

**Construction Industry Council**

**Committee on Productivity**

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Meeting No. 002/19 of the Committee on Productivity was held on 5 June 2019 (Wednesday) at 2:30 pm in Board Room, 38/F, COS Centre, 56 Tsun Yip Street, Kwun Tong, Kowloon.

Present:	Ringo YU	(RiYu)	Chairperson for Permanent Secretary for Development (Works)
	Thomas CHAN	(TYCn)	
	Luen-kiu CHOW	(LKC)	for Permanent Secretary for Transport and Housing (Housing)
	Kwok-fai CHUNG	(CKFi)	
	Kai-sing KWAN	(KSKn)	
	Alex KWAN	(KFK)	
	Simon KWOK	(TKK)	
	Eddie LAM	(ELM)	
	Kenneth MO	(KM)	
	Shujie PAN	(PSJ)	
	Rocky POON	(LKP)	
	Derek SO	(KLS)	
	Ken WONG	(KnW)	
	Franki YEUNG	(FY)	
In Attendance:	Eric CHAN		Project Strategy and Governance Office, Development Bureau (Presenter)
	Joseph MAK		(Presenter)
	Richard LEE		(Presenter)
	Crystal FOK		(Presenter)
	Eric CHENG		(Presenter)
	Albert CHENG	(CTN)	Executive Director, CIC
	Richard PANG	(RPg)	Director – Industry Development
	James WONG	(JsW)	Senior Manager – Construction Productivity
	Bonnie TZE	(BeT)	Manager – Construction Productivity
	Carol DU	(CD)	Senior Officer – Construction Productivity
Eason YUNG	(EnY)	Senior Officer – Construction Productivity	
Apologies:	Ivan FU	(FI)	
	Raymond WAN	(RdW)	

**MINUTES**

**Action**

**2.1 Confirmation of the Minutes of the Previous Meeting**

Members confirmed the minutes of the Com-PRO Meeting No. 001/19 without any amendment.

**All to Note**

**2.2 Matters Arising from the Previous Meeting**

**Item 1.2:** The Secretariat was finalising the dashboard for displaying the endorsed KPIs and would circulate the dashboard for Members' comment by mid-Jul 2019.

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**Item 1.3:** The Secretariat reported that the Technical University of Munich had sourced a venture capital fund to invest up to 75% to develop their proposed on-site facade processing robot. Concerning the IP issue and the nature of the organisation for the matching fund, Members recommended to put the project on hold. The Secretariat was asked to explore with the Hong Kong Science and Technology Parks Corporation (HKSTP) on the development of the Phase I prototype robot based on the signed memorandum of understanding (MoU) with the HKSTP.

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**Item 1.4:** The Secretariat would follow up with the Hong Kong Federation of Electrical and Mechanical Contractors on the assignment brief for the study on process re-engineering for E&M trades.

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**Item 1.5:** The meeting noted that the IP right of the proposed concrete skip would be co-owned by the CIC and the Hong Kong Productivity Council (HKPC) under the current agreement. Members agreed that an alternative arrangement on the IP right could be further discussed with the HKPC after project completion.

**Item 1.6:** The meeting noted that the payment to Nano and Advanced Materials Institute Ltd. (NAMI) had been made. The Secretariat will keep monitoring the study and invite NAMI to present the final research findings in December 2019 or March 2020.

**Item 1.8:** A de-briefing session on the applications for CIC's research fund was held on 30 April 2019 with around 40 participants. Practicality of proposed research and potential for wide adoption in the industry were stressed during the de-briefing session.

### **2.3 Research Proposal on the Development of an Appraisal Framework for Assessing Prefabrication and MiC Content for Buildings in Hong Kong**

Ir Prof. Joseph MAK from Chu Hai College of Higher Education and Ir Richard LEE from Yau Lee Construction Company Limited (the Team) presented their research proposal on the development of an appraisal framework for assessing the prefabrication and MiC content for buildings in Hong Kong.

The proposal was a 6-month project at a cost of HK\$690,000. A tailor-made appraisal framework for assessing prefabrication content of buildings in Hong Kong will be developed with definitions on prefabricated elements. Members suggested to include case studies to identify time and cost improvement with different demarcations of prefabrication content.

Chairperson opined that fine-tuning the appraisal framework would be an on-going process and this proposed study would serve as a key milestone to promote the adoption of DfMA. Members agreed that incentives to drive more prefabrication should be discussed at a later stage. The Team was requested to consult relevant industry stakeholders including government authorities on the proposed appraisal framework and the potential application of the framework for wider adoption of DfMA in the industry. After deliberation, Members endorsed the research proposal.

*[Post-meeting note: Ir Prof. Joseph MAK submitted a request to revise his position for this research proposal as “Immediate Past Chairman, The Hong Kong Institution of Engineers - Materials Division” and the funding requested would be revised from HK\$ 690,000 to HK\$ 600,000. 10 Members endorsed the revision on 6 August 2019.]*

### **2.4 2020 - 2022 Business Plan and Budget**

The Secretariat presented the proposed Com-PRO work plan for 2020 - 2022 with detailed timeline and associated budget. The plan followed the three strategic directions endorsed by Com-PRO in May 2018 to drive construction productivity, viz. i) Factory-based Construction, ii) Mechanised Construction, and iii) Other Initiatives.

The meeting agreed that Com-PRO would continue to promote and facilitate the adoption of DfMA riding on the DfMA Alliance’s collective efforts by tackling technical and policy issues, provision of training on DfMA and various promotional activities. Com-PRO would also leverage on the MoU signed between the CIC and the HKSTP on 20 May 2019, to establish an accreditation scheme for qualifying robotics and automation systems, incubate robotics development,

promote the adoption of robotics, and formulate schematic training framework for robots operation. Members suggested that robotics and automation systems qualified under the proposed accreditation scheme should be put on the pre-approved list under the Construction Innovation and Technology Fund.

The estimated budget of Com-PRO for 2020 would be HK\$9.8 million. Members endorsed the work plan with associated budget.

**2.5 Proposed Consultancy Study on Establishing an Accreditation Scheme for Robotics and Automation Systems for the Hong Kong Construction Industry**

Dr Crystal FOK and Mr Eric CHENG from the HKSTP, and Dr James WONG presented the objectives and deliverables of the proposed consultancy study on establishing an accreditation scheme for robotics and automation systems for the Hong Kong construction industry (the Consultancy). The Secretariat also presented the terms of reference and composition for the proposed expert group to steer and oversee the Consultancy.

The proposed Consultancy was a 9-month project at a cost of not more than HK\$ 1.5 million. It was considered that such a scheme would help to stimulate the demand for and supply of robotics and automation systems for construction applications. Four deliverables were expected to be achieved after project completion, viz. i) assessment standard, ii) testing guide, iii) operational framework, and iv) strategic plan to facilitate implementation of the accreditation scheme.

Members recommended that member composition of the proposed expert group should include representatives from relevant trade associations on the three pilot trades, viz. welding, painting and plastering. Members reminded that such a scheme should be recognised by relevant local accreditation authorities as a local industry standard in the long-run. After deliberation, Members approved the paper.

**2.6 Progress Update on the Construction Innovation Expo 2019 (CIExpo)**

The Secretariat updated Members on the progress on booth application and invitation to speakers for the CIExpo. Members agreed to propose to the Organising Committee to consider providing financial incentives to encourage the Centre of Science and Technology Industrial Development to invite good exhibitors from the Mainland. The Secretariat will follow up with these suggestions and further discuss with the CIExpo 2019 Organising Committee.

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**2.7 Any Other Business**

The Secretariat presented the draft itinerary for the proposed technical visit to Japan. Members wish to have more site / factory visits. The Secretariat will continue to liaise with the Japanese side.

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Members requested to review current but unnecessary regulatory / specification requirements, standards and practices that would affect on-site work process and productivity, with a view to suggesting streamlining standards and measures. The Secretariat will call returns from Com-PRO Members on the above and follow up with relevant government authorities if deemed appropriate.

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The Chairperson asked Members' views on the replacement of bamboo scaffolding with metal scaffolding. Members expressed that the choice of scaffolding very much depends on the cost and physical constraints of construction sites. To improve the safety performance of the works related to scaffolding, the meeting endorsed the approach that use of metal scaffolding in appropriate situations should be driven by client bodies gradually, with enhanced manpower training adjustment in parallel, to ensure adequate supply of skilled metal scaffolding workers and to facilitate bamboo scaffolders acquiring appropriate metal scaffolding skills.

**2.8 Next Meeting 003/19**

The next meeting would be held in September 2019. The Committee Secretariat would inform Members once the meeting details are confirmed.

**All to Note**

The meeting was adjourned at 5:05 pm.