

Construction Industry Council

Committee on Productivity

Meeting No. 002/22 of the Committee on Productivity was held on 9 June 2022 (Thursday) at 2:30 pm in the Board Room, 29/F, Tower 2, Enterprise Square Five (Megabox), 38 Wang Chiu Road, Kowloon Bay and via MS Teams.

Present:	Ken WONG*	(KnW)	Chairperson
	Victor CHEUNG*	(VC)	
	Terence HUI	(TeH)	
	KAN Jun	(KJ)	
	Stephen LAI	(SnL)	
	Dominic LAW*	(DcL)	
	Clarence LEUNG*	(CLWK)	
	Simon LIU	(SiL)	
	David MOW*	(THM)	
	Rocky POON	(LKP)	
	Edwin TONG	(ETg)	
	Simon WONG	(SnW)	
	Franki YEUNG*	(FY)	
	Joseph LO*	(JhL)	for Permanent Secretary for Development (Works)
Romeo YIU*	(RoYU)	for Permanent Secretary for Transport and Housing (Housing)	
In Attendance:	Thomas HO*	(TH)	Chairman, CIC
	Albert CHENG	(CTN)	Executive Director, CIC
	Daniel SUEN	(DSn)	Director – Industry Development
	Thomas TONG	(TsT)	Assistant Director – Industry Development
	James WONG	(JsW)	Senior Manager – Industry Development
	Eason YUNG	(EnY)	Assistant Manager – Industry Development
	Norelle MAK	(NeM)	Senior Officer – Industry Development
	Apologies:	Tat-wai LI	(LTWi)
Kwok-fai CHUNG		(CKFi)	
Derek SO		(KLS)	

* Members and presenters attended the meeting online via MS Teams.

MINUTES

	<u>Action</u>
2.1	Confirmation of the Minutes of the Previous Meeting
	Members confirmed the minutes of the Com-PRO Meeting No. 001/22 without further amendment. All to Note
2.2	Matters Arising from the Previous Meeting
(i)	Updates on the Consultancy Study on “Driving DfMA to Enhance Productivity for E&M Works in HK Building Projects”: A webinar on the DfMA MEP guidebook was held on 25 March 2022 with over 1,400 participants. The concise version of reference material on DfMA MEP had been approved by Members in May 2022. A vendor was engaged for graphic and layout design. The Secretariat targeted to publish the concise version in June / July 2022. CIC Secretariat
(ii)	Progress Update on “Application of Maturity Method for Determination of Early-age Concrete Strength in the Hong Kong Construction Industry”: A webinar for introducing the maturity method was organised on 13 May 2022 with over 1,000 participants. The guidebook and maturity meters would be showcased at the iHub. CIC Secretariat
(iii)	Progress update on the Construction Innovation Expo (CIExpo) 2022 and the CIC Construction Innovation Award 2022: The CIExpo 2022 was being considered as one of events to celebrate the 25 th anniversary of the establishment of the HKSAR. Over 35 exhibitors had committed to join the CIExpo 2022 (contributing one third of the exhibition area), including AluHouse (MiC), Guangdong Bright Dream Robotics (碧桂園博智林), PERI (advanced formwork system). Guests of Honour were being approached by DEVB. Besides, it was targeted to invite speakers for summits and conferences within June 2022. Submission of Innovation Award will be closed on 30 June 2022, targeted to have 100+ applications. Members were encouraged to submit applications on the Innovation Award and engage their business partners to exhibit at the CIExpo 2022.
(iv)	Updates on the Study on Construction Productivity Measurement in Hong Kong: Further to the presentation by Prof. Wei PAN in the last Com-PRO meeting on 10 March 2022, the research team was collecting relevant data from the CIC and the Census and Statistics Department (C&SD). A meeting

among HKU, DEVB and CIC was held on 28 April 2022 to discuss the availability of data. The research team made further request to CIC and C&SD respectively on in early June 2022 for further data / information collection. The research team would present to Members when further findings are available.

- (v) **Progress update on ConTech Accelerator 2022 co-organised with Hong Kong Science and Technology Park Corporation (HKSTP):** Further to the presentation by HKSTP in last Com-PRO meeting on 10 March 2022, the ConTech Accelerator Programme will be launched on 28 July 2022. Led by the CITAC Board with the support from pertinent Committees including Com-PRO, the Programme aims to facilitate and expedite the adoption of innovation in construction. Invitations would be issued to engage main contractors and electrical and mechanical (E&M) contractors for participation in June / July 2022.

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2.3 2023 Business Plan and Budget

The Secretariat presented the proposed Com-PRO 2023 business plan and the associated budget. The proposed 2023 business plan embraces the initiatives outlined in Com-PRO's 3-year strategic plan (ref. CIC/PRO/P/003/21); on-going actions stemmed from Com-PRO's business plan 2022 (ref. CIC/PRO/P/004/21); strategies formulated under the study on Improving Time, Cost and Quality Performance of the Hong Kong Construction Industry (TCQ Study); and Construction Digitalisation Roadmap. Initiatives under the business plan are focusing on three strategic directions, *viz.*: **i) Shifting to Industrialisation; ii) Driving Smart Project Delivery; and iii) Promoting the Adoption of Productivity-enhancing Solutions.** The estimated budget for Com-PRO to conduct the items of works listed below is HK\$3.6M.

i. Shifting to Industrialisation

- Addressing Technical Barriers Related to MiC / MiMEP Adoption
- Launching MiC & MiMEP Course and Explore New Skillset for Nurturing Local Professionals
- Establishing a Digital Resource Centre with Object Library to Facilitate MiC and MiMEP Adoption
- Promoting Advanced Technologies and Merits of MiC and MiMEP

ii. Driving Smart Project Delivery

- Digitalising Project Management Processes in Private Projects

iii. Promoting the Adoption of Productivity- enhancing Solutions

- Launching “ConTech Accelerator Programme”
- Promoting Robotics and Automation Applications in Construction
- Promoting Innovative Solutions for Productivity Enhancement

On “Establishing a Digital Resource Centre with Object Library to Facilitate MiC and MiMEP Adoption”, Members supported to capture project data and BIM objects of MiC and MiMEP riding on the existing CIC’s BIM Object Library, MiC resource centre and reference material on DfMA MEP. Regarding the ConTech Accelerator Programme under the “Promoting the Adoption of Productivity-enhancing Solutions”, Members suggested CIC Secretariat to play a proactive role to facilitate the communication between contractors and tech companies for smooth implementation of the Accelerator Programme.

Members had no further comments on the proposed initiatives, and thereby endorsed the Com-PRO 2023 business plan and budget. The CIC Secretariat would submit the business plan and budget to the Council for approval.

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2.4 Applications for the CIC R&D Fund

A total of 12 research proposals applying for CIC R&D Fund relating to construction productivity were received. Initial assessment was conducted based on three key criteria: i) value of the research; ii) cost-effectiveness; and iii) research implementation. Two proposals were shortlisted and invited for presentation at the meeting for Members’ consideration.

i) Development of Advanced Seismic Design Guidelines for MiC Buildings in Hong Kong and in the Greater Bay Area

Dr. Chan Tak-Ming and Dr. Chen Wang from The Hong Kong Polytechnic University presented the proposed research. The aim of the research was to develop a seismic design method with optimum design parameters for MiC building with satisfactory performance under earthquakes of different intensities. An advanced seismic design framework will be delivered.

To ensure the reliability of the research deliverable, Members suggested the research team to conduct structural analysis of an existing MiC building (e.g. natural frequency and dynamic response of InnoCell) for benchmarking and calibration purposes. Members also suggested compiling a guideline with joint details to fully illustrate the corresponding design concept

for practical implementation. Seismic code, conditions, and acceptance criteria set out in Mainland China should also be critically reviewed.

To enhance the practicality of the seismic design guide for MiC buildings, Members suggested the research team to focus on high-rise MiC buildings. Subject to the suggested amendments incorporated in the revised proposal, Members approved the proposed research under the Explorative Project Scheme with a duration of 24 months and at a funding support of HK\$ 1,505,580. The Secretariat would liaise with the research team to revise the proposal for addressing Members' comments, and subsequently prepare the research agreement.

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ii) Logistigraphs.io – A Parametric Modularization Analytics Tool

The research team from Buro Happold and Leighton Asia presented the proposed research. The key objective of the research was to develop an digital application, which would be easily adopted by main contractors and/or designers, on optimising construction site logistics through simulation of various site components into parametric modules. The project duration of this research would be 12 months at a cost of HK\$ 1,386,700.

Members concerned the use of a civil engineering project for demonstrating the capability of the digital tool. It was suggested to develop the tool through adopting a public housing project or a typical private residential building project with substantial offsite components (e.g. MiC, MiMEP, etc.) as the use case of the research study for formulating effective logistic solutions. It was also imperative to investigate and determine the parameters built-in with the tool to advise designers on the feasibility / limitations of using offsite construction approach for the project. The revised research proposal would be circulated to Com-PRO Members for consideration and approval once available.

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Four research proposals were being reviewed, and would be submitted to Com-PRO in the next meeting for approval if deemed appropriate. Besides, Members agreed to reject the six research proposals which were not shortlisted. CIC Secretariat would follow up accordingly.

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2.5 Any Other Business

There was no other business.

2.6 Next Meeting 003/22

The next meeting would tentatively be held on 8 September 2022. The Secretariat would inform Members once the meeting details are confirmed. **All to Note**

The meeting was adjourned at 5:00 pm.