Organizer:









CIC Sustainable Finance Series:

Overview of CIC Sustainable Finance Certification Scheme (SFCS)

Introduction of Speakers



Ar. Stephen Ho,
Assistant Director,
Industry Development &
Estates Office,
Construction Industry
Council



Ms. Hannah Wong, Principal Engineer, Cundall



Mr. Eddie Tse,
Senior Sustainability
Manager,
Gammon Construction
Limited



Mr. James Lee, CEO and Executive Director, Paul Y. Engineering

Expected Outcome

Upon successful completion of the CPD webinar, you will be able to fully understand:

1

Overview and application details of SFCS

2

Impacts and opportunities of climate risks on the construction industry

3

Assessor qualification and responsibilities

4

Highlights of successful pilot projects





Introduction by Ar Stephen HO

Assistant Director – Industry Development & Estates Office, CIC





2019 carbon dioxide emissions in China

9.8 billion tons in total

Ranked No.1 in the world

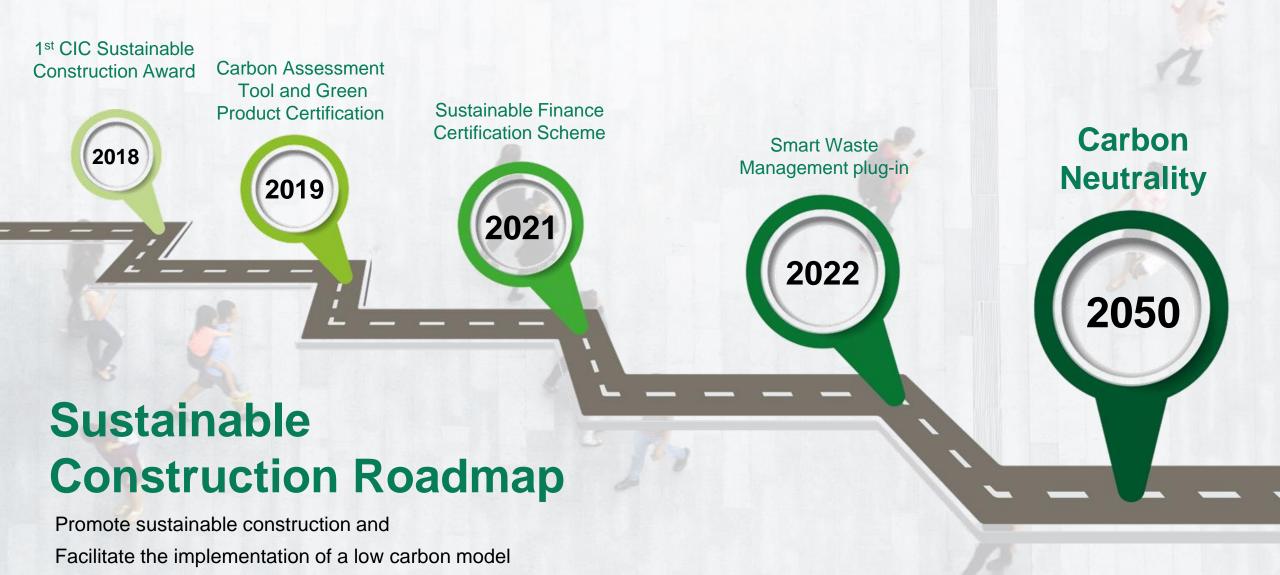


CO₂
39%
global carbon emission is from building and construction sector

\$250 Billions construction expenditure (5% GDP in HK)

48,000 Tonnes
Daily C&D Waste





Opportunities for Sustainable Finance



Policy Address

Position HK as a leading green finance hub in Asia



Engagement

Owners, contractors and suppliers are supportive



Market Trend

Growing Trend of sustainable finance market in China and overseas



CIC Sustainable Finance Certification Scheme 建造業議會可持續金融認證計劃

A common framework and user-friendly assessment system to facilitate the application of sustainable finance for the construction industry, as well as SMEs



Submit sustainability performance information & Prepare financial information to FI



CIC issues certificate for green initiatives after verification, CIC does not assess credits



FI assesses applicant's credit and offers suitable financial product to successful application

Benefits

To harness financial resources to facilitate best practices towards carbon neutrality



Increase green capitals with financial incentives



Enhance stakeholders' trust via third-party assessments



Expand the business opportunity in Hong Kong and Greater Bay Area



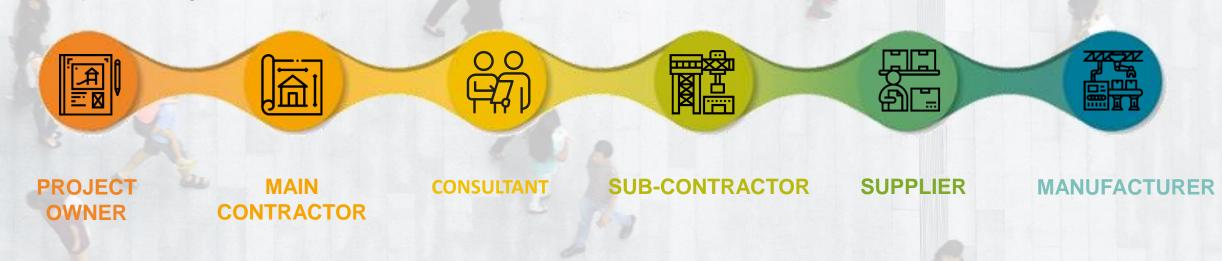
Build capability and credibility of the company, business partners and value chain





Target Applicants

The scheme welcomes all players in the construction industry, including:



Recognition

CIC is delighted to be the recognised external reviewer of HKMA Green and Sustainable Finance (GSF) Grant Scheme

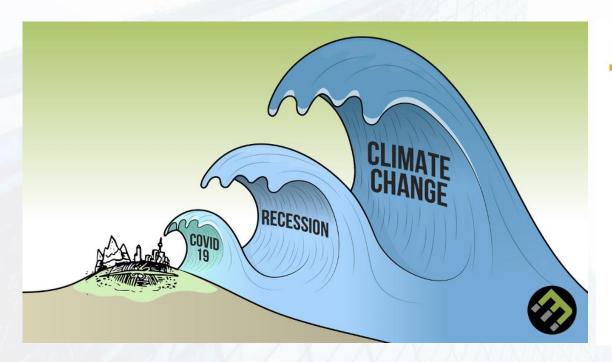
Subsidy over HK\$0.8million per loan case over HK\$200million











Looking at 2020 - what is keeping us awake in Asia?

People are more concerned—not less—about addressing environmental challenges and are more committed to changing their own behavior



94%

COVID-19

91%

climate change

90%

air pollution

Sources: EcoMatcher, GlobalScan

Green Loan Principles

Supporting environmentally sustainable economic activity







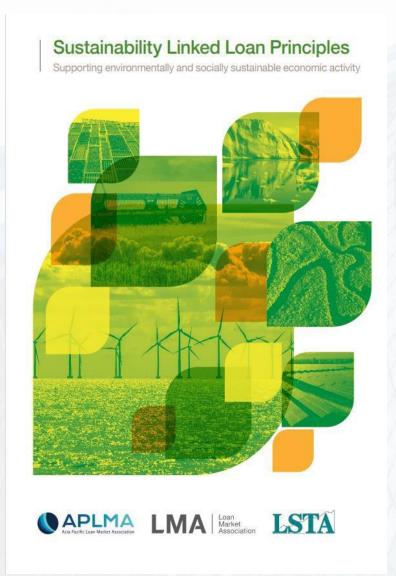


Green Loan Principles

voluntary recommended guidelines

Any type of loan instrument that delivers both investable returns and environmentally positive outcomes. It must align with the four core components, including:

- Use of proceeds
- Process of project evaluation and selection
- Management of proceeds
- Reporting



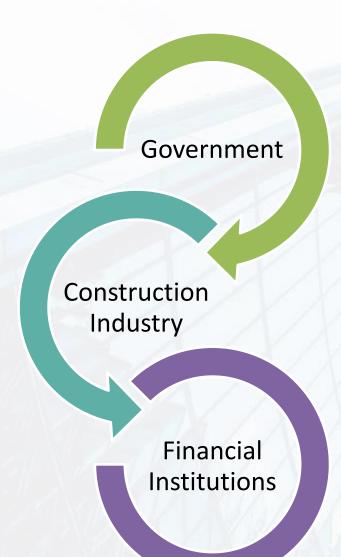
Sustainability Linked Loan Principles

Sustainability Linked Loan Definition: any type of loan instruments which incentivise the borrower's achievement of ambitious, predetermined **Key Performance Indicators** (KPIs) and Sustainability Performance Targets (SPTs)

It is based on five core components, including:

- Selection of KPIs (be measurable / quantifiable)
- Calibration of SPTs (show improvement / compared to a benchmark)
- Loan Characteristics (economic benefit)
- Reporting (disclosure)
- Verification (independent verification)

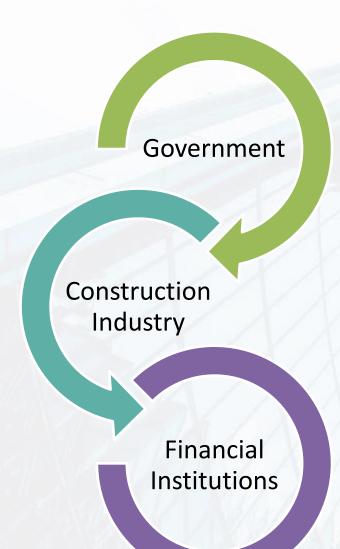
© Construction Industry Council—2022 – All rights reserved



HKSAR Government

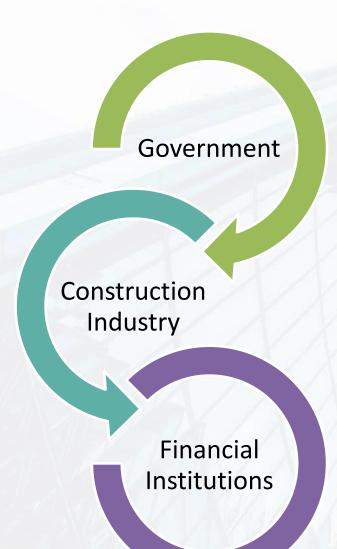
- Position HK as a leading sustainable finance hub in Asia
- Policy Address from Mrs. Carrie Lam, Chief Executive of Hong Kong

"We will develop **green finance** to boost investments conducive to reducing carbon emissions, build a low-carbon economy which is more resilient to climate change, and enhance public education and publicity....." - November 25, 2020



Construction Industry

- Supportive towards sustainable finance, but some companies are not familiar with the process
- Increasing pressure of the sustainable finance and climaterelated disclosures
- Lacking resources and technical knowledge in assessing, monitoring and reporting the green impact of designated projects



Financial Institutions

- Increasing pressure in climate-related disclosures
- Banks have developed climate strategies and rolled out diverse green financial instruments to seize the accelerate business opportunities
- Relatively complicated process and high cost

Objectives of SFCS

What is the aim of the project?

- To develop a Scheme for sustainable finance based in Hong Kong to serve Greater Bay Area (GBA)
- To support the HKSAR Government towards the carbon neutrality and respond to the growing trend on sustainable finance across the construction industry

Why is CIC developing this scheme?

- Provide a common framework and assessment system for entities implementing good practices of sustainable construction
- Facilitate the application of sustainable finance for the construction industry



建造業議會可持續金融認證計劃開幕典禮

🛗 05-11-2021 3:00 pm - 4:30 pm

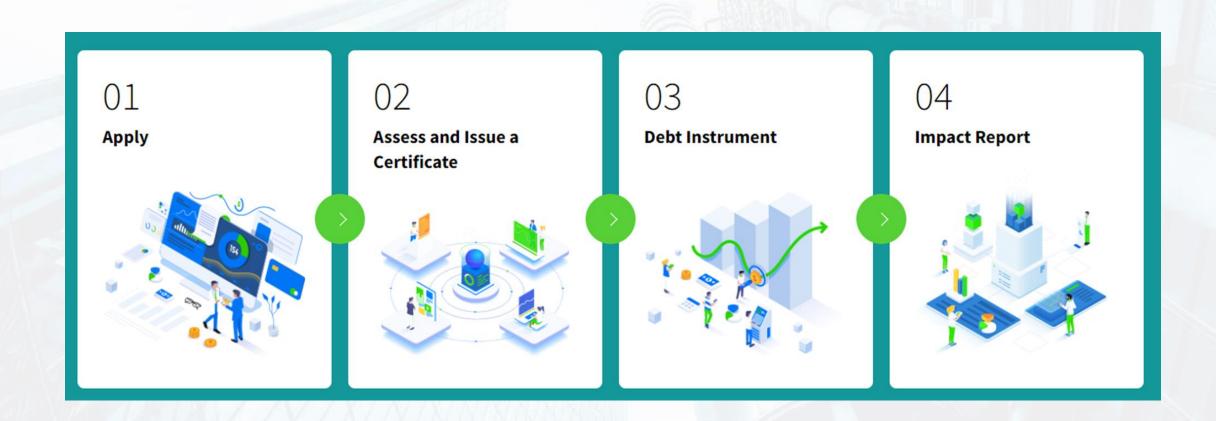
為協助香港特區政府促進香港成為亞洲領先的可持續金融中心,並在 2050 年前實現碳中和,建造業議會為香港建築業啟動可持續金融認證計劃(本計劃)。本計劃為業界提供一個通用框架和簡易的評估系統,以促進業界應用可持續金融的工具。建造業議會將為本計劃舉行開幕典禮,典禮並邀請到知名講者與金融界領袖分享在香港及大灣區的可持續金融機會。誠意

SFCS – 5 Key Features

4. MUTUAL **RECOGNITION WITH** 1. VERIFICATION AGAINST THIRD PARTIES INTERNATIONAL **PRINCIPLES** 2. CONSTRUCTION **INDUSTRY SPECIFIC** 5. EXTENSIVE SUPPORTS TO APPLICANTS 3. SCHEME COVERAGE (COMPANY) **AND PROJECT LEVELS)**



Application Process



Project Eligibility

The Scheme covers 10 eligible project categories, including:



Renewable Energy



Environmentally
Sustainable
Management of Living
Natural Resources
and Land Use



Climate Change Adaptation



Energy Efficiency



Clean Transportation



Eco-efficient and / or Circular Economy Adapted Products, Production Technologies and Processes



Pollution Prevention and Control



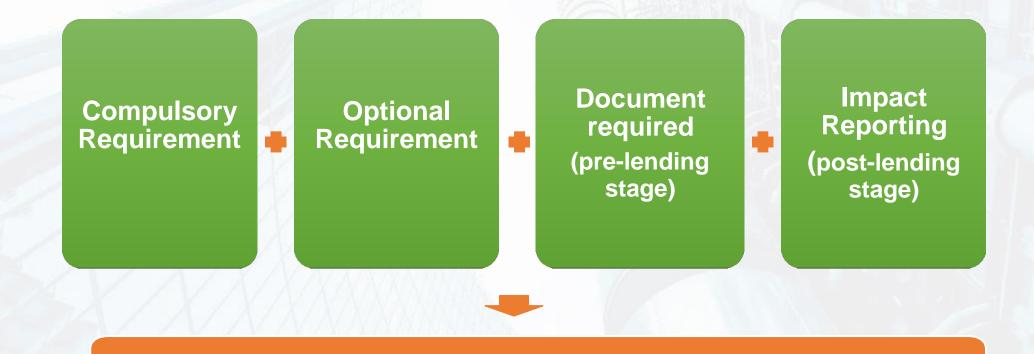
Sustainable Water and Wastewater Management



Green Buildings



Terrestrial and Aquatic Biodiversity Conservation



CIC Sustainable Finance Certificate



Green buildings - which meet regional, national or internationally recognised standards or certifications

- US Green Building Council's Leadership in Energy and Environmental Design (LEED)
- Hong Kong Building Environmental Assessment Method (BEAM Plus)
- China Green Building Evaluation Label
- Excellence in Design for Greater Efficiencies (EDGE)









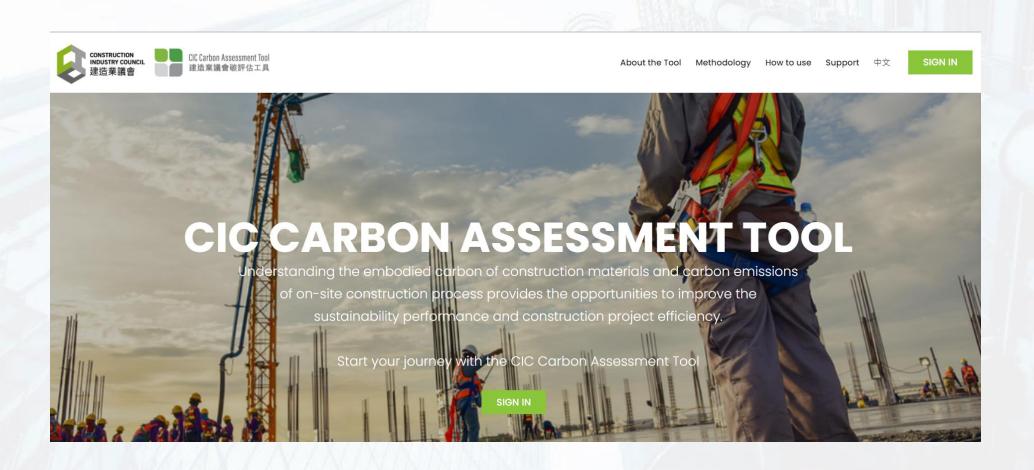
Applicant 申請者	Eligibility 資格要求	Compulsory Requirement (if applicable) 強制性要求 (如適用)	Optional Requirement 選擇性要求	Documents required (pre-lending stage) 所需文件(貸前階段)	Documents required (post-lending stage) 所需文件(貸後階段)	Reference Tools/Standards 參考 工具/標準
Main Contractor 主承包商	New, existing or refurbished buildings/fitouts which have received at least one of the regional, national or international recognised green building standard. 已獲得地區、國家或國際認可的綠色建築標準中至少一項的新建、現有或翻新建築	Provide project specification to demonstrate green building assessment target rating, e.g., LEED, BEAM Plus, WELL, EDGE, etc. 提供項目規範以證明綠色建築 評估目標評級,例如 LEED、 BEAM Plus、WELL、EDGE 等		Provide tender/ contract document. 提供招標/合約文件	Provide relevant certification and/or impact report. - 提供相關認證及/或影響報告 Percentage of energy use reduced/avoided compared with local baseline or building code. 相對於當地基準線或者建築規範的能源減少使用百分比 - Percentage of water reduced/avoided compared with	The selected green building assessment tool(s). 選定的綠色建築評估工具 ICMA Harmonized Framework Section 6. ICMA 協調框架第 6 部/https://www.icmagroup.o//sustainable-

Compulsory Requirement (if applicable) Optional Requirement (if applicable)

Document required (pre-lending stage)

Document required (post-lending stage)

Applicant 申請者	Eligibility 資格要求	Compulsory Requirement (if applicable) 強制性要求 (如適用)	Optional Requirement 選擇性要求	Documents required (pre-lending stage) 所需文件(貸前階段)	Documents required (post-lending stage) 所需文件(貸後階段)	Reference Tools/Standards 参考 工具/標準
Project Owner (i.e., developer, government and statutory body) 項目 業主(即發 展商,政府 和公營機	New, existing or refurbished buildings which have received at least one of the regional, national or international recognised green building standard 已獲得地區、國家或國際認可的 綠色建築標準中至少一項的新建、現有或翻新建築	If the contractor has control in design optimisation (e.g. temporary work, foundation design or material selection, etc.), then carbon assessment by CIC Carbon Assessment Tool at the construction stage should be carried out. 如果承包商可以控制設計優化(例如臨時工作,基礎設計或材料選擇等),則應該在建造階段使用 CIC 碳評估工具進行碳評估		Undertaking letter from main contractor. 主承包商的承諾書	Provide the carbon assessment result of CIC Carbon Assessment Tool. 提供 CIC 碳評估工具的結果	CIC Carbon Assessment Tool. CIC 碳評估工具 https://cat.cic.hk/



Project Eligibility

*

Renewable energy - including production, transmission, appliances, and products

- Concentrated solar power facilities (onshore) / wind farms (onshore / offshore) / hydropower
- Manufacturing facilities wholly dedicated to onshore solar energy development
- Floating photovoltaic (FPV) systems at Shek Pik Reservoir (石壁水塘)
- Rooftop photovoltaic (FPV) systems at Zero Carbon Park



Project Eligibility



Sustainable water and wastewater management - sustainable infrastructure for clean and / or drinking water, **wastewater treatment**, sustainable urban drainage system and river training and other forms of flooding mitigation

- Rainwater harvesting systems, storm water management systems, water distribution systems
- Drinking water treatment, water recycling systems, wastewater treatment facilities



 Relocation project of the Sha Tin Sewage Treatment Works to caverns / Happy Valley Underground Stormwater Storage Scheme

Project Eligibility



Eco-efficient and / or Circular economy adapted products, production technologies and processes - such as development and introduction of environmentally sustainable products, with an eco-label or environmental certification, resource-efficient packaging and distribution

CIC Green Product Certification

各類別綠色產品的百分比

預拌混凝土	84%
膠黏劑和密封膠	1%
油漆及塗料	11%
內部區塊	1%
面板	1%
其他	2%













Application Eligibility

With reference to the International Finance Corporation (IFC) Exclusion List (2007), projects that involve the following activities shall not be eligible for the SFCS:

- Activity considered as illegal under laws or regulation or subject to international bans;
- Production or trade in weapons and munitions;
- Production or trade in alcoholic beverages (excluding beer and wine);
- Production or trade in tobacco;
- Gambling, casinos and equivalent enterprises;
- Production or trade in radioactive material; and
- Production or activities involving harmful or exploitative forms of forced labour or harmful child labour.

Pilot Projects

List of Certifications

Certificate Number	Company Name (Project Name)	Certified Year	Sustainable Financing Instrument
SFCS-2021-001	Gammon Construction Limited (Airport Authority Hong Kong T2 Expansion Project)	May 2021	Green Guarantee
SFCS-2021-002	Gammon Construction Limited	May 2021	Sustainability- linked Guarantee
SFCS-2021-003	CR Construction Group Holdings Limited	Jul 2021	Sustainability- linked Loan
SFCS-2021-004	AluHouse International Trading Company Limited	Jun 2021	Green Loan
SFCS-2021-005	Kum Shing (K.F.) Construction Co., Limitied (EV Operation Centre Project)	Aug 2021	Green Loan
SFCS-2021-006	Hong Kong Energy Infrastructure Limited (NPC Waterproofing System Reinforcement and Photovoltaic System FiT Investment Project)	Aug 2021	Green Loan
SFCS-2021-007	Widex Solar Energy Technology Limited (Project Helios)	Sep 2021	Green Loan
SFCS-2021-008	China State Construction International Holdings Limited	Sep 2021	Sustainability- linked Loan

SFCS-2021-009	Kinform Timber Company Limited	Sep 2021	Green Loan
SFCS-2021-010	Hip Hing Construction Company Limited (AIA Urban Campus Redevelopment Project)	Sep 2021	Green Guarantee
SFCS-2021-011	Ampd Energy Ltd.	Sep 2021	Green Loan
SFCS-2021-012	Paul Y. General Contractors Limited (Mixed Housing Development at Pak Wo Road,FSSTL 264, Fanling)	Sep 2021	Green Guarantee
SFCS-2021-013	Paul Y. General Contractors Limited (Construction of Public Housing Development at Chiu Shun Road, Tseung Kwan O)	Sep 2021	Green Loan
SFCS-2021-014	Paul Y. Construction Company, Limited (Design- Build-Operate Contract for the Additional District Cooling System at the Kai Tak Development)	Sep 2021	Green Loan
SFCS-2021-015	AMOS Enterprises Limited (Hong Kong)	Sep 2021	Green Loan
SFCS-2021-016	Grace Castle Corporation Limited (Ho Man Tin Station Package Two Property Development at KIL No. 11264 (Site B))	Oct 2021	Green Loan
SFCS-2021-017	Analogue Holdings Limited	Oct 2021	Green Loan
SFCS-2021-018	EcoSmart Energy Management Limited	Oct 2021	Green Loan
SFCS-2021-019	Zenith (PMS) Limited	Nov 2021	Green Loan
			20

Application Fee

	First 20 no. of application	After 20 th no. of application:
Original fee:	\$76,000	\$76,000
Discount fee: (with post-lending verification provided by CIC):	\$16,000	\$48,000
Discount fee (without post-lending verification provided by CIC):	-	\$16,000





Pre-lending assessment and Post-lending verification



Pre-lending assessment only







GREEN AND SUSTAINABLE FINANCE

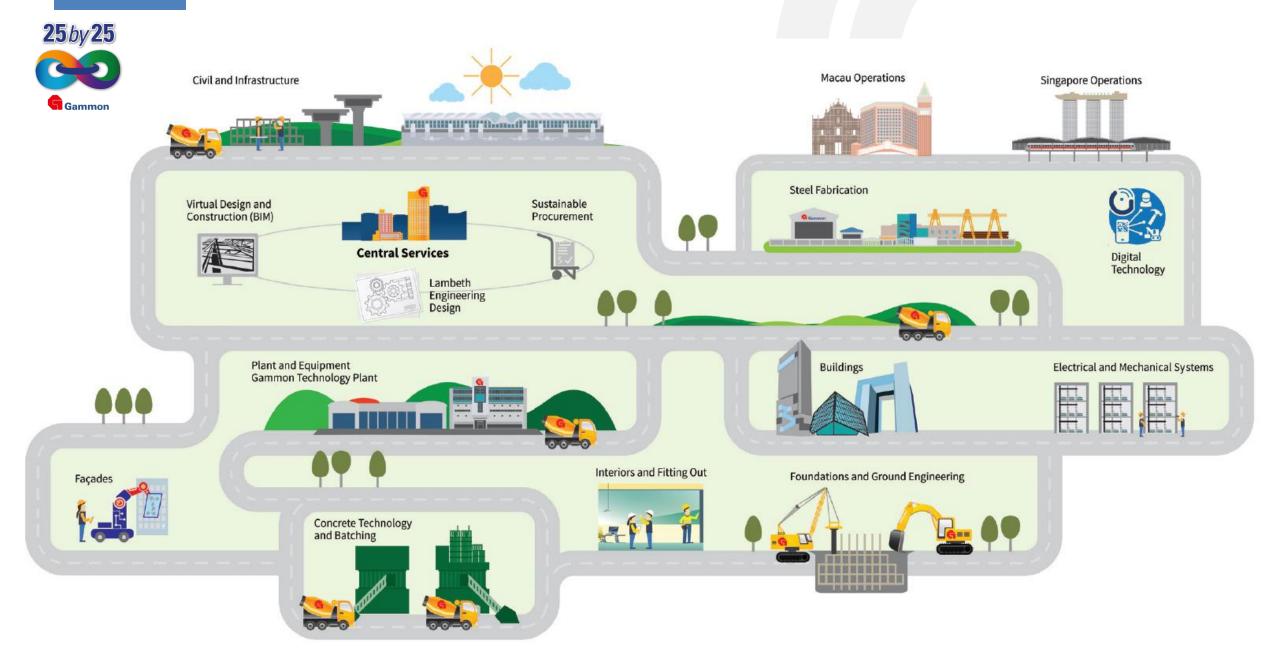
FEBRUARY 2022 EDDIE TSE SENIOR SUSTAINABILITY MANAGER

CIC WEBINAR

OVERVIEW OF CIC SUSTAINABLE FINANCE

CERTIFICATION SCHEME











SUSTAINABILITY STRATEGY

RESPONSIBLE GROWTH -25 BY 25

Strategy has evolved from our five business priorities



Engaging with and enhancing the wellbeing of our **people** and **helping communities**



Reducing resource use and waste and being ready for climate change



Optimising off-site
construction and
related standardisation,
modularisation, mechanisation
and design for manufacture
and assembly (DfMA)



Expanding the use of and developing our skills in **building information modelling (BIM)**, not only in 3D but in all its potential dimensions to improve planning, quantification, sustainability, client facility management, collaboration, robotics and artificial intelligence



Continuation of our digital transformation journey and adoption of integrated digital project delivery (IDPD) to allow active collaboration of the value chain in a digital environment

And four focus areas linked by innovation and digitalisation















GOALS AND TARGETS

- Responsible Growth 25 by 25 sets clear objectives, actions and improvement targets across our four focus areas linked to our 6 priority UN Sustainable Development Goals with their associated targets
- The six SDGs and seven targets were selected as priorities by both internal and external stakeholders































Focus areas and approaches

Objectives, actions, 2025 targets

Governance

The Gammon Way

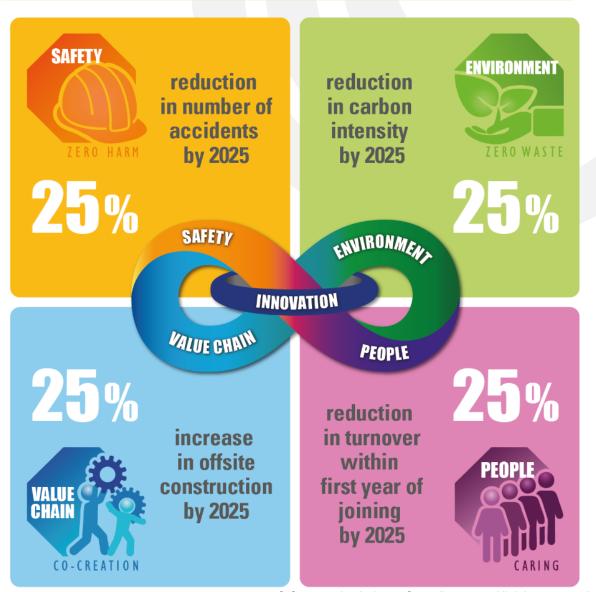
Vision Mission Values



Business Priorities

- 1. People and communities
- 2. Resource use and climate change
- 3. 10D BIM
- 4. Offsite construction and DfMA
- 5. Digital transformation and IDPD





SUSTAINABILITY REPORTING AND ENGAGEMENT



https://www.gammonc
onstruction.com/en/su
stainability-report.php

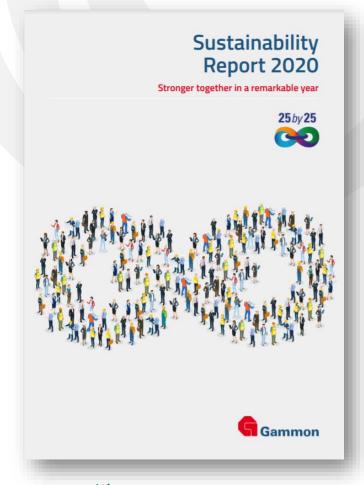






Responsible Growth – 25 by **25**











CREATING SHARED VALUE WITH CIC

SHARED VISION & MISSION

Gammon

Context

Objectives, actions, 2025 targets

The Gammon Way

Vision Mission Values



Business Priorities

- 1. People and communities
- 2. Resource use and climate change
- 3. 10D BIM
- 4. Offsite construction and DfMA
- 5. Digital transformation and IDPD





SAFETY

in number of accidents by 2025

reduction









increase in offsite construction by 2025

reduction in turnover within first year of

joining

by 2025









in our operations and influence industry stakeholders to do the same.





productivity and industry growth

TALENT





CONSTRUCTION AWARD 建造業議會可持續建築大獎

CONSTRUCTION

建造業議會

INDUSTRY COUNCIL



CIC Carbon Assessment Tool 理避難議會碳評估工具

CULTURE

and safe culture is instrumental to the

ustainable Construction Certification

Scheme for Green Finance (2021)







CIC Sustainable Finance Certification Scho 建造業議會可持續金融認證計劃



Carbon emission factor for specific materials Grading

INTELLIGENCE

By building up the capacity of the

technology to improve productivity,

safety and environmental performance.

industry, we can accelerate the

CIC Carbon Carbon emission factor

and other materials Carbon performance of construction projects

Existing Credit BEAM Plus New Buildings

Smart Waste managemen Proposed Plug-in (2021)

Digitalise the onsite waste management

Develop industry waste

- Construction Award
- BEAM Plus
- Specification in public and private works
- Green Finance



Local/ International

Green Finance Certification Scheme

· Best practices of local and oversea projects Foster construction green finance



KITEMARKTM



Product Carbon













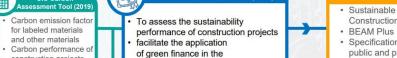












construction industry

About Certified Products Application Details Apply Resources Contact Us







CIC GREEN PRODUCT CERTIFICATION















About the Tool Methodology How to use Support 中文

















GREEN & SUSTAINABLE FINANCE











BEAM Plus Existing Building (Energy Use) Excellent Rating

WHAT GAMMON REALLY NEEDS?

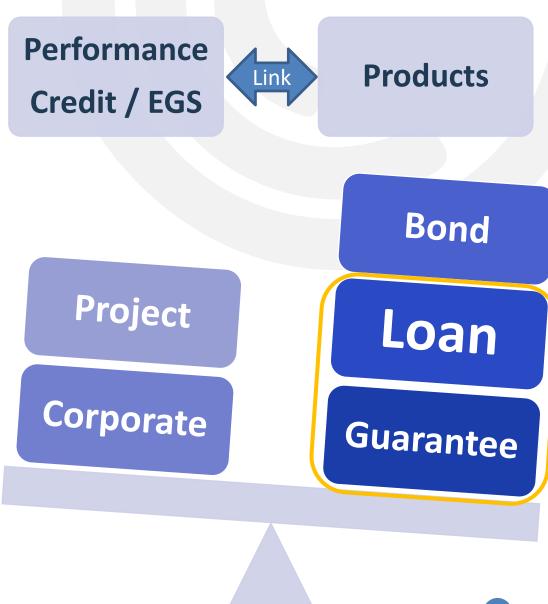
Trade Finance Instrument/Guarantee

- Performance Bond (contract bond at project level)
- Letter of Credit (for purchase overseas)

Debt Instrument

 Revolving Loan (for financing general working capital at corporate level)

	Green	Sustainability Linked
Loan		
Guarantee		



WHAT IS PERFORMANCE BOND / GUARANTEE?

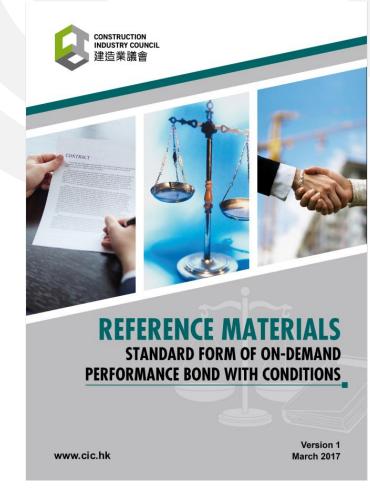
CIC Reference Materials – Standard Form of On-demand Performance Bond with Conditions (Version 1, March 2017)

Performance bond – one of the means of protection against the non-performance of the contractor in construction contracts. They are an undertaking by a bondsman or surety (a bank or an insurer) to make a payment to the employer in the event of non-performance of the contractor. The cost of the bond is usually borne by the contractor, therefore it's likely to be reflected in the contractor's tender price. It may also deter some otherwise competent contractors from tendering for projects, particular in a booming construction markets.

Public Works Contract - **Security or sureties**

TC 10/1997 - "Use of Performance Bonds Security and Retention Moneys and Standard Form of Bond"

TC 18/2000 - "Works Bureau Library of Standard Special Conditions of Contract for use with G.C.C. for Building Works, Civil Engineering Works and Electrical & Mechanical Engineering Works 1999 Editions", SCC Clause 33



COST OF PERFORMANCE BOND / GUARANTEE

For public works contract, the amount of performance bond ranges from 1% to 5% of contract value depending on contract sum (i.e. project scale) and Contractor Group (Type A, B or C, i.e. contractor size).

For private works such as construction of commercial/residential building, the amount of performance bond is typically 10% of contract value.

Contractors obtain/arrange performance bond from banks/insurers at a commission rate (i.e. bank fee) = a certain % of the amount of performance bond.

GAMMON INITIATIVES

Green Guarantees with:

- Credit Agricole New Kowloon Inland Lot No. 6564 at Kai Tak Area 1L Site 1 (one of the First Green Guarantees in Asia-Pacific) on 27 Oct 2020
- HSBC (and AAHK) T2 Expansion (the first pilot project to complete CIC Sustainable Finance Certification Scheme) on 16 July 2021

Sustainability Linked Guarantee with DBS (the second pilot project to complete CIC SFC and the first sustainability linked bank guarantee in Hong Kong) on 6 July 2021

Building capacity, avoiding **greenwashing**, setting 'ambitious' KPIs/Sustainability Performance Targets and engaging supply chain partners are issues we are focusing on.







Hong Kong

GREEN GUARANTEE

Crédit Agricole CIB supported Gammon Construction Limited on implementing one of the First Green Guarantees in Asia-Pacific

"New Kowloon Inland Lot No. 6564 at Kai Tak Area 1L Site 1"
27 Oct 2020

Commitment to bank: BEAM Plus Gold rating (already contract requirement)
Also promoted in press release our enhanced site environmental management practices including use of sustainable and regional materials, mass battery storage system, precast façade units and aluminum system formwork (not included in commitment to bank)

GREEN GUARANTEE







HSBC Arranges Green Guarantee to Support Gammon on Hong Kong International Airport Terminal 2 Expansion Works

16 Jul 2021

Commitment to bank: BEAM Plus Platinum rating (already contract requirement)

Implementing and promoting other green initiatives (but not included in commitment to bank):

- The use of prefabricated modules to facilitate low waste construction
- The use of a mass battery storage system, called the Enertainer, to reduce noise, air pollution and carbon emissions on site
- The use of ready-mix concrete with CIC Green Product Certification and the use of CIC Carbon Assessment Tool to track carbon performance
- Reuse of treated marine sediment to avoid marine dumping
- Recycling of removed trees to reduce yard waste disposal



OTHER CONSIDERATIONS

- Gammon has an existing performance bond (guarantee) issued by HSBC in favor of the employer (Airport Authority) in respect of J3908 T2 Expansion Works.
- Gammon reaches a bilateral agreement with HSBC to designate this Performance Bond (guarantee) as a Green Guarantee subject to certain conditions imposed on Gammon solely, such as providing information to HSBC in relation to the Green status of the development.
- Gammon is fully responsible for provision of related Green information (non-confidential) of J3908 T2 Expansion Works required by HSBC from time to time in maintaining the designation of Green Guarantee, up to the release date of this performance bond by Airport Authority.
- No impact and additional works to Airport Authority in terms of Project, Legal and Treasury team.
- Swap / change of wordings of the existing performance bond (guarantee) is NOT required.

SUSTAINABILITY-LINKED GUARANTEE / LOAN

Existing Banking Facility	Potential Green Finance Product	Potential KPIs	Status
Performance Bonds for various projects DBS	Converting existing performance bonds to Sustainability Linked Bank Guarantee	Queensway Footbridge (Swire) TBC Sustainability/ESG KPIs proposed:- 25% reduction in Group carbon intensity (CO2e /HK\$ turnover) by 2025 (Carbon emissions based on Scope 1 (direct fuel use) and Scope 2 (indirect electricity) emissions 25% reduction in landfill waste intensity tonnes / \$ value of turnover for Hong Kong & Macau by 2025 25% reduction in Group water intensity (m3) / \$ value of turnover by 2025 25% reduction in Group energy intensity (MJ) / \$ value of turnover by 2025	 CIC SFC Scheme Certificate Sustainability Report and KPIs verified by 3rd party against the following International Standards Global Reporting Initiative Sustainability Reporting Standards (GRI) AA1000 Accountability Principles Standard ISO14064-1:2018 "Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals" Contribution to the United Nations
Revolving loans for financing general working capital	Converting existing revolving loan to Sustainability Linked Loan		Sustainable Development Goals (SDGs) with the following six goals and seven targets • Environmental related Objectives and Targets and Environmental Management System certified in accordance with ISO14001:2015 Sustainable Development Goals (SDGs) with the following six goals and seven targets Sustainable Development Goals (SDGs) with the following six goals and seven targets Sustainable Development Goals (SDGs) with the following six goals and seven targets Sustainable Development Goals (SDGs) with the following six goals and seven targets Sustainable Development Goals (SDGs) with the following six goals and seven targets Sustainable Development Goals (SDGs) with the following six goals and seven targets Sustainable Development Goals (SDGs) with the following six goals and seven targets Sustainable Development Goals (SDGs) with the following six goals and seven targets Sustainable Development Goals (SDGs) with the following six goals and seven targets Sustainable Development Goals (SDGs) with the following six goals and seven targets Sustainable Development Goals (SDGs) with the following six goals and seven targets and targets

IMPORTANCE OF INDEPENDENT EXTERNAL REVIEWS

Data Quality and Assurance
Transparency and Disclosure
Materiality and Ambition
HKAS Accredited / HKMA
Recognised / CIC or HKGBC Certified
/ GRI Certified / AA1000AS Licensed

Green Building &
Infrastructure
Certification

ISO45001 OHSMS ISO19650 BIM Certification ISO14064 GHG Verification

Sustainability

Framework &

Report

Verification

ISO14001 EMS ISO50001 EnMS

Certification

Green Product
Certification

Sustainable Finance Certification



SUPPLY CHAIN PARTNERS

Encourage and promote supply chain partners to participate CIC SFC scheme

Supply chain partners with green business nature:-

- Ampd (BESS supplier)
- Kinform (Sustainable Timber supplier)
- EcoSmart (Solar PV specialist)
- HK EV Power (EV Charging device and facility supplier)



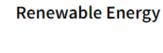






HOW GREEN THE PROJECT IS?

Project Categories





Energy Efficiency



Pollution
Prevention &



Natural Resources & Land Use



Biodiversity Conservation



Clean Transportation



Water Management



Climate Change Adaptation



Circular Economy



Green Buildings







LOOKING AHEAD...

WHAT GREEN FINANCE MEANS TO GAMMON?



Client

bonds

loans

Main Contractor loans

guarantees

Subcontractor Supplier

loans

guarantees

Banks/FIs Investors Insurers

An opportunity to collaborate with value chain partners:

- Encourage use of green finance products by suppliers and subcontractors to enhance environmental performance
- Support promotion of clients' green aspirations and raising of clients' ESG profile
- Use as a mechanism to promote brand and green credentials

Potential for influence on Gammon's sustainability performance (for linked products)

Small savings in financing costs

Positive Financial and ESG Benefits

ZERO-EMISSION CONSTRUCTION SITE

- 1 Low carbon power supply
- Grid connection, possibly with temporary transformer
- 3 Battery energy storage
- 4 system
 - Electric powered
- machinery and equipment
 - Mobile electric plant on
- charge while stationary
 - Charging for electric
- vehicles and plant
 - Renewable energy for
- Feed-in Tariff or to power site offices
- Electric / non-fossil fuel foundations equipment
 Hydrogen / other fuel cell technology







THANK YOU









建造業議會 - 可持續金融認證計劃 Construction Industry Council Sustainable Finance Certification Scheme Paul Y. Pilot Projects

9 February 2022



Company Values

Environmental Social Governance (ESG)

Our Challenges

Industry Challenges



Green Finance

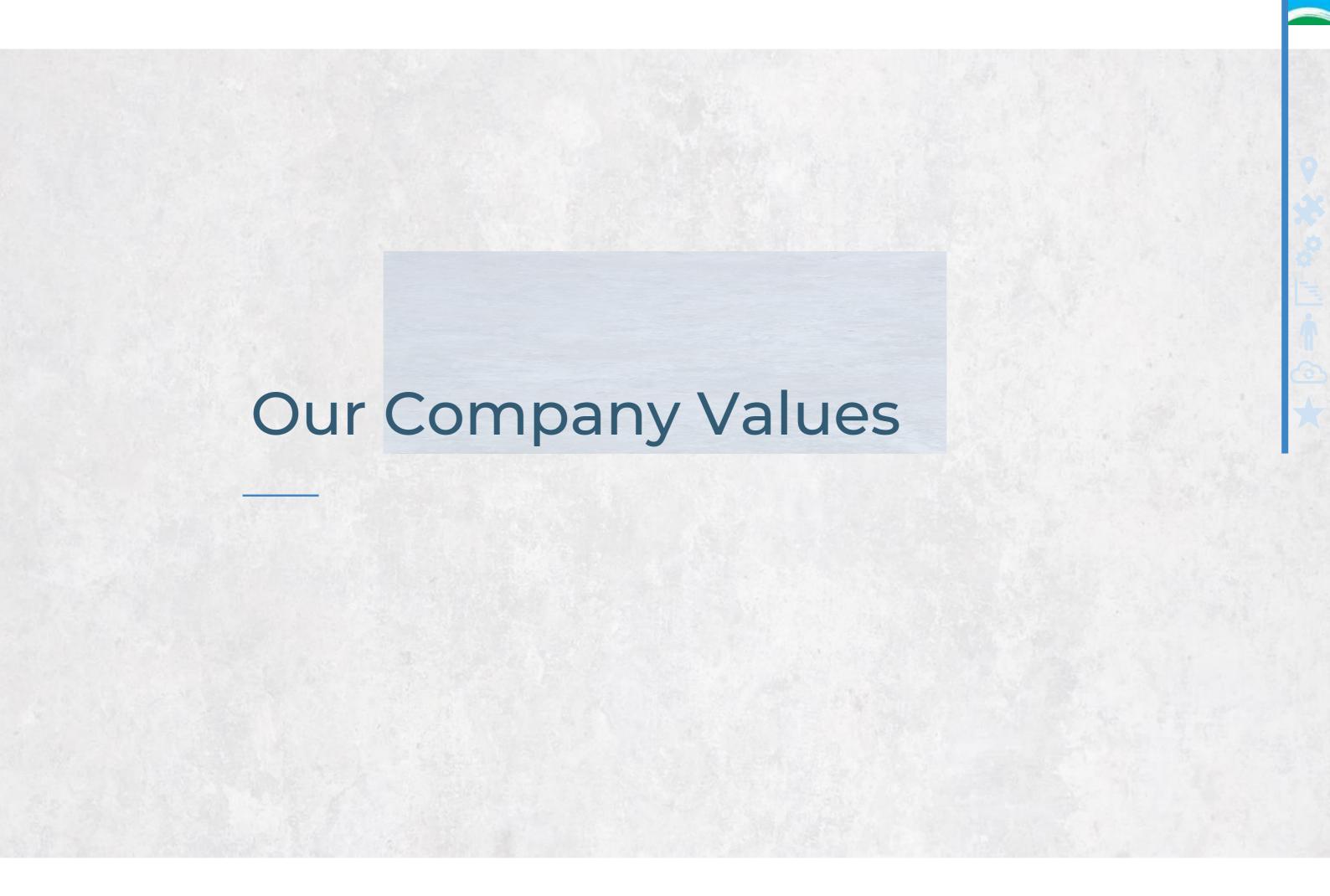
Policies & Procedures Frameworks Proceed **Green Products** CIC Sustainable Finance Certificate Scheme (SFCS) CIC SFCS Pilot Projects



Innovative Approach

Xensetech - In-Tech Workplace







Environmental Social Governance (ESG)



CREATE VALUE AT ALL LEVELS

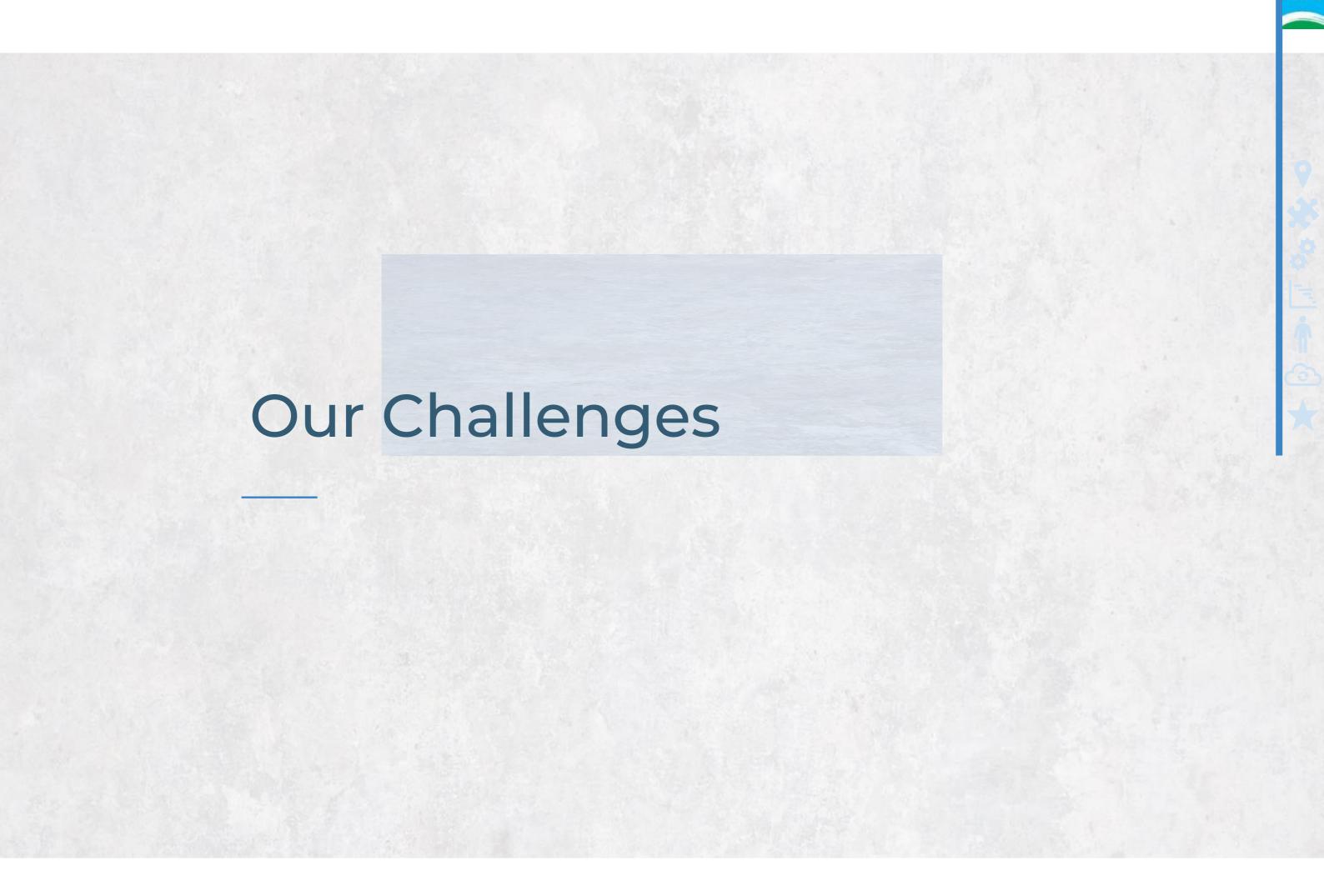
CORPORATE PROJECT SITE **Environmental**/ **Green Financing Efficiency** Wellness Sustainable **RoboPrint Automatic Wall** business **Energy Benchmarking Plastering Platform PMIS Smart Enertainer** Xensalytics **NCCO Air Purification** Automatization Worker's Health on daily tasks Monitoring Productivity Workplace Sanitizing improvement In-Tech Workplace Site Prelim Setup **Cost-Saving** XenseGate **IoT Sensors** Energy solution Sustainable **Intelligent Safety** construction People XensePath A.I Monitoring System **Training** VisionHub Communication MRi4



Paul Y









Challenges of construction sector

建築供應鏈對債券的需求減少

- 現有建築綠色金融申請多為貸款
- 債券不受歡迎,由於債券規模最小, 預計不會有大量需求
- 建議專注於貸款和擔保

擔保需求甚高

- 項目的主承包商和分包商通常需要擔保/履 約保證金,通常為合同金額的 10%
- 現有擔保可轉綠色擔保
- 小規模公司在尋求還款保證以促進借款過 程

第三方綠色驗證成本過高

■ 尋求簡單快速第三方的驗證

Less Demand for bond for construction supply chain

- existing construction green finance application are mostly loan
- bond is not popular, and is not expected to have significant demand due to minimum size of bond
- Recommend to focus on loan and guarantee

Need of Guarantee is surprisingly high

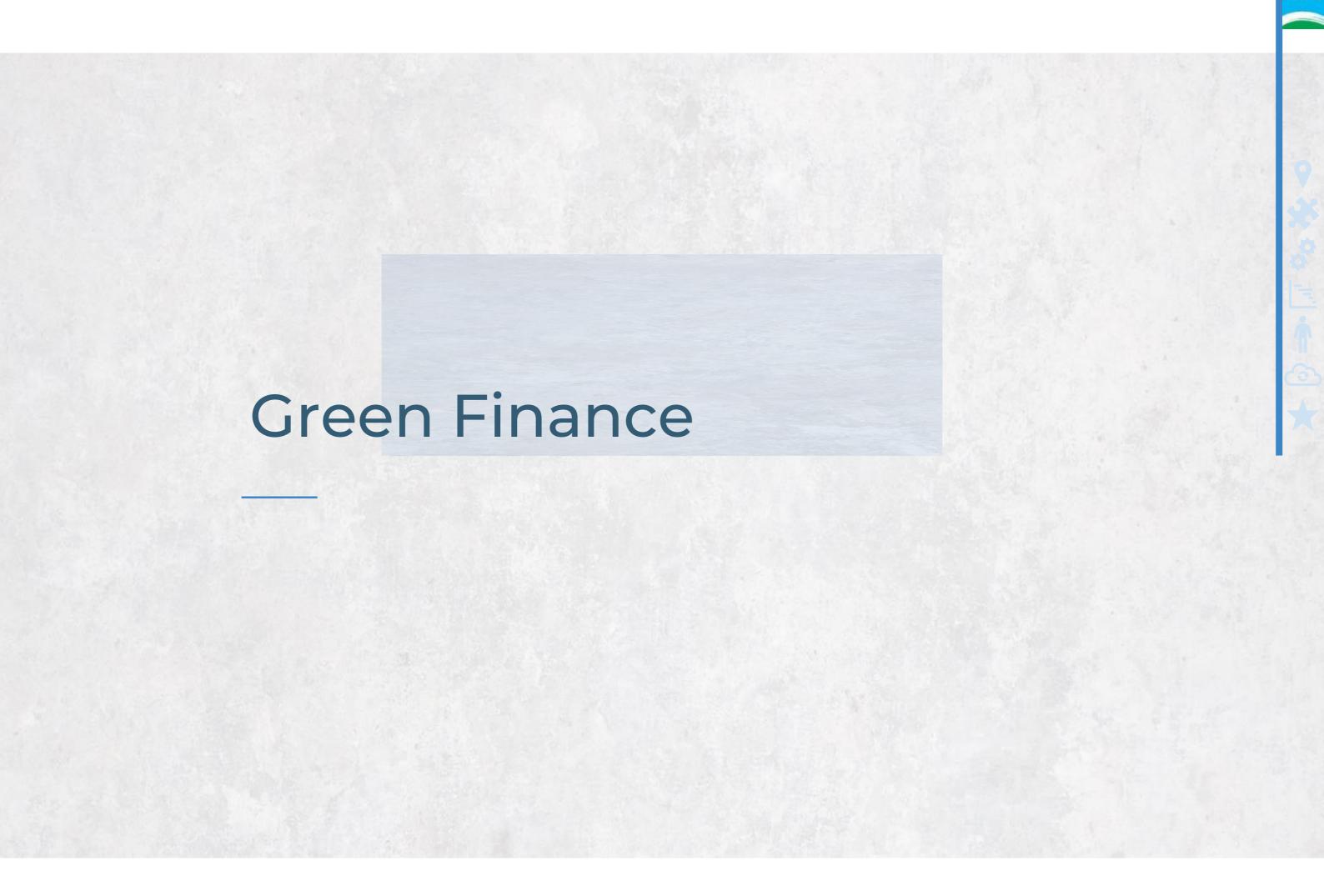
- guarantee/ performance bond is commonly required by main-contractor and sub-contractor for projects, typically 10% of contract sum
- existing guarantee can be converted to green guarantee
- some smaller companies are looking for repayment guarantee to facilitate borrowing process

Cost of third-party green verification has been too high

 Look for simple and quick verification by 3rd party certification body









Paul Y. Green Finance – Policies & Procedures

- **Sustainability** is one of the pillars of Paul Y. values and operations
- Going Green is our commitment to conserve, preserve, and protect
- Commits to develop **Smart Constructions** and applies *innovative technologies* to improve the built environment and minimize the impact on the environment.







Community Investment

Green Environment

Chief Executive Officer & Executive Director

Lee Hang Wing, James

SUSTAINABILITY POLICY

華建業

Actively support social welfare initiatives in three key areas: education, charity, and

Promote sustainable construction practices and demonstrate stringent commitment to resource-efficiency and environmental-responsibility in every aspect of our business



Paul Y. Green Finance Framework

- Strives to minimize the impact by reducing non-renewable resources consumption
- **DESIGN** and **CONSTRUCT** green featured buildings
- Explores smarter and greener construction
- Enhancement to ISO14001 to deplete scarce non-renewable energy resources
- To deepen principle of ISO 50001 Energy Management System by "planning, implementation, monitoring, and improvement" process on energy efficiency, energy use, and energy consumption.





Paul Y. Green Finance Benefits + Proceeds

- Help facilitate sustainable finance for green projects and increase green capital
- Loan proceeds from the Green Finance will be used to fund or refinance, in whole or in part, new or existing eligible green project of the Group that applied the Green product Principles: such as Green Building, Renewable Energy, Energy Efficiency, Waste Management, Sustainable Water and Wastewater Management
- Safety & Environmental Dept + Treasury Team + CSR Committee to select eligible projects to present to Executive Board for approval.
- Our Group will designate specific project bank accounts for each Eligible Projects.
- The loan proceeds will be disclosed on the Corporate Social Responsibility (CSR) Report.









綠色產品類別例子

Example of green product categories

Product Categories	Examples of Projects in Construction Sector		
1. Renewable Energy 再生能源	PV panels, wind farm, renewable energy generator		
2. Energy Efficiency 能源效率	EPD/EMSD certified equipment; IT technologies e.g. BIM, Digitalisation, Energy saved		
3. Pollution prevention & control 污染防治	Cement & Steel production plant, Biodiesels generator		
4. Natural resources and land use 天然資源和土地利用	Heritage Preservation & Revitalisation projects		
5. Terrestrial and aquatic biodiversity conservation 陸地和水生生物多樣性保護	Marine / Green Parks		
6. Clean Transportation 環保運輸	Electric Vehicles		
7. Sustainable water and wastewater management 可持續的水和廢水管理	Wastewater treatment plants, rainwater harvesting system, achieve 30% recycle/reuse of Construction & Demolition materials, reduce water consumption		
8. Climate change adaptation 氣候變化適應	Low carbon construction materials		
9. Eco-efficient or circular economy adapted products, production technologies, and processes 生態高效或循環經濟適應的產品、生產技術和工藝	Waster reduction & recycling facilities e.g. MIC/Pre-fab		
10. Green Buildings 綠色建築	BEAM Plus Certified Projects		



- **
- An independent third party conformity assessment which enhanced the stakeholder's trust
- Can help to increase green capital by obtaining financial incentives such as lower interest rates by financial regulators
- Assist to bridge the gap between financial and construction industries to obtain solid sustainable outcome
- **First sustainable finance scheme** in Hong Kong which can help to influence the sustainable development of the construction industry and set a standard for our industry in the GBA
- Simple application procedures to certification

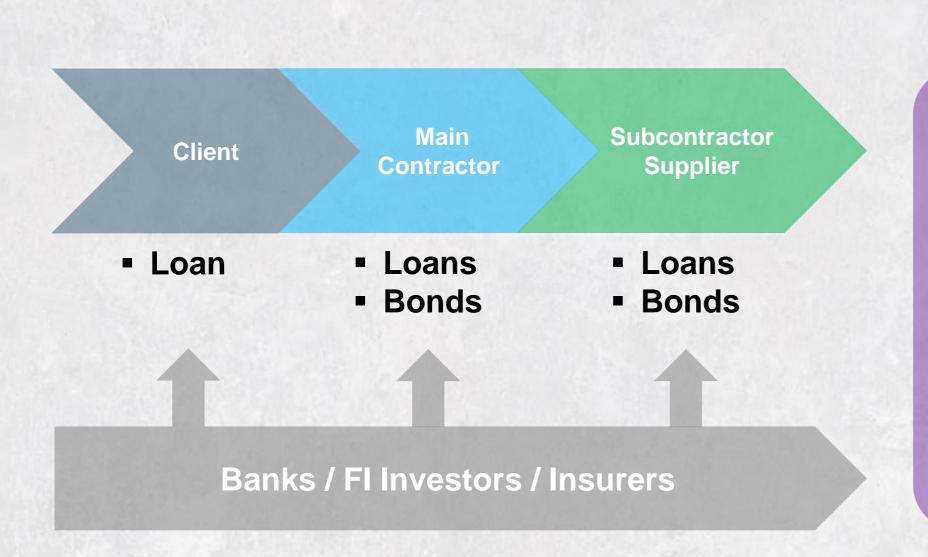








What Green Finance Brings to Paul Y.



Financial and ESG
Benefits for all Parties

- Encourage subcontractor and supplier to adopt green products to enhance environmental performance. Increase their initiation to Green Construction.
- Support Client's Sustainability Goal and raise their ESG profile
- Utilization for branding and green credentials for all parties
- Strengthen Paul Y.'s sustainability performance
- Financial Savings









潛在的建築業可持續金融產品

Potential sustainable financial products for construction

sector

3 C C(0)				
	綠色貸款 / 可持續發展貸款 Green Loan / Sustainability Loan	可持續發展 表現掛鉤貸款 Sustainability Linked Loan	綠色保證 Green Guarantee	可持續發展保證 Sustainability Linked Guarantee
Examples of Financial Products	Trade Loan, SME Loan, Equipment Loan, etc	General Corporate Loan	Performance Bond	Performance Bond
Certification Subject	Project , Product	Company	Project	Company
Developer (incl. Gov)	Yes	Yes	N/A	N/A
Main Contractors	Yes	Yes	Yes	Yes
Sub-contractors	Yes	Possible but unlikely	Yes	Possible but unlikely
Suppliers	Yes	Yes	N/A	N/A





Certification scheme technical requirements

強制性要求 Compulsory Requirements



可選擇性提升 Optional Enhancement



認證Certification

I. International Standards

BEAM Plus or equivalent internationally recognized standards

II. Local Standard Enhancement

- Green Building Certification
- Low Carbon Site Management
- Embodied Carbon

Others Proposed by applicants

- UNSDG
- Social Aspects







XenseTech

Business Integration



Integrated Project Delivery (IPD)

Digital transformation with software & hardware systems



- Creating value at corporate, project, and product levels:
- InTech Workplace
- Green Financing





Digital Twin

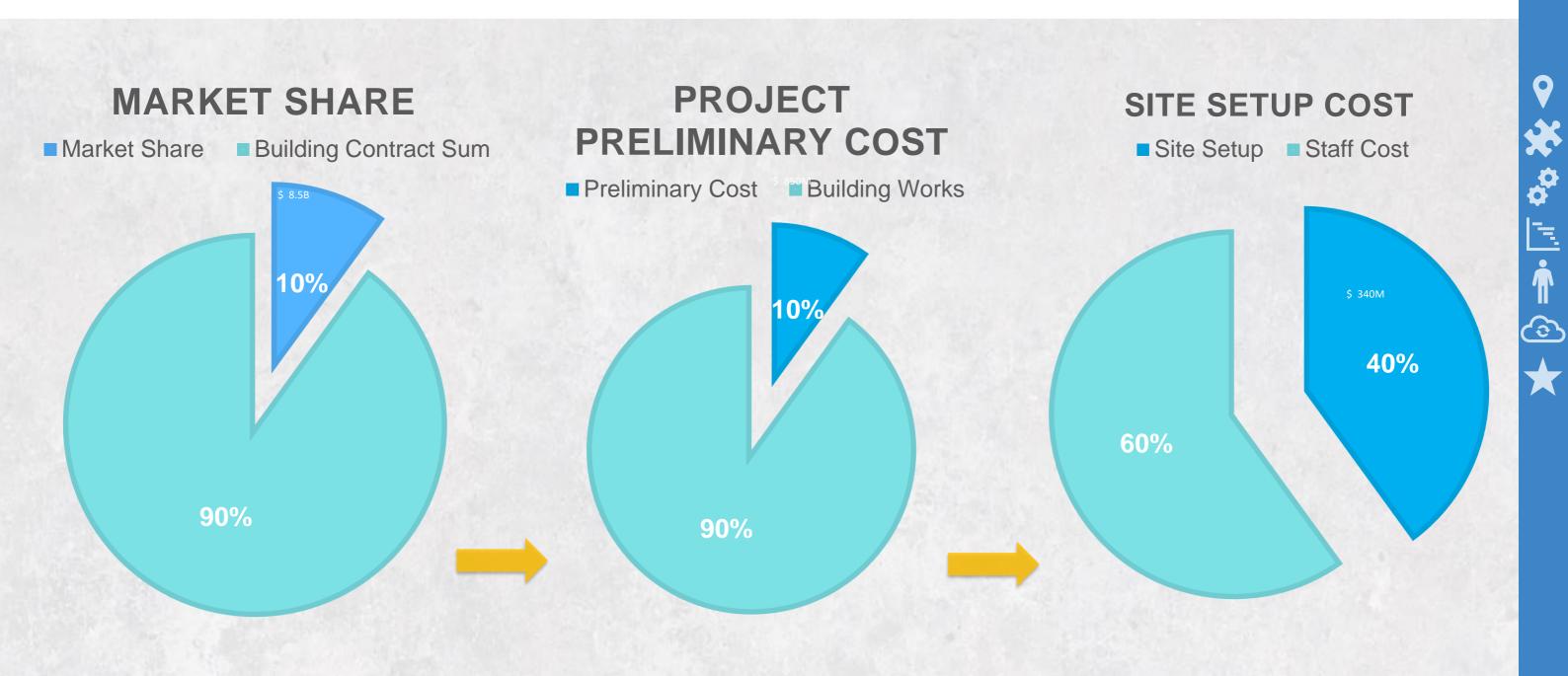
Bringing in the single sources of truth BIM CDE MR







InTech Workplace Market



Scopes of InTech Workplace



Goal Oriented

Each element is designed to uplift company image. Setting up examples on how a Paul Y. Construction site should look

Sustainability

We are committed to implement clean energy, to improve energy efficiency, resources recycling, recycling management, wastage control, workers working safety, workers wellness and etc.

Innovative

Expanding on existing workplace components while embracing new technology offering more deliverables.

Collaborative

Adopting InTech Workplace Items is a cross-department effort that encourage a more in-depth communication between different stakeholders.

Informative

Well inform the public on site works and traffic arrangement.







Real Benefits From InTech Workplace

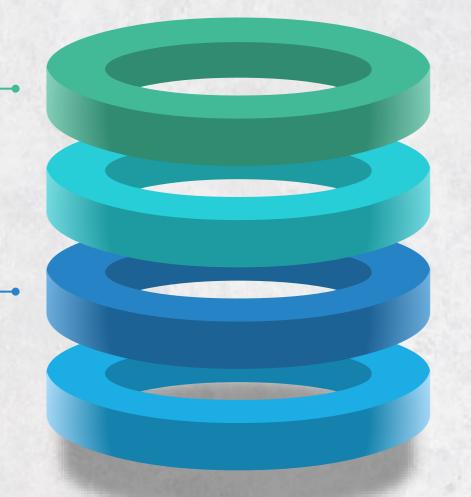
True Learning on Spending Better

Go Green

Improve environmental friendliness and better working environment

Enhance Safety

Governing workplace safety and mitigate risk for the business



Significant Cost Savings

Tangible and intangible cost savings on various consumptions and avoid preventable penalty

Improve Operation Efficiency

Utilizing workforce and equipment, increase productivity and better management

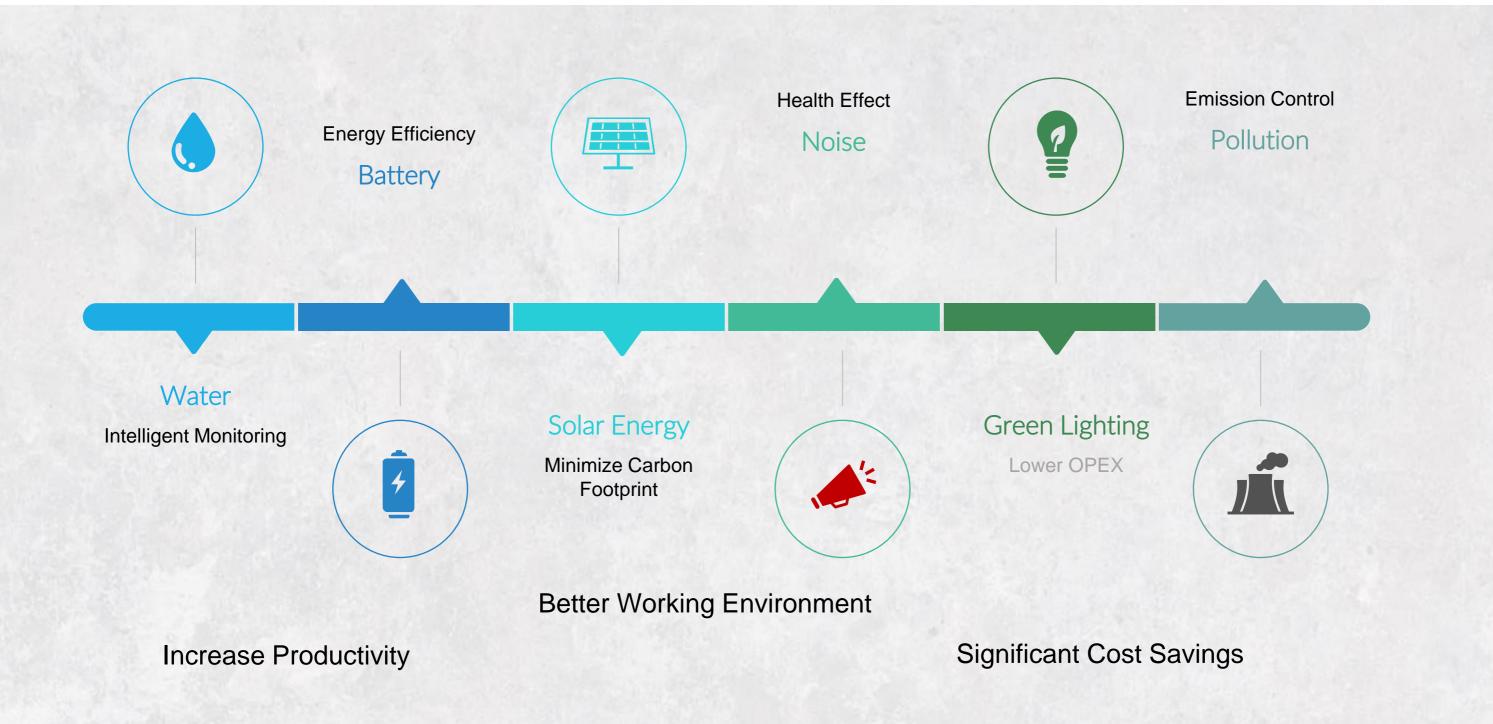






InTech Workplace

Green Construction





InTech Workplace Elements

Utilizing Latest Technologies



Augmented
Reality &
Virtual Reality
(AR & VR)

- X-Vision Site Inspection
- Safety Training



Internet of Things (IoT)

- XenseBMS Sensors
 Connectivity
 Platform
- XensePath Location Tracking



Artificial Intelligence (AI)

- XenseR Site Monitoring
- Worker Authentication
- Surveillance System and Devices



Robotics

- Tupo Automatic
 Wall Plastering
- Demolition Robot
- Automated Guided Vehicle
- Parking Robot



Building Information Modeling (BIM)

- Cloud-based 5D BIM platform
- BIM 3D Printing







InTech Workplace

Construction Management



Project Management Information System

Drawing Management







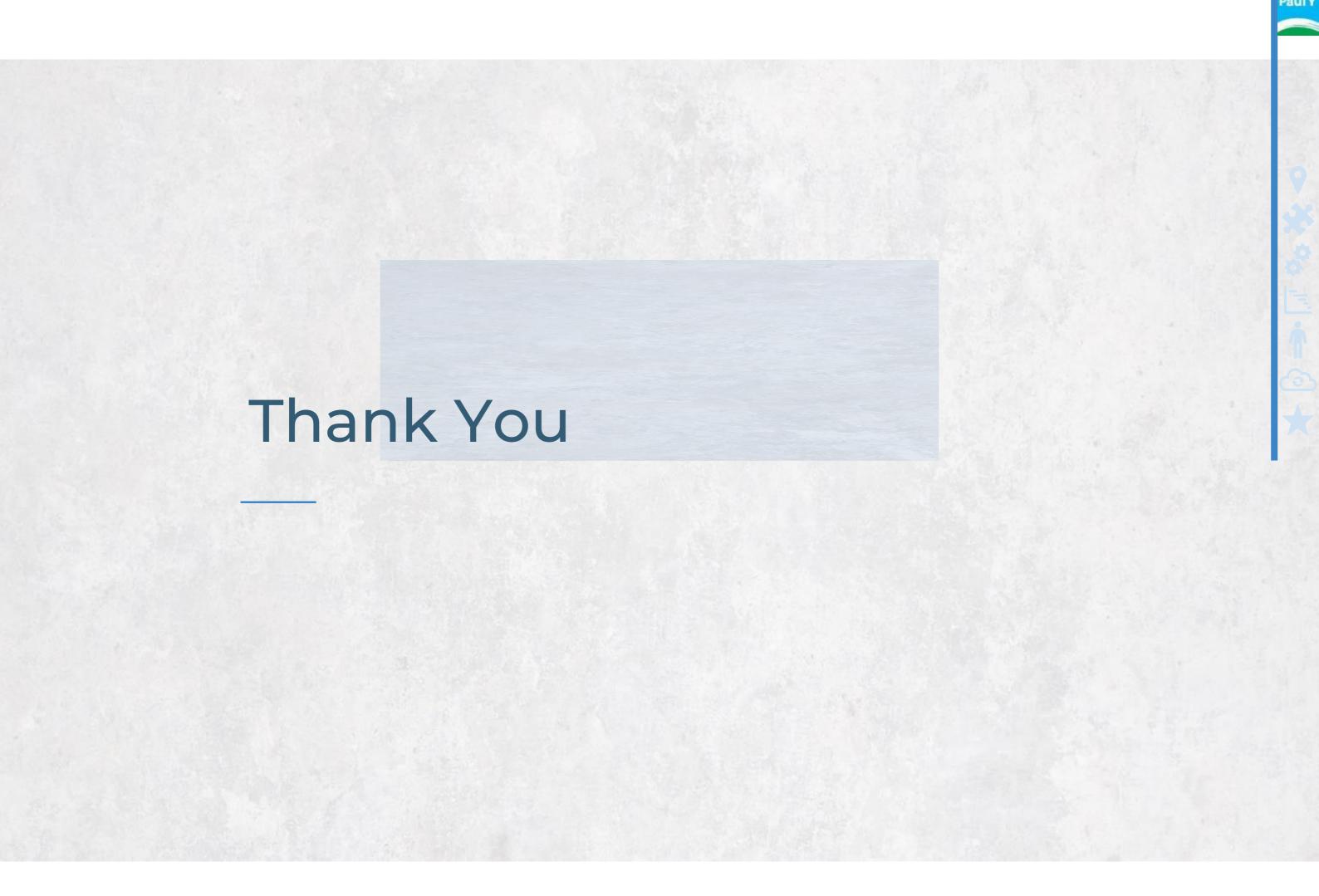
InTech Workplace

Innovative Approach



"It is Time for Smart Construction"





Q&A





https://sfcs.cic.hk/