

Construction Industry Council

Committee on Productivity

Meeting No. 004/22 of the Committee on Productivity (Com-PRO) was held on 1 December 2022 (Thursday) at 2:30 pm in the Board Room, 38/F, COS Centre, 56 Tsun Yip Street, Kwun Tong, Kowloon and via MS Teams.

Summary Notes of the Com-PRO Meeting No. 004/22:

Agenda Item	Paper	Major Resolutions / Progress Highlights
4.1	CIC/PRO/M/003/22	Confirmation of Minutes of the Previous Meeting Members confirmed the minutes of the Com-PRO Meeting No. 003/22 without any amendment.
4.2	-	Matters Arising from the Previous Meeting (a) Progress Updates on ConTech Accelerator 2022 co-organised with Hong Kong Science and Technology Park Corporation (HKSTP): 20 main contractors were engaged in the ConTech Accelerator Programme with 165 pain points collected covering the areas of construction safety, productivity, and sustainability. Over 100 solution providers were recruited to address the contractors' needs. It was anticipated that 70% of the pain points could be potentially resolved. Members suggested sharing the pain points with i-Club members. CIC Secretariat will continue to follow up on the Accelerator Programme. (b) Progress updates on Research Proposal: Logistigraphs.io – A Parametric Modularization Analytics Tool: The applicant updated that they had a potential project of

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		<p>a 23-storey building with 160 MiC modules to be analysed through the proposed research. The CIC Secretariat will seek Members' approval once the proposal is finalised.</p> <p>(c) Progress updates on Research Proposal: Autonomous Mobile Robot for Material Delivery and Site Inspection The proposal commenced in November 2022 and expected to complete in 12 months. The CIC Secretariat will update Members with the project progress in due course.</p> <p>(d) Consultancy Study: Digitalising Construction for Enhancing Project Delivery Llewellyn & Partners Co. Ltd was awarded to conduct the consultancy study. The project will commence on 3 January 2023 and complete by March 2024.</p> <p>(e) Webinar on MiMEP: A webinar on “The New Normal of MiMEP” was held on 21 October 2022 to promote the guideline published by CIC and to encourage adoption of MiMEP in the industry. Over 1,500 practitioners joined the webinar.</p> <p>(f) Update on Consultancy Study of “Improving Time, Cost and Quality Performance of the Hong Kong Construction Industry (TCQ Study)” A press conference was held on 17 November 2022 to launch the TCQ report, promulgating the strategies for improving time, cost and quality performance of the industry.</p> <p>(g) Update on Consultancy Study for Establishing a Certification Scheme for Construction Robotics for the Hong Kong Construction Industry Deliverables had been endorsed by the Expert Group and final payment will be settled accordingly. CIC will consider launching the scheme once the market of on-site welding, painting and plastering robots becomes more mature. Nevertheless, reference material will</p>

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		<p>be compiled and published in March / April 2023 based on the outcomes of the consultancy for industry's reference.</p> <p>(h) Update on Construction Innovation Expo 2022 The CIExpo will be held on 13 to 17 December 2022. There are four themed zones including industrialisation, digitalisation, automation and modernisation. There will also be two International Summits and four International Conferences taking place. Over 3,000 visitors have registered as at 30 November 2022. The Chairman encouraged Members to promote the event to the industry.</p>
4.3	-	<p>Consultancy Services on Digitalising Construction for Enhancing Project Delivery</p> <p>Prof. Llewellyn TANG from Llewellyn & Partners Co. Ltd. recapped the aim of the consultancy: to drive the digital adoption in construction to enhance the project delivery including productivity, safety, quality, cost and sustainability. SMEs in the industry should be well-covered. While overseas best practices would be reviewed through this consultancy, Members reminded that the industry structure and operations in other countries could be quite different and therefore findings should be used with caution. Members also advised that the assessment of digital maturity for the ten selected projects had to be comprehensive and robust. In addition, construction time and cost should be included as the KPIs of project delivery on top of sustainability, safety and quality.</p> <p>The Secretariat would further liaise with the project team to monitor the progress of the consultancy and update Members the progress from time to time.</p>

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4.4	-	<p>Progress Update on the Funded Research Project – Development of an Artificial Intelligence Rock Type Classification and Fracture State Characterization APP for Engineering Applications</p> <p>Dr. Louis WONG from the University of Hong Kong updated Members on the progress of the subject research project. Progress reports were submitted on 27 June and 27 September 2022 respectively. Image pre-processing and training of AI models had been completed. The research team will enhance the AI model’s performance and carry out user trials for the development of online application. A user manual will also be compiled afterwards.</p> <p>Members suggested to develop the application to link up the photos and data so as to maintain a Hong Kong-based geological profile. The team take note and will follow up.</p>
4.5	-	<p>Brainstorming on Productivity Enhancement for Expediting Public Housing Supply</p> <p>Mr. Rayson WONG introduced the MiC pilot projects of the Housing Authority, and the key strategies and targets for public housing from the 2022 Policy Address. First batch of MiC public housing projects included Tung Chung Area 99, Tak Tin Street and Anderson Road Quarry Site. According to the Policy Address, it was targeted to adopt DfMA in all projects and MiC in suitable projects during 2023 - 2028 while no less than 50% of the projects will adopt MiC during 2028 - 2033. The key issues for the MiC application include transportation and logistic, temporary storage area, and supply chain readiness.</p> <p>Members suggested to engage academia or research institutes for conducting research study to develop new construction material, such as light weight aggregate and advanced joint details to</p>

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		<p>facilitate wide adoption of MiC for public housing. Mr. Rayson WONG took note and elaborated that the Housing Department is now conducting some studies on the MiC joint details.</p> <p>Members also suggested providing a platform to display the demand figures of public and private housing for the industry's information. The CIC Secretariat will follow up.</p>
4.6	-	<p>Any Other Business</p> <p>There was no other business.</p>
4.7	-	<p>Next Meeting 001/23</p> <p>The next meeting would be held on 22 March 2023 tentatively. The Secretariat would inform Members once confirmation of the meeting details.</p> <p>The meeting was adjourned at 4:40 pm.</p>

Remarks: The mentioned papers discussed at the Committee on Productivity Meeting No. 004/22 and the full minutes can be made available to Council Members by the CIC Secretariat upon request.

Construction Industry Council

Committee on Productivity

Meeting No. 001/23 of the Committee on Productivity (Com-PRO) was held on 22 March 2023 (Wednesday) at 2:30 pm in the Board Room, 38/F, COS Centre, 56 Tsun Yip Street, Kwun Tong, Kowloon and via MS Teams.

Summary Notes of the Com-PRO Meeting No. 001/23:

Agenda Item	Paper	Major Resolutions / Progress Highlights
1.1	CIC/PRO/M/004/22	Confirmation of Minutes of the Previous Meeting Members confirmed the minutes of the Com-PRO Meeting No. 004/22 without any amendment.
1.2	-	Matters Arising from the Previous Meeting (a) Progress updates on ConTech Accelerator Programme co-organised with Hong Kong Science and Technology Park Corporation (HKSTP) 20 main contractors were engaged in the ConTech Accelerator Programme with 165 pain points collected covering the areas of construction safety, productivity, and sustainability. 126 one-to-one matching sessions were arranged for the partnering contractors. Amongst them, 3 technical proposals were adopted, 18 technical proposals will be adopted if the project is awarded, and contractors were interested in 91 proposals the proposals and will consider adopting them in the future. To encourage a wider adoption of the technologies, a demonstration day to showcase the matched use cases will be organised in June 2023. In

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		<p>addition, CIC will launch a new online construction innovation platform this year to further support the construction and real-estate sectors to identify the right solutions for trial and adoption.</p> <p>(b) Webinar on Effective Design and Construction of High Strength S690 Steel</p> <p>The webinar was held on 6 February 2023 to share the key research findings on mechanical properties of high strength S690 steel and their welded sections. Over 1,800 practitioners joined the webinar.</p>
1.3	-	<p>Update on the Consultancy Study on Construction Productivity Measurement in Hong Kong</p> <p>Professor Wei PAN from The University of Hong Kong reported the progress of the consultancy study. The team researched the labour productivity for building projects and compared the data between the public and private sectors. Three observations were found as follows:</p> <ul style="list-style-type: none">(a) the overall trend of CFA and labour number is dominated by the private sector;(b) the labour productivity for the public sector is higher than that for the private sector; and(c) labour productivity is slightly declined over the last decade; <p>Members opined that labour productivity was not raised significantly after the implementation of MiC/ DfMA in 2020 onward. Members commented that the research only reflected the onsite productivity that the off-site labour works were omitted. Members suggested that trade-based productivity should be studied.</p> <p>Mr. Joseph LO supplemented that the scope of the research is to provide an overview labour</p>

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1.4	-	<p>Consultancy Services on Digitalising Construction for Enhancing Project Delivery</p> <p>Prof. Llewellyn Tang from Llewellyn & Partners Co. Ltd. reported the progress of their consultancy services. The team carried out research on three worldwide best practices on construction digitalisation – China, UK and Singapore and developed the Digital Maturity Framework. In phase two, the team will investigate ten overseas best practice projects and develop a digitalising assessment tool.</p> <p>Members suggested that local projects should be included as best practice project studies during the digitalising assessment development. Members also suggested that after issuing the guidebook, CIC should encourage contractors to do the assessment through internal and external audit.</p> <p>The Secretariat would further liaise with the project team to monitor the progress of the consultancy services and update Members the progress from time to time.</p>
1.5		<p>Progress Update on the Funded Research Project – Study of Artificial Intelligence for Road Surface Depression Detection Using 3D LiDAR Data</p> <p>Prof. Charles WONG from the Hong Kong Polytechnic University updated Members on the progress of the funded research. The progress of the research is kept on track. AI Road surface depression detection algorithm and 3D point cloud library for road defects had been developed. The research team is currently developing an AI tool for road surface depression detection.</p>

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		With no adverse comments on the research, the Secretariat would liaise with the project team to monitor the research progress and update Members the progress from time to time.
1.6	CIC/PRO/001/23	<p>Proposal for Oversea Study Tour</p> <p>Ir Julian LEE briefed Members on the Paper CIC/PRO/P001/23 regarding the proposal of a 4-day overseas study tour to Japan in May 2023. The proposed tour composes of attending the 5th Construction & Survey Productivity Improvement EXPO and visiting the Sumitomo Forestry.</p> <p>With no adverse comments, Members approved the paper CIC/PRO/001/23. CIC Secretariat would follow up accordingly.</p>
1.7	-	<p>Any Other Business</p> <p>(a) Review of Committee Name</p> <p>In response to CIC Chairman’s suggestion, Members had a discussion on the necessity to change the committee name. After deliberation, Members agreed the name of the Committee on Productivity aligned with the naming strategy of other CIC committees and no new name was proposed.</p> <p>Ir Ricky LEUNG welcomed Members to give suggestion for further discussion at the next meeting.</p> <p>(b) CIC Construction Sustainability Forum & Exhibitions in November 2023</p>

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		<p>Ir Julian LEE briefed Members on the CIC initiative of the CIC Construction Sustainability Forum & Exhibition to be held on 20 – 23 November 2023.</p> <p>Members took note of the event.</p>
1.8	-	<p>Next Meeting 002/23</p> <p>The next meeting would be held on 21 June 2023 tentatively. The Secretariat would inform Members once confirmation of the meeting details.</p> <p>The meeting was adjourned at 4:40 pm.</p>

Remarks: The mentioned papers discussed at the Committee on Productivity Meeting No. 001/23 and the full minutes can be made available to Council Members by the CIC Secretariat upon request.