

Construction Industry Council

Committee on Productivity

Meeting No. 002/18 of the Committee on Productivity was held on 18 July 2018 (Wednesday) at 10:00am in Board Room, 38/F, COS Centre, 56 Tsun Yip Street, Kwun Tong, Kowloon.

Summary Notes of the Committee on Productivity Meeting No. 002/18:

Agenda Item	Paper	Major Resolutions / Progress Highlights
2.1	CIC/PRO/M/001/18	Confirmation of the Minutes of the Previous Meeting Members confirmed the minutes of Com-PRO Meeting No. 001/18 with an amendment on item 1.7 – “the Hong Kong Housing Society (HKHS) has already adopted a similar precast concrete shear wall system in <i>one of their projects</i> .”
2.2	-	Matters Arising from the Previous Meeting Item 1.1: The Committee Secretariat has consulted all Members on the initiatives to be included in the “long-list” on a 3-year strategic plan of productivity enhancement for the Hong Kong construction industry. The findings were presented under agenda item 2.5. Item 1.4: The Committee Secretariat has circulated two final reports of the consultancy studies on construction process re-engineering and comprehensive productivity appraisal on 13 June 2018 for Members’ review. The Committee Secretariat has been consolidating comments from Members for the consultants to consider and respond, and following up with HKPC to consult the related trade associations for comments on the recommendations. The Committee Secretariat has informed the principal investigators on the Committee’s decisions on the consultancy studies, viz. “Feasibility Study of Lego-inspired Construction” and “Future Application of 3D Printing in Construction: Impact on Construction Industry Supply Chains in Hong Kong”.

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		Item 1.6: The research study entitled “Innovative Backfilling Materials for Pavements in Hong Kong” commenced and the Committee Secretariat would invite the research team to present their initial findings to the Committee in due course.
2.3	CIC/PRO/P/003/18 (for discussion)	<p>Investigating the Potential of Implementing Robotics and Automation in the Context of Large-scale Housing Development for Hong Kong</p> <p>Dr.-Ing. Thomas LINNER from the Technical University of Munich (TUM) presented the findings of the consultancy and the facade painting robot system. He also proposed a roadmap for additional work: developing a full scale facade-processing robot (Phase 2A), developing 5 to 6 additional trade specific mock-up robots for use in the construction industry of Hong Kong (Phase 2B), and organising an international symposium on on-site construction robotics in 2019 (Phase 2C).</p>
2.4	-	<p>Briefing on the Buildability Evaluation System (BES)</p> <p>Mr. Francis LEUNG from the Development Bureau introduced the Buildability Evaluation System (BES) and Mr. Jim SHEERIN from Arcadis explained the structure, scoring and weighting of the 6 modules under the BES. Different from the one used in Singapore, the BES emphasised on management & coordination, site planning & building siting, project life cycle taking into consideration for the ease of facility construction and maintenance.</p> <p>Some Members were concerned that the scoring system involves personal judgement and asked whether there were incentives or penalties under the system. The team explained that the system aims to encourage good practices through getting people to think about buildability at an early stage of the project and was not intended to be a penalty system. CIC would keep an eye on the implementation of the BES in the public sector.</p>
2.5	-	<p>Discussion on the “Long-list” on Construction Productivity Enhancement</p> <p>The Committee Secretariat presented the “long-list” on construction productivity enhancement. Members agreed the proposal on establishment of a Buildoffsites HK as a 3-year pilot scheme, with the aim to link up industry stakeholders on taking forward the adoption of prefabrication in</p>

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		<p>construction projects. A detailed proposal would be submitted to CIC and presented by Mr. Tim HALL (Director of Buildoffsite UK) at the next Com-PRO meeting.</p> <p>For mechanised construction, Members agreed to further discuss on the work to be carried out in phase 2 of the consultancy study on on-site robotics development upon receipt of a proposal from TUM, and on the budget plan for the proposed robotics and automation symposium in 2019.</p> <p>The Committee Secretariat would follow the framework of the Construction Productivity Metrics System to collect industry data from the existing Construction Workers Registration System (CWRS) and levy system, for compiling construction labour productivity rates of the industry.</p>
2.6	-	<p>Report on Technical Visit to Finland and Germany on Construction Automation Technologies</p> <p>The Committee Secretariat presented the outcomes of the technical visit to Finland and Germany, which included visiting various factories and institutions on the aspects of automation, digitisation, prefabrication, and research & development, and attending the Automatica 2018, which was the trade fair for smart automation and robotics. Members who joined the visit were satisfied with the arrangement on the visiting spots and found the visit useful in terms of learning about innovation, value and practicability from these organisations and the trade fair.</p>
2.7	CIC/PRO/P/004/18 (for endorsement)	<p>Research Proposal on Development of Composite Structures for Enhancement of Productivity and Efficient Utilisation of Manpower</p> <p>Prof. Siu-lai CHAN from the Hong Kong Polytechnic University presented the aim of the proposed research, which was to improve his software RCD2016 in further assisting engineers in designing complex composite structures to reduce the use of reinforcement. Members had concerns on the popularity of using composite structures in Hong Kong and the demand for usage of the software. Chairman suggested and Members agreed to include the research proposal in the “long-list” after Members’ deliberation.</p>

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2.8	CIC/PRO/P/004/18 (for endorsement)	Research Proposal on Smartphones as Next-generation Monitoring Devices for Construction-induced Vibrations and Noise Dr. Songye ZHU from the Hong Kong Polytechnic University presented his research plan in using smartphones for vibration and noise measurement and the related mobile application development. Members queried the data accuracy in using smartphones compared to traditional monitoring devices and the frequency of updating the cloud system. Ir Albert CHENG suggested the research study to be separated into two phases, with the first phase to prove its concept, before considering whether to conduct a second phase study. Dr. ZHU would revise his proposal and the Committee Secretariat would then circulate the revised proposal for Members' further consideration and endorsement.
2.9	-	Any Other Business There was no other business.
2.10	-	Next Meeting 003/18 The next meeting would be held in September 2018. The Committee Secretariat would inform Members once the meeting details are confirmed.

Remarks: The mentioned papers discussed at the Committee on Productivity Meeting and the full minutes can be made available to Council Members by the CIC Secretariat upon request.