

CONSTRUCTION INNOVATION AND TECHNOLOGY FUND

Executive Summary

1. In the 2018-19 Budget, the Financial Secretary proposed to set up a \$1 billion Construction Innovation and Technology Fund (CITF) to encourage wider adoption of innovative construction methods and technology in the construction industry, and to build up the capacity of construction professionals to leverage innovation for continuous improvement, with a view to promoting productivity, uplifting build quality, improving site safety and enhancing environmental performance. With the approval of the Finance Committee of the Legislative Council (LegCo) in July 2018, the Development Bureau (DEVB) launched the \$1 billion CITF in October 2018. In the 2022-23 Budget Speech, it was proposed to inject another \$1.2 billion to CITF for its ongoing operation and implementation of enhancement measures launched in January 2022. Such injection was approved by LegCo in the context of the Appropriation Bill 2022 in May 2022. CITF covers two aspects, namely technology adoption (i.e. Advanced Construction Technologies (ACT), Building Information Modelling (BIM), Modular Integrated Construction and Prefabricated Steel Reinforcing Bar) and manpower development. Since the launch of CITF in October 2018 and up to September 2022, 2,760 applications had been approved under CITF with approved grants of \$767 million.

2. In view of the knowledge and expertise on construction of the Construction Industry Council (CIC) and its close relationship with construction stakeholders, DEVB commissioned CIC as the implementation partner to implement, manage and administer CITF with effect from the date of signing of the Memorandum of Cooperation (MoC) in October 2018. According to MoC, CIC would set up a dedicated CITF office (i.e. CITF Secretariat) to provide executive, administrative and secretariat support to the operations of CITF. CIC would absorb and bear all manpower and administration costs arising from the implementation, management and administration of CITF. The Steering Committee on Construction Innovation and Technology Fund (SC) was set up by DEVB in September 2018 to provide overall steer and advise the Government on the key parameters and implementation of CITF, and assist in monitoring the use and cost effectiveness of CITF. The Management Committee on Construction Innovation and Technology Fund (MC) was set up by

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CIC to formulate the operational framework of CITF and oversee its day-to-day operations. MC is further supported by four Vetting Sub-committees on Construction Innovation and Technology Fund (VSCs) in providing expert advice on specialised areas, reviewing and approving the relevant pre-approved product scheme applications, and vetting and approving the relevant CITF applications. The Audit Commission (Audit) has recently conducted a review of CITF.

Processing of applications

3. ***Time pledge for completing the processing of applications not met in some cases.*** According to CITF’s “Guide to Application” and website, under normal circumstances, upon receipt of CITF applications, CITF Secretariat will complete the processing of valid applications and notify applicants of the application results within 60 calendar days (for non pre-approved items) or within 30 calendar days (for pre-approved items — see para. 4) from the dates of receipt of the duly completed applications accompanied by all necessary documentation. Audit noted that, as of September 2022: (a) of the 2,337 applications with 30-day time pledge, the time taken to complete the processing of 245 (10.5%) applications were more than 30 days, ranging from 31 to 135 days (averaging 40 days); and (b) of the 633 applications with 60-day time pledge, the time taken to complete the processing of 39 (6.2%) applications were more than 60 days, ranging from 61 to 182 days (averaging 104 days). According to DEVB, regarding the 25 (3 and 22 under 30-day and 60-day time pledge respectively) applications with longer processing time of over 90 days, the majority of them were related to adoption of new technologies or circumstances new to VSCs in the early stage of adoption in the industry and the projects involved were more complicated. In Audit’s view, DEVB needs to take measures to ensure that the processing of CITF applications for simple or less complicated cases is timely completed and seek relevant VSCs’ advice on complicated cases or cases involving adoption of new technologies as early as practicable (paras. 2.5 to 2.8).

4. ***Scope for improvement in maintaining the pre-approved lists.*** With a view to simplifying and expediting the CITF application process, CITF Secretariat has drawn up lists of pre-approved items for ACT and BIM (para. 2.14). Audit noted that:

- (a) the criteria for delisting pre-approved items were not clearly spelt out in CITF’s operation manual (para. 2.19(a));

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- (b) as of January 2023, of the 67 pre-approved items delisted during October 2018 to September 2022, there were no documentary evidence showing that the delisting of 18 items had been reviewed by VSCs (para. 2.19(b)); and
- (c) of the 596 pre-approved items in the pre-approved lists as of September 2022, 258 (43%) items had not been adopted under CITF projects since the enlisting of individual items, of which 80 (31%) items had been included in the pre-approved lists for more than 3 years and up to 4 years. According to DEVB, it was the decision of MC and VSCs that as long as the pre-approved items were regarded as still relevant and beneficial to the industry, they should continue to be kept on the pre-approved lists, even there was no or only a small number of CITF applications received for such items. In Audit's view, DEVB needs to step up promotion of pre-approved items with a view to encouraging their adoption in CITF projects (para. 2.19(c)).
5. ***Need to ensure that the pre-approved lists on CITF's website are accurate and up-to-date.*** Audit noted that: (a) while the update of pre-approved lists was approved by MC in November 2022, the relevant pre-approved lists on CITF's website were only updated in January 2023; and (b) as of November 2022, while 634 pre-approved items in the pre-approved lists had been approved by MC, only 622 pre-approved items were found in the pre-approved lists published on CITF's website (para 2.20).

Funding disbursement and monitoring of approved projects

6. According to DEVB, approved funding will be disbursed to successful applicants on a reimbursement basis and upon fulfilment of all the terms and conditions of CITF. For technology adoption, in general, reimbursement will be made in two instalments (i.e. 80% and 20% of the approved funding will be paid under the first and final instalment respectively). For manpower development, reimbursement will be made within two years from the dates of notification of approval of application. As of September 2022, of the 2,760 approved projects with total approved grants of \$767 million, funding disbursements of \$376 million (49%) had been made for 1,946 projects (1,928 technology adoption projects and 18 manpower development projects) (paras. 3.2, 3.3 and 3.6).

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7. *Scope for improvement in monitoring the submission of disbursement requests.* Audit noted the following issues:

- (a) *Timeframe for submission of disbursement requests.* According to CITF’s “Guide to Application” and terms and conditions, in general, successful applicants should submit disbursement requests for the first instalment of approved funding for technology adoption projects within 3 months from the dates of notification of approval of application. Audit noted that some successful applicants took a longer time in submitting disbursement requests. For example, regarding the 1,928 projects related to technology adoption with funding disbursement made, the first disbursement requests of 908 (47% of 1,928) projects were submitted by the successful applicants more than 3 months and up to 2.4 years (averaging 6.5 months) from the dates of notification of approval of application. According to DEVB, the 3-month timeframe for submission of first disbursement request serves as a recommended timeframe to encourage applicants’ early submission of disbursement requests and a benchmark for CITF Secretariat to trigger the tracking and reminder system (see (b) below) when the applicants have already procured the products. Having regard to the policy objectives of CITF and experience gained in the implementation of CITF in the past few years, DEVB has planned to review the 3-month timeframe in the overall review of CITF, which is scheduled for completion in June 2023. In Audit’s view, DEVB needs to complete the review as scheduled and continue to take measures to closely monitor the submission of disbursement requests by successful applicants. In this connection, Audit also noted that there is no specific timeframe on submission of final disbursement requests for technology adoption projects, while a timeframe of two years was set for manpower development projects (paras. 3.5, 3.6, 3.8 and 3.9); and
- (b) *Tracking and reminder system.* A comprehensive tracking and reminder system for monitoring the progress and issuing reminder letters to successful applicants for technology adoption projects was established in July 2020. Audit noted that: (i) there was no readily available information on the issuance of reminders and warning letters, and the follow-up actions taken; and (ii) the system did not cover manpower development projects (paras. 3.10 and 3.11).

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8. *Need to take measures to ensure the timely processing of disbursement requests.* According to CITF Secretariat, since April 2020, the processing of disbursement requests would normally be completed within 30 calendar days upon receiving complete information. From April 2020 to September 2022, CITF Secretariat received 3,664 disbursement requests submitted by successful applicants. Audit noted that, as of September 2022, of these 3,664 disbursement requests: (a) 2,970 (81%) were approved by CITF Secretariat. For 137 (5% of 2,970) disbursement requests, the time taken in completing the processing of them (i.e. time elapsed between the dates of receipt of complete information and the dates of approval) was more than 30 days and up to 8.2 months; and (b) 516 (14%) were being processed by CITF Secretariat, of which 389 (75% of 516) were received more than 30 days ago (paras. 3.13 and 3.14).

9. *Need to take measures to ensure the timely submission of completion reports.* According to the terms and conditions of CITF, the successful applicants will be required to submit completion reports to CITF Secretariat within twelve months from the dates of the first disbursement request for approved technology adoption projects and nine months upon the completion of the approved manpower development projects. The completion reports must include details of the results, performance, achievements and/or evaluation of the approved projects. As of September 2022, there were a total of 1,009 approved projects due for submission of completion reports. Audit noted that: (a) completion reports had not been received for 596 (59%) projects, which had been overdue for 1 day to 3.2 years (averaging about 1 year); and (b) completion reports had been received for 413 (41%) projects, of which completion reports of 278 (67%) projects were submitted 1 day to 2.2 years (averaging 4.8 months) after the required deadlines. According to DEVB, it is noted that successful applicants often need more time to operate the technologies for a reasonable period after their procurement and installation in order to know and be able to set out in the completion reports the benefits brought about by the technologies to their operation. DEVB has planned to review the timeframe for submission of completion report in its overall review of CITF, which is scheduled for completion in June 2023. In Audit's view, DEVB needs to complete the review as scheduled and take measures to ensure the timely submission of completion reports by successful applicants (paras. 3.19 to 3.22).

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Other related issues

10. *Need to strengthen regulation over matters concerning the safeguarding of national security.* The Law of the People's Republic of China on Safeguarding National Security in the Hong Kong Special Administrative Region was implemented on 30 June 2020. The Law stipulates that the Government of the Hong Kong Special Administrative Region shall take necessary measures to strengthen public communication, guidance, supervision and regulation over matters concerning national security, including those relating to schools, universities, social organisations, the media, and the Internet. Audit noted that, as of January 2023, the terms and conditions of CITF had not incorporated guidelines and requirements related to the safeguarding of national security. According to DEVB, it conducted a review on CITF in August 2022, with a view to strengthening the safeguards for matters concerning national security, and proposed some amendments to the terms and conditions of CITF. As of January 2023, it was seeking legal advice on the proposed amendments. In Audit's view, DEVB needs to, taking into account the legal advice, incorporate the amendments to the terms and conditions of CITF (paras. 4.2 to 4.4).

11. *Need to step up efforts in promoting CITF.* According to the paper seeking approval from the Finance Committee in June 2018 for setting up CITF, DEVB estimated that about 7,700 target beneficiaries (comprising 1,300 contractors, 5,900 subcontractors and 500 consultants) would be benefited from the technology adoption aspect under CITF. However, from October 2018 to September 2022, there were only 1,140 (15% of 7,700) beneficiaries, mainly comprising 211 (16% of 1,300) contractors, 737 (12% of 5,900) subcontractors and 188 (38% of 500) consultants, submitted applications under CITF. In Audit's view, DEVB needs to step up efforts in promoting CITF to eligible applicants (para. 4.8).

12. *Scope for improvement in making declaration of interests.* SC adopts a two-tier reporting system. The chairperson and members of SC shall register in writing their personal interests when they first join the committee, and annually thereafter. Besides, the chairperson and members need to report conflict of interests as and when it arises at meeting. Audit noted that while DEVB had requested the chairperson and members of SC to declare their personal interests in the first years of Terms 1, 2 and 3, it did not request them to declare their personal interests in the second year of Terms 1 and 2 (i.e. in 2019 and 2021). In the event, annual declaration forms were not received from the chairperson and members of SC in 2019 and 2021 (paras. 4.15 and 4.16).

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13. ***Need to timely submit the required documents to SC.*** According to MoC, MC should submit to SC an annual plan and the associated annual budget for the next financial year by the end of June in each financial year. CIC should submit audited financial statements of CITF for the last financial year to SC within six months after the end of the last financial year. Audit noted that: (a) the annual plans and budgets of 2020 to 2023 were all not submitted for SC's approval within the required timeframe, with delays ranging from 18 days to 14.5 months (averaging 7.2 months); and (b) the audited financial statements of 2020 and 2021 were not submitted to SC within the required timeframe. They were submitted in September 2021 and July 2022 respectively (i.e. more than six months after the end of the last financial year of 2020 and 2021) (paras. 4.21 and 4.22).

14. ***Need to closely monitor the progress of development of Data Administration and Management System (DAMS).*** With a view to enhancing data and report generation quality, and efficiency of processing applications, CIC engaged a contractor in 2021 to design and develop DAMS, which was targeted for completion by December 2022. Audit noted that, as of January 2023, DAMS was still not ready for use. According to DEVB, the expected launch date has been deferred to the second quarter of 2023 (paras. 4.32 and 4.33).

15. ***Need to keep under review the performance and achievement of CITF.*** Audit noted the following issues:

- (a) ***Need to compile management reports based on completion reports of projects.*** Audit noted that CITF Secretariat did not compile management reports based on the completion reports of projects (e.g. summarising the performance and achievement of completed projects, and comments of beneficiaries) (para. 4.35); and
- (b) ***Need to keep under review the implementation of new funding schemes.*** Since 1 January 2022, 4 new funding schemes (e.g. pioneering application related to ACT, BIM project-based coaching and BIM Viewer Collaborative Training Scheme) have been introduced under CITF. Audit noted that, as of December 2022 (i.e. 12 months after the introduction of the new funding schemes), only 27 applications had been received (paras. 4.37 and 4.38).

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Audit recommendations

16. Audit recommendations are made in the respective sections of this Audit Report. Only the key ones are highlighted in this Executive Summary. Audit has *recommended* that the Secretary for Development should:

Processing of applications

- (a) take measures to ensure that the processing of CITF applications for simple or less complicated cases is timely completed and seek relevant VSCs' advice on complicated cases or cases involving adoption of new technologies as early as practicable (para. 2.12(a) and (b));
- (b) spell out clearly the criteria for delisting pre-approved items in CITF's operation manual and take further measures to ensure that all the delisting of pre-approved items is reviewed by VSCs (para. 2.22(b) and (c));
- (c) step up promotion of pre-approved items, particularly those items with low adoption rates, with a view to encouraging their adoption in CITF projects (para. 2.22(d));
- (d) take measures to ensure that the pre-approved lists on CITF's website are accurate and up-to-date (para. 2.22(e));

Funding disbursement and monitoring of approved projects

- (e) regarding the submission of disbursement requests for technology adoption projects:
 - (i) complete the review on the 3-month timeframe for submission of the first disbursement requests by successful applicants as scheduled and continue to take measures to closely monitor the submission of disbursement requests (para. 3.16(a)(i) and (ii)); and
 - (ii) consider setting a specific timeframe on submission of final disbursement requests by successful applicants (para. 3.16(a)(iii));

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- (f) regarding the tracking and reminder system, enhance documentation on the issue of reminders and warning letters and the follow-up actions taken, and consider using the system for monitoring approved manpower development projects (para. 3.16(b)(i) and (iii));
- (g) take measures to ensure that disbursement requests submitted by successful applicants are timely processed by CITF Secretariat in accordance with the stipulated time pledge (para. 3.16(c));
- (h) complete the review on the timeframe for submitting the completion reports by successful applicants as scheduled and take measures to ensure the timely submission of completion reports (para. 3.37(a)(i) and (ii));

Other related issues

- (i) taking into account the legal advice, incorporate the amendments to the terms and conditions of CITF relating to strengthening regulation over matters concerning the safeguarding of national security (para. 4.5);
- (j) step up efforts in promoting CITF to eligible applicants (particularly those who have not made applications before) (para. 4.10(a));
- (k) take measures to ensure that the chairperson and members of SC declare interests upon appointment and annually thereafter in a timely manner in accordance with CITF requirements (para. 4.24(b)(i));
- (l) strengthen measures to ensure the timely submission of required documents to SC by both MC and CIC in accordance with the timeframes set out in MoC (para. 4.24(c));
- (m) closely monitor the progress of the development of DAMS to ensure its early implementation (para. 4.40(b));
- (n) take measures to compile management reports based on the completion reports of projects on a regular basis (para. 4.40(c)); and

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- (o) **keep under review the implementation of the new funding schemes introduced in January 2022 (para. 4.40(e)).**

Response from the Government

- 17. The Secretary for Development agrees with the audit recommendations.