

Construction Industry Council

Committee on Productivity

Meeting No. 004/19 of the Committee on Productivity was held on 11 December 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
	Kwok-fai CHUNG	(CKFi)	
	Kai-sing KWAN	(KSKn)	for Permanent Secretary for Transport and Housing (Housing)
	Alex KWAN	(KFK)	
	Simon KWOK	(TKK)	
	Jonathan LAU	(JnL)	for Permanent Secretary for Development (Works)
	Eddie LAM	(ELM)	
	Kenneth MO	(KM)	
	Shujie PAN	(PSJ)	
	Rocky POON	(LKP)	
	Derek SO	(KLS)	
	Kennis WAN	(KsN)	for Permanent Secretary for Development (Works)
	Ken WONG	(KnW)	
	Franki YEUNG	(FY)	
In Attendance:	Francis AU		(Presenter)
	Ayhan TUGRUL		(Presenter)
	Jeff FUNG		(Presenter)
	Joseph LO		(Presenter)
	Albert CHENG	(CTN)	Executive Director, CIC
	Richard PANG	(RPg)	Director – Industry Development
	Thomas TONG	(TsT)	General Manager – Innovation & Technology Development
	James WONG	(JsW)	Senior Manager – Construction Productivity
	Bonnie TZE	(BeT)	Manager – Construction Productivity
	Eason YUNG	(EnY)	Senior Officer – Construction Productivity
	Christy KWONG	(CyK)	Officer – Construction Productivity
Apologies:	Luen-kiu CHOW	(LKC)	
	Ivan FU	(FI)	
	Raymond WAN	(RdW)	

MINUTES

Action

4.1 Confirmation of the Minutes of the Previous Meeting

Members confirmed the minutes of the Com-PRO Meeting No. 003/19 without any amendment.

All to Note

4.2 Matters Arising from the Previous Meeting

Item 3.2: Item 2.2: The Secretariat reported on the objectives, scope of study, duration and requirements on the consultancy for the study on productivity enhancement for E&M trades (the Study) proposed by the HKFEMC. Members had no adverse comments and suggested to define the scope of works to be more specific and engage a consultant with practical E&M design experience. The Study would be conducted in phases, and Members expected that Phase 1 report should be completed within 3 months after commencement of the study. The assignment brief would be circulated to Members for review in January 2020.

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Item 2.5: The Secretariat reported that the first business-to-business matching event on emerging construction technologies, jointly organised by the CIC and HKSTP, was successfully held on 4 October 2019. Positive feedbacks were collected from the participants. Members recommended the Secretariat to provide more background information on the solution providers prior to the matching event. Members would like to have similar matching events to be organised on a bi-annual basis and to invite companies in the Greater Bay Area for business matching.

Item 2.7: The Secretariat reported that two returns from Members on the unnecessary regulatory / specification requirements, standards and practices that would affect on-site work progress and productivity had been passed to the Architectural Services Department. The Secretariat would summarise the information collected and update Members on the progress.

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Item 3.3: The Secretariat reported on the progress on the research project entitled “Development of an Appraisal Framework for Assessing the DfMA Content for Buildings in Hong Kong”. The researcher, Ir Prof. Joseph MAK targeted to complete the draft framework for consultation in Q1 2020 and to complete the work on both the framework and the assessment tool for use in pilot schemes in Q2 2020.

For driving the adoption of DfMA in the Hong Kong construction industry, Members agreed to retain Mr Tim HALL to provide limited support from 2020 onwards. Specific tasks, such as policy recommendations, review on regulations, and tackling technical barriers to facilitate DfMA adoption should be discussed through the

DfMA Alliance and led by the CIC Secretariat.

4.3 Progress Update on the Research Project entitled “Practical Guidelines for Seismic Design and Rating of Bridges in Hong Kong”

Prof. Francis AU from The University of Hong Kong presented the progress of the research project on the design and assessment of bridges in regions of low to moderate seismicity in the Hong Kong context. A design guide had been developed. This aimed to provide practical guidelines taking into account ductility behaviour of bridges. Members noted the research had been completed and had no further comments. Noting that the work could be useful for assessment of existing highway bridges, Members suggested to inform the Highways Department on the guidelines prepared for their consideration.

4.4 Proposal on Hong Kong Product Certification Scheme for Reinforcing Steel Products

CARES presented a proposal at a cost of HK\$ 10,906,120 for developing a Hong Kong Product Certification Scheme for Reinforcing Steel Products (the Scheme) within 15 months. Members suggested the downstream operating cost of the Scheme should be as lower as possible and asked CARES to check whether those steel products currently commonly used in Hong Kong are already certified by CARES. Members also queried the monitoring of distributors' performance during the project implementation stage. It was also suggested that the proposal should be further discussed with the Development Bureau and the Standing Committee on Concrete Technology of the Civil Engineering and Development Department. The Secretariat would follow up with CARES regarding Members' comments and suggestions.

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4.5 Progress Update on the Extended Service for the Study on Achieving Productivity Leap through Construction Process Re-engineering (CPR) and Design and Development of a 2.5 m³ Concrete Skip

Mr. Jeff FUNG from the Hong Kong Productivity Council (HKPC) presented an update on the following projects:

- (i) Design and Development of a 2.5 Cubic Metres Concrete Skip (the Skip)

The mechanical and electrical design of the Skip's prototype would be submitted to The Hong Kong Concretor Contractors Association (HKCCA) for their further comments before fabrication. Members had no adverse comments on the design of the Skip.

- (ii) Extended Service for the Study on Achieving Productivity Leap through CPR

HKPC reported the findings of the six tasks and summarised the implications on improving productivity in residential projects.

- a) Fast-curing Concrete: Members pointed out the instability of fast-curing concrete. It was not recommended for all projects.
- b) Semi-precast Slabs with Aluminium Formwork: It has been found that cost saving could be achieved in some of the building projects. More applications in building projects are needed to gain information on savings and other benefits.
- c) Use of a 2.5m³ Concrete Skip: Fabrication of the prototype would be commenced after the confirmation of the design from the HKCCA.
- d) Formwork with Concrete Vibrators: This method could not be used in most of the housing projects because its application is not suitable for the small panel steel formwork in such projects and because of cost implications.
- e) Semi-automatic Rebar Cutting & Bending Machine: The machine is only applicable when there is sufficient space on site (as advised by the Hong Kong Bar-bending Contractors Association in July 2019).

HKPC noted the comments from Members and would submit a revised Final Report for Members' endorsement by circulation.

4.6 **Research Proposal on Development of Robot for Lift Railing Installation**

An R&D team led by representatives from the Hip Hing Construction Company Limited presented a research proposal on development of a robot for lift railing installation. Under this proposal, a platform-based robot will be developed for rectifying concrete defects inside lift shafts and fixing guard rail brackets, including drilling holes. A fully automatic mechanism using the robot could enhance site productivity and avoid accidents inside lift shafts. Members supported the proposal and suggested to present it to the Committee on Construction Safety for soliciting their support. The Secretariat would follow up with the R&D Team in seeking research funding support from the CIC.

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Secretariat**

4.7 Any Other Business

There was no other business.

4.8 Next Meeting 001/20

The next meeting would be held in March 2020. The Committee Secretariat would inform Members once the meeting details are confirmed. **All to Note**

The meeting was adjourned at 6 pm.