

Construction Industry Council

Committee on Productivity

Meeting No. 002/21 of the Committee on Productivity was held on 8 June 2021 (Tuesday) at 2:30 pm in the Board Room, 38/F, COS Centre, 56 Tsun Yip Street, Kwun Tong, Kowloon.

Present:	Ken WONG *	(KnW)	Chairperson
	Kwok-fai CHUNG *	(CKFi)	
	Ivan FU *	(FI)	
	Thomas HO	(TH)	
	Simon KWOK	(TKK)	
	Eddie LAM *	(ELM)	
	Tat-wai LI *	(LTWi)	
	Kenneth MO *	(KM)	
	Tai-hing MOW	(THM)	
	Shujie PAN	(PSJ)	
	Rocky POON	(LKP)	
	Derek SO *	(KLS)	
	Dennis WAN *	(DsW)	for Permanent Secretary for Development (Works)
	Rayson WONG *	(RnWg)	for Permanent Secretary for Transport and Housing (Housing)
	Franki YEUNG *	(FY)	
In Attendance:	Thomas CHAN *		Development Bureau
	Alex CHAN *		(Presenter)
	Mingxin HUANG *		(Presenter)
	Songye ZHU *		(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
	Eason YUNG	(EnY)	Senior Officer – Construction Productivity
	Christy KWONG	(CyK)	Officer – Construction Productivity
Apologies:	Nil		

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

MINUTES

Action

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

Members confirmed the minutes of the Com-PRO Meeting No. 001/21 without further amendment.

All to Note

2.2 **Matters Arising from the Previous Meeting**

Item 1.2 - 4.2: Three reports of the research study entitled “MiC for High-rise Buildings in Hong Kong: Supply Chain Identification, Analyses and Establishment” have been finalised and will be uploaded to the CIC website as reference materials in June 2021.

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Item 1.2 - 4.3: The draft Guidebook on DfMA for MiMEP was circulated for Members’ review and comments on 24 March 2021. AECOM submitted the final draft of the Guidebook on 2 June 2021, after reviewing and addressing Members’ comments. It would be circulated to Members for endorsement after checking by the Secretariat. It was intended to compile a Concise Guide by extracting suitable material from the document for industry practitioners’ easy reference later.

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Item 1.5: The proposal and budget on organising the Construction Innovation Expo 2022 and the CIC Construction Innovation Award 2022 was endorsed and approved by the Executive Committee and the Council in March and April 2021 respectively. The Secretariat would follow up to engage an event management company. The first meeting for the Organising Committee was scheduled to be held in July 2021.

Updates on Webinars: A DfMA Webinar facilitated by Mr Tim HALL with 3 experts, was held on 30 April 2021 with a total of 864 attendees. The consultancy agreement with Mr Tim HALL will be completed and the final payment will be made for his work done. A CIC Power Talk with 2 DfMA experts from the Mainland was also held on 7 May 2021 with a total of 866 attendees.

Updates on Ongoing Consultancy and Research Projects: Members took note of the status of all ongoing consultancies and research projects under the Com-PRO.

2.3 **2022 Business Plan and Budget**

The Secretariat presented the proposed Com-PRO 2022 business plan and the associated budget. The business plan followed the 3-year Strategic Plan endorsed by Members in May 2021 after the retreat session held on 27 April 2021. Initiatives under the business plan focused on three main directions, viz.: **I. Driving Construction**

Industrialisation; II. Promoting Robotics and Automation; and III. Other Initiatives. The estimated budget of Com-PRO in 2022 was HK\$ 9.4 million for the below listed items of work:

I. Driving Construction Industrialisation

- (i) Publish a DfMA Casebook / Reference Material
- (ii) Establish Reference Specifications for MiMEP Works
- (iii) Develop BIM-based Tools for Facilitating Design Standardisation and Buildability Improvement
- (iv) Enhance and Expand the DfMA Scoring Scheme (DSS)
- (v) Promote Higher Levels of DfMA Adoption to the Industry
- (vi) Provision of Training on DfMA for University Students and Industry Practitioners

II. Promoting Robotics and Automation

- (i) Launch and Promote the Certification Scheme for Construction Robots
- (ii) International Symposia on Construction Robotics and Automation & B2B Events (To co-organise with the HKSTP, CIC's MOU Partner)
- (iii) Construction Robot Competition (To co-organise with the HKSTP)
- (iv) Develop Reference Specifications for Construction Robots

III. Other Initiatives

- (i) Promote and Explore Potential Strategies and Measures for Productivity Enhancement through industry forums / webinars
- (ii) Establish CIC Big Data Platform

Members' comments on the proposed business plan are summarised as follows:

On "Driving Construction Industrialisation", DsW from the Development Bureau commented that (i) appropriate productivity KPIs shall be studied and established to assess the productivity performance of different industry sectors; (ii) the proposed DSS cannot fully realise the vast benefits of MiC and will undermine the policy of promoting wider adoption of MiC in the industry, which aims to drive significant improvement on construction productivity, sustainability and safety ultimately; and (iii) need to articulate the direction clearly on promoting MiC and MiMEP only, rather than stating "higher levels of DfMA adoption". MiC and MiMEP shall be promoted with resources invested as the consensus was reached in the half-day DfMA Forum on 7 September 2020.

Action

Other Members opined that the adoption of MiC may not be feasible for every project and the supply chain of MiC modules was limited at this moment. They also commented that MiC / MiMEP are one of the means / products enabled by the BIM-enabled DfMA design approach and all suitable technologies / products that could enhance productivity/ safety/ sustainability shall be integrated and embraced in building projects. Buildability at design stage shall also be enhanced and promoted. Regulatory barriers in statutory approval (i.e. long approval time and uncertain acceptance criteria on innovations) should also be resolved. A Member suggested to nominate a representative from engineering consultants for input on design-related issues, and setting up an innovation panel with experts in the industry to facilitate the adoption of innovation in the industry.

Members had no adverse comments on the initiatives on promoting robotics and automation, and others. After long deliberations, the Chairperson concluded that the business plan was endorsed by Com-PRO on the condition that further comments on the plan may be submitted by Members and to be addressed by the Secretariat.

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(Post-meeting note: The Secretariat has consolidated comments from the DEVB and circulated the revised 2022 business plan and budget to Members on 9 July 2021, for their comments and endorsement.)

2.4 Presentation on “Introduction of a Breakthrough Super High Strength Steel for Construction Applications”

Ir Dr Alex CHAN and Prof. Mingxin HUANG from The University of Hong Kong (The Team), presented the advanced steel technology “HKGS” or grade “HKS800” steel for Member’s information. The technical properties of the advanced steel “HKGS” developed were compared with high grade steel and rebars commonly used in HK, in terms of its economic, technical and social benefits. Potential applications in the construction industry were also highlighted.

Members noted that the welding material and testing requirements for “HKGS” steel are still being developed. Coupler would also be developed to replace lapping of rebars for further productivity enhancement. Structural steel properties would have to be assessed for actual application in projects and, for private projects, acceptance by the Buildings Department. Members noted that further work is required to be carried out by the researchers for trial project adoption.

2.5 Progress Update on the Research on Smartphone as Next-generation Monitoring Devices for Construction-induced Vibrations and Noise

Action

Professor Songye ZHU from The Hong Kong Polytechnic University (the Research Team) updated Members on the progress of the research. An iOS application for smartphones has been developed and tested at several sites to measure construction vibration and noise. The Research Team would send the research findings with the developed application to the relevant works departments for review and the application could be freely downloaded by industry practitioners once ready.

Members had no adverse comments on the research findings. The full report of this research would be circulated to Members for approval in due course. Members requested the application should contain a statement acknowledging that the research and development work was funded by the CIC, and the CIC had facilitated the trial project adoption.

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2.6 Any Other Business

Members were invited to join the MiMEP Forum on 11 June 2021. The MiMEP Forum was co-organised by the EMSD, DEVB, CIC and HKFEMC.

2.7 Next Meeting 003/21

The next meeting would tentatively be held on 14 September 2021. The Secretariat would inform Members once the meeting details are confirmed.

All to Note

The meeting was adjourned at 5:10 pm.