

**Construction Industry Council**

**Committee on Productivity**

Meeting No. 002/17 of the Committee on Productivity was held on 28 June 2017 (Wednesday) at 2:30pm at Board Room, 38/F, COS Centre, 56 Tsun Yip Street,, Kwun Tong, Kowloon.

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Summary Notes of the Committee on Productivity Meeting No. 002/17.

<b>Agenda Item</b>	<b>Paper</b>	<b>Major Resolutions/ Progress Highlights</b>
2.1	CIC/PRO/R/001/17	<b><u>Confirmation of the Progress Report of the Previous Meeting</u></b> Members confirmed the Progress Report of the Com-PRO Meeting 001/17 without amendment.
2.2	CIC/PRO/R/001/17	<b><u>Matters Arising from the Previous Meeting</u></b>  For item 1.7.1: The half-day symposium entitled “Tomorrow’s Construction: Robots, Drones, and Printed Buildings” co-organised by CIC and HKUST was held in the afternoon of 3 July 2017 at HKUST campus.  For item 1.7.2: The proposed R&D forum co-organised by CIC, LSCM and NAMI is scheduled to be held in Nov/Dec 2017 to tie in with the scheduled opening of CITAC.  For item 1.7.3: The proposed delegation visit to Japan is postponed to 2018 in view of the unsatisfactory response from the Japanese counterparts and the scheduled delegation visit to Singapore in mid July 2017.
2.3	CIC/PRO/P/001/17	<b><u>A Comprehensive Productivity Appraisal of the Hong Kong Construction Industry</u></b>  Dr. Wei PAN from the University of Hong Kong (HKU) presented the findings of the final report of the project which started in December 2015 for completion in June 2017. After focus group meetings in February 2017 and two international forums in March and April 2017 respectively, Dr. PAN had identified productivity drivers and constrains as well as the enhancement measures e.g.

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		increasing precast construction, promoting BIM and innovation, etc. Com-PRO members requested HKU to address the implementation methods for the aforementioned measures in a more specific manner with practical strategies and action plan. Members were invited to comment on the Final Report by early August 2017.
2.4	-	<b><u>Achieving Productivity Leap through Construction Process Re-engineering</u></b>  Mr. Jeff FUNG from Hong Kong Productivity Council (HKPC) presented the progress and initial findings of the project which started in November 2016 for completion in September 2017. Mr. FUNG updated the latest progress on exploring standardisation of design to reduce the time for learning cycle, on-site automatic equipment for bar cutting, bending and fixing, and systematic layout planning to reduce the idling time in the material delivery process, etc. Members recommended HKPC to conduct field trials in the CIC training centres with the help of instructors in order to quantify the effectiveness of their proposed measures. Members also requested HKPC to consult pertinent Contractor Associations regarding the recommendations.
2.5	-	<b><u>Innovative Design Technique for Steel Concrete Composite Structures in Hong Kong</u></b>  Prof. SL CHAN from The Hong Kong Polytechnic University (PolyU) presented the project findings completed in 2015. PolyU developed a computer aided design software for steel concrete composite structure design which already obtained the pre-acceptance by Buildings Department (BD) in March 2017.  The Secretariat will further promote the free design software as it is user-friendly to industry stakeholders through various means.

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2.6	-	<p data-bbox="696 240 1935 276"><b><u>Research Proposal on Innovative backfilling materials for pavements in Hong Kong</u></b></p> <p data-bbox="696 320 2069 512">Dr. Ivan SHAM from NAMI<sup>1</sup> presented a Research Proposal on a potential replacement for the traditional backfilling materials (e.g. soil) by a flowable backfilling foamed concrete with characteristics of light weight, fire resistant and sound absorption. Members requested NAMI to explain the waste treatment of the soil excavated as it may impose huge pressure on the public fill bank managed by CEDD.</p> <p data-bbox="696 560 2069 632">NAMI shall further discuss with relevant Government Departments including HyD and CEDD on the concerns and to address them in the revised research proposal.</p>
2.7		<p data-bbox="696 687 2069 759"><b><u>Research Proposal on A Feasibility Study of Lego-inspired Construction with Bendable Concrete</u></b></p> <p data-bbox="696 807 2069 999">Prof. Victor LI from University of Michigan presented a Research Proposal on imaginative construction method inspired by “Lego” to be realized by ECC<sup>2</sup>, which can be fully automated and reconfigurable. This is a feasibility investigation into a tailor made ECC with consideration of the design of the joints between the bricks to finally achieve a prototype which could be assembled and dis-assembled for re-use.</p> <p data-bbox="696 1046 2069 1118">Members supported in-principle to the proposal. The Secretariat would circulate the proposal to the members for endorsement.</p>

<sup>1</sup> *Nano and Advanced Materials Institute*

<sup>2</sup> *Engineered Cementitious Composite, also called bendable concrete*

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2.8	-	<p data-bbox="696 244 1346 280"><b><u>Progress Update of the Consultancy Studies</u></b></p> <p data-bbox="696 336 2067 496">The Chairman briefly reported the latest status for the six Consultancy Studies initiated by the Committee. The contract document for the study entitled “<i>Investigating the Potential Application of 3D Printing Technology for Construction Supply Chains in Hong Kong</i>” is under preparation. The study is expected to commence in Q3.</p>
2.9	CIC/PRO/P/002/17	<p data-bbox="696 549 1648 585"><b><u>Report on Breakfast Roundtable Meeting (held on 31 May 2017)</u></b></p> <p data-bbox="696 628 2067 863">A roundtable meeting was held on 31 May 2017 focusing on Prefabrication and Modular Construction with considerations in technical, commercial, political and practical aspects. A total of 13 industry experts joined the meeting. Pilot projects using Modular Prefinished Volumetric Construction (MPVC) would be selected under the steering of the CIC and DevB in order to solve various issues involved, sort out the necessary logistics, gauge the approval time and cost, and assess the response from industry as well as the public.</p>
2.10	CIC/PRO/P/003/17	<p data-bbox="696 888 1171 925"><b><u>Work Plan and Budget for 2018</u></b></p> <p data-bbox="696 968 2067 1082">Committee Secretariat reported the detailed work plan for the years 2017 and 2018 and the budget allocation accordingly including on-going and proposed consultancy studies, overseas trip, seminars/forums, etc.</p> <p data-bbox="696 1125 2067 1238">Taking into account the advice of the Members and the Chairman to be followed up by the Secretariat, the finalized work plan and budget would be submitted to Com-ANF in August for approval.</p>
2.11	CIC/PRO/P/004/17	<p data-bbox="696 1272 994 1308"><b><u>Any Other Business</u></b></p> <p data-bbox="696 1351 2067 1465">Committee Secretariat propagated and called for submission for the Innovation Award 2017 to be held in December. Members suggested the event could be promoted in professional institutes and associations, e.g. ACEHK, to seek more innovated ideas from the industry.</p>

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2.12	-	<b><u>Tentative Date of Next Meeting 003/17</u></b>  The next meeting was scheduled in September 2017. The Committee Secretariat will inform Members once the meeting date is confirmed.

*Remarks: The mentioned papers discussed at the Committee on Productivity and the full progress report can be made available to Council Members from the CIC Secretariat upon request.*