## **Construction Industry Council**

## **Committee on Productivity**

Meeting No. 002/16 of the Committee on Productivity (Com-PRO) was held on 23 June 2016 (Thursday) at 9:30 am in Meeting Room, ZCB, 8 Sheung Yuet Road, Kowloon Bay, Hong Kong.

Summary Notes of the Committee on Productivity Meeting No. 002/16.

| Agenda Item | Paper            | Major Resolutions/ Progress Highlights  |
|-------------|------------------|---|
| 2.1         | CIC/PNR/R/001/16 | Confirmation of the Progress Report of the Previous Meeting Members confirmed the Progress Report of the Com-PNR Meeting 001/16.  |
| 2.2         | CIC/PRO/P/004/16 | Renaming and Amending Terms of Reference of Committee on Productivity  Members took note of Paper CIC/PRO/P/004/16 and the endorsed amendments to the Terms of Reference of the Com-PRO.  |
| 2.3         | _                | Benchmarking the Construction Trade Productivity in Hong Kong  Dr. Eric ZHANG from the Hong Kong University of Science and Technology, the Principal Investigator of the consultancy study, delivered a presentation on the research progress. The five most critical construction trades of the building and infrastructure projects for benchmarking were determined. Members agreed to extend the completion date from July 2016 to January 2017, while relevant government departments and trade associations would be sought for necessary information and data. |
| 2.4         | -                | Development of High Modulus Concrete for Tall Buildings  The final report was received in May 2016 and copies would be circulated to the industry stakeholders for reference. Several developers had already expressed interest in conducting trials with the research outcome. DEVB and the Building Department would discuss the adoption of the  |

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|             |                  | new concrete at their relevant committees.   |
|             |                  |  |
| 2.5         | -                | Assessing the Performance of the Hong Kong Construction Industry, Key Performance                  |
|             |                  | Indicators (KPI): An International Comparison  |
|             |                  | Prof. Thomas NG from the University of Hong Kong, the Principal Investigator of the consultancy    |
|             |                  | study, presented the objectives, research progress and findings. Limitations of this study were    |
|             |                  | mainly related to the availability of data and measurement method. The interim report would be     |
|             |                  | published in early July 2016, while the final report was expected to be issued in November 2016.   |
| 2.6         | CIC/PRO/P/005/16 | Achieving Productivity Leap through Construction Process Re-engineering (CPR)                      |
| 2.0         | C1C/11C/17003/10 | The study would focus on re-engineering the construction processes and improving productivity of   |
|             |                  |  |
|             |                  | various trades in the Hong Kong building sector. It would be divided into two phases with an aim   |
|             |                  | to re-engineer the construction processes of three and five key construction trades respectively.  |
|             |                  | The research period of phase 1 would last for around eight to nine months from July 2016 to        |
|             |                  | March 2017. Two academic institutes and three private companies had the intention to bid for the   |
|             |                  | study.   |
| 2.7         | CIC/PRO/P/006/16 | Establishment of Construction Innovation Centre  |
|             |                  | A preliminary proposal on establishing the Construction Innovation Centre ("Centre") was           |
|             |                  | presented to Members. The Centre shall be comprised of three sections, namely Market Ready         |
|             |                  | Technologies, Emerging Technologies and Knowledge Sharing Sections. Innovative products and        |
|             |                  | technologies developed by different parties under a specific theme will be displayed on a rotating |
|             |                  | basis within a certain period. It was proposed to set up a Steering Group ("Group") for the Centre |
|             |                  | which shall directly report to the Council. The Group may consist of two to three Members from     |
|             |                  | each CIC Committee. The Group shall oversee the operation of the Centre, propose consultancy       |
|             |                  | studies and cooperate with the relevant government departments for trials, in order to promote the |

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|             |                       | application of innovations in the Hong Kong construction industry.                                 |
| 2.8         | CIC/PRO/P/007/16      | Potentials of Implementing Robotics and Automation in Housing Development for Hong                 |
|             |                       | Kong   |
|             |                       | The revised proposal included a prototype construction robot which would incur additional costs    |
|             |                       | for demonstration purposes. Without objection from Members, the research proposal was              |
|             |                       | approved. The CIC would own the intellectual property rights of all research outcomes. The CIC     |
|             |                       | Secretariat shall follow up and prepare the agreement.   |
| 2.0         | CIC/DD 0 /D /000 /1 c |  |
| 2.9         | CIC/PRO/P/008/16      | Investigating the Potential Application of 3D Printing Technology for Construction Supply          |
|             |                       | Chains in Hong Kong  |
|             |                       | The objectives and background information of the study proposed by Prof. Mirosław J.               |
|             |                       | SKIBNIEWSKI was presented. Members agreed that it would be of use to investigate what could        |
|             |                       | be achieved by 3D printing technology and its feasibility of application in the local construction |
|             |                       | industry through a paper study. The CIC Secretariat shall follow up on further arrangement.        |
| 2.10        | -                     | Integrating Constructability in Project Planning and Design  |
|             |                       | The study had been open for tendering twice but inadequate tender submissions were received. In    |
|             |                       | fact, a preliminary prototype developed by the Hong Kong Polytechnic University was already        |
|             |                       | available. DEVB and Architectural Services Department ASD had also devoted efforts to              |
|             |                       | investigating the issue of constructability. It was proposed to establish a team in the CIC        |
|             |                       | Secretariat to provide additional assistance and supplement the government's in-house study, and   |
|             |                       | adopt similar research methodology for the private construction projects.                          |
| 2.11        | _                     | Any Other Business   |
|             |                       | Research proposals submitted would be assigned to the respective Committees subject to their       |

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|             |       | implemented research areas. Next round of open call for research proposals for the CIC Research Fund would commence in 2017. A research agenda shall be discussed and confirmed in the next meeting. |
| 2.12        | -     | Tentative Date of Next Meeting 002/16 The next meeting was scheduled in September 2016. The 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.