Construction Industry Council

Committee on Productivity

Meeting No. 002/23 of the Committee on Productivity (Com-PRO) was held on 21 June 2023 (Wednesday) at 2:30 pm at 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. 002/23:

Agenda Item	Paper	Major Resolutions / Progress Highlights
2.1	CIC/PRO/M/001/23	**Confirmation of Minutes of the Previous Meeting** Members confirmed the minutes of the Com-PRO Meeting No. 001/23 without any amendment.
2.2	-	**Matters Arising from the Previous Meeting** **CIC Global Construction Sustainability Forum & Exhibition (GCSFE) in November 2023:** The event will be held on 20-23 November 2023, with 40 exhibitors and around 35 speakers. There will be award presentation ceremonies, forums and exhibitions. The list of exhibitors will be reported to the Members in the next meeting. Members took note of the event.
2.3	Paper CIC/PRO/P/002/23 (for endorsement)	**2024 Business Plan and Budget** The Secretariat presented the proposed Com-PRO 2024 business plan and the associated budget. The proposed 2024 business plan would continue the on-going actions brought forward from Com-PRO's

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		business plan 2023 (ref. CIC/PRO/P/002/22). The initiatives under the business plan focus on three strategic directions, *viz*.: **i) Shifting to Industrialisation**; **ii) Driving Smart Project Delivery**; and **iii) Promoting the Adoption of Productivity-enhancing Solutions**. The estimated budget for Com-PRO to conduct the items of works listed below is HK$3.39M. (a) **Shifting to Industrialisation** ▪ Launch a MiC & MiMEP Course and Explore New Skillset for Nurturing Local Students, Management Levels, Professionals and Senior Executives ▪ Establish a Digital Resource Centre with Object Library to Collect and Disseminate Useful Information of MiC and MiMEP and Promote Standardisation ▪ Promotion (b) **Driving Smart Project Delivery** ▪ Promote the Adoption of Digital Solutions for Project Delivery (c) **Promoting the Adoption of Innovation** ▪ Promote Robotics and Automation Applications in Construction ▪ Expand the Application of Product Certification Scheme ▪ Identify Innovative Technology for Productivity Enhancement in Building Projects ▪ Promotion ▪ Organise CIC Construction Innovation Award 2025 **2024 Key Performance Indicators (KPIs)** ▪ Manage the Digital Resource Centre with Object Library to facilitate MiC and MiMEP Adoption with 50,000 target number of visits to the Digital Resource Centre ▪ Identify and promote 5 practical solutions bringing significant gain to construction productivity

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		▪ Identify innovation technology to enhance productivity significantly in Building Projects ▪ Preparation of marketing works for the CIC Construction Innovation Award 2025 Members had no further comments on the proposed initiatives and KPIs and endorsed the Com-PRO 2024 business plan and budget. The CIC Secretariat would submit the business plan and budget to the Council for approval.
2.4	Paper CIC/PRO/P/003/23 (for information) Paper CIC/PRO/P/004/23 (for endorsement)	**High Productivity Construction – MiC & MiMEP** **(a) Update on Time, Cost and Quality (TCQ) Report (ID-1, ID-2 & ID-3)** The Secretariat updated Members on the recent status of TCQ report items conducted by the responsible ID departments under three main strategies: Development of Digital Library to Facilitate MiC and MiMEP (ID-1); Supporting and Promoting MiC and MiMEP (ID-2); and Building up the Industry's Capability on MiC and MiMEP (ID-3). Regarding "Development of Digital Library to Facilitate MiC and MiMEP", Members suggested including case study on real projects to address the pain point of the industry. Members also suggested the Housing Department to introduce and indicate standardisation for MiC and MiMEP for reference by the industry. Member, the representative from the Housing Department, advised that they have been investigating a better solution with repeated testings. Verification would be conducted upon the completion of projects. Besides, Members raised their concerns on contract term, particularly in payment terms. They opined that the Secretariat shall review the situation to facilitate the adoption of MiC and MiMEP and they

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		also reminded the Secretariat to be aware of those drawings of IPA listed in the Buildings Department to enhance the platform's effectiveness. Members noted the comments and suggestions. The Secretariat will follow up accordingly. **(b) Reference Materials on MiC Installation and Disassembly** With reference to the Nam Cheong 220 project, Reference Materials on MiC Installation and Disassembly targets to be launched in July 2023 and the Secretariat is seeking comments from Members of Com-PRO and Joint Working Group on MiC. **(c) 2024 Business Plan and Budget Plan for MiC** The Secretariat presented the proposed 2024 business plan and the associated budget for MiC. The initiatives under the business plan focus on four strategic directions, *viz*.: **i) Operation and maintenance of the MiC Resources Centre**; **ii) Promotion, facilitation and engagement of adoption of MiC**; **iii) Development of MiC technical courses**; and **iv) Addressing and Tackling Technical and Policy Issues**. The estimated budget for MiC to conduct the items of works listed below is HK$5.64M. **(a) Operation and Maintenance of the MiC Resources Centre** ▪ Maintain resources / knowledge library including updating MiC news locally and worldwide ▪ Update MiC projects information, producing promotional / site videos of projects for uploading to the MiC website and showing in the MiC Resources Centre ▪ Update showcases and exhibits

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		▪ Conduct guided tours and carry out general maintenance and daily operation of the MiC Resources Centre ▪ Maintain and enhance MiC website **(b)** **Promotion, Facilitation and Engagement of Adoption of MiC** ▪ Hold an International Conference on High Productivity Construction (HPC) ▪ Conduct seminars / workshops / webinars / focus group meetings, etc. on various topics ▪ Organise overseas / Mainland China MiC project and factory visits, seminars and conference ▪ Update and enhance MiC reference materials **(c)** **Development of MiC Technical Courses** ▪ Organise MiC Courses for Project Managers (Master Class) ▪ Organise HPC Course for Senior Executives **(d)** **Addressing and Tackling Technical and Policy Issues** ▪ Conduct consultancy for HPC Research and Development **2024 Key Performance Indicators (KPIs)** ▪ Update MiC exhibits to focus on MiC successful sites and newly adopted MiC technology with target visitors of 7,000 ▪ Encourage industry engagement for wider MiC adoption by organising at least 3 events including but not limited to conference, workshop, webinar and site visit, etc. ▪ Conduct and publish research reports on HPC to study its latest development and the way forward ▪ Renovate MiC Resources Centre (lower embodied carbon)

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		Members had no further comments on the proposed initiatives and KPIs and endorsed the 2024 business plan and budget for MiC. The CIC Secretariat would submit the business plan and budget to the Council for approval.
2.5	-	**Update on TCQ Report (Apart from ID-1, ID-2 & ID-3)** The Secretariat updated Members on the recent status of TCQ report items conducted by the responsible ID departments under four main strategies: Shifting to High Productivity Construction (HPC); Streamlining Approval Processes (AP); Driving Innovation (I); and Enhancing Project Management and Procurement (PM) in terms of short-term and long-term action plans. All items target to be completed by 2023 / 2024.
2.6	-	**Progress Update on ConTech Accelerator Programme** The Secretariat updated Members that 5 successful cases were identified, including AI Video Analytics 2D to 3D Distance Calculation, Edge AI Wearable, Inspection Robot in Narrow Space, Drilling Robot and Remote e-Inspection System for prefab components. A Demonstration Day, consisting of conference and exhibition, will be held on 1 August 2023 at Hong Kong Science and Technology Park. Both suppliers and end users will share their cases during the conference. Members took note of the event.

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2.7	Paper CIC/PRO/P/005/23 (for information)	**Report on Oversea Study Tour** The Secretariat reported that the Study Tour in Japan was held in May 2023. It covered visits to Fujita Technology Center, Obayashi Technology Research Institute, New Environment Exposition (N-Expo 2023), Global Warming Prevention Exhibition 2023 (GWPE 2023) and CSPI-Expo. Some new technologies were discovered during the visits, in productivity, environmental and sustainability aspects, such as alloys and metals XRF analyser, robotics, 3D printing, reinforcement automation and hydrogen fuel cell. Members suggested the Secretariat to share the knowledge of the above new technologies to the industry stakeholders e.g. hydrogen fuel cell for their reference.
2.8	-	**Progress Update on the Funded Research Project –Autonomous Mobile Robot for Material Delivery and Site Inspection** Mr. Stone CHAN from Shui On Construction Company Limited updated Members on the progress of the funded project. The research team focused on the hardware development and AI recognition of safety in the past 8 months and the 1st and 2nd milestones have been successfully achieved. In phase 3, the team will develop the SLAM navigation, which allows the mobile robot to map the route through scanning so that it could automatically arrive at its destination for material delivery. Members had no adverse comments on the research. The Secretariat would liaise with the project team to monitor the research progress and update the Members on the progress from time to time.

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2.9	-	**Progress Update on the Funded Research Project – Development of an Artificial Intelligence Rock Type Classification and Fracture State Characterization APP for Engineering Applications** Prof. Louis WONG from The University of Hong Kong reported the progress of the funded project to Members. The AI model development had been finished in past few months and the progress is on track as planned. The research team appointed a WebApp development company to develop the webpage layout and the backend integration. The developed webpage layouts and AI recognition functions were showcased. The research project will complete by September 2023 and the team will seek support for site trial afterwards. Members had no adverse comments on the research. The Secretariat would liaise with the project team to monitor the research progress and update the Members on the progress from time to time.
2.10	-	**Request for (Extension of Time) EOT on the Funded Research Project – Study of Artificial Intelligence for Road Surface Depression Detection using 3D LiDAR Data** In view of the needs for additional time for developing the AI tools, improving algorithm accuracy and increasing the efficiency of road segmentation, the PolyU Research Team requested for extension of time to December 2023 for completing the study. Members approved the EOT request with no adverse comments.
2.11	-	**Report on Applications for the CIC R&D Fund 2023**

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		A total of 19 R&D fund proposals were received in April 2023. Initial assessment was conducted based on three key criteria: i) value of the research; ii) cost-effectiveness; and iii) research implementation. Six proposals would be shortlisted for consideration by the Committee, six proposals were under review by the Secretariat and seven proposals were classified as "not shortlisted". Three proposals relating to productivity would be shortlisted for Members to comment and endorse in the next Com-PRO meeting. Members took note of the current status of the CIC R&D Fund applications.
2.12	-	**Any Other Business** There was no other business.
2.13	-	**Next Meeting 003/23** The next meeting would be held on 20 September 2023 tentatively. The Secretariat would inform Members upon confirmation of the meeting details. The meeting was adjourned at 5:00 pm.

Remarks: The mentioned papers and/or progress reports discussed at the Com-PRO can be made available to Council Members from the CIC Secretariat upon request.