality Management Manual includes the following.

- Guidelines for the formulation of leadership commitment, quality policies, management targets and indicators
- Requirements for developing a Project Management Scheme for each project, and requirements of its content and update
- Guidelines for providing adequate resources for the quality management system, including requirements for personnel, facilities, monitoring and measurement equipment
- Requirements for project management, including requirements and procedures for all phases of project planning and control, construction requirements, design and development, procurement, subcontracting, other outsourcing management, construction and service delivery, product delivery, nonconformity control, etc.
- Performance reviews, including analysis and assessment of effectiveness and requirements of internal audit
- Continuous improvement and corrective measures



SOCIAL RESPONSIBILITY

Through the Construction Site Quality Accident Report and Follow Up Work Procedures, CSHK classified quality incidents into three levels: minor, general and serious. The document has established definitions, examples and notification mechanisms and processes for each level to standardise the remediation and correction of accidents. In doing so, CSHK wants to ensure that its quality rating is better than its peers and increase customer satisfaction. It also provides expeditious planning for emergency responses to prevent the worsening of the situation and avoid affecting the corporate image and reputation or causing financial loss.

In the case of material procurement and construction operations, CSHK has established work procedures to perform acceptance check and monitor quality. By strictly monitoring non-conformities, it marks, records, evaluates and handles the issues and notifies relevant parties such as suppliers or subcontractors. A non-conformance report will be issued, evaluating the cause of the non-conformance with a drafted solution. If the same nonconformity occurs regularly, the site has to determine the cause, review procedures, and develop methods to reduce and prevent similar occurrences.

The quality management system of CSC Macau includes three levels of documents, namely Quality Manual, Procedure Documents and Work Instructions. CSC Macau conducts internal audits of the quality management system at least once a year to examine whether each department, site and management meet the relevant requirements. This allows CSC Macau to identify problems and analyse the causes in a timely manner, take corrective and preventive measures, and supervise its implementation to ensure the continued effective operation and improvement of the management system. Its annual assessment of the quality management system ensures the suitability and adequacy of the system. A third-party certification centre is also engaged to conduct external audits of the system to ensure that the system complies with laws and regulations, is capable to meet contractual requirements, and can reasonably be expected to achieve the stated targets, identifying potential areas for improvement.

The content of quality management audit includes control processes such as inspection and acceptance check, quality control certification, problem rectification and re-inspection, as well as quality targets, members' roles and responsibilities, team organisation design, project audit and inspection, procurement and subcontract selection management, drawing approval, complaint and customer satisfaction survey, personnel training records, etc.

Comprehensive management assessment is implemented at the construction sites of CSHK and CSC Macau. The quality, safety and environmental protection of each site are evaluated regularly. A red and yellow card system is implemented to warn the sites and their managers for poor performance, and rewards are given to sites with excellent performance. At the same time, CSCIL has established the Project Management Policy, which stipulates the management structure and responsibilities of each department and position, and sets out work requirements and procedures for contractors, contracts and costs, project progress, quality and technology, safety and environmental protection, etc.

The principal laws and regulations relevant to the Group's business include the Construction Law of the People's Republic of China, the Buildings Ordinance of Hong Kong and the General Regulation of Urban Construction of Macau. During the Reporting Year, no cases of violation of the law relating to the Group's responsibility for its products and services were identified. Requirements to ensure the safety and health of clients and building users are included in the relevant legislations and contract terms. The Group is committed to carrying out works in accordance with these requirements and integrating them into its quality control procedures. At the same time, clients conduct acceptance check on the building according to its standards and procedures to ensure safety compliance. The Group also works closely with its clients to gather their feedback. Besides, construction projects are generally subjected to a maintenance period that provides for follow-up services after project handover.

Managing Supply Chain

The Group's business requires close collaboration with many suppliers and subcontractors whose participation is essential to its sustainability. In 2020, the Group had 1,498 suppliers, who were contracted for projects or subcontracted processes to provide a wide range of construction materials, including concrete, steel, finishing materials, site equipment, plant equipment and fuel, as well as a variety of services such as labour, design, security and consulting.

Each supplier is subject to the Group's established management procedures. CSHK's Standard Working Procedures include Procedures for Material Procurement, Construction Management, Testing and Experiment Work Procedures and Project Management Scheme Planning Guidelines. These documents cover management matters relating to suppliers and subcontractors. Regular management meetings are held on-site to report on the performance of subcontractors and suppliers to evaluate the quality of subcontractors and material suppliers and submit regular evaluation reports.

To improve the sustainability of its supply chain, CSHK has updated its Procurement Policy and Supplier's Code of Conduct in recent years to manage and enhance cooperation with environmentally conscious suppliers.

CSHK's Procurement Policy states that

- --> Prioritising suppliers with good business ethics and integrity and fulfil their corporate social responsibility
- --> Preferring the procurement of nearby and environmentally friendly materials, and ordering on demand to reduce resource waste and carbon emissions
- --> Establishing a list of approved suppliers, maintaining long-term cooperative relationships with suppliers, and centralising procurement to improve market competitiveness
- --> Improving the transparency and credibility of procurement, and comparing suppliers to ensure low price and good quality materials
- --> Regularly monitoring and inspecting the use and management of site materials, integrating procurement with site management to effectively implement procurement policies



SOCIAL RESPONSIBILITY

CSHK's suppliers must comply with the Supplier's Code of Conduct, which states that

- ---> Complying with Hong Kong laws to prohibit the use of child or forced labour
- ---> Providing excellent services and high quality products
- ---> Fulfilling corporate social responsibility, protecting the rights and equal opportunities of employees, emphasising a culture of integrity, and maintaining fair competition
- ---> Managing and monitoring upstream suppliers and manufacturers to ensure quality and on-time delivery of goods and complying with Hong Kong laws
- ---> Preferring procurement of neighbouring environmentally friendly materials and supplying goods on demand to reduce resource waste and carbon emissions
- ---> Complying with CSHK's quality policy, safety and health policy, environmental policy and energy policy, etc.

CSHK assesses and updates qualified suppliers annually and conducts inspections of key suppliers. The Procedures for Material Procurement outlines the procedures to select the right suppliers and products by taking into account safety, health and environmental considerations.

Management of Supplier List



Assessment of suppliers for inclusion

Evaluation of potential suppliers based on quality, safety, health and environmental protection based on their capabilities, reputation and past service performance.



Periodic assessment of suppliers

Sites and the Resources Department fill out and summarise supplier evaluation forms each year, through the five elements of quality, punctuality, service, safety and environmental protection (plus the rating of mechanical and electrical engineering suppliers by the Mechanical and Electrical Department), which classify the suppliers into four grades according to their ratings.



Update the list of suppliers

The list of suppliers is reviewed and updated annually by the Resources Department based on the previous year's performance and is signed by its General Manager.

Depending on opinions from the sites and relevant departments, CSHK will determine the action to be taken against underperformed suppliers, including the issuance of a written warning letter, suspension from bidding, or removal from the approved list. Suspended suppliers will only be considered for reinstatement after a sanction period, and suppliers will have to explain their improvement, assurance measures and monitoring methods.

In CSC Macau, there is a Subcontractor Sourcing Decision Committee, where senior management evaluates and reviews subcontractors and suppliers. They are evaluated for quality, safety, health and environmental performance before included in the list of suppliers. The Group gives preference to suppliers with outstanding ESG performance or ISO14001 Environmental Management System and OHSAS18001/ISO45001 Occupational Safety Management System, aiming to work with these partners to build a sustainable future.



Related Case



The Group has been encouraging its suppliers and subcontractors to improve their environmental performance. In 2020, CSHK actively promoted the Hong Kong Awards for Environmental Excellence ("HKAEE") and encouraged its business partners of the APM and BHS Tunnels on Existing Airport Island to enter the awards competition, joining the ranks of environmental protection. It was selected as the Outstanding HKAEE Promotional Partners.



SOCIAL RESPONSIBILITY

Leading in Technology Development



1

Significance to the Group:

With the rapid technological developments, the construction industry has accelerated the application of various innovative technologies in recent years, which can improve efficiency and strengthen management. MiC is increasingly popular in Hong Kong, Macau and the Mainland, and will soon bring significant innovations to the construction industry. In the face of the changing market environment, companies must keep pace with the times and take the initiative to explore and develop new ideas in technology in order to take the lead in the industry competition.



2

Material issues:

Innovative technologies and their applications



3

Performance highlights:

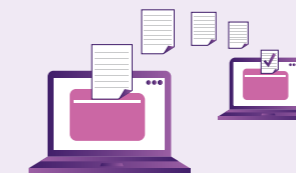
- The Group constructed the first negative pressure infectious disease hospital in the world with MiC technology.
- Collated and summarised the Group's "1+6" core technology system. "1" — international general contract (EPC) management system, "6" — 6 core technologies⁶

⁶ The six core technologies are: key technology of composite glass curtain wall manufacturing and construction, key technology of international standard hospital construction, key technology of international standard hotel construction, key technology of urban tunnel crossing and immersed tunnel, key technology of prefabricated construction, and key technology of environmental protection engineering construction and operation.

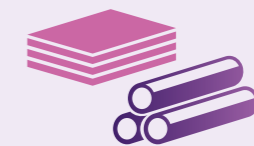
A Technology Management Scheme has been formulated to explain the related work, improve the management system and organisational structure, standardise the policies in various aspects such as technology development

planning, work plan, assessment and reward, outcome management, etc. It has increased the investment and incentive in research and development to enhance the core competitiveness of the Group.

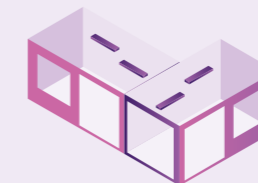
Acknowledging that technological innovation will widely penetrate and be deeply integrated into all aspects of society, the Group takes innovation as the core driving force of corporate development. It adheres to the development concept of "innovation, harmonisation, green, openness and sharing", and adopts the policy of "Sticking to Development, Deepening Reform, Independent Innovation and Intensifying Incentives" to implement the following technology management work.



Establishing an exchange platform and cooperating with domestic and foreign universities and research institutions to develop new technologies and their applications



Learning, introducing, mastering and promoting new technologies, new processes, new materials, new equipment, etc., and reinventing them



Adopting new technologies for piloting and creating innovative demonstration projects to establish and form complete sets of engineering technologies in related fields



Implementing technical standards and construction method management to standardise design and construction

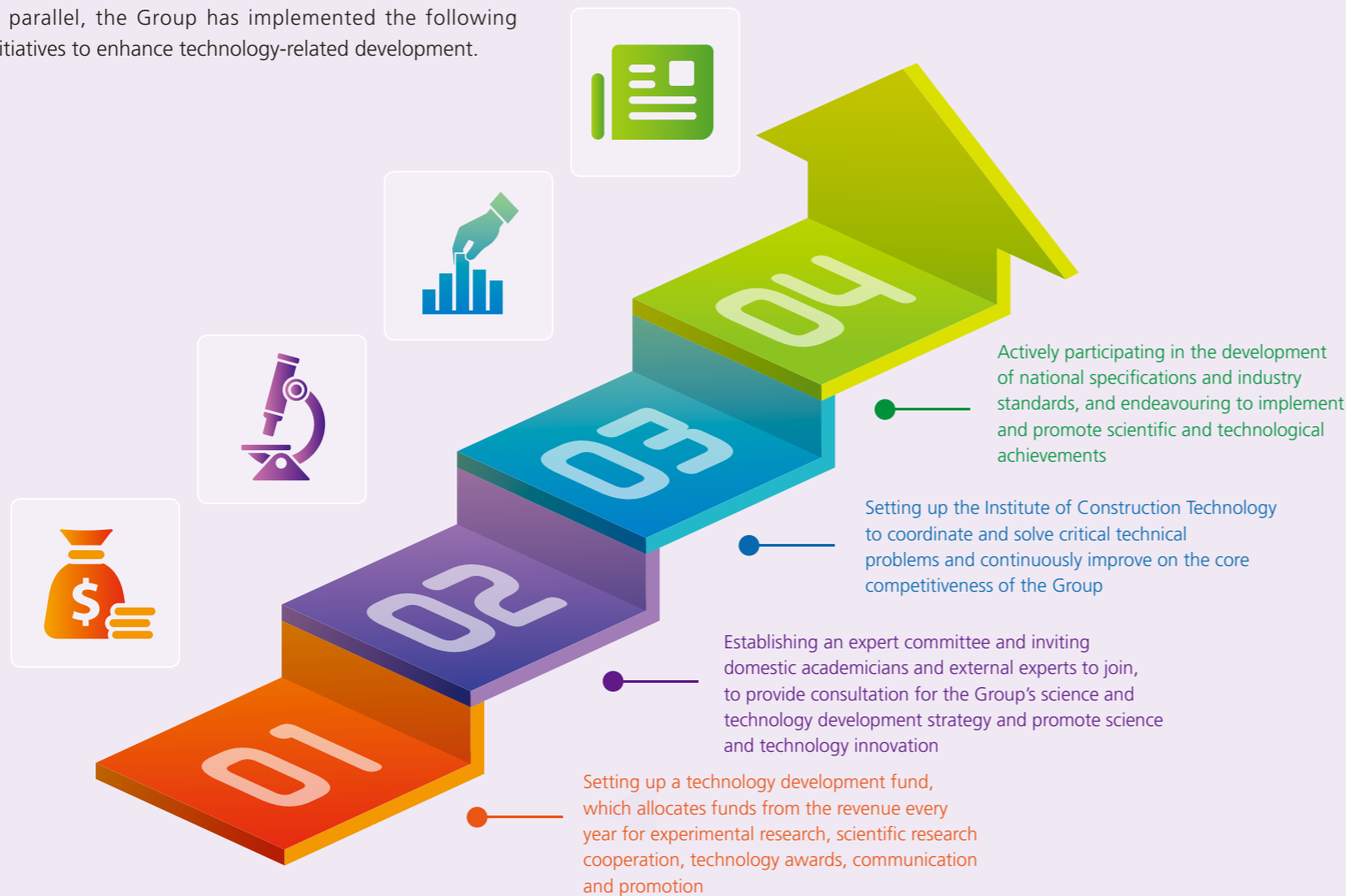
In the end, technological advancements will provide ground to the business expansion of the Group.



SOCIAL RESPONSIBILITY

A Technology Innovation Leading Group, composed of the Group's top management, is responsible for formulating technology development strategies and guidelines, which are then implemented by the Technology Management Committee, while the Technology Management Department is responsible for the day-to-day work. Every year, the Group prepares an annual innovation project plan and sets up a budget for this purpose, allowing subsidiaries to propose technology needs and topics and initiate research after approval. According to the research and development progress, each project team summarises and validates the innovation results in various stages for acceptance. The Group will reward outstanding projects and selects them to participate in external technology awards.

In parallel, the Group has implemented the following initiatives to enhance technology-related development.



The Technology Management Scheme has also set out the structure and procedures, formats and indicators of the appraisals to assess and review the effectiveness of the technology related works of each department and subsidiary on an annual basis.



Related Case 1



The Group is committed to promoting the application of MiC technology in more construction projects. For example, public school projects in Hong Kong and Shenzhen have incorporated MiC architectural elements. A secondary school construction project in the Development at Anderson Road in Kwun Tong, Hong Kong, is the first pilot project of the Hong Kong Architectural Services Department to use MiC in a school project. Some of the structural, E&M components and finishes of the building units, such as wood cabinets and aluminium windows, were prefabricated at the factory, delivered to the site and then assembled. The pilot project established relevant project specifications that can be used for the design, construction, inspection and acceptance check of similar MiC buildings in the future. At the same time, the project introduced relevant techniques as professional guidelines for factory inspection and acceptance in mainland China.



SOCIAL RESPONSIBILITY



Related Case 2

The Group has established a smart construction site platform with increasingly mature and comprehensive technology for construction projects. The one-stop platform collects data from all aspects of the construction sites, including facial and license plate recognition at the entrance gates, wireless video surveillance, and environmental monitoring. It integrates information technologies such as spatial positioning, Internet of Things, big data, cloud computing, artificial intelligence and mobile devices to achieve real-time data integration and analysis, trend prediction and early warning for project overview, personnel management, construction progress, quality management and safety management. It also provides data support for project decision-making, proposes intelligent solutions to problems and improves work efficiency.



A smart construction site platform for Temporary Hospital



A smart construction site platform for Macau Cotai Healthcare Complex

With the use of Augmented Reality ("AR") technology for mobile devices, the Group can display BIM models in detail at the construction sites, supporting various tasks such as inspection and acceptance of prefabricated components, problem identification and remediation of finishes, inspection of E&M installations and future maintenance.



The Group's use of virtual reality ("VR") technology facilitates project design by allowing designers and engineers to connect to the same model in different locations. VR enables them to see real design effects in virtual space, discuss and make real-time changes, or compare multiple options.



The Group developed a real-time worker monitoring system, with sensors on the helmets. It uses Bluetooth technology to monitor and automatically record the distribution and duration of workers in various areas of the construction sites, helping to manage, analyse and deploy workers on-site and report on their performance. It was used to monitor the number of workers in each area of the construction site during the peak of the outbreak to avoid excessive gathering of workers and control the risk of infection. In case a worker is diagnosed, it can also help track his or her close contacts, isolate relevant personnel and identify key work areas for disinfection.



Scan the QR code to watch a video introducing the application of BIM and DfMA in the Temporary Hospital project

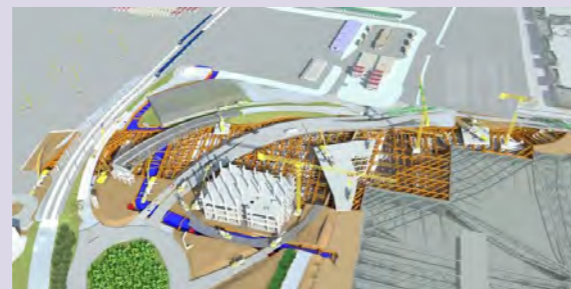


SOCIAL RESPONSIBILITY

Related Case 3

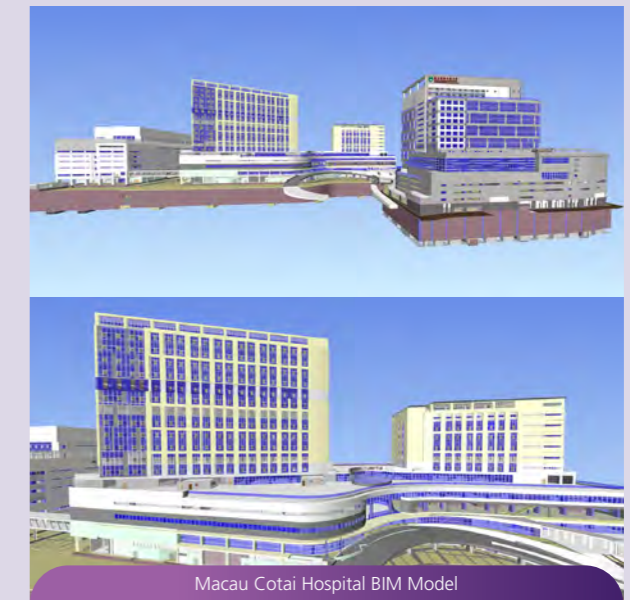
At the "Celebration of BIM Achievement 2020" held by the Construction Industry Council, CSHK's APM and BHS Tunnel on Existing Airport Island, Tseung Kwan O Desalination Plant Stage I, and Relocation of Sha Tin Sewage Treatment Works to Caverns were recognised as "BIM Projects 2020". The Group's innovative contribution and achievements in the adoption of building information modelling were recognised by the industry when it took up three out of the ten BIM Projects.

For years, the Group has been promoting and developing BIM. During the year, it established a "BIM Centre" to train employees at all levels in order to build an internal talent echelon and fully implement BIM technology at sites. The Group will continue to promote BIM and other technologies and integrate them with other technology solutions to promote the use of digital technology.



Related Case 4

CSC Macau won the tender for the Construction of the Main Structures of the Cotai Healthcare Complex (the "Cotai Hospital"). With the decision of adopting high technology such as BIM to overcome the difficulties of the project, deepen the design and guide the construction, CSC Macau quickly set up a professional team to establish and integrate relevant architectural, structural and electromechanical models. Through 3D modelling, all parties involved in the project can have a more intuitive and profound understanding of the design intent and construction difficulties, and detect design problems and collision conflicts at an early stage, thus improving the quality of the project. BIM enables multi-disciplinary online collaborative design and operation, reducing file transfer and improving design efficiency. It can also simulate the construction schedule and approach to help arrange and optimise the construction plan. By breaking through paper-based technical briefings, BIM improves communication and construction management efficiency with 3D visualisation. The effective application of BIM technology in the Cotai Hospital has been recognised by the industry and received the Grand Award (Offshore Category) at the Hong Kong Institute of Building Information Modelling Award 2020.

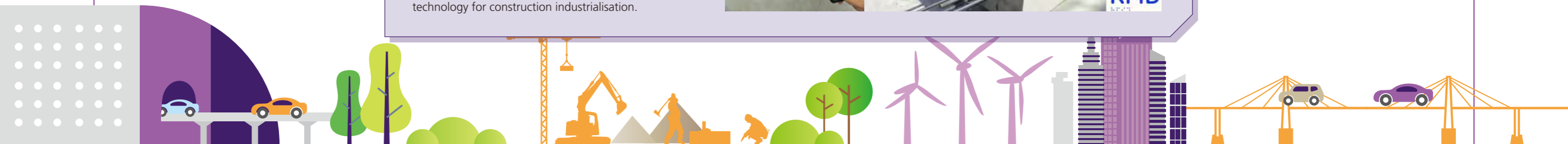


Macau Cotai Hospital BIM Model

Related Case 5

The Radio Frequency Identification ("RFID") technology

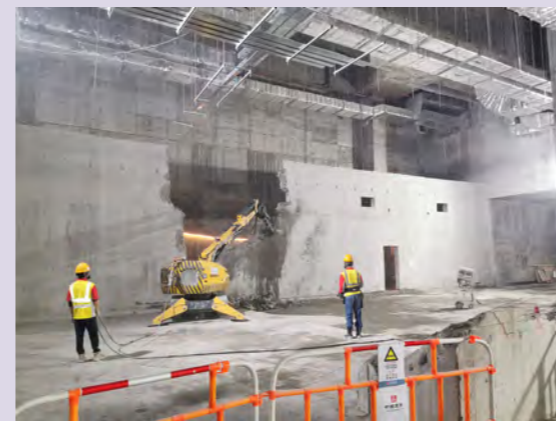
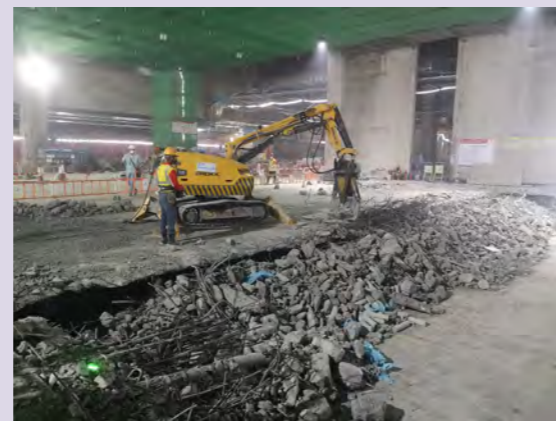
Due to the difficulty of identifying prefabricated components and MiC building components by appearance alone, it is necessary to adopt technological solutions to record component information and coordinate the work of different personnel in different geographic areas and times. RFID technology does not require direct contact or imaging, and can penetrate the coverings and the components themselves. It is easy to read and durable, making it suitable for component identification. The technology can be applied to the whole life cycle of component, from production, inspection, shipment, transportation to installation and consequently improve the management efficiency, making it an important technology for construction industrialisation.



SOCIAL RESPONSIBILITY

Related Case 6

CSC Macau has actively adopted new technologies to assist in construction projects. Mechanisation in the construction industry has ensured quality construction, increased efficiency, and greatly improved safety and reduced the burden on workers. Plastering machines and remote-controlled wall demolition machines on construction sites assist in the repetitive manual labour process while addressing labour shortages on construction sites.



SOCIAL RESPONSIBILITY

Investing in Community Building



1

Significance to the Group:

The operation of an enterprise relies on society. To fulfil the corporate responsibility, it should give back to the community and participate in public welfare for the benefit of its neighbours. The construction industry has a significant impact on the communities in which it operates. While investments in infrastructure improve the lives of local people and the economy, the construction process also has a negative impact on nearby communities. Therefore, it is necessary to maintain close communication with its neighbours and take their requests into account. The Group seeks to contribute in the most effective way possible, contributing its expertise and capabilities through industry development and participation in public policy.



2

Material Issues:

Community engagement, impact assessment and investment, participation in public policy



3

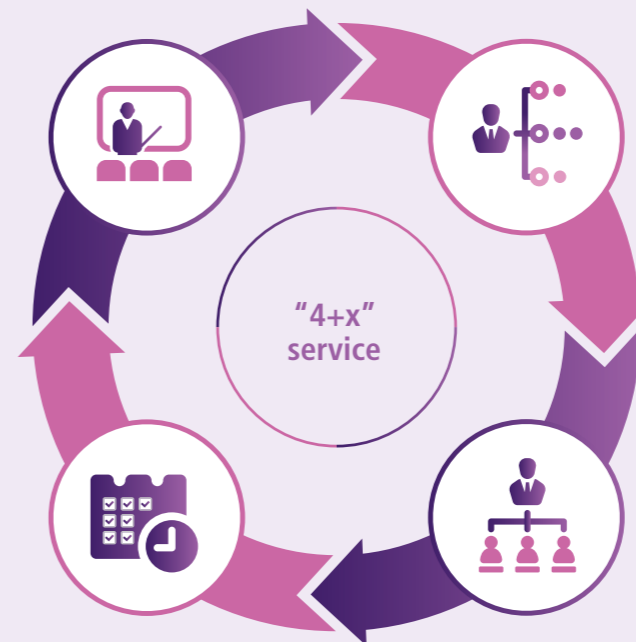
Performance highlights:

- Overachieved the short-term target of 10,000 volunteer hours in 2020

The Group has adopted the following strategies to promote volunteerism:

Cooperating with NGOs who provide training and service opportunities, and leveraging the human resources of the Volunteer Branch

Establishing a volunteer hour recording system and applying external recognition for volunteers who actively serve



Setting up "4+x" service themes to encourage employees to try out various volunteering experiences even proactively identify service needs

Arranging professional training for key members and corporate volunteer training courses for employees to equip them with the management knowledge and skills of large volunteer projects

The Group values the involvement of the surrounding communities in its construction projects, and has developed community involvement plans before the projects begin. It also specified construction hours to minimise disruption to residents' normal working hours. Public relations officers have been arranged at some sites to proactively communicate with nearby residents, local councillors and government departments to build good community relations. Community advisory hotlines were established and contact information was posted outside the sites to gather feedback and ensure that potential problems or impacts were reported and addressed in a timely manner.

To systematically organise community building efforts, the Group has established the CSCI "Caring for the Community" Volunteer Branch (the "Volunteer Branch"). It is led by the management of the Group and CSHK and aims at serving the community by its professions. With the long-term goal of becoming a sizeable and influential charitable organisation in Hong Kong, the Volunteer Branch is responsible for coordinating volunteer activities, exposing employees to the community and caring for society, and eventually building a brand. The Group has adopted the following strategies to promote volunteerism.

The 4 + x" service themes comprised of "Care for the Elderly", "Contribute your Skills", "Care for Teenagers", "Care for your Home" and "Innovative Space". The first four service themes are for the elderly, the unemployed and disadvantaged, youth, and different types of volunteer services such as housing repair, urban development, and environmental protection.

The Group follows the policy of China Overseas to provide up to 4 days of compensatory leave to volunteers. To encourage employees to actively participate in volunteer activities, employees who participate in volunteer services are granted compensatory leave upon application and approval.

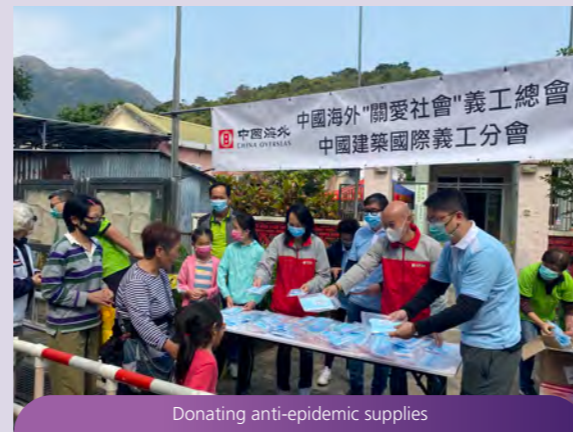
No political donations were made by the Group during the Reporting Year. However, as the Group is a central state-owned enterprise, in addition to taxes paid, the Group's profits are also contributed back to the state and society in the form of dividends. At the same time, the Group maintains close communication with local governments in Hong Kong, Macau and the Mainland, and expresses its professional views to the government on policies related to the construction industry through various industry associations.



SOCIAL RESPONSIBILITY

Related Case 1

The Volunteer Branch contributed to the four service themes and fought against the pandemic in the community in 2020, including masks distribution, anti-epidemic promotion, fundraising flag sales and charity sales, caring supplies distribution, home repairs and beach clean-up services.



Donating anti-epidemic supplies



Distributing food



Scan the QR code to watch a footage of Tai O's repair services



Repairing Pol Lin Monastery squatter huts



Supporting repair services for canopies in Tai O that have been affected by a fire.



Minority activity centre project



SOCIAL RESPONSIBILITY

Related Case 2

CSC Macau assisted the Macau SAR government in purchasing 374,000 masks from overseas to support the SAR's epidemic prevention efforts at a critical time. Through the Macau Chinese Enterprises Association's Special Committee for the Construction of the Sino-Portuguese Platform, it donated epidemic prevention materials to Portuguese-speaking countries, leading 15 member units to donate materials worth HKD 650,000. It also reduced rents for tenants in need by more than HKD 16 million. Employees were recommended to join the Fu Lun Youth Association as directors and to join organisations such as the China Enterprises Department of the Liaison Office of the Central People's Government and the Macau Youth Federation to contribute to the community. CSC Macau also called on its employees to participate in the Macau annual charity event "Walk for Millions" online.



Assisting SAR government to purchase 340,000 masks



Donating epidemic prevention materials to Portuguese-speaking countries



Participating in the Macau charity event "Walk for Millions" online



Employees joining the Fu Lun Youth Association

Related Case 3

The Group organises or co-organises charitable activities in the Mainland to reach out to those in need. In 2020, it organised many volunteer activities, donated epidemic prevention materials, participated in summer flood relief, targeted poverty alleviation, made donations to poor farmers, families in need, the elderly, children and the disabled, and carried out voluntary tree planting, fully demonstrating the Group's social responsibility.

The youth league of Henan Company fulfilled its social responsibility as a state-owned enterprise by carrying out public welfare activities, including the "Luminous Project" to help students in need, investing RMB 22,650 in education for poverty alleviation. It helped 71 poor students in remote areas of Ruyang County, Luoyang City to fulfil their "micro-wishes". It also carried out an activity of "school-enterprise cooperation" and donated RMB 10,000 to poor students in the College of Architecture and Engineering of Shangqiu Normal College.



ENVIRONMENTAL RESPONSIBILITY

Inevitably, the operations and development of an enterprise impact the environment in the locations where it operates and the surrounding areas. In line with its sustainability approach and policy, the Group continues to improve its environmental management system and promotes environmental initiatives and measures. By promoting a business model that reconciles corporate activities with environmental protection, the Group contributes to creating resource-efficient, environmentally friendly and resilient communities.

Striving for a Green Future



1

Significance to the Group:

Nowadays, environmental issues are becoming more and more prominent and are directly affecting the health and well-being of the whole community. It has become an important international trend for companies to embark on a green development path. The construction industry, with its high resource consumption and emissions nature, needs to be transformed rapidly to reduce its environmental impacts and develop sustainable construction in order to achieve the global carbon peak and long-term carbon neutrality goals. The Group is committed to becoming a role model for the construction industry and creating a better environment for the society. At the same time, with increasingly stringent environmental laws and regulations, the Group must strengthen its environmental management to avoid violations of laws and regulations during the construction process, which may adversely affect the Group's reputation and the chance of winning new contracts.



2

Material issues:

Waste, Water and effluents, Materials, Greenhouse gases.



3

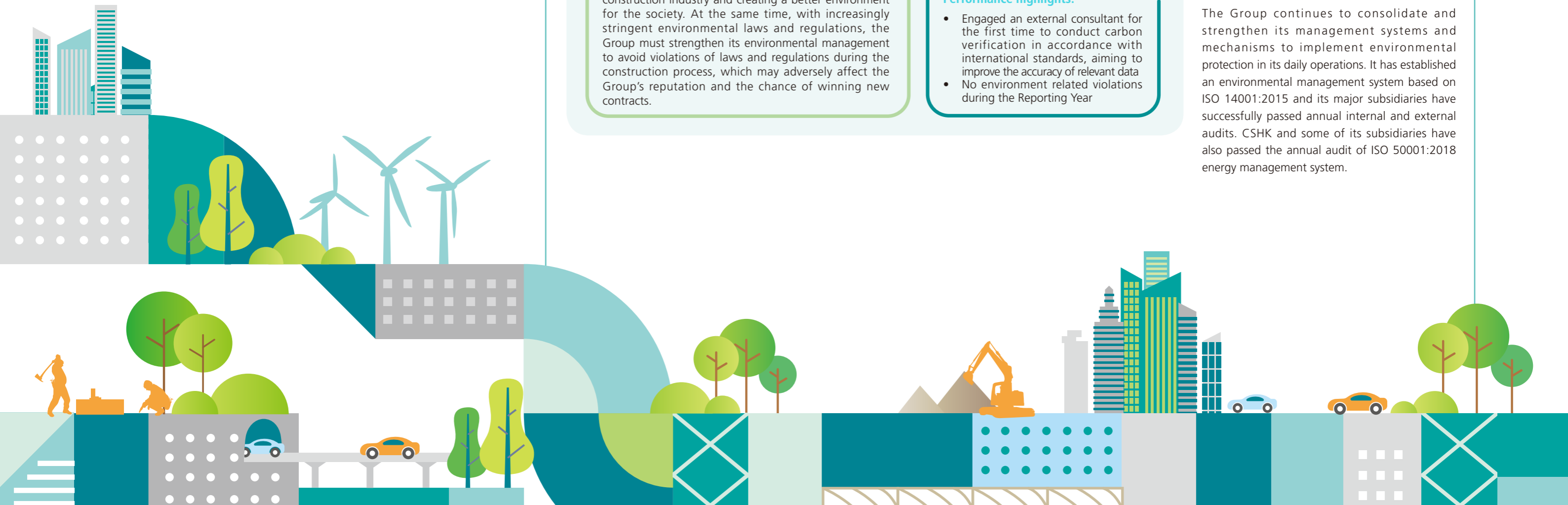
Performance highlights:

- Engaged an external consultant for the first time to conduct carbon verification in accordance with international standards, aiming to improve the accuracy of relevant data
- No environment related violations during the Reporting Year

Environmental Management System

Attaching importance to environmental protection, the Group has established an environmental management system and related standard operating procedures. The Group is committed to complying with environmental laws and regulations, contractual and other relevant requirements in its business operations to prevent pollution and reduce construction waste and natural resource consumption. The Group's Sustainability Policy also stipulates the management of important environmental issues, including emissions treatment, resource usage, natural resource conservation and climate change. It requires all its subsidiaries to understand the environmental characteristics and needs of the regions where they operate in order to establish and implement specific management strategies that are in line with the requirements.

The Group continues to consolidate and strengthen its management systems and mechanisms to implement environmental protection in its daily operations. It has established an environmental management system based on ISO 14001:2015 and its major subsidiaries have successfully passed annual internal and external audits. CSHK and some of its subsidiaries have also passed the annual audit of ISO 50001:2018 energy management system.



ENVIRONMENTAL RESPONSIBILITY

The Safety and Environmental Protection Department of the Group is responsible for environmental management, formulating the Group's annual and long-term environmental plans, reviewing and maintaining the environmental management plans of each project, supervising the implementation of environmental protection measures during the construction process and promoting new environmental protection technologies. The Group implements a construction plan, reviews system and holds review meetings prior to the commencement of construction to ensure that construction plans include appropriate and effective environmental protection measures, such as noise barriers and dust screens, to reduce the impact on the surrounding environment.

The Safety and Environmental Protection Department of CSHK organises daily inspections, night-time surprise inspections and holiday inspections of construction sites to ensure no violations on-site and to avoid prosecution. It sets environmental indicators and targets according to the Environmental Indicators Calculation Guideline and Material Loss Control Operating Procedures based on the nature of the construction projects in CSHK. It also sets resource saving targets for the Hong Kong headquarters, which are reviewed and approved by the Group's Integrated Management Committee.

The 2021 environmental and energy management targets of CSHK sites and offices:

Environmental Management Targets	Environmental Management Indicators in 2020	Environmental Management Indicators in 2021	Environmental Management Targets	Environmental Management Indicators in 2020	Environmental Management Indicators in 2021
Reduce the use of timber at construction sites	Less than 129 cubic metres/revenue of HKD 100 million	Less than 128 cubic metres/revenue of HKD 100 million	Save electricity at offices	1.0% reduction in annual electricity consumption per square metre compared to 2019 (i.e. <115kWh/m ²)	1.0% reduction in annual electricity consumption per square metre compared to 2020 (i.e. <114kWh/m ²)
Reduce the use of paper at construction sites	Less than 350 packs of A4 paper/revenue of HKD 100 million	Less than 350 packs of A4 paper/revenue of HKD 100 million	Reduce the use of paper at offices	Decrease by 3% compared to the average total use in 2017-2019	Decrease by 3% compared to the average total use in 2018-2020
Save water at construction sites	Less than HKD 58,000/revenue of HKD 100 million at general construction sites; less than HKD 630,000/revenue of HKD 100 million at mill pile construction sites	Less than HKD 58,000/revenue of HKD 100 million at general construction sites; less than HKD 620,000/revenue of HKD 100 million at mill pile construction sites	Recycle and reuse computers and equipment	Recycle all computers, monitors, hard disks and other accessories, and printer toner cartridges	Recycle all computers, monitors, hard disks and other accessories, and printer toner cartridges
Save electricity at construction sites	Less than HKD 220,000/revenue of HKD 100 million	Less than HKD 210,000/revenue of HKD 100 million	Recycle waste paper	Recycle all used and old paper	Recycle all used and old paper
Reduce wastage of concrete	Less than 2.0% at general construction sites; less than 6.0% at mill pile construction sites	Less than 1.5% at general construction sites; less than 5.5% at mill pile construction sites	Energy Management Targets	Energy Management Indicators in 2020	Energy Management Indicators in 2021
Reduce wastage of reinforcement bars	Less than 4.5% at housing construction sites; less than 3.0% at civil construction sites; less than 4.0% at foundation construction sites	Less than 3.8% at housing construction sites; less than 2.3% at civil construction sites; less than 3.3% at foundation construction sites	Save electricity at head office	1.0% reduction in annual electricity consumption per square metre compared to 2019 (i.e. <115kWh/m ²)	1.0% reduction in annual electricity consumption per square metre compared to 2020 (i.e. <114kWh/m ²)
			Constantly improve on the energy performance indicators ("EnPI") during construction	Improve each EnPI by 2.0%	Improve each EnPI by 2.0%
			Acquire the latest information about energy-saving products	Visit the annual international environmental protection expo and share the latest information about energy-saving products	Visit the annual international environmental protection expo and share the latest information about energy-saving products
			Use energy-efficient lighting products	Use T5 or LED tubes in all new offices and construction sites	Use T5 or LED tubes in all new offices and construction sites



ENVIRONMENTAL RESPONSIBILITY

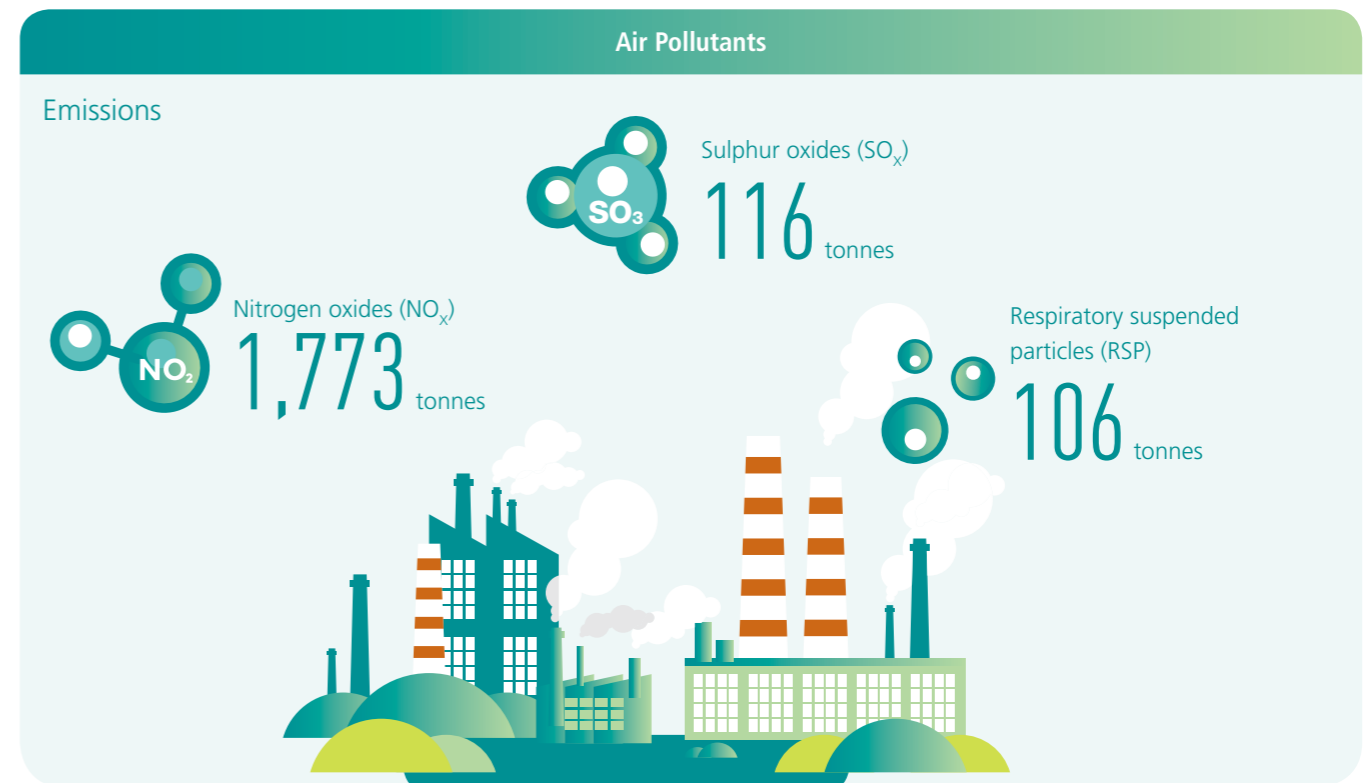
The Group continues to closely monitor global trends and developments in environmental protection, particularly in the construction industry, in order to adjust its management practices and work arrangements timely. In line with its sustainability roadmap, it plans to gradually extend its target to other subsidiaries and continuously monitor the environmental management performance of all its operating sites.

The principal laws and regulations applicable to the Group include the Environmental Protection Law of the People's Republic of China, the Air Pollution Prevention and Control Law of the People's Republic of China, the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Wastes, Control Ordinance, Water Pollution Control Ordinance, Waste Disposal Ordinance, Noise Control Ordinance, Environmental Impact Assessment Ordinance, Dumping at Sea Ordinance of Hong Kong and the Environmental Base Law and Construction Material Waste Management Regime of Macau. During the Reporting Year, the Group was not involved in any violations of laws relating to environmental protection.

To mitigate the environmental burdens associated with construction work and office operations, the Group has developed and implemented plans to reduce waste, water and air emissions and conserve resources to improve the green performance of its operations.

Air Pollutants

For 2020, the Group's air pollutants are mainly from fossil fuel consumption. NO_x, SO_x and RSP from CSHK accounted for 81%, 81% and 95% of total emissions respectively, while NO_x and SO_x from CSCIL's operations accounted for 17% of total emissions. Construction dust is also one of the major air pollutants that need to be controlled by the Group. To reduce dust emissions, the Group uses high-pressure water lances and sprinkler systems to clean incoming and outgoing vehicles, installs automatic water sprinklers to keep work areas wet, lays concrete slabs or uses dust nets, dust geotextiles and wind and dust walls on some grounds to reduce dust dispersion, and uses monitoring devices to monitor the site environment in real time.



Greenhouse Gases ("GHGs") and Energy

For years, the Group has been recording and monitoring data from its business activities to assess and disclose its GHG emissions. The quantitative process and emission factors are with reference to national standards and guidelines of the People's Republic of China⁷, guidelines compiled by the Hong Kong Environmental Protection Department and the Electrical and Mechanical Services Department⁸, guidelines compiled by the University of Hong Kong and the City University of Hong Kong⁹, as well as the international standard ISO 14064-1 and the GHG Protocol. These data are presented by region and nature of the business to provide stakeholders with a comprehensive carbon footprint and a review of the Group's performance.

⁷ 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).

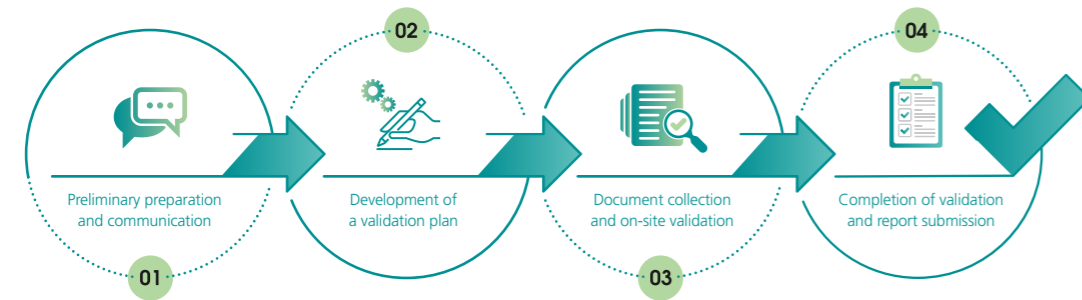
⁸ Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings (Commercial, Residential or Institutional Purposes) in Hong Kong.

⁹ SME Carbon Audit Toolkit.



ENVIRONMENTAL RESPONSIBILITY

The Group has engaged an external consultant for the first time during this Reporting Year to conduct GHG data verification in accordance with ISO 14064-3 "Greenhouse gases - Part 3: Specification with guidance for the verification and validation of greenhouse gas statements" to ensure the reliability and accuracy of GHG data. The GHG data verification process includes:




The Group has verified data from nine projects and plants in Hong Kong and mainland China for the Reporting Year and is considering to expand the scope of data verification to other projects in the future to serve as a solid and reliable basis for setting GHG emissions reduction targets.

External consultants visited Hong Kong and mainland China project sites and plant for verification:



ENVIRONMENTAL RESPONSIBILITY

By region




Scope	Hong Kong	Macau	Mainland China	Total GHG emissions by scope	Unit
Scope 1 ¹⁰ : Direct emissions	56,502.4	2,179.9	16,056.8	74,739.1	tonne CO ₂ -e
Scope 2 ¹¹ : Energy indirect emissions	3,846.6	3,110.1	85,513.8	92,470.5	tonne CO ₂ -e
Total GHG emissions by region (Scope 1 & 2)	60,349.0	5,290.0	101,570.6	167,209.6	tonne CO ₂ -e
Scope 3 ¹² : Other indirect emissions	7,002.4	697.5	12,517.6	20,217.5	tonne CO ₂ -e
Total GHG emissions by region (Scope 1, 2 and 3)	67,351.4	5,987.5	114,088.2	187,427.1	tonne CO ₂ -e
GHG emissions intensity (by revenue)	3.16				tonne CO ₂ -e/ HKD million

¹⁰ Including emissions from stationary and mobile combustion of fossil fuels, fire extinguishing system and construction welding.
¹¹ Including emissions from purchased electricity, purchased heat, and the Group's supply of electricity to contractors at its sites.
¹² Including emissions from business air travel and contractors' combustion of fossil fuels of the Group, and emissions from waste paper disposal, freshwater processing, sewage discharge from CSHK.

According to the results of the GHG assessment, the Group's GHG emissions from purchased energy (including electricity and heat) in Scope 2 mainly accounted for 49.3%, with the highest proportion of emissions from CSCIIL's invested operation sites at approximately 92.5%. Scope 1 GHG emissions from fossil fuel combustion accounted for 39.9% of the total emissions, with CSHK's projects accounting for the highest proportion of emissions at approximately 75.6%. The Group achieved energy saving and emissions reduction through the installation of power-saving reactive power compensators in prefabricated construction factories, the use of solar energy and energy-saving lights at construction sites, and the enhanced promotion of energy-saving behaviours. A total of approximately 4,387 MWh of renewable energy was consumed.

Scope 1 GHG Emissions by GHG Category

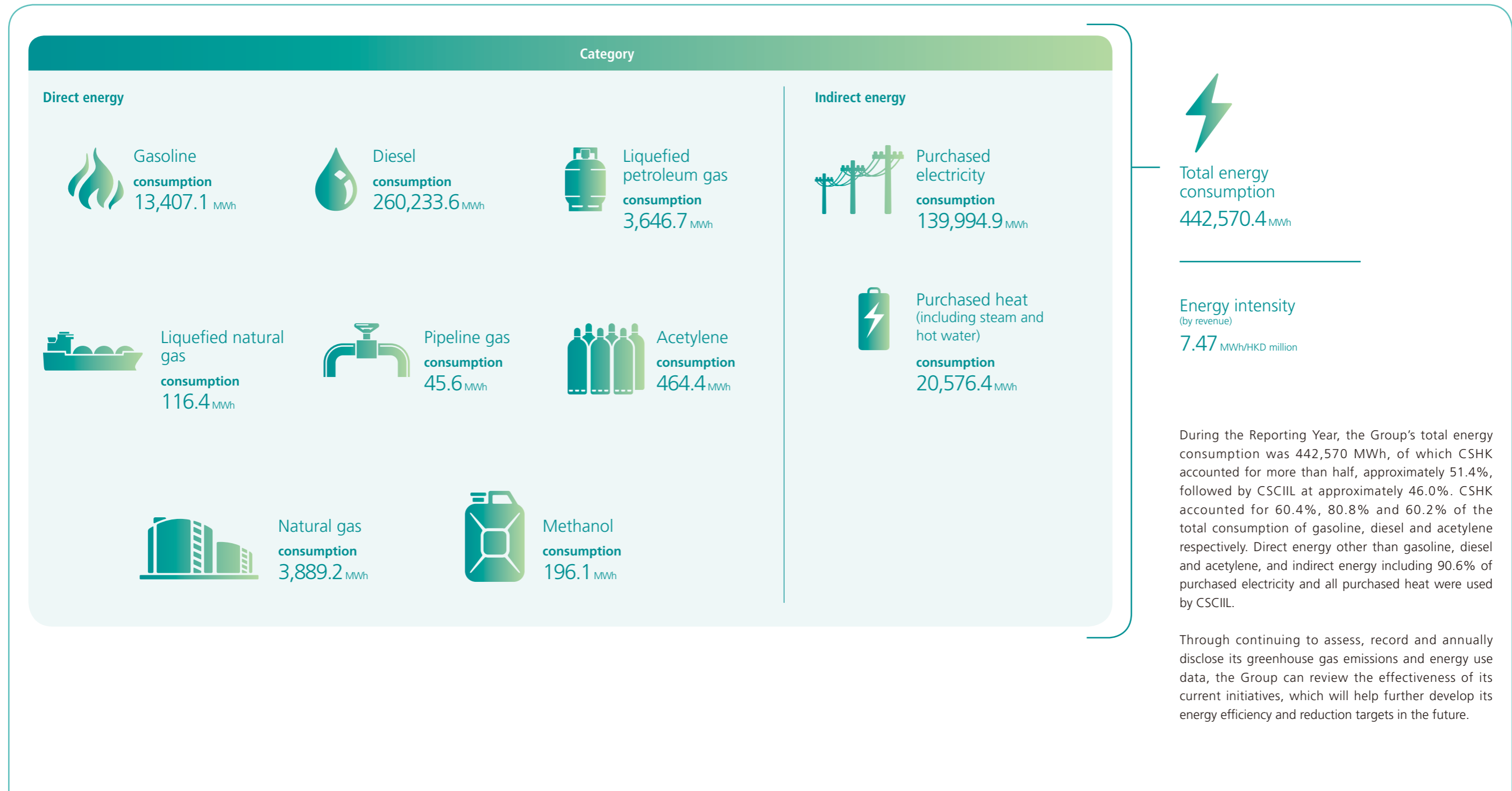


Scope 1 GHG emissions category ¹³	Hong Kong	Macau	Mainland China	Total GHG emissions by GHG category	Unit
Scope 1 ¹⁴ : Direct emissions	56,502.4	2,179.9	16,056.8	74,739.1	tonne CO ₂ -e
Carbon dioxide (CO ₂)	56,184.4	1,899.6	15,661.2	73,745.2	tonne CO ₂ -e
Methane (CH ₄)	20.1	1.0	0	21.1	tonne CO ₂ -e
Nitrous oxide (N ₂ O)	297.9	26.5	0	324.4	tonne CO ₂ -e
Hydrofluorocarbons (HFCs)	0	1.2	13.4	14.6	tonne CO ₂ -e
Perfluorocarbons (PFCs)	0	0	0	0	tonne CO ₂ -e
Sulphur hexafluoride (SF ₆)	0	0	0	0	tonne CO ₂ -e
Bromotrifluoromethane ¹⁵ (BTM)	0	251.6	382.2	633.8	tonne CO ₂ -e

¹³ Global warming potential ("GWP") ratios from the 100-year time scale values of the Intergovernmental Panel on Climate Change ("IPCC") Fifth Assessment Report (AR5).
¹⁴ Including emissions from stationary and mobile combustion of fossil fuels, fire extinguishing system and construction welding.
¹⁵ The use of BTM (bromotrifluoromethane) in fire suppression systems produces fugitive greenhouse gas emissions, which are not among the six greenhouse gases in the Kyoto Protocol, but are included in this carbon assessment in order to give a true and fair representation of greenhouse gas-related information. It is also one of the controlled substances in Annex A of the Montreal Protocol and is approximately 1.0 tonnes of CFC-11 (trichlorofluoromethane) equivalent.



ENVIRONMENTAL RESPONSIBILITY



During the Reporting Year, the Group's total energy consumption was 442,570 MWh, of which CSHK accounted for more than half, approximately 51.4%, followed by CSCIL at approximately 46.0%. CSHK accounted for 60.4%, 80.8% and 60.2% of the total consumption of gasoline, diesel and acetylene respectively. Direct energy other than gasoline, diesel and acetylene, and indirect energy including 90.6% of purchased electricity and all purchased heat were used by CSCIL.

Through continuing to assess, record and annually disclose its greenhouse gas emissions and energy use data, the Group can review the effectiveness of its current initiatives, which will help further develop its energy efficiency and reduction targets in the future.



ENVIRONMENTAL RESPONSIBILITY

Water

The Group recognises that water is a precious resource and is committed to conserving and reusing water in its operations. The water used by the Group is mainly supplied through municipal water supplies or by other public or private entities, and the Group has not encountered any problems in terms of water sources. According to Aqueduct Water Risks Atlas, 85.2% of water withdrawal of CSCIL projects is not from water stressed regions, 96.3% discharges are freshwater, while the water withdrawal of CSHK and CSC Macau projects is not from water stressed regions and all discharges are freshwater.

The Group collects rainwater for usage and installs sedimentation tanks and sewage treatment facilities at construction sites to recycle sewage as much as possible. A total of 128,499 cubic metres of wastewater is reused in our projects, mainly for concrete mixing, finished product washing, road and site vehicle washing.

Category	Amount of water consumed/discharged	Unit
Source of water withdrawal		
Surface water	1,140,345	cubic metre
Groundwater	972,153	cubic metre
Municipal water supply or third-party water	4,572,628	cubic metre
Total water consumption¹⁶	6,685,126	cubic metre
Water consumption intensity (by revenue)	112.8	cubic metre/HKD million
Effluent destination		
Surface water (discharged into natural water bodies (rivers or lakes, etc.) after being treated by sewage treatment facilities)	2,126,852	cubic metre
Groundwater (discharged into groundwater after being treated by sewage treatment facilities)	3,834,372	cubic metre
Seawater (discharged into the sea after being treated by sewage treatment facilities)	2,846	cubic metre
Communal stormwater drains (discharged after being connected to the municipal pipe network) ¹⁷	3,027,615	cubic metre
Communal sewers (discharged after being connected to the municipal pipe network)	842,351	cubic metre
Collected by suction trucks	2,500	cubic metre
Total water discharged	9,836,536	cubic metre
Water discharged intensity (by revenue)	166.0	cubic metre/HKD million

In the meantime, the Group's operations inevitably generate domestic, construction and industrial wastewater. By installing appropriate wastewater treatment facilities, all wastewater is treated and discharged in accordance with local laws and regulations.

¹⁶ Including water supplied by the Group to contractors at construction sites.

¹⁷ Mainly includes wastewater generated during the construction of the Hong Kong sites, which is treated by the on-site sewage treatment facilities (suspended sedimentation and acid-base neutralisation) and discharged into stormwater drains in accordance with the requirements of the sewage discharge permit after reaching the discharge standard.



ENVIRONMENTAL RESPONSIBILITY

Waste

The Group optimises design, process and material management to improve resource efficiency and reduce waste. Hazardous and non-hazardous waste from construction and production processes and office operations are handled strictly adhering to relevant local regulations. Non-hazardous waste such as construction demolition materials and used concrete components from the factories are stored in a dedicated area of the sites and factories, then cleaned and transported according to regulations. Soil and construction demolition materials are recycled whenever possible. Hazardous waste such as chemical waste¹⁸, Class II marine sediment, biopile and cement solidification, metal-containing sludge from sewage treatment facilities, and fluorescent lamps have been entrusted to qualified units for disposal.

By category of non-hazardous waste and hazardous waste:

Category	Amount of waste generated	Unit
Hazardous waste		
Total hazardous waste¹⁹	10,503.2	tonne
Hazardous waste intensity (by revenue)	0.18	tonne/HKD million
Non-hazardous waste		
Inert construction and demolition material	220,440,166.9	tonne
Non-inert construction and demolition material	113,160.7	tonne
Old construction demolition waste	8,691,015.2	tonne
Other construction waste	47,309.5	tonne
Other non-hazardous waste	650,196.4	tonne
Total non-hazardous waste	229,941,848.7	tonne
Non-hazardous waste intensity (by revenue)	3,880.4	tonne/HKD million

By disposal method of non-hazardous waste and hazardous waste:

Disposal method	Amount of hazardous waste generated ²⁰	Amount of non-hazardous waste generated	Unit
Reuse	150.0	26,988,204.8	tonne
Recycling	0	90,829.1	tonne
Composting	0	32,394.6	tonne
On-site storage	600.1	719,678.5	tonne
Landfilled (being sent to landfills)	1.0	819,648.2	tonne
Landfilled (being sent to public fill reception facilities of the government)	0	195,864,237.3	tonne
Processed by qualified contractors	130.1	4,034,236.2	tonne
Transportation to other construction sites or approved sites for backfilling	0	1,392,620.0	tonne
Marine dumping ²¹	9,622.0	N/A	tonne
Total waste	10,503.2	229,941,848.7	tonne
Waste intensity (by revenue)	0.18	3,880.4	tonne/HKD million

¹⁸ Including paint pails, retarder pails and other packaging of chemical materials.

¹⁹ Including chemical waste and other hazardous waste.

²⁰ Including chemical waste and other hazardous waste.

²¹ A marine dumping permit has been obtained.

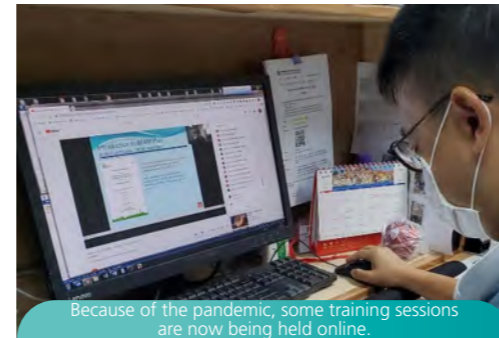


ENVIRONMENTAL RESPONSIBILITY

Promoting environmental protection

The Group understands that all environmental initiatives require the joint efforts of employees, business partners and customers. Its Employee Handbook states that employees are responsible for understanding, complying with and implementing the Group's environmental policies and practices. Environmental management is incorporated into performance reviews of all projects and employees. Employees' bonuses, promotions and salary increases take environmental performance into account.

The development of green and low carbon buildings will accelerate as both China and Hong Kong set their carbon neutral targets this year. CSHK's membership has been upgraded to a marble patron member of the Hong Kong Green Building Council in 2021. Employees can enjoy a reduced fee for attending related events and training. During the Reporting Year, a total of 162 employees attended BEAM Plus training. In addition, the Group regularly arranges various environment-related training, including Construction Noise Permit ("CNP") application training, environmental coordinator training and induction environmental training for new joiners, to enhance employees' environmental knowledge, awareness and management capabilities.



Because of the pandemic, some training sessions are now being held online.

Looking forward, the Safety and Environmental Protection Department will continue to focus on the management of high environmental risk sites. In addition, it will implement environmental management in all aspects through continuous inspections, enhance environmental training, assist sites to participate in external environmental awards, and encourage employees to obtain green building and other related professional qualifications.

Related Case 1

The Group has been recognised for its efforts in environmental protection by many international and industry awards, including the following examples of the awards received in 2020.



NCE Tunnelling Festival 2020 Award

Examples of the awards

- > Awarded the Environment and Sustainability Initiative of the Year in NCE Tunnelling Festival 2020 by the Institution of Civil Engineers for Tseung Kwan O — Lam Tin Tunnel and Related Projects
- > CSHK and its subsidiaries were awarded the Hong Kong Construction Environmental Merit Award in 2020 by the Hong Kong Construction Association, which CSHK has won for four consecutive years since 2017
- > Relocation of Sha Tin Sewage Treatment Works to Caverns — Site Preparation and Access Tunnel Construction won the Hong Kong Construction Industry Council Sustainable Construction Award — Gold Award, the 26th Considerate Contractors Site Award Scheme — Outstanding Environmental Management and Performance Award — Gold Award, the Hong Kong Drainage Services Department's Construction Sites Safety and Housekeeping Award Scheme — Best Construction Sites Safety and Housekeeping Award and Grand Award.
- > MTR's Construction Project of Cross Harbour Tunnel Railway (North South Corridor) of Shatin to Central Link was awarded the Gold Environmental Award 2019 by MTR for its sound construction planning and excellent quality, safety and environmental management, it is the first time that CSHK has received this award from MTR.

Related Case 2

The Group aims to achieve the highest platinum rating of BEAM Plus 2.0 for the expansion project of the Affiliated School of the University of Macau. The project design includes the following environmental measures.



Environmental measures

- > Adopt active energy saving measures, such as air conditioning fresh air exchanges system, light emitting diode ("LED") lighting, high efficiency variable refrigerant volume ("VRV") air conditioning system, elevator energy feedback, building management system (BMS), carbon monoxide sensor system in the parking lot, etc.
- > Adopt passive energy saving measures such as sunshades, natural ventilation, natural lighting, light ducts, insulated glasses, etc.
- > Use of renewable energy, including solar glass and solar photovoltaic panels
- > Use of environmentally friendly materials, including wood, paint, carpet and floor coverings, and reuse wood
- > Use of ozone-friendly refrigerants and insulation
- > Water-efficient sanitary wares and rainwater harvesting systems to reduce water consumption
- > At least 20% of total green space, including horizontal and vertical greening



ENVIRONMENTAL RESPONSIBILITY



Related Case 3

To minimise the negative impacts of construction on the environment, a series of environmental protection measures have been implemented at construction sites.



Using metal scaffolding and mouldings to reduce consumption of wood and bamboo



Collecting rainwater and reusing sewage for cleaning and watering



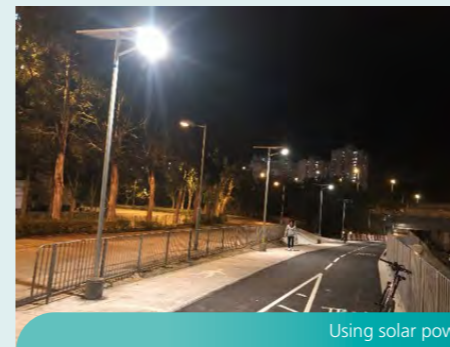
Replacing diesel generators with "Energainer" to reduce air pollution



Using artificial grass for green roofs (some reused from other sites) for the site offices to reduce energy consumption for air conditioning.



Using wind energy to operate facilities for workers



Using solar power for night lighting



On-site environmental monitoring in real time



Using solar energy to operate environmental monitoring instruments



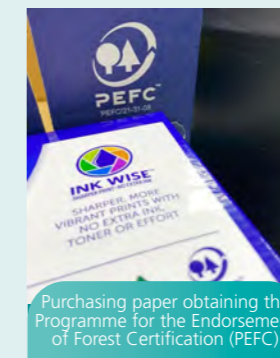
Using solar mosquito killer lamps



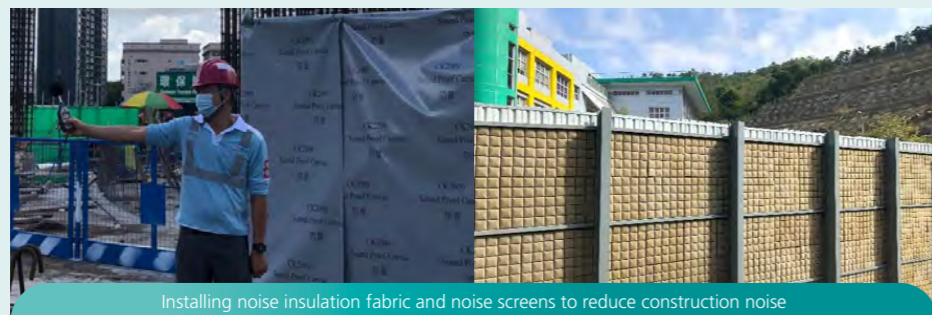
Reducing waste by making furniture from native trees on sites



Purchasing Forest Stewardship Council ("FSC") certified wood



Purchasing paper obtaining the Programme for the Endorsement of Forest Certification (PEFC)



Installing noise insulation fabric and noise screens to reduce construction noise



Collecting biomass, such as leaves or food waste for composting






Reusing old fences and used plastic bottles to plant and green the environment





PARTICIPATING ORGANISATIONS

Hong Kong	Macau	Mainland China
The Hong Kong Chinese Enterprises Association — Construction Industry Committee	The Macau Chinese Enterprises Association	Si Chuan Association for Construction Quality and Safety Supervision
The Hong Kong Construction Association	Associacao Geral do Sector Imobiliario de Macau	Chengdu Construction Quality Association
Construction Industry Council	School of Business Advisory Board, Macau University of Science and Technology	Yunnan Construction Industry Association
Occupational Safety and Health Council	Macau Construction Industry Association	Foshan Shunde District Village Industrial Park Upgrading and Reconstruction Association
Vocational Training Council	Macau Association of Building Contractors and Developers	Hubei Province Department of Housing and Urban-Rural Development Engineering Projects Approval System Reform Committee
Labour Advisory Board	Macau Construction Association	Shenzhen Municipal Housing and Construction Bureau Prefabricated Building Specialists
Hong Kong Institute of Environmentalists	Macau Wo Kuong Advancement Association	Guizhou Youth Federation
The Employees' Compensation Insurance Residual Scheme Bureau Limited	Association of Study of Environmental Science and Technology of Macau	Shanxi Youth Federation
Employees Compensation Insurer Insolvency Bureau	Macau Construction Safety Association	
Development Bureau Joint Sub-committee on Streamlining of Development Control		
Registered Contractors' Disciplinary Board Panel		





SUMMARY OF KEY PERFORMANCE INDICATORS

Environmental Performance²²

Air Emissions

Category	Emissions(tonne)		CSCD	Total
	Sites of operation within the reporting boundary			
Nitrogen oxides	1,773		237	2,010
Sulphur oxides	116		342	458
Respirable suspended particulates	106		15	121

Greenhouse Gas Emissions²³

Scope	Emission source	Emissions(tonne of CO ₂ -e)			
		Sites of operation within the reporting boundary	CSCD		Total
Scope 1: Direct emissions	Combustion of fossil fuels	72,487		798,910	871,397
	Industrial production processes -welding	1,604	74,739	N/A	799,011
	Fugitive emissions ²⁴	648		101	749
Scope 2: Energy indirect emissions	Purchased electricity	84,322	92,470	24,979	109,301
	Purchased heat	8,148		N/A	8,148
Scope 3 ²⁵ : Other indirect emissions	Industrial production processes — welding (contractor)	814		N/A	814
	Stationary combustion (contractor)	18,475		N/A	18,475
	Waste paper disposal	686	20,217	No Statistics	686
	Water consumption	102		No Statistics	102
	Sewage discharge	48		No Statistics	48
	Air business travel	92		108	200
Total GHG emissions ²⁶		187,427		824,097	1,011,524
GHG intensity (tonne of CO ₂ -e/HKD million)				16.2	

²² To facilitate readers' comprehensive understanding of the quantified environmental performance of the Group, the performance of CSCD is also presented in each indicator. The environmental performance of CSCD is aligned with the ESG report in its 2020 Annual Report, while some are independently assessed.

²³ 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 14064-1 and the Greenhouse Gas Protocol.

Waste Generation

Category	Amount(tonne)		
	Sites of operation within the reporting boundary	CSCD	Total
Hazardous waste generated			
Total hazardous waste	10,503.20	0.45	10,503.65
Hazardous waste intensity (tonne/HKD million)	0.2		
Non-hazardous waste generated			
Inert construction and demolition waste	220,440,167		
Non-inert construction and demolition waste	113,161	232,860	230,174,709
Old construction demolition waste	8,691,015		
Other construction waste	47,310		
Other non-hazardous waste	650,196		
Total non-hazardous waste	229,941,849	232,860	230,174,709
Non-hazardous waste intensity (tonne/HKD million)	3,685.4		

²⁴ Including emissions of fire suppression systems from sites of operation within the reporting boundary and emissions of refrigerant from CSCD. The use of BTM (bromotrifluoromethane) in fire suppression systems produces fugitive greenhouse gas emissions, which are not among the six greenhouse gases in the Kyoto Protocol, but are included in this carbon assessment in order to give a true and fair representation of greenhouse gas-related information. It is also one of the controlled substances in Annex A of the Montreal Protocol and is approximately 1.0 tonnes of CFC-11 (trichlorofluoromethane) equivalent.

²⁵ The GHG emissions from waste paper disposal, water consumption and sewage treatment only include emissions generated from operations in Hong Kong.

²⁶ The total amount and breakdowns may not be consistent at the last digit due to rounding.



SUMMARY OF KEY PERFORMANCE INDICATORS

Energy Consumption

Category	Energy consumption (MWh)		
	Sites of operation within the reporting boundary	CSCD	Total
Gasoline	13,407	929	14,336
Diesel	260,234	1,314	261,548
Liquefied petroleum gas	3,647	168	3,815
Liquefied natural gas	116	0	116
Pipeline gas	46	0	46
Acetylene	464	0	464
Natural gas	3,889	436	4,325
Methanol	196	0	196
Lignite	0	2,249,624	2,249,624
Purchased electricity	139,995	42,745	182,740
Purchases heat (including hot water and steam)	20,576	0	20,576
Sold electricity	N/A	(40,297)	(40,297)
Sold steam	N/A	(7,607)	(7,607)
Total energy consumption	442,570	2,247,312	2,689,882
Energy intensity (MWh/HKD million)	43.1		
Renewable energy	4,387	0	4,387

Water and Sewage

Category	Amount (cubic metre)		
	Sites of operation within the reporting boundary	CSCD	Total
Water consumption			
Total water consumption ²⁷	6,685,125	1,862,837	8,547,962
Water consumption intensity (cubic metre/HKD million)	136.9		
Sewage discharge			
Total sewage discharge	9,836,536	437,080	10,273,616
Water discharge intensity (cubic metre/HKD million)	164.5		
Total water reused ²⁸	128,499	No statistics	128,499

²⁷ Including freshwater supplied to contractors at construction sites by the Group.

²⁸ Reused in construction sites of the Group, not used by other organisations.

Packaging Materials for Finished Products

Category	Amount (tonne)		
	Sites of operation within the reporting boundary	CSCD	Total
Timber for packaging	366	86	526
Other packaging materials	74		
Total consumption of packaging materials	441		
Packaging material intensity (tonne/HKD million)	0.01		



SUMMARY OF KEY PERFORMANCE INDICATORS

Use of Raw Materials²⁹

Category	Amount	
	Usage of sites of operation within the reporting boundary	Usage of contractors in sites of operation within the reporting boundary ³⁰
Non-renewable materials		
Concrete (cubic metre)	7,948,840	3,853,310
Cement mortar (cubic metre)	194,123	660,565
Reinforced steel bar (tonne)	699,488	420,938
Steel beams (tonne)	69,575	18,810
Iron sheet pile (tonne)	10,201	1,579
Wooden sheet pile (tonne)	156,087	155,323
Cement (tonne)	455,189	326,341
River sand (tonne)	6,537,653	1,181,371
Stones (tonne)	2,091,254	382,038
Bricks (tonne)	6,167,082	9,958,532
Concrete floor materials (tonne)	1,133	4,652
Aluminium products (tonne)	5,303	5,532
Steel products (tonne)	11,127	10,026
Silica gel (tonne)	722	4
Glass (tonne)	20,930	17,673
Timber for packaging (tonne)	366	187
Other raw materials and packaging materials (tonne)	74	25
Paper (tonne)	349	No statistics
Renewable materials		
Bamboo flooring (tonne)	1	1
Cork flooring (tonne)	226	5

²⁹ The relevant data of CSCD was not calculated.

³⁰ Data provided by contractors. The Group will continue to communicate and coordinate with all sites of operation to expand the data scope.

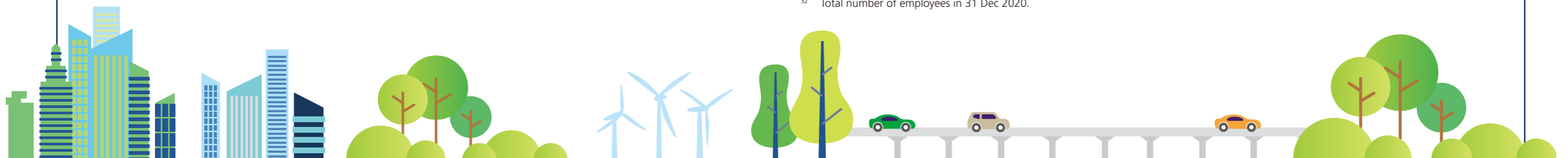
Social Performance³¹

Employment

Statistics	Sites of operation within the reporting boundary	CSCD		Total		
Current employees ³²	Gender	Male	7,149	2,944	10,093	
		Female	1,958	400	2,358	
	Age group	30 or below	2,693	1,075	3,768	
		31-40	2,917	949	3,866	
		41-50	1,892	858	2,750	
		51 or above	1,605	462	2,067	
	Employment rank	Senior	28	18	46	
		Middle	231	35	266	
		Executive	1,680	281	1,961	
		General employees	7,168	3,010	10,178	
	Region	Hong Kong	4,922	307	5,229	
		Macau	797	Not applicable	797	
		Mainland China	3,388	2,745	6,133	
		USA	Not applicable	117	117	
Canada		Not applicable	160	160		
Other		Not applicable	15	15		
Other workers	Region	Hong Kong	15,565			
		Macau	3,992			
		Mainland China	2,543			
		USA	Not applicable	No statistics by region	152	No statistics by region
		Canada	Not applicable			
		Other	Not applicable			
				22,100		

³¹ To facilitate readers' comprehensive understanding of the quantified social performance of the Group, the performance of CSCD is also presented in each indicator. CSCD's respective data on "number of employees", "number of employees lost" and "number of suppliers" are quoted from the ESG Report in its 2020 Annual Report; other social performance was independently assessed.

³² Total number of employees in 31 Dec 2020.



SUMMARY OF KEY PERFORMANCE INDICATORS

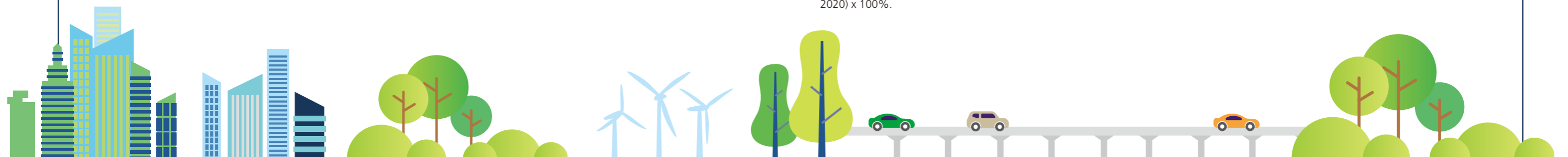
Employment

Statistics		Sites of operation within the reporting boundary		CSCD		Total	
New hires	Gender	Male	2,001	2,472	937	1,038	2,938
		Female	471		101		572
	Age group	30 or below	961	630	1,591		
		31-40	665	256	921		
		41-50	584	127	711		
		51 or above	262	25	287		
	Region	Hong Kong	1,277	51	1,328		
		Macau	210	Not applicable	210		
		Mainland China	985	859	1,844		
		USA	Not applicable	103	103		
Canada		Not applicable	25	25			
Other	Not applicable	0	0				
Rate of new hires ³³	Gender	Male	28%	27%	32%	31%	29%
		Female	24%		25%		24%
	Age group	30 or below	36%	59%	42%		
		31-40	23%	27%	24%		
		41-50	31%	15%	26%		
		51 or above	16%	5%	14%		
	Region	Hong Kong	26%	17%	25%		
		Macau	26%	Not applicable	26%		
		Mainland China	29%	31%	30%		
		USA	Not applicable	88%	88%		
Canada		Not applicable	16%	16%			
Other	Not applicable	0%	0%				

³³ Rate of new hires = (Number of new hires in 2020/Number of current employees on 31 Dec 2020) x 100%.

Statistics		Sites of operation within the reporting boundary		CSCD		Total	
Number of employee turnover	Gender	Male	2,511	3,149	541	606	3,052
		Female	638		65		703
	Age group	30 or below	777	307	1,084		
		31-40	942	183	1,125		
		41-50	744	68	812		
		51 or above	686	48	734		
	Region	Hong Kong	1,756	26	1,782		
		Macau	107	Not applicable	107		
		Mainland China	1,286	536	1,822		
		USA	Not applicable	24	24		
Canada		Not applicable	18	18			
Other	Not applicable	2	2				
Rate of employee turnover ³⁴	Gender	Male	31%	31%	19%	19%	28%
		Female	30%		16%		28%
	Age group	30 or below	25%	31%	26%		
		31-40	30%	18%	27%		
		41-50	35%	8%	27%		
		51 or above	40%	11%	34%		
	Region	Hong Kong	34%	8%	33%		
		Macau	14%	Not applicable	14%		
		Mainland China	30%	20%	26%		
		USA	Not applicable	20%	20%		
Canada		Not applicable	12%	12%			
Other	Not applicable	27%	27%				

³⁴ Rate of employee turnover = (Number of employee turnover in 2020/average number of current employees on 1 January 2020 and 31 Dec 2020) x 100%.



SUMMARY OF KEY PERFORMANCE INDICATORS

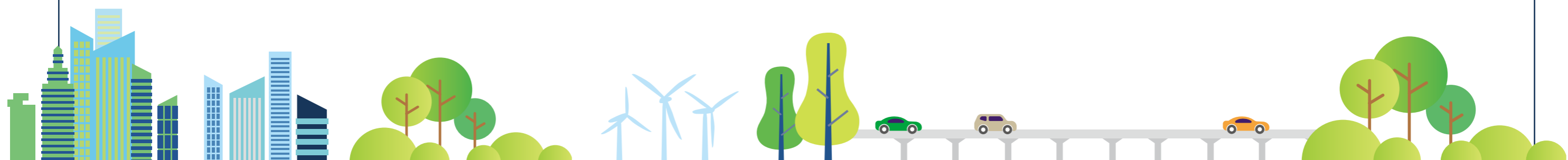
Health and Safety³⁵

	Statistics	Sites of operation within the reporting boundary	CSCD	Total
Employees	Number of work-related injuries ³⁶	5	12	17
	Work-related injury rate ³⁷	0.05	0.36	0.13
	Number of high-consequence work-related injuries ³⁸	1	0	1
	High-consequence work-related injuries rate ³⁹	0.01	0	0.01
	Number of work-related casualties	0	0	0
	Work-related casualty rate	0.0	0.0	0.0
	Lost days due to work-related injury or occupational diseases	7,778	744	8,522
	Lost day rate ⁴⁰	82.2	22.2	66.5
	Absent days	24,825	1,243	26,068
	Absentee rate ⁴¹	1.05%	0.2%	0.8%
	Number of hours worked ⁴²	18,918,320	6,706,392	25,624,712
Other workers ⁴³	Number of work-related injuries ⁴⁴	134	0	134
	Work-related injury rate	1.8	0.0	1.7
	Number of high-consequence work-related injuries	0	0.0	0.0
	High-consequence work-related injuries rate	0.0	0.0	0.0
	Number of work-related casualties	0	0	0
	Work-related casualty rate	0.0	0.0	0
	Lost days due to work-related injury or occupational diseases	10,424	0	10,424
	Lost day rate ⁴⁵	136.3	0.0	133.6
	Absent days	24,768	0	24,768
	Absentee rate ⁴⁶	1.30%	0%	1.3%
	Number of hours worked	15,297,544	305,160	15,602,704

Training and development⁴⁷

	Statistics	Sites of operation within the reporting boundary	CSCD	Total	
Training percentage	Gender	Male	64%	83%	69%
		Female	53%	77%	57%
	Employee rank	Senior	82%	17%	57%
		Middle	84%	49%	80%
		Executive	99%	65%	94%
	General	52%	85%	61%	
Average training hours	Gender	Male	9.3	23.0	13.3
		Female	7.5	19.4	9.5
	Employee rank	Senior	16.8	2.1	11.0
		Middle	13.9	12.2	12.3
		Executive	13.1	13.2	13.1
		General	7.7	23.7	12.5

³⁵ There were no employees and other workers with occupational diseases in the Group during the year.
³⁶ One person with high-consequence work-related injuries. Causes include slips, collision with objects and falls.
³⁷ Work-related injury rate = (Number of injuries / Original number of total working hours) × 200,000.
³⁸ A high-consequence work-related injury is an injury that cannot or is not expected to recover fully to pre-injury health status within 6 months.
³⁹ High-consequence work-related injury rate = (Number of high-consequence injuries / Original number of total working hours) × 200,000.
⁴⁰ Lost day rate = (Total number of lost days / Original number of total working hours) × 200,000; Total number of working hours measured by 8 hours per working day.
⁴¹ Absentee rate = (Number of absent days / Original total number of working days) × 100%.
⁴² Calculated based on 8 hours of work for each employee per working day.
⁴³ Including contractors/ sub-contractors, interns, volunteers and other workers whose venue of work or work are managed by the Group.
⁴⁴ Causes of work-related injuries include slips, falls and traffic accidents.
⁴⁵ Lost day rate = (Total number of lost days / Original number of total working hours) × 200,000; Total number of working hours measured by 8 hours per working day.
⁴⁶ Absentee rate = (Number of absent days / Original total number of working days) × 100%.
⁴⁷ Including data on employee turnover who has received training this year.



SUMMARY OF KEY PERFORMANCE INDICATORS

Supply chain management⁴⁸

Statistics	Sites of operation within the reporting boundary		CSCD		Total		
Number of suppliers	Hong Kong	549	1,498	65	1,526	614	3,024
	Macau	60		Not applicable		60	
	Mainland China	889		1,336		2,225	
	USA	Not applicable		56		56	
	Canada	Not applicable		61		61	
	Other ⁴⁹	Not applicable		8		8	

⁴⁸ The Group consistently applies supplier recruitment, management and monitoring practices to all suppliers of the same category to ensure fairness of the system.

⁴⁹ Including suppliers in Europe, Thailand, Singapore and Australia.

Anti-corruption

Statistics	Sites of operation within the reporting boundary		CSCD		Total			
Number of people receiving information on anti-corruption policies and procedures	Governance body	7	7	48	48	55	55	
	Employee rank	Senior	4	2,001	0	1,861	4	3,862
		Middle	154		9		163	
		Executive	704		100		804	
		General	1,139		1,752		2,891	
	Region	Hong Kong	398	No statistics by region	No statistics by region	Not Applicable	Not Applicable	
		Macau	11					
		Mainland China	1,592					
	Governance body	100%	100%	100%	100%	100%	100%	
	Percentage of people receiving information on anti-corruption policies and procedures	Employee rank	Senior	14%	22%	0%	56%	9%
Middle			67%	26%		61%		
Executive			42%	36%		41%		
General			16%	58%		28%		
Region	Hong Kong	8%	No statistics by region	No statistics by region	Not Applicable	Not Applicable		
	Macau	1%						
	Mainland China	47%						



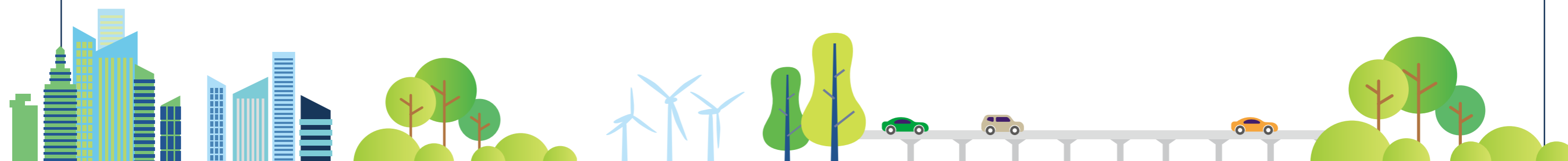
SUMMARY OF KEY PERFORMANCE INDICATORS

Anti-corruption

Statistics		Sites of operation within the reporting boundary		CSCD		Total		
Number of people receiving anti-corruption trainings	Governance body	7	7	48	48	55	55	
	Employee rank	Senior	4	2,677	0	1,861	4	4,538
		Middle	207		9		216	
		Executive	1,120		100		1,220	
		General	1,346		1,752		3,098	
	Region	Hong Kong	506	No statistics by region	Not Applicable	Not Applicable		
		Macau	11					
		Mainland China	2,160					
	Percentage of people receiving anti-corruption trainings	Governance body	100%	100%	100%	100%	100%	100%
		Employee rank	Senior	14%	29%	0%	56%	9%
Middle			90%	26%		81%		
Executive			67%	36%		62%		
General			19%	58%		30%		
Region		Hong Kong	10%	No statistics by region	Not Applicable	Not Applicable		
		Macau	1%					
	Mainland China	64%						
Average anti-corruption training hours	Governance body	6.0	6.0	20.0	20.0	18.2	18.2	
	Employee rank	Senior	0.3	1.5	0.0	1.0	0.2	1.4
		Middle	4.2		2.1		4.0	
		Executive	3.1		0.7		2.8	
		General	1.1		1.1		1.1	
	Region	Hong Kong	0.4	No statistics by region	Not Applicable	Not Applicable		
		Macau	0.1					
Mainland China		3.4						

Community Investment

Statistics	Sites of operation within the reporting boundary	CSCD	Total	Unit
Total amount of investment	1,157,167.6	0	1,157,167.6	HKD
Number of participating volunteers	4,148	146	4,294	number of people
Number of volunteer participation hours	19,657	214	19,871	hour





ASSURANCE STATEMENT



INDEPENDENT ASSURANCE OPINION STATEMENT



Statement No.: **SRA-HK 748805**

China State Construction International Holdings Limited 2020 Sustainability Report

The British Standards Institution is independent of China State Construction International Holdings Limited, and its subsidiaries (hereafter referred to as "CSCI" collectively in this statement), and has no financial interest in the operation of CSCI other than for the assessment and assurance of CSCI 2020 Sustainability Report (the "Report").

This independent assurance opinion statement has been prepared for CSCI solely for the purposes of assuring its statements relating to the Report, more particularly described in the Scope below. It was not prepared for any other purpose. The British Standards Institution will not, in providing this independent assurance opinion statement, accept or assume responsibility (legal or otherwise) or accept liability for or in connection with any other purpose for which it may be used, or towards any person by whom the independent assurance opinion statement may be read. This statement is intended to be used by stakeholders & management of CSCI.

This independent assurance opinion statement is prepared on the basis of review by the British Standards Institution of information presented to it by CSCI. The review does not extend beyond such information and is solely based on it. In performing such review, the British Standards Institution has assumed that all such information is complete and accurate.

Any queries that may arise by virtue of this independent assurance opinion statement or matters relating to it should be addressed to CSCI only.

Scope

The scope of engagement agreed upon with CSCI includes the following:

1. The assurance covers the whole Report and, focuses on systems and activities of CSCI in Mainland China, Hong Kong, Macau and oversea, which include construction, infrastructure investment, façade contracting and infrastructure operation businesses, during the period from 1st January 2020 to 31st December 2020. The Report is prepared in accordance with the Core Option of GRI Sustainability Reporting Standards ("GRI Standards") and in accordance with the Hong Kong Stock Exchange's ("HKEX") Environmental, Social and Governance Reporting Guide ("ESG Guide").
2. Type 1 Moderate Level of Assurance in accordance with the AA1000 Assurance Standard, AA1000AS v3 evaluates the nature and extent of CSCI's adherence to four reporting principles: Inclusivity, Materiality, Responsiveness and Impact. The specified sustainability performance information/data disclosed in the Report has been evaluated.

This statement was prepared in English and translated into Chinese for reference only.

...making excellence a habit.™

Opinion Statement

We conclude that the Report provides a fair view of CSCI's sustainability programmes and performance in the reporting year. We believe that the economic, social and environmental performance indicators are fairly represented in the Report, in which CSCI's efforts to pursue sustainable development are widely recognized by its stakeholders.

Our work was carried out by a team of sustainability report assurers. We planned and performed this part of our work to obtain the necessary information and explanations. We considered CSCI has provided sufficient evidence that CSCI's self-declaration of compliance with the Core Option of GRI Standards and the HKEX ESG Guide were fairly stated.

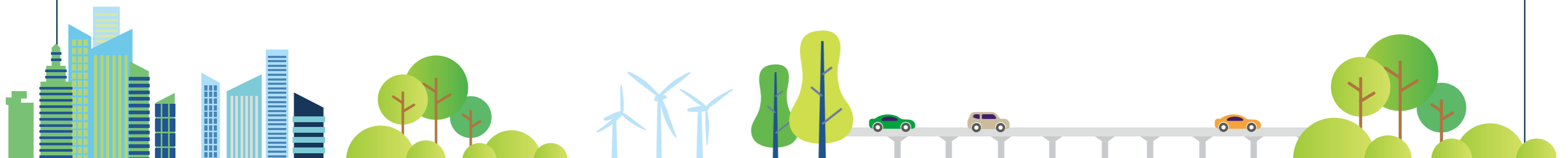
Methodology

Our work was designed to gather evidence on which to base our conclusion. We undertook the following activities:

- A top level review of issues raised by external parties that could be relevant to CSCI's policies to provide a check on the appropriateness of statements made in the Report;
- Discussion with senior executives on CSCI's approach to stakeholder engagement. We had no direct contact with external stakeholders;
- Interview with staff involved in sustainability management, report preparation and provision of report information;
- Review of key organizational developments;
- Review of supporting evidence for claims made in the Report; and
- An assessment of the company's reporting and management processes concerning reporting against the principles of Inclusivity, Materiality, Responsiveness and Impact.

Conclusions

A detailed review against the AA1000 AccountAbility Principles of Inclusivity, Materiality, Responsiveness and Impact and the HKEX ESG Guide, and in accordance with GRI Standards is set out below:



ASSURANCE STATEMENT

Inclusivity

The Report has reflected the fact that CSCI is seeking the engagement of its stakeholders through numerous channels such as Emails and announcements; Internal meetings; Training courses; Corporate newsletters; Grievance mechanism; General meetings; Annual reports, interim reports and announcements; Roadshow and reverse roadshow; Investor meetings; Indices and ratings; Tender meetings; Project briefings; Tea gatherings and industry activities; Procurement process; Review and evaluation; Performance monitoring; Supplier and subcontractor meetings; Public consultation; Working meetings; Feedback through industry associations; Seminars and workshops; Press conferences and news releases; Community opinion surveys; Charity event planning and participation and more.

CSCI's operation involves various methods of engaging its stakeholders on a daily basis. The Report covers economic, social and environmental aspects of concern to its stakeholders with a fair level of disclosure. In our professional opinion, CSCI adheres to the principle of Inclusivity. Our view of areas for enhancement of the Report was adopted by CSCI before the issue of this opinion statement.

Materiality

CSCI publishes sustainability information that enables its stakeholders to make informed judgments about the company's management and performance. In our professional opinion, the Report adheres to the principle of Materiality and identifies CSCI's material aspects by using appropriate methods of materiality analysis and demonstrating material issues in a matrix form. Areas for enhancement of the Report were adopted by CSCI before the issue of this opinion statement.

Responsiveness

CSCI has implemented practices that respond to the expectations and perceptions of its stakeholders. These include various surveys and feedback mechanisms for both internal and external stakeholders. In our professional opinion, CSCI adheres to the principle of Responsiveness. Areas for enhancement of the Report were adopted by CSCI before the issue of this opinion statement.

Impact

CSCI has established processes to understand, measure and evaluate its impacts in qualitative and quantitative way. These processes enable CSCI to assess its impact and disclose them in the Report. In our professional opinion, CSCI adheres to the principle of Impact. Areas for enhancement of the Report were adopted by CSCI before the issue of this opinion statement.

GRI Standards Reporting

CSCI provided us with their self-declaration of compliance with GRI Standards "In Accordance" - Core option.

Based on our verification review, we are able to confirm that social responsibility and sustainable development disclosures in all three categories (Environmental, Social and Economic) are reported in accordance with the GRI Standards: Core option.

In our professional opinion the report covers CSCI's social responsibility and sustainability issues. Areas for enhancement of the Report were adopted by CSCI before the issue of this opinion statement.

HKEX ESG Guide Reporting

Based on our verification review, we are able to confirm that social responsibility and sustainable development key performance indicators and disclosures in two ESG subject areas (Environmental and Social) are reported on basis of the HKEX ESG Guide.

In our professional opinion, the Report covers CSCI's social responsibility and sustainability issues. Areas for enhancement of the report were adopted by CSCI before the issue of this opinion statement.

Assurance Level

The Type 1 Moderate Level of Assurance provided in our review is defined by the scope and methodology described in this statement.

Responsibility & Limitations

It is the responsibility of CSCI's senior management to ensure that the information being presented in the Report is accurate. The assurance is limited by information presented by CSCI. Our responsibility is to provide an independent assurance opinion statement to stakeholders giving our professional opinion based on the scope and methodology described.

Competency and Independence

The assurance team was composed of Lead Auditors, who are experienced in the industrial sector, and trained in a range of sustainability, environmental and social standards including GRI G3, GRI G3.1, GRI G4, GRI Standards, AA1000, HKEX ESG Guide, UNGC's Ten Principles, ISO20121, ISO14064, ISO 14001, OHSAS 18001, ISO45001, ISO 9001, and ISO 10002, etc. British Standards Institution is a leading global standards and assessment body founded in 1901. The assurance is carried out in line with the BSI Fair Trading Code of Practice.

For and on behalf of BSI:

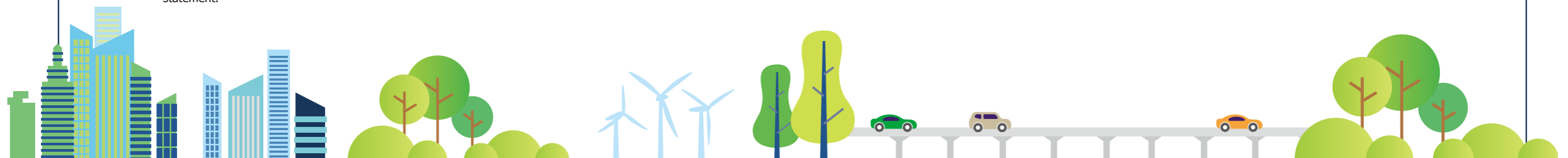


Mr. Chris Cheung
Head of Compliance & Risk - Asia Pacific

Hong Kong
17-May-2021



AA1000
Licensed Report
000-157/V3-MA3N2



ASSURANCE STATEMENT



Greenhouse Gas Verification Statement

CECEP Environmental Consulting Group Limited (hereinafter referred to as “CECEPEC”) was engaged to conduct an independent verification of the greenhouse gas inventory reported by China State Construction International Holding Limited (hereinafter referred to as “CSCI”) for the period stated below. The Verification Statement applies to the related information within the scope described below. The aim of the verification was to provide a limited assurance on the completeness and accuracy of the data consolidated in the Greenhouse Gas Inventory by CSCI.

Verification Scope

The independent verification activity covers the greenhouse gas emissions data for the period from 1 January 2020 to 31 December 2020 of CSCI. The organizational boundary was established following the operational control approach, which only limited to 9 construction sites and manufacturing plant from the engineering and modular integrated construction business: 1) Hopewell Centre II Development, 2) Relocation of Sha Tin Sewage Treatment Works to Caverns, 3) Hong Kong Palace Museum, 4) Residential Development at Kai Tak, 5) Guotong Square Industrial Park Investment Project in Foshan, 6) Zhizao Future Harbour Project in Foshan, 7) German Town Construction Project in Hengqin, 8) Pingshan Primary school in Shenzhen, and 9) Zhuhai Hailong Prefabricated Construction Industrialization Base.

Verification Method

Within the verification scope, CECEPEC reviewed the activity data and supporting evidence collected with 9 construction sites and manufacturing plant. CECEPEC obtained supporting evidence to assess greenhouse gas inventory by conducting interviews and data collection with the relevant personnel of CSCI. The verification was conducted in accordance with ISO 14064-3:2019 *Specification with guidance for the validation and verification of greenhouse gas assertions*. The verification process included the assessment on the following aspects:

- The reporting scope;
- The quantification methodology and emission factors;
- The integrity of the activity data and supporting evidence; and
- The accuracy and completeness of the GHG calculations.

Integrity and accuracy of the greenhouse gas data were tested by tracing the selected sample data back to its



source. During the verification process, the underlying processes for data collection, aggregation, estimation, calculation and internal checking were reviewed and undergone reliability test by CECEPEC. Materiality threshold of ±5% was adopted for this verification.

CECEPEC verification team did not take part in the GHG data preparation process.

Conclusion

Based on the verification results, the verification team concluded that no material error or omission was identified in the greenhouse gas inventory. There was no evidence that the greenhouse gas inventory was not materially correct and is not a fair representation of greenhouse gas data and information.

Total greenhouse gas emissions of the 9 construction sites and manufacturing plant of CSCI from 1 January 2020 to 31 December 2020 are as follows:

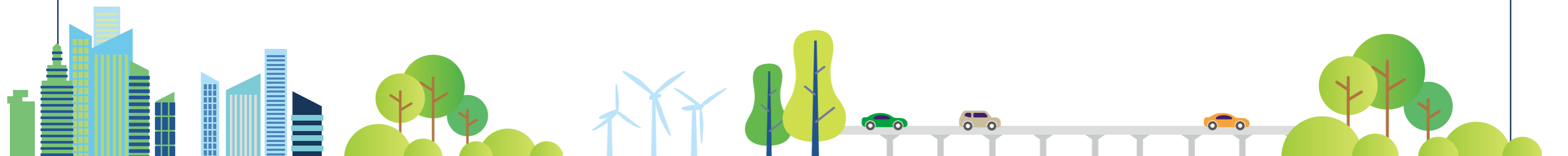
Greenhouse Gas Emissions	Tonnes of CO ₂ equivalent
Direct Emissions	5118.95
Indirect Emissions from Imported Energy	2201.37
Total (Direct Emissions+ Indirect Emissions from Imported Energy)	7320.32

Stamped on behalf of CECEPEC



Date of issuance: 18 May 2021

CECEP Environmental Consulting Group Limited
Room 2307-09, China Resources Building, 26 Harbour Road, Wan Chai, Hong Kong



ASSURANCE STATEMENT



Verification Statement (Continued)

Introduction

CECEPEC verified CSCI's greenhouse gas inventory in accordance with ISO14064-3: 2019. The greenhouse gas inventory of CSCI was comprised of 9 construction sites and manufacturing plant from the engineering and modular integrated construction business, which covered the direct and indirect greenhouse gas emissions for the period from 1 January 2020 to 31 December 2020.

Roles and Responsibilities:

CSCI is responsible for managing the greenhouse gas information system, recording the greenhouse gas relevant information, calculating the greenhouse gas emissions and reporting.

CECEPEC conducted a third party independent verification on the greenhouse gas inventory provided by CSCI. The verification process was conducted based on the verification scope, objectives and criteria as agreed between CSCI and CECEPEC. CECEPEC verification team is responsible for providing an independent verification opinion on the greenhouse gas inventory for the reporting period.

Details of the scope:

The organizational boundary was limited to 9 construction sites and manufacturing plant from the engineering and modular integrated construction business: 1) Hopewell Centre II Development, 2) Relocation of Sha Tin Sewage Treatment Works to Caverns, 3) Hong Kong Palace Museum, 4) Residential Development at Kai Tak, 5) Guotong Square Industrial Park Investment Project in Foshan, 6) Zhizao Future Harbour Project in Foshan, 7) German Town Construction Project in Hengqin, 8) Pingshan Primary school in Shenzhen, and 9) Zhuhai Hailong Prefabricated Construction Industrialization Base.

- Physical infrastructure, activities, technologies and processes of CSCI:
 - Business nature: construction main contractor and modular integrated construction manufacturer;
 - Greenhouse gas emissions from construction sites and manufacturing plant including but not limited to:
 - fuel and energy consumption for engineering and production equipment;
 - fuel consumption for vehicles;
 - fugitive greenhouse gas emissions during the operation of equipment and system;
 - imported electricity consumption and imported heat consumption.
- Greenhouse gas sources, sinks and/or reservoirs included: greenhouse gas sources as presented in the greenhouse gas inventory of CSCI.
- Types of greenhouse gas included: CO₂, CH₄ and N₂O.



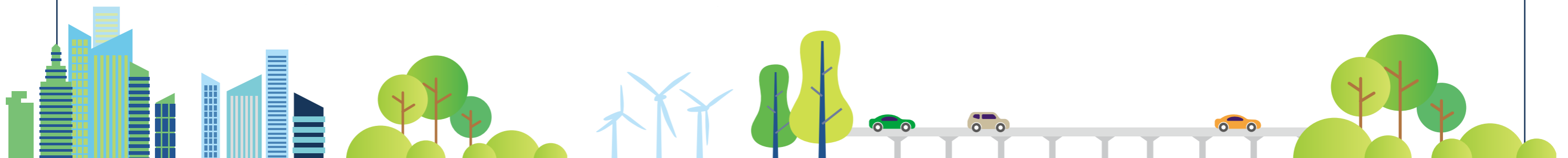
- The data and information supporting the direct and indirect emissions in greenhouse gas inventory were hypothetical, projected and past events in nature.
- Calculation guideline adopted for the verified greenhouse gas inventory included: *Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings (Commercial, Residential or Institutional Purposes) in Hong Kong, Other Industrial Enterprises Greenhouse Gas Emissions Accounting Methods and Reporting Guideline (Trial), 2015 National Grid Average Emission Factor.*
- Global Warming Potentials (GWP) adopted: *IPCC Fifth Assessment Report (AR5).*
- Greenhouse gas information for the following period was verified: 1 January 2020 to 31 December 2020.
- The intended user of the verification statement: Stakeholders identified by CSCI.

Conclusion:

CSCI provided the greenhouse gas inventory comprised of 9 construction sites and manufacturing plant for the period from 1 January 2020 to 31 December 2020, which was referenced to the requirements of ISO14064-1. As stated in the greenhouse gas inventory, the emissions of 7320.32 tonnes of CO₂ equivalent for the reporting period were verified by CECEPEC to a limited level of assurance (within ±5%), and was consistent with the agreed verification scope, objectives and criteria.

Based on the verification results, the verification team concluded that no material error or omission was identified in the greenhouse gas inventory. There is no evidence that the greenhouse gas inventory is not materially correct and is not a fair representation of the greenhouse gas emissions data and information.

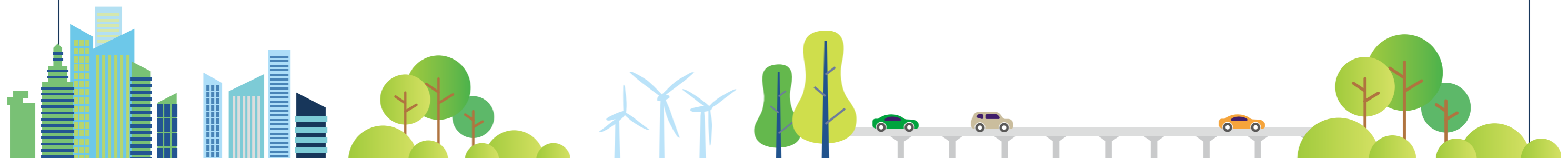
The verification team assessed the greenhouse gas inventory, which included tracing the greenhouse gas information system and collecting the supporting evidence for the reported data, and verified the consistency and appropriateness of the provided reporting framework reference.



SEHK ESG REPORTING GUIDE CONTENT INDEX

General Disclosure, KPIs	Description	Relevant Chapter (Page Number)	Remarks
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 (6) Striving for a Green Future (50-52)	
A1.1	The types of emissions and respective emissions data.	Striving for a Green Future (52) Summary of Key Performance Indicators (61)	
A1.2	Greenhouse gas emissions in total and intensity.	Striving for a Green Future (54) Summary of Key Performance Indicators (61)	
A1.3	Total hazardous waste produced and intensity.	Striving for a Green Future (57) Summary of Key Performance Indicators (61)	
A1.4	Total non-hazardous waste produced and intensity.	Striving for a Green Future (57) Summary of Key Performance Indicators (61)	
A1.5	Description of measures to mitigate emissions and results achieved.	Striving for a Green Future (51-59)	
A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	Striving for a Green Future (51, 57-59)	

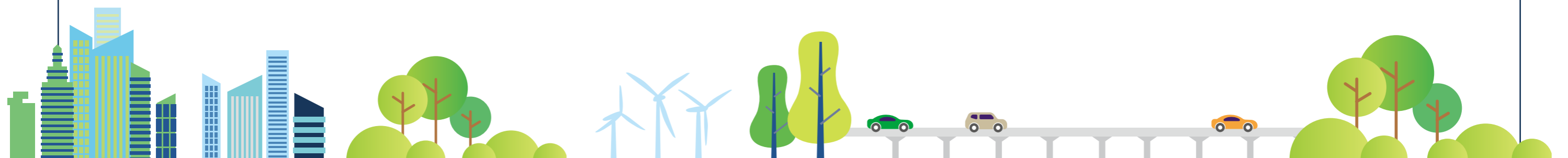
General Disclosure, KPIs	Description	Relevant Chapter (Page Number)	Remarks
A2 Use of Resources			
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	Sustainability Governance (6) Striving for a Green Future (51, 51-56)	
A2.1	Direct and/or indirect energy consumption by type in total and intensity.	Striving for a Green Future (55) Summary of Key Performance Indicators (62)	
A2.2	Water consumption in total and intensity.	Striving for a Green Future (56) Summary of Key Performance Indicators (62)	
A2.3	Description of energy use efficiency initiatives and results achieved.	Striving for a Green Future (51, 55)	
A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	Striving for a Green Future (56)	The water used by the Group was mainly supplied by the municipal pipeline network. There were no issues in sourcing water fit for purpose.
A2.5	Total packaging material used for finished products and, if applicable, with reference to per unit produced.	Summary of Key Performance Indicators (62)	
A3 The Environment and Natural Resources			
General Disclosure	Policies on minimising the issuer's significant impact on the environment and natural resources.	Sustainability Governance (6) Striving for a Green Future (50)	
A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Striving for a Green Future (51-52)	



SEHK ESG REPORTING GUIDE CONTENT INDEX

General Disclosure, KPIs	Description	Relevant Chapter (Page Number)	Remarks
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 (6) Carrying out People-Oriented Approach (33-34)	
B1.1	Total workforce by gender, employment type, age group and geographical region.	Carrying out People-Oriented Approach (33) Summary of Key Performance Indicators (63)	
B1.2	Employee turnover rate by gender, age group and geographical region.	Carrying out People-Oriented Approach (33) Summary of Key Performance Indicators (64)	

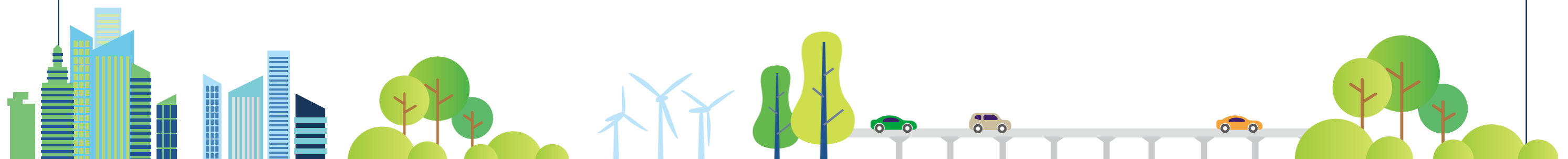
General Disclosure, KPIs	Description	Relevant Chapter (Page Number)	Remarks
B2 Health and Safety			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	Sustainability Governance (6) Caring about Safety Details (26-28)	
B2.1	Number and rate of work-related fatalities.	Caring about Safety Details (29) Summary of Key Performance Indicators (65)	
B2.2	Lost days due to work injury.	Summary of Key Performance Indicators (65)	
B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	Caring about Safety Details (26-32)	
B3 Development and Training			
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	Sustainability Governance (6) Carrying out People-Oriented Approach (34-35)	
B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	Summary of Key Performance Indicators (65)	
B3.2	The average training hours completed per employee by gender and employee category.	Summary of Key Performance Indicators (65)	



SEHK ESG REPORTING GUIDE CONTENT INDEX

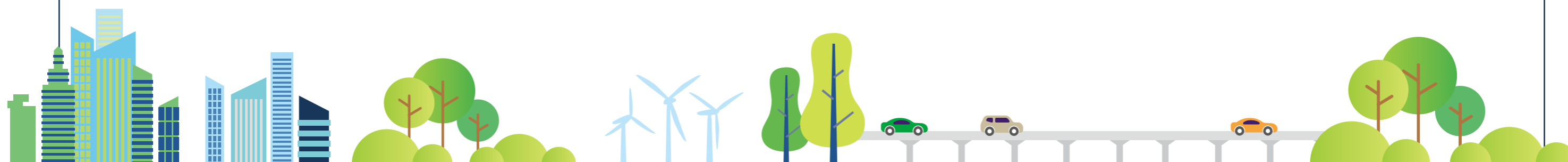
General Disclosure, KPIs	Description	Relevant Chapter (Page Number)	Remarks
B4 Labour Standards			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	Sustainability Governance (6) Carrying out People-Oriented Approach (34)	
B4.1	Description of measures to review employment practices to avoid child and forced labour.	Carrying out People-Oriented Approach (34)	
B4.2	Description of steps taken to eliminate such practices when discovered.	Not applicable	There were no such cases of non-compliance discovered in our operations during the Reporting Year.
B5 Supply Chain Management			
General Disclosure	Policies on managing environmental and social risks of the supply chain.	Sustainability Governance (6) Pledging to Quality Construction (40-41)	
B5.1	Number of suppliers by geographical region.	Summary of Key Performance Indicators (66)	
B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	Pledging to Quality Construction (40-41) Summary of Key Performance Indicators (66)	

General Disclosure, KPIs	Description	Relevant Chapter (Page Number)	Remarks
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 (6) Standing for Trust and Integrity (25) Pledging to Quality Construction (40)	
B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Not applicable	There were no recalls concerning the provision and use of products for safety and health reasons within the Group during the Reporting Year.
B6.2	Number of products and service related complaints received and how they are dealt with.	Not applicable	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 Reporting Year.
B6.3	Description of practices relating to observing and protecting intellectual property rights.	Standing for Trust and Integrity (25)	
B6.4	Description of quality assurance process and recall procedures.	Pledging to Quality Construction (39-40)	
B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	Standing for Trust and Integrity (25)	



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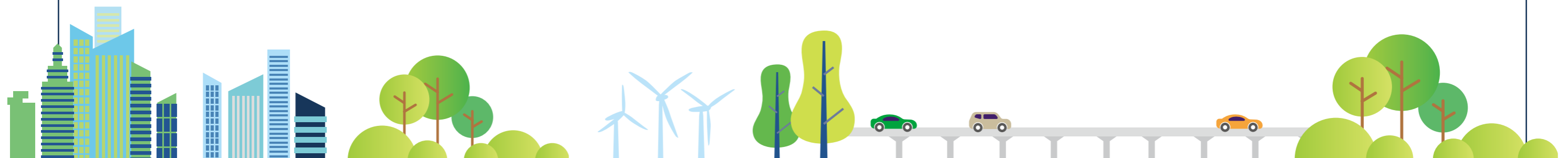
General Disclosure, KPIs	Description	Relevant Chapter (Page Number)	Remarks
B7 Anti-corruption			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	Sustainability Governance (6) Standing for Trust and Integrity (24)	
B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	Not applicable	There were no concluded legal cases of corruption brought against the Group or its employees during the Reporting Year.
B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	Standing for Trust and Integrity (24)	
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.	Sustainability Governance (6) Investing in Community Building (47)	
B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	Investing in Community Building (47)	
B8.2	Resources contributed to the focus area (e.g. money or time).	Investing in Community Building (47-49) Summary of Key Performance Indicators (67)	



GRI STANDARDS CONTENT INDEX

GRI Standards	Content	Relevant chapter (page number)	Remarks
GRI 101: Foundation 2016 (excluding any disclosures)			
General Disclosures			
GRI 102: General Disclosures 2016			
Organisational profile			
102-1	Name of the organisation	About This Report (2)	
102-2	Activities, brands, products, and services Operational	About This Report (2) Business Overview (19-20)	No product or service of the Group was banned in the market during the Reporting Year.
102-3	Location of headquarters	Business Overview (19)	
102-4	Location of operations	About This Report (2) Business Overview (20)	
102-5	Ownership and legal form	About This Report (2) Business Overview (19)	
102-6	Markets served	About This Report (2) Business Overview (19-20)	Detailed information on markets, clients and project types are available on pp. 30-43 of CSCI' Annual Report 2020
102-7	Scale of the organisation	Business Overview (19-20)	Detailed financial and sites of operations data are available on pp. 25-43 of CSCI's Annual Report 2020.
102-8	Information on employees and other workers	Carrying out People-Oriented Approach (33) Summary of Key Performance Indicators (63)	The Group's construction projects include workers not directly employed by the Group and the work is usually carried out by workers employed by contractors and/or sub-contractors. No factors were causing significant changes to the total number of employees during the Reporting Year.
102-9	Description of the organisation's supply chain	Pledging to Quality Construction (40-41)	
102-10	Significant changes to the organisation and its supply chain	About This Report (3)	There were no relevant significant changes to the Group and its supply chain during the Reporting Year.
102-11	Precautionary Principle or approach	Sustainability Governance (8)	
102-12	External initiatives	Sustainability Governance (10)	
102-13	Memberships of associations	Key Memberships (60)	

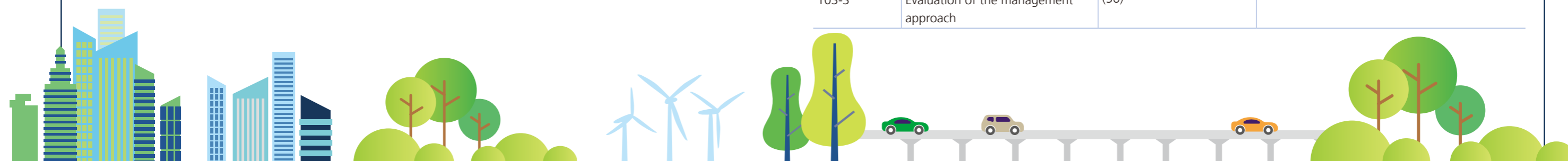
GRI Standards	Content	Relevant chapter (page number)	Remarks
Strategy			
102-14	Statement from senior decision-maker	Sustainability Governance (5)	
Ethics and Integrity			
102-16	Values, principles, standards and norms of behaviour	Sustainability Governance (6) Standing for Trust and Integrity (24)	
Governance			
102-18	Governance structure	Sustainability Governance (7)	Please refer to pp. 61-78 of the CSCI's Annual Report 2020.
Stakeholder engagement			
102-40	List of stakeholder groups	Sustainability Governance (11)	
102-41	Collective bargaining agreements	Not applicable	The Group's employees were not protected by collective bargaining agreements.
102-42	Identifying and selecting stakeholders	Sustainability Governance (10)	
102-43	Approach to stakeholder engagement	Sustainability Governance (10-12)	
102-44	Key topics and concerns raised	Sustainability Governance (11)	
Reporting practice			
102-45	Entities included in the consolidated financial statements	About This Report (3)	Please refer to pp. 194-201 of CSCI's Annual Report 2020.
102-46	Defining report content and topic Boundaries	About This Report (3) Sustainability Governance (12-15)	
102-47	List of material topics	Sustainability Governance (14-15)	
102-48	Restatements of information	Not applicable	This report did not include restatements of information from previous reports.
102-49	Changes in reporting	Sustainability Governance (14)	



GRI STANDARDS CONTENT INDEX

GRI Standards	Content	Relevant chapter (page number)	Remarks
Reporting practice			
102-50	Reporting period	About This Report (3)	
102-51	Date of most recent report	Not applicable	The most recent report of the Group was Sustainability Report 2019 published on 22 July 2020.
102-52	Reporting cycle	About This Report (3)	
102-53	Contact point for questions regarding the report	About This Report (4)	
102-54	Claims of reporting in accordance with GRI Standards	About This Report (3)	
102-55	GRI Content Index	GRI Standards Content Index (76-81)	
102-56	External assurance	About This Report (4) Assurance Statement (68-69)	
Material Issues			
Anti-corruption			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	Sustainability Governance (13-15) Standing for Trust and Integrity (24)	
103-2	The management approach and its components	Standing for Trust and Integrity (24)	
103-3	Evaluation of the management approach		
GRI 205: Anti-corruption 2016			
205-3	Confirmed incidents of corruption and actions taken	Not applicable	During the Reporting Year, the Group and its employees were not involved in cases of corruption. There was no prosecution due to corruption.

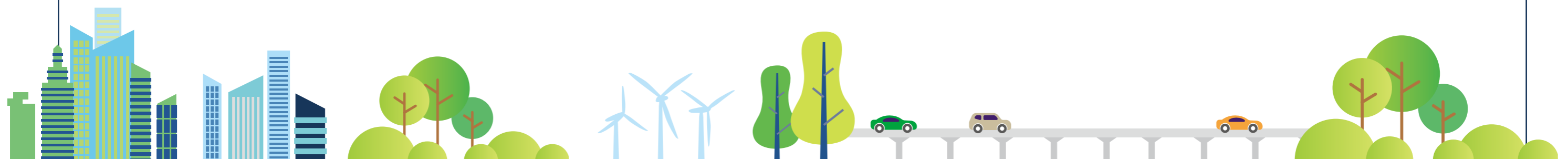
GRI Standards	Content	Relevant chapter (page number)	Remarks
Prevention of Anti-competitive Practices			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	Sustainability Governance (13-15) Standing for Trust and Integrity (24)	
103-2	The management approach and its components	Standing for Trust and Integrity (24)	
103-3	Evaluation of the management approach		
GRI 206: Anti-competitive Behaviour 2016			
206-1	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	Not applicable	During the Reporting Year, the Group was not involved in any cases of anti-competitive behaviour, anti-trust, and monopoly practices.
Materials			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	Sustainability Governance (13-15) Striving for a Green Future (50-51)	
103-2	The management approach and its components	Striving for a Green Future (50-51)	
103-3	Evaluation of the management approach		
GRI 301: Materials 2016			
301-1	Materials used by weight or volume	Summary of Key Performance Indicators (63)	
Water and Effluents			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	Sustainability Governance (13-15) Striving for a Green Future (50-51)	
103-2	The management approach and its components	Striving for a Green Future (56)	
103-3	Evaluation of the management approach		



GRI STANDARDS CONTENT INDEX

GRI Standards	Content	Relevant chapter (page number)	Remarks
GRI 303: Water and Effluents 2018			
303-1	Interactions with water as a shared resource	Striving for a Green Future (56)	The effluent discharge standards are in accordance with the requirements of the Water Pollution Prevention and Control Law of the People's Republic of China, the Water Pollution Control Ordinance of Hong Kong and the Environmental Act of Macau, etc.
303-2	Management of water discharge-related impacts		
303-5	Water consumption	Summary of Key Performance Indicators (62)	
Greenhouse Gases			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	Sustainability Governance (13-15) Striving for a Green Future (50-51)	
103-2	The management approach and its components	Striving for a Green Future (52-54)	
103-3	Evaluation of the management approach		
GRI 305: Emissions 2016			
305-1	Direct (Scope 1) GHG emissions	Striving for a Green Future (52-54) Summary of Key Performance Indicators (61)	Due to the nature of the Group's business, emissions depend on the number and nature of projects and their progress. Therefore, no base year has been set.
305-2	Energy indirect (Scope 2) GHG emissions		
305-3	Other indirect (Scope 3) GHG emissions		
305-4	GHG emissions intensity		
305-7	Nitrogen oxides (NOX), sulphur oxides (SOX), and other significant air emissions		

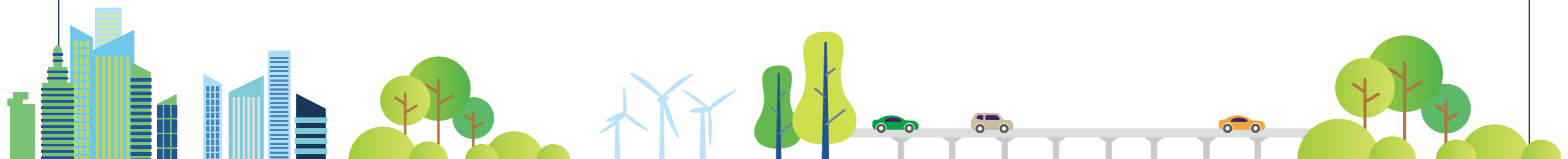
GRI Standards	Content	Relevant chapter (page number)	Remarks
Waste			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	Sustainability Governance (13-15) Striving for a Green Future (50-51)	
103-2	The management approach and its components	Striving for a Green Future (50-51, 57)	
103-3	Evaluation of the management approach		
GRI 306: Waste 2020			
306-1	Waste generation and significant waste-related impacts	Striving for a Green Future (57)	
306-2	Management of significant waste-related impacts		
306-3	Waste generated	Striving for a Green Future (57) Summary of Key Performance Indicators (61)	
Employment Management System			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	Sustainability Governance (13-15) Carrying out People-Oriented Approach (33)	
103-2	The management approach and its components	Carrying out People-Oriented Approach (33-34)	
103-3	Evaluation of the management approach		
GRI 401: Employment 2016			
401-1	New employee hires and employee turnover	People-Oriented Approach (33) Summary of Key Performance Indicators (64)	



GRI STANDARDS CONTENT INDEX

GRI Standards	Content	Relevant chapter (page number)	Remarks
A Safe and Healthy Working Environment			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	Sustainability Governance (13-15) Caring about Safety Details (26)	
103-2	The management approach and its components	Caring about Safety Details (26-29)	
103-3	Evaluation of the management approach		
GRI 403: Occupational Health and Safety 2018			
403-1	Occupational health and safety management system	Caring about Safety Details (26-32)	
403-2	Hazard identification, risk assessment, and incident investigation		
403-3	Occupational health services		
403-4	Worker participation, consultation, and communication on occupational health and safety		
403-5	Worker training on occupational health and safety		
403-6	Promotion of worker health		
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships		
403-9	Work-related injuries	Caring about Safety Details (27-29) Summary of Key Performance Indicators (65)	

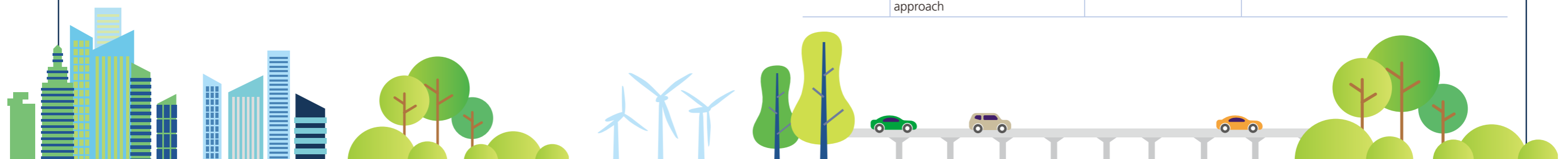
GRI Standards	Content	Relevant chapter (page number)	Remarks
Prevention of Child Labour or Forced Labour			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	Sustainability Governance (13-15) Carrying out People-Oriented Approach (33)	
103-2	The management approach and its components	Carrying out People-Oriented Approach (34)	
103-3	Evaluation of the management approach		
GRI 408: Child Labour 2016			
408-1	Operations and suppliers at significant risk for incidents of child labour	Not applicable	During the Reporting Year, the Group did not identify any operations and suppliers that are at significant risk for incidents of child 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 Reporting Year, the Group did not identify any operations and suppliers that are at significant risk for incidents of forced or compulsory labour.
Community Engagement, Impact Assessment and Investment			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	Sustainability Governance (13-15) Investing in Community Building (47)	
103-2	The management approach and its components	Investing in Community Building (47)	
103-3	Evaluation of the management approach		
GRI 413: Local Communities 2016			
413-2	Operations with significant actual and potential negative impacts on local communities	Not applicable	During the Reporting Year, the Group did not identify any operations that have actual or potential significant negative impact on local communities.



GRI STANDARDS CONTENT INDEX

GRI Standards	Content	Relevant chapter (page number)	Remarks
Participation in Public Policy			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	Sustainability Governance (13-15) Investing in Community Building (47)	
103-2	The management approach and its components	Investing in Community Building (47)	
103-3	Evaluation of the management approach		
GRI 415: Public Policy 2016			
415-1	Political contributions	Not applicable	During the Reporting Year, the Group did not make any political contributions.
Health and Safety of Customer and Public			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	Sustainability Governance (13-15) Caring about Safety Details (26) Pledging to Quality Construction (39)	
103-2	The management approach and its components	Caring about Safety Details (26-29)	
103-3	Evaluation of the management approach	Pledging to Quality Construction (40)	
GRI 416: Customer Health and Safety 2016			
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Not applicable	There were no cases of non-compliance relating to the health and safety impacts of products and services during the Reporting Year.

GRI Standards	Content	Relevant chapter (page number)	Remarks
Customer Privacy			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	Sustainability Governance (13-15) Standing for Trust and Integrity (24)	
103-2	The management approach and its components	Standing for Trust and Integrity (25)	
103-3	Evaluation of the management approach		
GRI 418: Customer Privacy 2016			
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Not applicable	The Group did not receive any complaints concerning breaches of customer privacy and losses of customer data during the Reporting Year.
Material issues not covered by the GRI Standards			
Intellectual Property Rights			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	Sustainability Governance (13-15) Standing for Trust and Integrity (24)	
103-2	The management approach and its components	Standing for Trust and Integrity (25)	
103-3	Evaluation of the management approach		
Innovative Technologies and Their Applications			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	Sustainability Governance (13-15) Leading in Technology Development (42)	
103-2	The management approach and its components	Leading in Technology Development (42-43)	
103-3	Evaluation of the management approach		



GRI STANDARDS CONTENT INDEX

GRI Standards	Content	Relevant chapter (page number)	Remarks
Quality Management and After-sales Service			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	Sustainability Governance (13-15) Pledging to Quality Construction (39)	
103-2	The management approach and its components	Pledging to Quality Construction (39-40)	
103-3	Evaluation of the management approach		
Labour Force at Construction Sites			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	Sustainability Governance (13-15)	
103-2	The management approach and its components	Risk Management (9) Adopting Modular	
103-3	Evaluation of the management approach	Integrated Construction (17-18) Caring about Safety Details (31-32) Carrying out People-Oriented Approach (34, 36) Carrying out People-Oriented Approach (46)	Daily monitoring and reporting by engineering subsidiaries and construction sites to reduce site operations while meeting schedules, and will continue to improve related measures.

