

**REPORT OF THE
PUBLIC ACCOUNTS COMMITTEE
ON
THE REPORTS OF THE DIRECTOR OF AUDIT
ON
THE ACCOUNTS OF THE GOVERNMENT OF
THE HONG KONG SPECIAL ADMINISTRATIVE REGION
FOR THE YEAR ENDED
31 MARCH 2024
AND THE RESULTS OF
VALUE FOR MONEY AUDITS (Report No. 83)**

February 2025

P.A.C. Report No. 83

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Introduction

The Establishment of the Committee The Public Accounts Committee is established under Rule 72 of the Rules of Procedure of the Legislative Council of the Hong Kong Special Administrative Region, a copy of which is attached in *Appendix 1* to this Report.

2. **Membership of the Committee** The following Members are appointed by the President under Rule 72(3) of the Rules of Procedure to serve on the Committee:

Chairman : Hon SHIU Ka-fai, BBS, JP

Deputy Chairman : Hon Paul TSE Wai-chun, JP

Members : Hon YUNG Hoi-yan, JP
Hon LUK Chung-hung, JP
Hon Edmund WONG Chun-sek
Hon Louis LOONG Hon-biu
Hon Carmen KAN Wai-mun, JP

Clerk : Shirley CHAN

Legal Adviser : Joyce CHAN

Procedure

The Committee's Procedure The practice and procedure, as determined by the Committee in accordance with Rule 72 of the Rules of Procedure, are as follows:

- (a) the public officers called before the Committee in accordance with Rule 72 of the Rules of Procedure, shall normally be the Controlling Officers of the Heads of Revenue or Expenditure to which the Director of Audit has referred in his Report except where the matter under consideration affects more than one such Head or involves a question of policy or of principle in which case the relevant Director of Bureau of the Government or other appropriate officers shall be called. Appearance before the Committee shall be a personal responsibility of the public officer called and whilst he may be accompanied by members of his staff to assist him with points of detail, the responsibility for the information or the production of records or documents required by the Committee shall rest with him alone;
- (b) where any matter referred to in the Director of Audit's Report on the accounts of the Government relates to the affairs of an organization subvented by the Government, the person normally required to appear before the Committee shall be the Controlling Officer of the vote from which the relevant subvention has been paid, but the Committee shall not preclude the calling of a representative of the subvented body concerned where it is considered that such a representative could assist the Committee in its deliberations;
- (c) the Director of Audit and the Secretary for Financial Services and the Treasury shall be called upon to assist the Committee when Controlling Officers or other persons are providing information or explanations to the Committee;
- (d) the Committee shall take evidence from any parties outside the civil service and the subvented sector before making reference to them in a report;
- (e) the Committee shall not normally make recommendations on a case on the basis solely of the Director of Audit's presentation;
- (f) the Committee shall not allow written submissions from Controlling Officers other than as an adjunct to their personal appearance before the Committee; and

Procedure

- (g) the Committee shall hold informal consultations with the Director of Audit from time to time, so that the Committee could suggest fruitful areas for value for money study by the Director of Audit.

2. **Confidentiality undertaking by members of the Committee** To enhance the integrity of the Committee and its work, members of the Committee have signed a confidentiality undertaking. Members agree that, in relation to the consideration of the Director of Audit's reports, they will not disclose any matter relating to the proceedings of the Committee that is classified as confidential, which shall include any evidence or documents presented to the Committee, and any information on discussions or deliberations at its meetings, other than at meetings held in public. Members also agree to take the necessary steps to prevent disclosure of such matters at all times unless the Committee decides to declassify the materials.

3. A copy of the Confidentiality Undertakings signed by members of the Committee has been uploaded onto the Legislative Council website.

4. **The Committee's Report** This Report corresponds with the Reports of the Director of Audit on:

- the Accounts of the Government of the Hong Kong Special Administrative Region for the year ended 31 March 2024; and
- the results of value for money audits (Report No. 83),

which were tabled in the Legislative Council on 27 November 2024. Value for money audits are conducted in accordance with the guidelines and procedures set out in the Paper on Scope of Government Audit in the Hong Kong Special Administrative Region – 'Value for Money Audits' which was tabled in the Provisional Legislative Council on 11 February 1998. A copy of the Paper is attached in *Appendix 2*.

5. In addition, this Report takes stock of the progress of the actions taken by the Administration on the recommendations made in the Committee's Report Nos. 80 and 81, and offers the Committee's views on the actions taken. These are detailed in Parts 3 and 4 of this Report.

Procedure

6. **The Government's Response** The Government's response to the Committee's Report is contained in the Government Minute, which comments as appropriate on the Committee's conclusions and recommendations, indicates what action the Government proposes to take to rectify any irregularities which have been brought to notice by the Committee or by the Director of Audit and, if necessary, explains why it does not intend to take action. It is the Government's stated intention that the Government Minute should be laid on the table of the Legislative Council within three months of the laying of the Report of the Committee to which it relates.

Laying of the Report Report No. 80 of the Director of Audit on the results of value for money audits was laid in the Legislative Council (“LegCo”) on 26 April 2023. The Public Accounts Committee (“the Committee”)’s Report (Report No. 80) was subsequently tabled on 12 July 2023, which met the requirement of Rule 72 of the Rules of Procedure of LegCo that the Report be made within three months of the Director of Audit’s Report being laid.

2. **The Government Minute** The Government Minute in response to the Committee’s Report No. 80 was laid in LegCo on 18 October 2023. A progress report on matters outstanding in the Government Minute was issued on 29 October 2024. The latest position and the Committee’s further comments on these matters are set out in paragraphs 3 to 8 below.

Hong Kong Design Centre (Chapter 4 of Part 4 of P.A.C. Report No. 80)

3. The Committee was informed that:

- Hong Kong Design Centre (“HKDC”) drew up proposals on revamping the Design Incubation Programme and the Fashion Incubation Programme to the Cultural and Creative Industries Development Agency to tie in with the new mission and work direction of the Cultural and Creative Industries Development Agency after restructuring from CreateHK since June 2024. The proposal to revamp the Fashion Incubation Programme would be submitted for HKDC Board’s endorsement in the first quarter of 2025 and then the Controlling Officer (i.e. Permanent Secretary for Culture, Sports and Tourism) for approval; and
- HKDC reported to the Board the observations and recommendations from its Human Resources Task Force to address HKDC’s human resources issues and practices including high staff turnover and vacancy rates. The Director of Finance and Administration would continue to follow up on the Task Force’s recommendations as appropriate.

4. The Committee wishes to be kept informed of further development on the subject, and provided with time frames, where possible, for actions to be taken on the outstanding matters.

Management of public libraries

(Chapter 6 of Part 4 of P.A.C. Report No. 80)

5. The Committee was informed that :

- the Leisure and Cultural Services Department planned to include the functions related to collection development and management processes in the Smart Library System (“SLS”), which was expected to be commissioned by the end of 2025;
- upon commissioning of SLS, all libraries would fully adopt the radio frequency identification technology and provide multi-functional self-service facilities, so that libraries could extend their opening hours on a self-service basis;
- SLS would feature a central sorter together with a new logistics tracking system enabled with the radio frequency identification technology to comprehensively monitor the contractors’ performance on processing returned library materials. The procurement of returned library materials processing services would be completed in 2025; and
- the Leisure and Cultural Services Department was taking measures to enhance the search functions of library websites and mobile apps under the development of SLS, and to ensure their compliance with the relevant government circulars and guidelines.

6. The Committee wishes to be kept informed of further development on the subject, and provided with time frames, where possible, for actions to be taken on the outstanding matters.

Provision of map products and spatial data services by the Lands Department

(Chapter 7 of Part 4 of P.A.C. Report No. 80)

7. The Committee was informed that:

- the project of the implementation of automatic map generalization workflow for 1:10 000 topographic maps was expected to be completed in the first quarter of 2026;

- the Lands Department (“LandsD”) was planning to outsource the aerial survey services on a trial basis and continue to liaise with relevant departments to explore different proposals regarding replacement of the large format digital aerial camera system;
- LandsD had released the 3D digital maps for Kowloon East, Kowloon Central and Islands, and would gradually release the 3D digital maps for the remaining areas by the end of 2024; and
- LandsD had completed the first two phases of the 3D indoor mapping project covering 810 out of 1 250 buildings in total. The last phase of the project covering the remaining 440 buildings was expected to be completed by the end of 2024.

8. The Committee wishes to be kept informed of further development on the subject, and provided with time frames, where possible, for actions to be taken on the outstanding matters.

Laying of the Report The Report of the Director of Audit on the Accounts of the Government of the Hong Kong Special Administrative Region for the year ended 31 March 2023 and his Report No. 81 on the results of value for money audits were laid in the Legislative Council (“LegCo”) on 29 November 2023. The Public Accounts Committee (“the Committee”)’s Report (Report No. 81) was subsequently tabled on 21 February 2024 which met the requirement of Rule 72 of the Rules of Procedure of LegCo that the Report be made within three months of the Director of Audit’s Report being laid.

2. **The Government Minute** The Government Minute in response to the Committee’s Report No. 81 was laid in LegCo on 22 May 2024. A progress report on matters outstanding in the Government Minute was issued on 29 October 2024. The latest position and the Committee’s further comments on these matters are set out in paragraphs 3 to 39 below.

Licensing services for drivers

(Paragraphs 3 and 4 of Part 3 of P.A.C. Report No. 81)

3. The Committee was informed that:

- the Transport Department (“TD”) had arranged some Driving Examiners and Driving Test Centre officers to directly report duty at four specific Driving Test Centres since June 2024; and
- after implementation of the respective measures for increasing driving test output and filling the vacancies of Driving Examiner grade in 2023, TD was now collecting data to review the situation (including the actual waiting time for driving tests) and explore drawing up a new performance pledge on the number of waiting days for road tests upon receiving the applications for non-commercial vehicle driving tests, which was expected to be completed by end of 2024.

4. The Committee wishes to be kept informed of further development on the subject, and provided with time frames, where possible, for actions to be taken on the outstanding matters.

Sports Federation & Olympic Committee of Hong Kong, China

(Paragraphs 3 and 4 of Part 5 of P.A.C. Report No. 81)

5. The Committee was informed that:

- the Corporate Governance Team established by the Sports Federation & Olympic Committee of Hong Kong, China (“SF&OC”) in October 2020 had completed its review on the corporate governance and operation of all National Sports Associations (“NSAs”), and would make recommendations to improve the governance of NSAs. SF&OC targeted to promulgate the review report and the code of governance within 2024; and
- the Culture, Sports and Tourism Bureau had been working closely with the Architectural Services Department and SF&OC on the design scheme for the redevelopment of the Olympic House with the aim to provide office and activity space for SF&OC, its affiliated companies, NSAs and sports related organizations.

6. The Committee wishes to be kept informed of further development on the subject, and provided with time frames, where possible, for actions to be taken on the outstanding matters.

Planning, provision and management of public parking spaces

(Paragraphs 8 and 9 of Part 5 of P.A.C. Report No. 81)

7. The Committee was informed that the Transport and Logistics Bureau/TD drew up the circular which set out the requirement of incorporating public parking spaces in suitable government projects, and consulted relevant bureaux/departments (“B/Ds”) on the proposed amendments, with a view to finalizing the details.

8. The Committee wishes to be kept informed of further development on the subject, and provided with time frames, where possible, for actions to be taken on the outstanding matters.

Monitoring of charitable fund-raising activities

(Paragraphs 10 to 12 of Part 5 of P.A.C. Report No. 81)

Government's support and monitoring of charities

(Paragraphs 16 to 18 of Part 5 of P.A.C. Report No. 81)

9. Hon SHIU Ka-fai declared that he was a member of the Assessment Committee of the Liberal Party Caring Foundation, and he served as an unremunerated honorary adviser/an unremunerated member of some non-governmental organizations (“NGOs”) or trade associations upon their invitations. The organizations or trade associations concerned might have conducted fund-raising activities. Hon Paul TSE Wai-chun declared that he had participated in fund-raising activities of charities, and he was also the founder of a charity. Hon YUNG Hoi-yan and Hon Carmen KAN Wai-mun declared that they had taken up unremunerated roles in charities and participated in fund-raising activities. Hon Louis LOONG Hon-biu declared that he was a member of the Executive Committee of the Hong Kong Family Welfare Society and a member of the Social Services Advisory Committee of The Salvation Army.

10. The Committee was informed that the major issue still outstanding was the formulation of a response to the Law Reform Commission's recommendations by the Home and Youth Affairs Bureau, and the Home and Youth Affairs Bureau had been tasked to co-ordinate inputs from relevant B/Ds in formulating a response to the Law Reform Commission's recommendations.

11. The Committee wishes to be kept informed of further development on the subject, and provided with time frames, where possible, for actions to be taken on the outstanding matters.

Management of squatter and licensed structure

(Paragraphs 13 to 15 of Part 5 of P.A.C. Report No. 81)

12. Hon SHIU Ka-fai and Hon Carmen KAN Wai-mun declared that they were members of the Hong Kong Housing Authority.

13. The Committee was informed that:

- the Lands Department was in discussion with the Development Bureau on the proposed framework for regularizing surveyed squatter structures. Subject to the outcome of the review of the feasibility of the proposed regularization scheme, the Administration would consider the implementation timing and arrangement; and
- the Lands Department was in discussion with the Development Bureau on the handling of the fee levels of various categories of Government Land Licence (“GLL”). By the end of June 2024, there were a total of 14 678 valid GLLs covering domestic and non-domestic uses. Since a number of GLL holders were grass-root households and small business operators, the Administration would need to consider the potential impact of the proposed fee adjustment on GLL holders, as well as the prevailing economic situation.

14. The Committee wishes to be kept informed of further development on the subject, and provided with time frames, where possible, for actions to be taken on the outstanding matters.

Regulation of non-franchised bus and school private light bus services
(Paragraphs 19 and 20 of Part 5 of P.A.C. Report No. 81)

15. The Committee was informed that TD consulted the relevant stakeholders in late 2023 and early 2024 on the recommendations for the administration of licensing requirements and regulatory controls over unauthorized non-franchised bus operations. In response to the stakeholders’ views, TD met with the non-franchised bus trade again in mid-2024. TD was following up on the views received and the relevant work.

16. The Committee wishes to be kept informed of further development on the subject, and provided with time frames, where possible, for actions to be taken on the outstanding matters.

Operation of the Land Registry

(Paragraphs 21 to 23 of Part 5 of P.A.C. Report No. 81)

17. Hon Edmund WONG Chun-sek declared that he was a member of the Land Registry Customer Liaison Group (Private Sector). Hon Louis LOONG Hon-biu declared that he was a member of the Land Titles Ordinance Steering Committee.

18. The Committee was informed that the Administration targeted to introduce an amendment bill to implement the Land Title Registration System on newly granted land first into LegCo in the first quarter of 2025. In tandem with the drafting of the amendment bill, the Administration would explore and examine options for converting existing land to the Land Title Registration System.

19. The Committee wishes to be kept informed of further development on the subject, and provided with time frames, where possible, for actions to be taken on the outstanding matters.

District Health Centre Scheme

(Paragraphs 40 and 41 of Part 5 of P.A.C. Report No. 81)

20. The Committee was informed that the Administration would make the selected service output targets and the attainment of District Health Centres accessible to the public by 2024.

21. The Committee wishes to be kept informed of further development on the subject, and provided with time frames, where possible, for actions to be taken on the outstanding matters.

Management of minor works by the Buildings Department

(Paragraphs 42 to 44 of Part 5 of P.A.C. Report No. 81)

22. Hon Louis LOONG Hon-biu declared that he was a LegCo Member representing the Real Estate and Construction Functional Constituency, and contractors in the sector might have carried out minor works.

23. The Committee was informed that:

- the Buildings Department (“BD”) would make better use of the enhanced Minor Works Management System for generating management reports for irregularities found during audit check and monitoring non-compliant minor works submissions to ensure timely referral of non-compliant cases for prosecution/disciplinary actions;
- the enhanced Minor Works Management System would facilitate the timely processing of the validation applications and monitoring of signboard revalidation submissions. BD completed the review on the guidelines for the handling of the signboard revalidation submissions in July 2024; and
- the review of the guidelines for the Minor Amenity Feature Validation Scheme had been included in the revamp of the Technical Guidelines on Minor Works Control System, which was being finalized. The revamped guidelines would be published by the fourth quarter of 2024.

24. The Committee wishes to be kept informed of further development on the subject, and provided with time frames, where possible, for actions to be taken on the outstanding matters.

Licensing of food premises

(Chapter 2 of Part 8 of P.A.C. Report No. 81)

25. Hon SHIU Ka-fai declared that he served as an unremunerated honorary adviser/an unremunerated member of some NGOs or trade associations upon their invitations. The organizations or trade associations concerned, or their members, might have participated in business related to food sector. He also declared that he was a LegCo Member representing the Wholesale and Retail Functional Constituency, and members of that sector might have participated in business related to food sector.

26. The Committee was informed that:

Processing of applications for new food business licences and permits

- the electronic referral system for food business licence applications had been implemented since July 2024 to reduce the time lag between the

issuance of referrals by Food and Environmental Hygiene Department (“FEHD”) and receipt of comments from B/Ds;

- FEHD had enhanced the Licensing Management Information System (“LMIS”), which required approval from supervisory staff when applicants requested an extension of grace period for their licence applications with justifications provided by the applicants recorded in the LMIS. FEHD would closely monitor the development progress of LMIS 3, which was expected to be rolled out in 2025;
- the test result of the new email alert function on the timeframes of processing restricted food permit applications in LMIS was being reviewed;
- the Fire Services Department and BD had agreed in principle to establish a referral mechanism for cases of unlicensed food premises. FEHD was discussing implementation details with the two departments;
- FEHD had established a working group with relevant departments to follow up on the timeframes for processing outside seating accommodation applications. FEHD and the Home Affairs Department had agreed on setting a standardized local consultation area when processing the outside seating accommodation applications;

Management of food business licences and permits

- FEHD was reviewing its various guidelines and timeframes and would set an appropriate timeframe for the submission of interview results for seeking approval for food business licence/permit transfer applications. The relevant guideline was expected to be updated in 2024;
- FEHD was considering enhancing the renewal procedures by requiring corporate licensees/permittees to confirm in the application forms that the company registration was still valid;
- FEHD had consulted the trade on the feasibility of providing an option for operators with good track records to renew their food business licences with a longer validity period. The trade generally considered the existing mechanism effective;

- FEHD was exploring other feasible options to step up efforts to curb the operation of unlicensed food business before the issuance of provisional licence;

Other related issues

- FEHD had sought comments from the trade on the composite food shop licence. The trade generally considered it appropriate to retain this licence type; and
- upon reviewing the existing procedures for processing restricted food permits applications, FEHD considered it not necessary to extend Online Licence Application Tracking Facility to permit applications at this stage.

27. The Committee wishes to be kept informed of further development on the subject, and provided with time frames, where possible, for actions to be taken on the outstanding matters.

Maintenance and modernization of lifts and escalators in public rental housing estates

(Chapter 3 of Part 8 of P.A.C. Report No. 81)

28. Hon SHIU Ka-fai and Hon Carmen KAN Wai-mun declared that they were members of the Hong Kong Housing Authority. Hon Louis LOONG Hon-biu declared that he was a LegCo Member representing the Real Estate and Construction Functional Constituency, and contractors in the sector might have carried out the projects concerned.

29. The Committee was informed that:

Maintenance of lifts and escalators

- the Housing Department (“HD”) would enhance the existing information technology system to facilitate the monitoring of submission of quarterly inspection reports by the contractors;

- HD had been making use of an information technology system to schedule the assessments of lifts, and had revised the guidelines to require responsible project staff to input relevant information of new lifts into the system within three months from the date of taking-over the lifts;
- starting from January 2024, HD had required District Maintenance Offices (“DMOs”)/Property Services Agents to return the Notification of Completion within one month from the issuance of surprise check reports. Central Services Team would monitor the return of Notification of Completion and issue reminders in a timely manner;
- the Lift Inspection Focus Team had updated the procedural manual to clearly specify the timeframe and new workflow of issuing reminders for outstanding replies from DMOs/Property Service Administration Units;
- HD had revised guidelines to provide clearer guidance to project staff on checking of the maintenance frequency of all main items against those stated in the maintenance schedule;
- HD had activated the digital log-books for all lifts and escalators (“L/E”) maintained by HD. HD would completely phase out the paper-bound log-books after the contractors and project staff had been familiarized with the operation of digital log-books;
- HD had reviewed the three-tier mechanism for monitoring the work of L/E contractors. Since April 2024, Central Services Team had coordinated with DMOs/Property Services Agents in conducting lift surprise check and half-yearly inspection in parallel so as to minimize the frequency of suspension of lift services. The results of surprise checks had been included in the half-yearly assessment;
- HD had made special arrangements to retain those old motors in good condition dismantled from other lift modernization projects as contingency measures to tackle the shortage of replacement parts. HD also maintained a central record of the motors retained;
- HD was reviewing the current scoring mechanism operated under the Building Services Maintenance Assessment Scoring System, and would consult the sector of lift industry. The consultation-cum-review was expected to be completed by end 2024;

Lift Modernisation Programme

- HD had recorded clearly the justifications made by the Lift Modernisation Technical Vetting Committee in determining the priority of lift replacement works under the Lift Modernisation Programme;
- after obtaining the approval of building works proposal for the fire safety improvement works in Shopping Centre A, HD would commence the partial lift modernization works by phases in conjunction with the fire safety improvement works. It was anticipated that one lift would be completed by the first quarter of 2026 and the other one would be completed by 2026-2027;
- HD had selected two estates to implement partial lift modernization works under the Lift Modernisation Programme. Tender for the first estate was awarded in August 2024. Procurement process of partial lift modernization for the second estate was in progress. It was anticipated that the tender would be issued in the first quarter of 2025;
- HD had enhanced the information technology system which would automatically send reminder emails to responsible staff about the needs for conducting evaluation of lifts with service years of 25 or more and submitting the reports in a timely manner;
- HD would further discuss with the Lift and Escalator Contractors Association to review the lift modernization project management, work procedures, affordability of the industry, etc., with a view to expediting the implementation of lift modernization works without compromising safety; and
- HD had required L/E contractors to resume lift services within two weeks after obtaining use permits and revised the relevant contract clause so that the lifts should be resumed as soon as possible.

30. The Committee wishes to be kept informed of further development on the subject, and provided with time frames, where possible, for actions to be taken on the outstanding matters.

Provision of barrier-free facilities in public rental housing estates

(Chapter 4 of Part 8 of P.A.C. Report No. 81)

31. Hon SHIU Ka-fai and Hon Carmen KAN Wai-mun declared that they were members of the Hong Kong Housing Authority. Hon Louis LOONG Hon-biu declared that he was a LegCo Member representing the Real Estate and Construction Functional Constituency, and contractors in the sector might have carried out the projects concerned.

32. The Committee was informed that:

- HD had been closely monitoring the submission of the results of regular checks conducted by Access Officers and had rectified the defects and deviations from the guidelines as identified by Audit. HD had also refined the inspection checklist in March 2024 to facilitate Access Officers in recording the conditions of relevant facilities;
- HD was reviewing the application process for adaptation works with a view to minimizing the processing time;
- as of end February 2024, HD had discussed with the Incorporated Owners of all 42 estates under Tenants Purchase Scheme, Buy or Rent Option Scheme and Home Ownership Scheme and obtained written consent for installation of Visual Fire Alarm from 32 Incorporated Owners. HD would continue to persuade the remaining ten Incorporated Owners;
- to further promoting the installation of Visual Fire Alarm systems to public rental housing flats with hearing-impaired tenants, HD would include this topic as one of the regular agenda items of upcoming meetings with relevant NGOs providing services to persons with disabilities;
- for the implementation of two lift addition proposals under the Lift Addition Programme, the detailed feasibility study of one proposal was targeted to be completed in the first quarter of 2025 while the other proposal was pending the agreement from the co-owner and the detailed feasibility study was anticipated to be completed in the fourth quarter of 2025; and

- for the three outstanding lift retrofitting items, while one of the lifts was completed and opened for public use in 2023, the works for the other two lift retrofitting items had re-commenced in mid-2024, and were expected to be completed in the third quarter of 2025 and the first quarter of 2026 respectively.

33. The Committee wishes to be kept informed of further development on the subject, and provided with time frames, where possible, for actions to be taken on the outstanding matters.

Regulatory control of food premises

(Chapter 6 of Part 8 of P.A.C. Report No. 81)

34. Hon SHIU Ka-fai declared that he served as an unremunerated honorary adviser/an unremunerated member of some NGOs or trade associations upon their invitations. The organizations or trade associations concerned, or their members, might have participated in business related to food sector. He also declared that he was a LegCo Member representing the Wholesale and Retail Functional Constituency, and members of that sector might have participated in business related to food sector.

35. The Committee was informed that:

- FEHD was developing LMIS 3, with new features including issuing timely reminders to the officers concerned to conduct inspections. LMIS 3 would also include the relevant recording function to enhance the accuracy and completeness of records. The new system was expected to be rolled out in 2025;
- FEHD had updated the relevant guidelines to clearly specify the timeframe for conducting the first inspection to newly permitted food premises. FEHD was reviewing the reporting basis for the performance pledge for inspections of licensed food premises;
- FEHD was reviewing the specific recommendations on how to regulate the food trade and would consult the trade in due course;
- FEHD was developing a dedicated management information system to record and report the enforcement and regulatory work relating to

unlicensed food premises. The new system was expected to be rolled out in 2025;

- FEHD had updated the operational guidelines to ensure that all District Environmental Hygiene Offices adopted a consistent benchmark in preparing District Action Plans and maintained a complete list of unlicensed food premises that were under surveillance in their districts; and
- the Environment and Ecology Bureau and FEHD would conduct research on practices and experiences in other places, and would take note of the views of the public regarding bringing dogs into food premises, so as to consider the need to review the current practice and legislation.

36. The Committee wishes to be kept informed of further development on the subject, and provided with time frames, where possible, for actions to be taken on the outstanding matters.

The Chinese University of Hong Kong: Campus facilities operated by external entities

(Chapter 8 of Part 8 of P.A.C. Report No. 81)

37. Hon SHIU Ka-fai declared that he was a member of the Liberal Party, and he served as an unremunerated honorary adviser/an unremunerated member of some NGOs or trade associations upon their invitations. The organizations or trade associations concerned might have participated in the business of The Chinese University of Hong Kong.

38. The Committee was informed that:

- among the 18 outlets identified by Audit that had sold restricted foods without having the required permits, 4 outlets had immediately ceased selling restricted food items, 12 outlets had obtained the necessary permits, and the remaining 2 outlets had applied for the relevant restricted food permits with results pending; and

- The Chinese University of Hong Kong had engaged contractors to install visual fire alarms and retrofit barrier-free access in the five facilities. Relevant works were in progress and were targeted for completion within 2024.

39. The Committee wishes to be kept informed of further development on the subject, and provided with time frames, where possible, for actions to be taken on the outstanding matters.

Consideration of the Director of Audit’s Report tabled in the Legislative Council on 27 November 2024 In line with past practice, the Committee did not consider it necessary to investigate in detail every observation contained in the Director of Audit’s Report, and selected Chapter 1 “Nano and Advanced Materials Institute” and Chapter 7 “Tuen Mun - Chek Lap Kok Link” of the Director of Audit’s Report No. 83 for detailed investigation. The Committee also sought and obtained information from the Administration on some of the issues raised in other chapters of the Director of Audit’s Report No. 83. The Administration’s responses have been included in this Report.

2. **Meetings** The Committee held a total of five meetings and four public hearings in respect of the subjects covered in this Report. During the public hearings, the Committee heard evidence from a total of 17 witnesses, including two Directors of Bureau and three Heads of Department. The names of the witnesses are listed in *Appendix 3* to this Report. The evidence of the witnesses who appeared before the Committee, and the Committee’s specific conclusions and recommendations, based on the evidence and on its deliberations on the relevant subjects, are set out in Chapters 1 and 7 of Part 7 of this Report.

3. The live broadcasts and archives of the Committee’s public hearings are available on the Legislative Council website.

4. **Acknowledgements** The Committee wishes to record its appreciation of the cooperative approach adopted by all the persons who were invited to give evidence in the public hearings, and to all the bureaux/departments which provided the Committee with detailed information to facilitate the Committee’s consideration of the Director of Audit’s Report No. 83. In addition, the Committee is grateful for the assistance and constructive advice given by the Secretary for Financial Services and the Treasury, the Legal Adviser and the Clerk. The Committee also wishes to thank the Director of Audit for the objective and professional manner in which he completed his Reports, and for the many services which he and his staff have rendered to the Committee throughout its deliberations.

*Observations of the Public Accounts Committee on the Report of the Director of Audit on the
Accounts of the Government of the Hong Kong Special Administrative Region
for the year ended 31 March 2024*

The Committee noted the Report of the Director of Audit on the Accounts of the Government of the Hong Kong Special Administrative Region for the year ended 31 March 2024.

A. Introduction

The Audit Commission (“Audit”) conducted a review on Nano and Advanced Materials Institute (“NAMI”), covering project management, industry income and commercialization, administrative expenditure and corporate governance, etc.

Background

2. NAMI was established in April 2006 as a Research and Development (“R&D”) Centre for nanotechnology and advanced materials. It is a company limited by guarantee, wholly owned by its host institution, i.e. the Hong Kong University of Science and Technology (“HKUST”). The operating cost of NAMI is supported by funding from the Innovation and Technology Fund (“ITF”) which is administered by the Innovation and Technology Commission (“ITC”). The Government, HKUST and NAMI have entered into a tripartite Funding Agreement (“Funding Agreement”), which sets out the understanding of the three parties on the application of funds from ITF for the operation of NAMI and other related matters. ITC monitors the operation and performance of NAMI and submits NAMI’s progress reports to the Legislative Council (“LegCo”) on a regular basis. As at 31 July 2024, the total funding commitment for NAMI approved by the Finance Committee (“FC”) of LegCo was \$1,515.3 million. The funding commitment from ITF would support the operation of NAMI for 22 years from 1 April 2006 to 31 March 2028. In the period from 2019-2020 to 2023-2024, the income and expenditure of NAMI ranged from \$226.8 million to \$290.2 million each year.

Public hearings

3. The Committee held two public hearings on 7 and 14 December 2024 to receive evidence. The opening statements made by **Professor Dong SUN, Secretary for Innovation, Technology and Industry** and **Mr Andy FUNG, Chief Executive Officer, NAMI** at the first public hearing are in *Appendices 4* and *5*. The Committee noted that Mr Andy FUNG took up the post of Chief Executive Officer of NAMI on 2 September 2024 and had been actively following up on the recommendations made in the Director of Audit’s Report No. 83 (“the Audit Report”) since his assumption of office.

Funding mechanism

4. Referring to the Funding Agreement that came into effect in May 2006 as mentioned in paragraph 1.6 of the Audit Report, the Committee asked the

Administration to elaborate on the respective obligations and responsibilities of the three parties, namely the Government, HKUST and NAMI, as well as the consensus reached by them, and to explain why the funding commitment from ITF to support the operation of NAMI was set for such a long period of 22 years. **Mr Ivan LEE Kwok-bun, Commissioner for Innovation and Technology** explained at the public hearings and in his letter dated 13 December 2024 (*Appendix 6*) that:

- the respective obligations and responsibilities of the three parties under the Funding Agreement were summarized as below:
 - (a) NAMI was responsible for driving and coordinating applied R&D in accordance with its technology roadmap and promoting technology transfer and commercialization of R&D deliverables. NAMI also was required to conduct its operation in accordance with the terms of the Funding Agreement, including submitting to the Commissioner for Innovation and Technology every year the following, as vetted and endorsed by the Board of Directors (“the Board”): an Annual Plan (comprising the annual estimates, major activities, performance targets, etc.), Quarterly Reports (setting out major activities and cash flow in each quarter), an Annual Report (reporting its operation for the whole financial year including actual performance against the performance targets and actual financial situation) and the audited accounts; and
 - (b) currently, HKUST mainly provided administrative support (such as tendering and procurement, employee and property insurance, information technology systems) to NAMI, while the Government funded the operating expenses of NAMI through ITF, and monitored the operation and performance of NAMI by vetting Annual Plans and estimates, Quarterly Reports/Annual Reports and audited accounts; and
- since the establishment of the five R&D Centres¹ (including NAMI) in 2006, the Government had continued to review the role, positioning and performance indicators of each R&D centre, and make adjustments as appropriate to the resources allocated to them based on the needs of the industry and technological development. The Government would

¹ The five R&D Centres are the Automotive Platforms and Application Systems R&D Centre, the Hong Kong Applied Science and Technology Research Institute (“ASTRI”), the Hong Kong Research Institute of Textiles and Apparel, the Logistics and Supply Chain MultiTech R&D Centre, and NAMI.

report to FC on a timely basis on the comprehensive review of the performance of the R&D Centres and seek FC's approval to increase their commitments to continue funding the R&D Centres' operation. In the latest review, the Government announced in November 2024 that the Hong Kong Applied Science and Technology Research Institute ("ASTRI") would merge with NAMI.

5. Regarding the above merger of ASTRI and NAMI, the Committee enquired about the reasons for that, as well as the impact of the merger on NAMI's organization structure, manpower resources, government funding, expenses, etc. **Secretary for Innovation, Technology and Industry** explained at the public hearings, and **Commissioner for Innovation and Technology** added in his letter dated 13 December 2024 (*Appendix 6*) that ASTRI and NAMI respectively drove and coordinated applied R&D in the areas of information and communications technologies, and nanotechnology and new materials. Merging the two centres through organic integration would enhance their complementary advantages on applied R&D and create synergies, thereby fostering new industrialization. After merging the two centres, overall savings in operating costs were expected to be achieved through rationalization and consolidation in the medium to long run. Regarding the staff establishment, appropriate arrangements would be manifested through redeployment and natural wastage. ITC would commission an independent consultant to make suggestions on the transitional arrangements and implementation plan on the merger. The Government expected to commence the transition process in 2025-2026.

Income and expenditure

6. Referring to paragraphs 1.7 to 1.9 of the Audit Report, the Committee enquired about the reasons for the 29% decrease in NAMI's other income² (excluding government funding) from \$60.4 million to \$42.8 million and the increase in administrative and operating expenses by some 35% from \$102.3 million to \$137.9 million in the period from 2019-2020 to 2023-2024, and the items with higher expenses. The Committee also sought NAMI's explanation on the procedure and vetting process in drawing up its annual estimates. **Commissioner for Innovation and Technology, Chief Executive Officer, NAMI** and **Ms Jenny YIU, Chief Operating Officer, NAMI** explained at the public hearings, and **Commissioner for Innovation and Technology** added in his letter dated 13 December 2024 (*Appendix 6*) that:

² Other income mainly comprised industry sponsorships and commercialization income.

- in the past few years, due to the impact of the epidemic and the external environment, followed by the uncertain economic outlook, local small and medium-sized enterprises (“SMEs”) tended to adopt a wait-and-see attitude towards investing in innovation and technology (“I&T”), resulting in a decline of NAMI’s other income. In the post-epidemic period, SMEs still faced many challenges and needed time to resume business development and regain confidence in investing in I&T. In the future, NAMI would strengthen its commercialization work to boost its other income;
- NAMI set up a bio-healthcare laboratory in 2021-2022 to carry out bio-and-health-related R&D projects, and a battery laboratory in 2022-2023 to carry out R&D projects related to advanced battery materials. The relevant rental, equipment and device costs had increased accordingly. Of the administrative and operating expenses of NAMI, the items with higher annual expenditures in 2023-2024 and the corresponding percentages were “R&D-related expenses, laboratory consumables, technology and testing service fees” (28%), “laboratory and office equipment and related depreciation” (25%), “rent” (16%), and “management fee and utilities” (9%); and
- when drawing up its annual estimates, NAMI would refer to the expenditures of different items in the past, and gauge the financial needs of different divisions regarding the R&D direction and business development plan for the coming year. After deliberation and consolidation by the management, it would first submit the annual estimates to the Finance and Administration Committee for deliberation and review before submitting to the Board. Only the annual estimates endorsed by the Board would be submitted to ITC for approval. When vetting the annual estimates, ITC would consider whether the estimates were reasonable and met the actual needs of NAMI. During the entire vetting process, relevant teams within ITC (including the finance team) would participate in the review and give recommendations to the Commissioner for Innovation and Technology.

7. According to Table 1 in the Audit Report, NAMI’s income was the same as its expenditure in the period from 2019-2020 to 2023-2024, as any unspent balance of project grants from ITF had to be returned to the Government. The Committee asked whether this arrangement would encourage NAMI to deliberately use up all its grants to avoid having any unspent balance, thus resulting in a waste of resources. The Committee also asked the Administration to give an account of the income and

expenditure of NAMI (including the amount of grants returned to the Government) in the period from 2019-2020 to 2023-2024 on a cash basis accounting approach. Details were set out in the letter from the Commissioner for Innovation and Technology dated 10 February 2025 (*Appendix 7*).

8. **Commissioner for Innovation and Technology** explained at the public hearings and in his letter dated 13 December 2024 (*Appendix 6*) that as far as operating expense was concerned, the unspent fund would be reflected through an offsetting arrangement when ITC applied to FC for increase in commitment to extend the operation period of NAMI. When it was recommended to FC in 2020 to increase the commitment to extend the operation period of NAMI to 2024-2025, ITC had deducted the estimated remaining commitment of NAMI as of 31 March 2021 by about \$11.9 million. For projects funded by ITF, NAMI was required to submit project proposals to the Technology Committee under the Board for discussion and review. Only proposals endorsed by the Technology Committee would be submitted to ITC for approval. When reviewing the proposals, ITC would consider whether the expenditure requirements were reasonable and met the actual R&D needs. ITC also required NAMI to submit progress/final reports and audited accounts for projects that had commenced. Upon completion of the project, NAMI had to return all unspent government funding. In this connection, NAMI had returned a total of some \$21.9 million to the Government in the past five financial years, accounting for approximately 5.5% of the total funding amount of the relevant projects approved.

Governance structure and monitoring mechanism

9. Referring to paragraphs 1.10 to 1.13 of the Audit Report, the Committee enquired about the respective roles and responsibilities of the Government, HKUST and the Board of NAMI in the corporate governance of NAMI, and whether the Administration had reviewed the effectiveness of the monitoring mechanism with the three functional committees, namely the Technology Committee, the Finance and Administration Committee and the Audit Committee under the Board. **Secretary for Innovation, Technology and Industry, Commissioner for Innovation and Technology, Mrs Elina CHAN NG Ting-ting, Assistant Commissioner for Innovation and Technology (Research and Development Centres) and Professor CHENG Shuk-han, Chairwoman, NAMI** explained at the public hearings, and **Commissioner for Innovation and Technology** supplemented in his letter dated 13 December 2024 (*Appendix 6*) that:

- the Board of NAMI provided steering on policy and strategic direction, and supervised the management of NAMI. The Board held at least four meetings every year, and additional meetings would be held when necessary. The major functions of the Board included: (a) steering NAMI's R&D direction; (b) monitoring regularly the operational and financial sustainability of NAMI; (c) examining and endorsing Annual Plans, annual estimates and performance targets; and (d) examining and endorsing Quarterly Reports, Annual Reports and annual audited accounts;
- as HKUST was the host institution, its representative was a member of the Board. NAMI also drew reference from the guidelines provided by HKUST to develop more detailed internal guidelines for various administrative and financial matters;
- the Government monitored the operations and performance of NAMI on a macro level on the whole, and as stated in the Funding Agreement, required NAMI to formulate its own Corporate Governance Manual to set out specific rules and guidelines for NAMI's daily operations; and
- as a company, NAMI's Board supervised its operation, R&D work and development. The non-official directors of the Board came from different backgrounds with distinct professional knowledge. They played an important role to steer the R&D direction and supervise the operation and financial arrangements of NAMI.

10. According to a paper previously submitted to FC, there was a Steering Committee under the Board of NAMI. The Committee enquired about the roles, functions and operation of the Steering Committee. **Commissioner for Innovation and Technology** explained at the public hearings and in his letter dated 13 December 2024 (*Appendix 6*) that the information stated in the paper submitted to FC in June 2005 was the initial proposal from HKUST on establishing NAMI. At that time, the proposed Board only comprised of the President and three Vice-Presidents of HKUST. Subsequently in November 2005, the Preparatory Committee tasked for the setting up of NAMI deliberated and decided that the composition of the Board should be broadened to include the Commissioner for Innovation and Technology, a representative from HKUST, and representatives from the academia, industry, chambers of commerce, and research institutes. In this form, the Board took up the role and function of the Steering Committee mentioned in the initial proposal.

11. Referring to the adjustments made to NAMI's organization structure in October 2024 as mentioned by the Chief Executive Officer of NAMI at the public hearings, the Committee sought details from NAMI on how such adjustments enhanced the operation of NAMI. **Chief Executive Officer, NAMI** explained at the public hearings, and **Commissioner for Innovation and Technology** added in his letter dated 13 December 2024 (*Appendix 6*) that NAMI's Project Administration Team, which had been previously overseen by the Chief Commercial Officer, had been put under the supervision of the Chief Operating Officer from October 2024 onwards, making the Team independent from business development so that it could focus on monitoring the progress and management of R&D projects, thereby striving for timely project commencement and completion, thus enhancing the quality of project management.

12. With reference to paragraph 1.14 of the Audit Report, the Committee enquired about the criteria used in setting the six performance indicators in Table 2, and how these six performance indicators could effectively evaluate NAMI's performance; whether the same criteria were adopted by the other R&D Centres in setting their performance indicators applicable to them. **Commissioner for Innovation and Technology** explained at the public hearings and in his letter dated 13 December 2024 (*Appendix 6*) that:

- since 2017-2018, ITC had been requiring all R&D Centres to submit progress reports on six performance indicators, namely: (a) level of industry and other income; (b) number of ongoing projects involving industry participation; (c) number of companies participating in ongoing projects; (d) number of organizations benefiting from the Public Sector Trial Scheme ("PSTS"); (e) number of researchers engaged under the Research Talent Hub; and (f) number of patents filed and granted; and
- since the establishment of the above performance indicators, ITC had established a common target indicator for all R&D Centres on the level of industry and other income. To encourage R&D Centres to strengthen cooperation with the industry, ITC had raised the original 30% target to 35% and 40% in 2023-2024 and 2024-2025 respectively. As for other performance indicators, since each R&D centre was distinct and the industries they served were also different, it was difficult to devise a set of uniform indicators. Currently, R&D Centres formulated their targets based on their respective focus of development and industry trends, which were more flexible and realistic.

R&D projects

13. According to paragraph 1.16 of the Audit Report, R&D projects were categorized into ITF-funded projects and contract research projects that were financially supported by the industry with no funding support from ITF involved. ITF-funded projects included platform projects, collaborative projects, seed projects and PSTS projects. The Committee enquired about the categorization of the 242 R&D projects completed by NAMI in the period from 2019-2020 to 2023-2024 mentioned in paragraph 1.15 of the Audit Report. **Chief Operating Officer, NAMI** advised at the public hearings, and **Commissioner for Innovation and Technology** added in his letter dated 13 December 2024 (*Appendix 6*) that the categorization of the 242 R&D projects was as follows: collaborative projects (98), seed projects (43), platform projects (30), PSTS projects (10) and contract research projects (61).

14. Referring to paragraph 1.16 of the Audit Report, the Committee asked whether the Administration would consider seeking research cooperation with the Mainland and overseas places in respect of ITF-funded projects. **Secretary for Innovation, Technology and Industry** and **Commissioner for Innovation and Technology** advised at the public hearings, and **Commissioner for Innovation and Technology** further explained in his letter dated 13 December 2024 (*Appendix 6*) that ITF financed projects that could help enhance the I&T level of Hong Kong's manufacturing and service industries and promote the development of I&T. Applicants for R&D-related funding schemes under ITF must be local research institutes, enterprises or industrial and trade associations etc. In order to encourage local research institutes to cooperate with research institutes outside Hong Kong, ITC had allowed up to 50% of the R&D work and the related expenses of funded projects to be conducted outside Hong Kong. In addition, the Mainland-Hong Kong Joint Funding Scheme and the Guangdong-Hong Kong Technology Cooperation Funding Scheme under ITF aimed to support and encourage Hong Kong to strengthen research cooperation with universities, research institutes and technology enterprises in the Mainland.

B. Project management

15. According to paragraph 2.3 of the Audit Report, in the period from 2019-2020 to 2023-2024, the performance targets on the number of ITF-funded projects commenced were not met in four of these five years. In addition, according to paragraph 2.5 of the Audit Report, the performance targets on the number of ITF-funded projects completed were not met in these five years, with a shortfall ranging from 6 to 32 projects as compared to the targets. Moreover, as pointed out

in paragraph 2.7(b) of the Audit Report, among the 46 ITF-funded projects completed in 2023-2024, 34 (74%) projects were completed after the target dates of completion stipulated in the project agreements. The average delay was 7.7 months, ranging from 3 to 18 months. The Committee enquired why the above targets were not met. **Commissioner for Innovation and Technology** explained in his letter dated 13 December 2024 (*Appendix 6*) that:

- in terms of the number of ITF-funded projects commenced, as local SMEs tended to adopt a wait-and-see attitude towards investing in I&T in recent years amid the uncertain economic environment, they were more willing to support platform projects that only required 10% sponsorship of the total R&D project cost. This was indeed reflected in the fact that NAMI could achieve the targets on the number of platform projects commenced in recent years and the number of these projects had been steadily increasing. NAMI's performance indicators on the number of ITF-funded projects commenced in 2024-2025, the performance indicators on the number of ITF-funded projects completed, and the achievement of the targets on the number of platform projects from 2019-2020 to 2023-2024 were set out in the above letter;
- in terms of the number of ITF-funded projects completed, it fell short of the targets mainly because of delays in project completion, which were primarily attributed to unforeseeable technical difficulties encountered during the R&D process, late shipment of equipment/consumables amid the epidemic, difficulties in recruiting R&D staff, etc. In order to reduce project delay due to unforeseeable technical difficulties, from January 2024 onwards, NAMI had required its research staff to conduct preliminary research and characterization tests on relevant technologies and methods before project commencement, so as to identify potential technical difficulties in advance, thereby reducing the risk of project delay and improving project efficiency. In addition, through strengthening the monitoring function of the Project Administration Team, which had been put under the supervision of the Chief Operating Officer, project management at different stages had been enhanced; and
- ITC understood that there was a chance whereby research institutes would experience project delay due to different reasons. Hence, if research institutes needed to extend the project period for successful development of R&D results, they might submit applications to ITC. ITC would stringently examine the justifications for such applications. Even if applications for project period extension was approved, ITC would urge the research institutes concerned to complete the relevant

projects as soon as possible. For the 34 projects mentioned in paragraph 2.7(b) of the Audit Report, NAMI had submitted to ITC applications for project extension and the relevant projects were completed within the extended period.

16. According to paragraphs 2.3(c) and 2.5 of the Audit Report, NAMI's Board/functional committees had discussed at their meetings the shortfalls in meeting the targets on the number of ITF-funded projects commenced/completed. The Committee enquired why NAMI did not keep proper records of the relevant issues. **Chairwoman, NAMI** and **Chief Operating Officer, NAMI** responded at the public hearings, and **Commissioner for Innovation and Technology** explained in his letter dated 13 December 2024 (*Appendix 6*) that NAMI had tended to keep a brief record of Board/committee meetings in the past. NAMI would adopt Audit's recommendations and keep proper records of the discussions at meetings in the future.

17. According to paragraph 2.12(a) of the Audit Report, for the 47 ITF-funded projects with post-project evaluation reports due for submission in 2023-2024, the reports of 24 (51%) projects had been submitted to ITC, and among them, the reports of two (8%) projects were submitted with delays of 4 and 47 days respectively. For the remaining 23 (49%) projects, reports had not been submitted to ITC. As at 30 June 2024, the reports were overdue for 91 to 366 days (averaging 226 days). The Committee enquired about the reasons for the delayed submission of the aforesaid reports to ITC; whether NAMI had previously set up any mechanisms or guidelines to monitor/report the progress of the submission of such reports, and whether ITC had followed up on the situation of late submission and non-submission of reports by NAMI. **Chief Executive Officer, NAMI** and **Chief Operating Officer, NAMI** responded at the public hearings, and **Commissioner for Innovation and Technology** further explained in his letter dated 13 December 2024 (*Appendix 6*) that:

- the main reason for the delayed submission of post-project evaluation reports was that the project coordinators needed time to collate relevant information. For collaborative projects, it also took time to seek comments from industry partners. Regarding the 23 collaborative projects in respect of which reports had not been submitted as pointed out in paragraph 2.12(a) of the Audit Report, the reports of 21 projects were subsequently submitted to ITC, while the reports of the remaining two projects were not required to be submitted as the projects were shelved. NAMI had strengthened the accountability of its Project Administration Team. Apart from reminding individual project teams earlier to submit reports on time, it also required them to notify the

management of the anticipated cases of failure to submit reports on time for follow-up; and

- ITC had been regularly following up on projects in respect of which reports had not been submitted on time, including issuing reminders to project coordinators through the ITC Funding Administrative System. ITC would also regularly review the submission status of project reports and remind through telephone calls the submission of reports. Project coordinators would also be required to, before commencing new projects, submit overdue reports and/or audited accounts of all ITF-funded projects under their responsibilities, otherwise they would not be allowed to commence new projects.

18. As mentioned in paragraph 2.15(b) of the Audit Report, NAMI would step up its measures in assessing the market needs and collaborate with the industry and relevant departments/organizations for generation and incubation of project ideas, as well as promotion of NAMI's technologies to initiate worthwhile projects, and would closely monitor the project progress to ensure that the target numbers of ITF-funded projects commenced/completed were met. The Committee requested NAMI to advise on the details of such measures, and whether the performance targets were expected to be met in 2024-2025. **Commissioner for Innovation and Technology** advised at the public hearings and in his letter dated 13 December 2024 (*Appendix 6*) that NAMI would conduct detailed market demand analysis to ascertain the market trend and the technology development direction, strengthen cooperation with the industry, and organize regular seminars for exchanges with relevant departments/organizations. In addition, NAMI would require its research staff to conduct preliminary research and characterization tests before project commencement and regularly conduct phased evaluation on projects, so as to enhance the feasibility of projects. NAMI would also adjust project plans based on feedback and actively seek opinions from industry partners to follow up with them on the project evaluation reports that should be submitted by them. NAMI hoped to improve performance as soon as possible through the series of new measures.

19. According to paragraph 2.17 of the Audit Report, in the period from 2019-2020 to 2023-2024, the performance targets on the number of contract research projects commenced were not met in three (60%) of these five years, but the number of these projects was double the target in 2020-2021. Moreover, the target number of contract research projects commenced decreased by 50% from ten in 2022-2023 to five in 2023-2024, but there was no documentary evidence showing the reasons for adjusting the target significantly. The Committee requested NAMI to explain the

aforesaid situation and the target number for 2024-2025. **Chief Executive Officer, NAMI** explained at the public hearings, and **Commissioner for Innovation and Technology** supplemented in his letter dated 13 December 2024 (*Appendix 6*) that SMEs had been more conservative in investing in I&T amid the uncertain economic environment over the past few years. Consequently, contract research projects that required full contribution from the industry were relatively more difficult to commence. However, in 2020-2021, in the light of the epidemic, relevant enterprises actively sought to apply nanotechnology and advanced materials to provide technical solutions that could improve public health safety and personal protection. Hence, seven contract research projects were added, resulting in an increase in the number of contract research projects for that year. When setting the performance target on the number of contract research projects commenced for 2023-2024, NAMI had taken the actual situation of 2022-2023 into consideration. As SMEs needed more time to resume their business development after the epidemic, NAMI set a relatively conservative target for 2023-2024, but eventually the number of projects commenced exceeded the target, helping enterprises to solve their pain points. The performance target on the number of contract research projects commenced for 2024-2025 was eight. At present, NAMI had commenced six contract research projects, and would strive to achieve the performance target in the next few months.

20. According to paragraph 2.19 of the Audit Report, in the period from 2019-2020 to 2023-2024, the performance targets on the income from contract research projects had been lowered by 32% from \$8.2 million in 2019-2020 to \$5.6 million in 2023-2024. However, the actual income outperformed the targets in four of these five years, with the over-achievements ranging from 4% to 88%. The Committee enquired about the reasons for the substantial downward adjustment of the performance targets of the aforesaid projects and whether it was intended to be used as a means to improve performance. **Secretary for Innovation, Technology and Industry** and **Chief Executive Officer, NAMI** clarified at the public hearings, and **Commissioner for Innovation and Technology** further explained in his letter dated 13 December 2024 (*Appendix 6*) that when setting its annual targets, NAMI had comprehensively considered the prevailing economic environment, market demand for different technologies, and the industry's desire to commence new projects. As the economic environment in recent years remained to be improved, NAMI decided to lower the targets. Nevertheless, NAMI strived to communicate with the industry so that enterprises would understand and recognize that I&T and R&D could help improve their competitiveness, and would ultimately commence more projects beyond the target.

21. The Committee further enquired how NAMI would set more aggressive targets on the income from contract research projects, whether it would consider setting upper and lower targets respectively, and about the performance target for 2024-2025. **Secretary for Innovation, Technology and Industry** and **Chief Executive Officer, NAMI** advised at the public hearings, and **Commissioner for Innovation and Technology** supplemented in his letter dated 13 December 2024 (*Appendix 6*) that when setting its targets, NAMI would comprehensively consider the external economic environment, market demand, and NAMI's technological development, business development plans and human resources conditions. NAMI would set targets that were both aggressive and practicable in line with its actual capabilities and future development direction. The performance target on the income from contract research projects for 2024-2025 was \$6 million, an increase of 7% from the target of \$5.6 million for 2023-2024. NAMI would strive to achieve the performance target.

22. Referring to paragraph 2.24 of the Audit Report which mentioned that Audit had found that NAMI's Laboratory Safety Team had pre-filled the results of the checking procedures in its inspection report, the Committee enquired about NAMI's follow-up actions on the incident and the investigation results, and whether the existing manpower arrangements for the Laboratory Safety Team were sufficient to cope with the work demand. **Chief Operating Officer, NAMI** advised at the public hearings, and **Commissioner for Innovation and Technology** supplemented in his letters dated 13 December 2024 and 7 January 2025 (*Appendices 6 and 8*) that:

- after investigation, NAMI found that the staff concerned failed to correctly use the inspection checklist and strictly follow the standard protocol for laboratory safety inspections. NAMI had issued a written warning to the staff concerned, and amended the inspection checklist and updated procedures, including adding a new "inspection time" field to the inspection checklist to prevent pre-filling or late filling, and assigning a safety officer in each laboratory to supervise day-to-day safety management. Moreover, NAMI had amended the inspection report template in accordance with Audit's recommendations;
- NAMI had implemented a two-tier inspection process: (a) technical teams would perform weekly self-inspections on the safety of their respective laboratories and were required to report to the heads of division and the Laboratory Safety Team for review and endorsement; and (b) the Laboratory Safety Team would conduct inspections on a bi-monthly basis, and the reports would be reviewed and endorsed by the heads of division, the Chief Technology Officer and the Chief

Operating Officer. No non-compliance had been found since the implementation of the aforesaid measures to improve laboratory safety in mid-December 2024; and

- NAMI's Laboratory Safety Team currently comprised a senior laboratory safety manager who was the person in charge of the team, and two laboratory safety managers respectively responsible for general safety management and instrument and chemical safety management. The manpower could cope with the work demand.

23. According to paragraph 2.26 of the Audit Report, for the non-compliances found during some of the laboratory safety inspections, there was no documentary evidence showing that NAMI had taken corresponding remedial actions. In addition, according to paragraph 2.28 of the Audit Report, there was no documentary evidence showing that some laboratory safety inspection reports were reviewed by the Directors of Research and Development as required. The Committee enquired whether the non-compliances found in seven laboratories were similar or identical, and whether NAMI had followed up on the aforesaid inadequacies and reported to the Board. **Chairwoman, NAMI, Chief Executive Officer, NAMI and Chief Operating Officer, NAMI** advised at the public hearings, and **Commissioner for Innovation and Technology** supplemented in his letters dated 13 December 2024 and 7 January 2025 (*Appendices 6 and 8*) that the non-compliances in seven laboratories were similar, including unsatisfactory overall cleanliness of the laboratories, staff conducting experiments without appropriate protective equipment, chemical storage and labelling not complying with guidelines, and access to first aid equipment such as eyewash stations and emergency showers being obstructed by miscellaneous items. NAMI had reported to the Board the incidents mentioned in paragraphs 2.26 and 2.28 of the Audit Report, and had instructed the relevant staff to clearly record the non-compliances found during the laboratory safety inspections, follow-ups on corresponding remedial actions and their completion dates, as well as items that could be improved, in the inspection reports for timely review and approval by the relevant Directors of Research and Development and the Chief Technology Officer. NAMI had also set a time limit for the relevant Directors of Research and Development to review the safety inspection reports.

24. The Committee further enquired whether NAMI had formulated guidelines for staff to deal with or rectify non-compliances in laboratories. **Chief Executive Officer, NAMI** advised at the public hearings, and **Commissioner for Innovation and Technology** supplemented in his letter dated 7 January 2025 (*Appendix 8*) that NAMI would regularly circulate the laboratory safety manual via email on a quarterly

basis or as and when the guidelines were updated, and would post the basic laboratory safety codes in laboratories to raise safety awareness among staff. The Laboratory Safety Team would also remind staff to comply with the laboratory safety codes through unscheduled inspections, safety training and safety team meetings.

25. According to paragraphs 2.30 and 2.31 of the Audit Report, in the period from 2019-2020 to 2023-2024, as far as two project performance indicators (respectively on “the number of companies participating in ongoing projects” and “the number of organizations benefiting from PSTS”) were concerned, there were differences between the numbers reported in the papers submitted to LegCo and those based on NAMI’s supporting records. The Committee enquired why there were such discrepancies, whether other R&D Centres had the same problem, and whether LegCo would be misled as a result. **Commissioner for Innovation and Technology** explained at the public hearings and in his letter dated 13 December 2024 (*Appendix 6*) that all R&D Centres adopted “R&D project” as the base unit when calculating the relevant performance indicators, meaning that if a company participated in multiple projects or an organization benefited from multiple projects at the same time, the performance indicators would be calculated based on the number of projects it participated in or benefited from. Since ITC first reported the aforesaid two performance indicators to LegCo in 2017-2018, it had required all R&D Centres to adopt a consistent method to calculate relevant data. ITC agreed with Audit’s recommendations and would include an explanatory note on the calculation basis of the performance indicators in future reports submitted to LegCo.

26. According to paragraph 2.33 of the Audit Report, the number of researchers engaged under the Research Talent Hub decreased by 29% from 31 in 2020-2021 to 22 in 2023-2024. The Committee enquired whether NAMI had looked into the reasons for that. **Secretary for Innovation, Technology and Industry, Commissioner for Innovation and Technology** and **Chief Operating Officer, NAMI** explained at the public hearings, and **Commissioner for Innovation and Technology** supplemented in his letter dated 13 December 2024 (*Appendix 6*) that the number of researchers engaged under the Research Talent Hub was based on the number of R&D projects that could be commenced. In view of the decrease in the number of projects commenced in recent years and the challenges encountered in recruitment, NAMI would proactively increase the number of researchers engaged under the Research Talent Hub to meet R&D requirements based on different projects and market demand.

C. Industry income and commercialization

27. According to paragraph 3.5 of the Audit Report, the level of industry and other income of NAMI fell short of its targets in two of the five years from 2019-2020 to 2023-2024, with shortfalls of 4.3 percentage points in 2020-2021 and 5.8 percentage points in 2022-2023 respectively. The Committee enquired why the targets could not be met in these two years, and why ITC had raised the target on level of industry and other income from 30% for 2019-2020 to 2022-2023 to 35% for 2023-2024. **Secretary for Innovation, Technology and Industry** advised at the public hearings, and **Commissioner for Innovation and Technology** further explained in his letter dated 7 January 2025 (*Appendix 8*) that in 2020-2021, the number of collaborative R&D projects commenced with industry contribution decreased due to the epidemic, and the level of industry and other income was thus adversely affected. In 2022-2023, despite the eased epidemic, the overall economy was still volatile and industry partners tended to adopt a wait-and-see attitude towards investing in I&T. This had a direct impact on the number of collaborative R&D projects and contract research projects commenced with industry contribution, hence affecting NAMI's level of industry and other income. With the stabilization of the economic situation after the epidemic, and the Government's intention to step up its efforts to encourage the R&D Centres to cooperate with the industry, so as to facilitate the R&D Centres' technology transfer to the industry and commercialization of R&D results, ITC therefore raised the target on level of industry and other income to 35% from 2023-2024 onwards.

28. According to paragraph 3.6 of the Audit Report, ITC had indicated to the Panel on Commerce, Industry, Innovation and Technology of LegCo that it was considering raising the target on level of industry and other income to 40% in 2024-2025, and would explore the possibility of raising the target further to 50% in the long run. The Committee enquired of ITC about the basis for the upward adjustment. **Commissioner for Innovation and Technology** explained at the public hearings and in his letter dated 7 January 2025 (*Appendix 8*) that ITC had set the target on level of industry and other income for the R&D Centres at 35% since 2023-2024, and all the R&D Centres had achieved beyond the target. To further encourage the R&D Centres to strengthen cooperation with the industry, ITC raised the target to 40% in 2024-2025, and would explore the possibility of raising the target to 50% in the long run. In raising the target, the Government had to strike a proper balance taking into account the R&D Centres' public mission to widely transfer technology to the industry and other objective factors. As the economic environment would remain challenging in the short run, ITC would continue to monitor the economic situation in the coming year before fixing any implementation timetable for further raising the target.

29. Referring to paragraphs 3.7 and 3.8 of the Audit Report, the Committee enquired why ITC and NAMI had adopted different calculation methodologies for reporting NAMI's level of industry and other income, resulting in discrepancies between the relevant figures reported in NAMI's Annual Reports and those reported in the papers submitted by ITC to LegCo. **Commissioner for Innovation and Technology** explained at the public hearings and in his letter dated 7 January 2025 (*Appendix 8*) that in ITC's papers regularly reporting on the R&D Centres' progress of work to the Panel on Commerce, Industry, Innovation and Technology of LegCo, data on the R&D Centres' levels of industry and other income were provided, whereas in NAMI's Annual Reports, "industry income" and "other income" were presented as separate entries, thus giving rise to discrepancies in the relevant data.

30. According to paragraphs 3.14, 3.17 and 3.18 of the Audit Report, in the period from 2019-2020 to 2023-2024, NAMI filed 411 patent applications, with 142 patents granted and 81 patent applications (i.e. about 20%) discontinued. The Committee requested NAMI to provide the respective percentages and numbers of each type of project in the aforesaid granted and discontinued patent applications, and to explain the considerations for applying for a patent on an R&D project and for deciding to discontinue a patent application, as well as whether the success rate would vary according to the project type. **Secretary for Innovation, Technology and Industry, Chairwoman, NAMI and Chief Executive Officer, NAMI** explained at the public hearings, and **Commissioner for Innovation and Technology** added in his letter dated 7 January 2025 (*Appendix 8*) that:

- among the 142 patents granted, 69 were from seed projects (49%), 39 from platform projects (27%), 11 from collaborative projects (8%) and 23 from small-scale experiments (16%); whereas among the 81 discontinued patent applications, 26 involved provisional patents that automatically expired with no standard patent application filed, and 55 were discontinued standard patent applications comprising 28 from seed projects (51%), 15 from platform projects (27%), 7 from collaborative projects (13%) and 5 from small-scale experiments (9%);
- during the patent application process, NAMI would generally apply for a provisional patent on an R&D project in order to secure the "priority date" of the patent application, so that NAMI would have priority over competitors when applying for a standard patent subsequently, and this was crucial to obtaining the ownership of the final standard patent. For the sake of effective utilization of resources, NAMI would choose not to file a standard patent application after the expiration date of the provisional patent should it discover during the subsequent R&D process

that the technology under the provisional patent did not satisfy a basket of factors concerning, inter alia, the commercialization income the patent might generate, the maintenance cost, whether the technology could be used as background intellectual property for future R&D projects, the availability of similar yet more sophisticated patents within NAMI or in the market, and the relevance of the patent to the future development of NAMI. NAMI would keep a standard patent application under review based on these factors to determine whether the application should be continued; and

- given the higher threshold in innovativeness for seed projects, platform projects, collaborative projects with industry contribution of less than 50% of the total project cost, and small-scale experiments undertaken by NAMI, there were no significant differences in the application success rates among these projects, with an overall approval rate of over 70%.

31. The Committee further enquired about the difficulties encountered by NAMI in the patent application process, whether the discontinuation of applications would result in wastage of resources, and the specific measures in place to reduce such discontinuation. **Secretary for Innovation, Technology and Industry, Chairwoman, NAMI and Chief Executive Officer, NAMI** explained at the public hearings, and **Commissioner for Innovation and Technology** added in his letter dated 7 January 2025 (*Appendix 8*) that:

- NAMI generally encountered the following difficulties when applying for patents:
 - (a) technical complexity: high-end technologies often involved complex technical details, which made it more difficult for patent application documents to be prepared and examined;
 - (b) prior art search: as it would take 12 to 24 months for each patent application to be disclosed, patents newly applied for might not be found when searches for similar technologies in the patent database were made to determine the innovativeness of a technology; and
 - (c) legal and normative changes: patent regulations and examination standards might vary with countries and regions, which would increase the complexity and uncertainty of high-end technology patent applications; and

- NAMI would take a series of measures to facilitate the approval of standard patent applications, including the use of designated prior art search software for comprehensive searches of existing technologies, expanding the database of patent law firms and communicating closely with lawyers to enhance the quality of patent write-ups, and formulating a timetable upon receipt of the examiners' opinions and responding to each examination opinion in a timely manner to shorten the overall examination time.

32. With reference to paragraph 3.14 of the Audit Report, the Committee enquired about the long-term plan to promote commercialization of NAMI's project results. **Chief Executive Officer, NAMI** advised at the public hearings, and **Commissioner for Innovation and Technology** added in his letter dated 13 December 2024 (*Appendix 6*) that ITC had established the Innovation Hub@HK website to showcase a total of more than 560 R&D outcomes by 12 local universities and public research institutes (including NAMI) as well as 28 InnoHK research laboratories. The website served as a one-stop search platform, allowing market participants to customize search criteria according to their needs and contact individual research institutes and universities directly to explore commercialization opportunities, thereby facilitating commercialization of research outcomes and technology transfer to the industry. In order to promote commercialization of project results, NAMI would improve patent management, conduct regular market demand analysis, strengthen industry-academia-research cooperation with universities, other research institutes and enterprises, and enhance market promotion and brand building in the local market, the Mainland and countries along the Belt and Road, thereby enhancing the market competitiveness and influence of NAMI.

33. According to paragraphs 3.27 to 3.29 of the Audit Report, of the 73 platform projects and seed projects completed in the period from 2019-2020 to 2023-2024, up to 31 March 2024, 50 (68%) projects had not generated any licensing fee income since their completion, while the remaining 23 (32%) projects had generated a licensing fee income of \$7.2 million (representing 7.4% of the project costs on average). The Committee enquired why most of the projects had failed to generate any licensing fee income or had only generated a relatively low level of licensing fee income, and whether this was due to insufficient marketing by NAMI or lack of communication with the industry about the demand for R&D products. **Chief Executive Officer, NAMI** advised at the public hearings, and **Commissioner for Innovation and Technology** further explained in his letter dated 7 January 2025 (*Appendix 8*) that:

- apart from transferring its patented technologies to the industry through licensing arrangements, NAMI would also conduct technology transfer through collaborative projects and contract researches for the industry. In general, if an industry partner had contributed more than 50% of the total cost of an R&D project, the industry partner would own the intellectual property right(s) generated from the project for direct commercialization, and no licensing arrangement would be involved; and
- of the 50 projects which had not generated any licensing fee income (comprising 30 seed projects and 20 platform projects), 16 projects (32%) (comprising 6 seed projects and 10 platform projects) were completed in 2023-2024 (i.e. representing an elapsed time of one year or less since completion). Besides, 30 (60%) were seed projects of an exploratory nature that could pave the way for further R&D collaborations with the industry. Seed projects would often give rise to downstream platform projects, collaborative projects or contract research projects from which commercialization income could be generated. As at November 2024, of those 50 projects, 28 (comprising 17 seed projects and 11 platform projects) had given rise to 36 downstream projects (comprising 24 platform projects, 9 collaborative projects, and 3 contract research projects and other applied research projects).

34. Regarding the possibility of seed projects germinating new research projects and hence generating commercialization income, the Committee enquired whether there had been successful examples in the past. **Chief Executive Officer, NAMI** advised at the public hearings, and **Commissioner for Innovation and Technology** added in his letter dated 7 January 2025 (*Appendix 8*) that past successful examples included a collaborative project concerning a separator-free battery technology with high safety derived from two seed projects. In addition to the industry contribution provided by the relevant industry co-applicant for the collaborative project, NAMI had also received a royalty of more than \$150,000 for it. In respect of another seed project involving an oral core-shell microsphere technology that had led to a platform project concerning encapsulated probiotics with a targeted delivery function for colonization, NAMI had also received a licensing fee of over \$30,000.

35. As mentioned in paragraphs 3.31 and 3.32 of the Audit Report, NAMI would explore measures to increase the licensing fee income generated from platform projects and seed projects, and had compiled general guidelines on how to determine licensing

fees. The Committee requested NAMI to provide relevant details. **Chief Executive Officer, NAMI** advised at the public hearings, and **Commissioner for Innovation and Technology** added in his letter dated 7 January 2025 (*Appendix 8*) that:

- NAMI had taken the following measures to increase the licensing fee income from projects:
 - (a) strengthen the screening of platform and seed projects, including requiring active industry participation for each project through, for example, the provision of relevant trial production support to the industry to increase the chance of successful commercialization after project completion;
 - (b) produce small batches of the project deliverables/prototypes on its own where feasible for promotion to the industry with a view to expediting the industry's adoption of related technologies; and
 - (c) actively initiate collaboration with strategic partners, and arrange dedicated technology display areas in the Hong Kong Science Park Shenzhen Branch, Nanshan Zhiyuan Shenzhen-Hong Kong Youth Innovation and Entrepreneurship Base, the exhibition hall of Jiangmen Science and Technology Bureau, etc., to increase the chances of technology licensing and receiving licensing fees. NAMI had compiled a summary of the list of licensable technologies for promotion through chambers of commerce, exhibitions and promotional meetings. NAMI would also actively participate in or organize thematic briefings on technology in the Mainland cities of the Greater Bay Area, Belt and Road countries and Southeast Asian countries to promote cross-region exchanges and cooperation in technology; and
- NAMI had established a clear guideline and calculation mechanism whereby projects were classified into different levels based on project costs, with the corresponding licensing fees/royalties, trial duration and annual charges defined under each level. Licensing fees were subject to adjustments based on project budgets and technical considerations under the aforesaid mechanism.

36. In response to the Committee's enquiry about the commercialization income generated from collaborative projects and contract research projects for NAMI, **Chief Executive Officer, NAMI** advised at the public hearings, and **Commissioner**

for Innovation and Technology further explained in his letter dated 7 January 2025 (*Appendix 8*) that collaborative projects with 50% of R&D funding from industry contribution and contract research projects with 100% industry contribution involved royalties. Upon completion of the projects, royalties would be charged on the basis of usage or sales volume according to the contract terms.

37. Under the Funding Agreement revised in 2018, NAMI's commercialization income would be used in a manner agreed by the Commissioner for Innovation and Technology. The Committee enquired about the reasons behind this arrangement, the vetting and approval mechanism and the use of such income. **Commissioner for Innovation and Technology** explained at the public hearings and in his letter dated 7 January 2025 (*Appendix 8*) that in the past, the R&D Centres had been required to return incomes generated from ITF-funded projects (such as the income generated by commercialization of project deliverables) to ITF. With the approval of FC in July 2018, ITC allowed the R&D Centres to retain part of their commercialization income for use in strategic activities, such as technology development and market trends analyses, R&D infrastructure building, staff development or small-scale experimental projects, so as to further incentivize commercialization of R&D outcomes. NAMI was required to submit a proposal every year regarding the uses and estimates of the strategic reserve fund to the Board for endorsement and thereafter to the Commissioner for Innovation and Technology for approval.

D. Administrative expenditure and corporate governance

38. According to paragraph 4.4 of the Audit Report, a NAMI employee had, during business travels, extended the stay for personal reasons. While the employee had obtained separate approvals for the business travels and annual leave for the extended period of stay, and had subsequently paid the additional travelling costs involved, Audit found that the employee had not sought approval for the modification of business travel arrangements, and NAMI did not have specific guidelines in this regard. Although it was mentioned in paragraph 4.15(b) of the Audit Report that NAMI would enhance the relevant guidelines and set out the approving authorities, some members enquired whether NAMI would consider putting in place a mechanism for disallowing employees' extension of stay during business travels, so as to avoid undue negative perceptions. Some members were of the view that in order to retain talents, non-governmental organizations might adopt a more lenient approach in handling such applications, on the premise that no additional costs would be incurred to them and that the approving officers were fully aware of the situation when vetting and approving the applications. In this connection, the Committee requested NAMI to provide details of the new guidelines and explain whether they were in line with the Administration's relevant practice.

39. **Secretary for Innovation, Technology and Industry, Chairwoman, NAMI, Chief Executive Officer, NAMI and Chief Operating Officer, NAMI** responded at the public hearings, and **Commissioner for Innovation and Technology** further explained in his letter dated 7 January 2025 (*Appendix 8*) that:

- the new guidelines clearly stated that employees should avoid varying business trips for personal reasons. Employees with a genuine need to vary their duty passage must submit an application for this purpose together with the application for the business travel, and bear any additional costs involved. NAMI would consider in a prudent manner whether to accept employees' applications for variation of duty trips due to personal reasons, in particular those involving staff of supervisory grade, and would keep the relevant mechanism under review; and
- the provision of duty passage for civil servants travelling on duty outside Hong Kong was governed by the Civil Service Regulations. An officer who wished to vary his duty passage arrangements for personal reasons should seek prior approval from the approval authority. Approval might be given subject to the conditions that (a) the modification would not undermine the original justifications for the passage arranged by the Department; (b) additional expenses, if any, must be met by the officer; and (c) savings, if any, should not be used to subsidize the officer's personal travel. The authority for modification of passage rested with Heads of Department, or the relevant Permanent Secretary (or supervising officer if there was no relevant Permanent Secretary) if the officer travelling was a Head of Department.

40. Referring to paragraphs 4.7(a) and 4.12(a) of the Audit Report which pointed out that the subsistence allowance and entertainment expense reimbursement claims involving the Chief Executive Officer were approved by his subordinates or himself, the Committee enquired whether NAMI agreed that there was a lack of checks and balances in this practice. **Chairwoman, NAMI and Chief Executive Officer, NAMI** advised at the public hearings, and **Commissioner for Innovation and Technology** further explained in his letter dated 7 January 2025 (*Appendix 8*) that according to the previous edition of the Corporate Governance Manual of NAMI, the approving authority was dependent on the amount of the claim involved instead of the rank of the claimant. Nevertheless, NAMI agreed with Audit's recommendation that there was room for improvement in the previous guidelines regarding the approval mechanism for subsistence allowances and entertainment expenses involving the Chief Executive Officer. For this reason, NAMI revised the relevant guidelines in October and November 2024, stipulating that all subsistence allowances and entertainment

expenses involving the Chief Executive Officer were subject to the approval of the Chairperson of the Board. In the light of the Committee's suggestion, NAMI would review the criteria and recommendations on how best to assist the Chairperson of the Board in making approval decisions, and would update the relevant mechanism in a timely manner. The new guidelines provided by NAMI were set out in the above letter from the Commissioner for Innovation and Technology.

41. According to paragraph 4.7(b)(ii) of the Audit Report, Audit found that the meal costs incurred by the then Chief Executive Officer of NAMI in four business travels exceeded the entitled subsistence allowance. The excess amounts ranged from \$607 to \$4,700 and were borne by NAMI. The Committee requested NAMI to explain the reasons for the excess. Besides, apart from the improvement measures mentioned in paragraph 4.15 of the Audit Report, i.e. enhancing the relevant guidelines and issuing reminders to staff, the Committee enquired whether NAMI had put in place other measures to ensure that its staff understood the underlying significance of formulating the new guidelines and would act in accordance with them. **Chief Executive Officer, NAMI** explained at the public hearings, and **Commissioner for Innovation and Technology** added in his letter dated 7 January 2025 (*Appendix 8*) that all the business travels mentioned in the Audit Report involved participation in large-scale exhibitions or conferences, and among them, the business travel with an excess amount of \$607 involved one meal arrangement for seven staff members, while the business travel with an excess amount of \$4,700 involved eight meal arrangements (five to six staff members were involved in each meal, and the excess amount per head was about \$105). The main reason for the meal costs being in excess of the allowance was that the event schedules were tight, and there was no cheaper dining option in the vicinity of the event venues given the limited time available. NAMI revised the relevant guidelines in November 2024 to improve the approval process for meal costs exceeding the entitled subsistence allowance. The new Chief Executive Officer also elaborated on the relevant guidelines for all employees at a town hall meeting held in December 2024, instructing them to follow the guidelines.

42. According to paragraph 4.12 of the Audit Report, Audit examined 50 entertainment expense reimbursement claims which were approved in the period from 2019-2020 to 2023-2024, and found that two (4%) of the claims involved meal costs exceeding the cost-per-head spending limits by \$39 and \$50 respectively. For the former claim, there was no approval for exceeding the limit from the Chief Executive Officer or the Chief Operating Officer. For the latter claim, while approval for exceeding the limit had been granted by the Chief Operating Officer, the relevant justifications were not documented. The Committee enquired about the

cost-per-head spending limits of entertainment expenses, whether such limits would be reviewed regularly, and the follow-up actions taken by NAMI in respect of the above findings of Audit. **Commissioner for Innovation and Technology** explained in his letter dated 7 January 2025 (*Appendix 8*) that regarding the two cases with excess entertainment expenses mentioned in the Audit Report, one of them was for lunch, of which the cost-per-head spending limit was \$450, while the other one was for dinner, of which the cost-per-head spending limit was \$600. Such limits were set according to the guidelines of HKUST, and would be revised subject to updates from HKUST. NAMI revised the relevant guidelines in October 2024 to improve the approval process for excess entertainment expenses, including stipulating that entertainment expenses involving the Chief Executive Officer were subject to the approval of the Chairperson of the Board, as well as reminding all employees to observe the spending limits of entertainment expenses. The relevant guidelines would be recirculated on a quarterly basis. NAMI also reminded all employees that entertainment expense claims exceeding the spending limits would be approved only with sufficient justifications, which would be properly documented.

43. According to paragraph 4.12(c) of the Audit Report, of the aforesaid 50 entertainment expense reimbursement claims examined by Audit, 8 (16%) involved entertainment expenses incurred by staff below the Section Director grade, with no prior approval obtained from Section Directors or above. Covering approvals were obtained 1 to 37 days after the entertainment expenses were incurred. The Committee asked NAMI why the staff concerned had not obtained prior approvals, and whether a time frame had been set for covering approvals. **Commissioner for Innovation and Technology** explained in his letter dated 7 January 2025 (*Appendix 8*) that regarding the aforesaid eight entertainment expense reimbursement claims, the staff concerned had made verbal reports to their supervisors beforehand and obtained formal covering approvals afterwards. NAMI revised the relevant guidelines in October 2024 to clearly stipulate that prior approval must be obtained for all entertainment expenses. In exceptional circumstances, if no formal prior approval could be obtained in time, covering approval must be obtained as soon as possible. The justifications for all approvals and covering approvals given would be properly documented.

44. According to paragraph 4.12(d) of the Audit Report, among the aforesaid 50 entertainment expense reimbursement claims examined by Audit, one (2%) claim involved an event in which the participating NAMI staff significantly outnumbered the guests entertained, with eight NAMI staff members and two guests. However, the justifications for the above arrangement were not provided in the claim form. The Committee requested NAMI to explain the above and how it had followed up Audit's findings. **Commissioner for Innovation and Technology** explained in his letter

dated 7 January 2025 (*Appendix 8*) that the entertainment case in question involved two industry partners. As the discussion would involve collaboration and promotion plans for commercialization of multiple projects, eight NAMI staff members joined, including the Chief Executive Officer, Chief Officers, and technical managers and marketing managers of the related fields. NAMI revised the relevant guidelines in October 2024 to specify the reasonable ratio of NAMI staff to guests entertained, and that the justifications for exceptional cases must be documented.

45. According to paragraphs 4.17(a), 4.21 and 4.22 of the Audit Report, in accordance with NAMI's Corporate Governance Manual, the Sub-Committee of the Technology Committee of NAMI should convene its meeting normally on a weekly basis. However, Audit found that there was no documentary evidence showing that the Sub-Committee held any meetings in the period from 2019 to 2023. In fact, the Sub-Committee discussed and endorsed agenda items by email circulation instead. The Committee enquired whether NAMI considered that the Sub-Committee could properly discharge its duties without the need to convene meetings, and whether the relevant practices specified in the Corporate Governance Manual were obsolete and in need of revisions. **Chief Executive Officer, NAMI** and **Chief Operating Officer, NAMI** advised at the public hearings, and **Commissioner for Innovation and Technology** further explained in his letter dated 7 January 2025 (*Appendix 8*) that the agenda items discussed and endorsed by the Sub-Committee by email circulation included audited accounts after project completion and project-related change requests (e.g. project extensions, and adjustments of conditions of project deliverables). Since November 2024, NAMI had resumed regular weekly meetings to discuss and endorse relevant agenda items. NAMI would review these arrangements and consider appropriate revisions to the Corporate Governance Manual as and when necessary.

46. As pointed out in paragraph 4.19 of the Audit Report, three non-official members of the Board had served continuously for more than six years, but according to a good corporate governance practice set forth in the Guide to Corporate Governance for Subvented Organisations published by the Government, non-official members were not normally appointed to sit on the same advisory or statutory body for more than six years to ensure a healthy turnover of members. In his response in paragraph 4.34 of the Audit Report, the Commissioner for Innovation and Technology advised that NAMI's Board was not a government advisory or statutory body and thus the "six-year rule" did not apply. The Committee asked whether the Administration considered the current turnover of NAMI's Board members satisfactory. **Secretary for Innovation, Technology and Industry** explained at the public hearings, and **Commissioner for Innovation and Technology** added in his letter dated 7 January 2025 (*Appendix 8*) that while the "six-year rule" did not apply to NAMI's Board,

ITC would still make its best efforts to take into account the above appointment principle when appointing NAMI's non-official Board members. In addition to monitoring the day-to-day operation and financial position of NAMI, examining various kinds of reports and vetting its R&D projects, NAMI's Board was also responsible for providing guidance on the overall R&D direction and commercialization of R&D deliverables of NAMI. Therefore, ITC always adhered to the principle of "appointment by merit", taking into account whether the relevant expertise and experience of the candidates concerned would fit in with the core direction of NAMI's future development. If it was recommended that a director who had served for more than six years be reappointed, the considerations and justifications would also be specified.

47. As regards paragraphs 4.25, 4.27 and 4.29 of the Audit Report which pointed out the areas for improvement in declarations of interest concerning NAMI, NAMI indicated that it would strengthen its monitoring in this regard. The Committee requested NAMI to provide the specific details of its improvement measures. **Chief Executive Officer, NAMI** and **Chief Operating Officer, NAMI** advised at the public hearings, and **Commissioner for Innovation and Technology** added in his letter dated 7 January 2025 (*Appendix 8*) that NAMI would continue to step up efforts in reminding Board or Committee members that if they needed to declare interests due to their personal or work capacities, they must declare them at meetings. In addition, declarations of interest made at a meeting and whether the members concerned had remained in the meeting or voted on relevant matters would be documented in detail.

E. Other issues

48. According to paragraph 5.7 of the Audit Report, Audit examined 20 recruitment cases in the period from 2019-2020 to 2023-2024 and found that for 10 (50%) recruitment cases, members of the Selection Panel declared that they had personal or working relationships with the candidates, but the members concerned had remained in the Selection Panel. There was no documentary evidence showing the Selection Panel's decision on whether the members concerned should remain in the Panel or withdraw from the Panel. The Committee requested NAMI to provide the relevant details. **Chief Executive Officer, NAMI** explained at the public hearings, and **Commissioner for Innovation and Technology** added in his letter dated 7 January 2025 (*Appendix 8*) that the declarations mainly involved working relationships, for instance, the candidates being current NAMI staff holding other posts, former staff, former summer interns, etc.

49. According to paragraph 5.9 of the Audit Report, the average staff turnover rate of NAMI in the period from 2019-2020 to 2023-2024 was 22.8%. As advised by the Chief Executive Officer of NAMI at the public hearings, 90% of the departing staff was R&D personnel. The Committee enquired about the reasons for their departure, measures to retain staff, whether the high turnover rate of R&D personnel would have any impact on R&D work, and whether the above was related to the reduction in the number of researchers engaged under the Research Talent Hub. **Commissioner for Innovation and Technology, Chairwoman, NAMI, Chief Executive Officer, NAMI and Chief Operating Officer, NAMI** advised at the public hearings, and **Commissioner for Innovation and Technology** further explained in his letter dated 7 January 2025 (*Appendix 8*) that reasons for staff departure mainly included change in work fields, pursuit of further study, leaving Hong Kong and family reasons. Staff turnover had certain impact on the operation of NAMI. To retain staff, NAMI had taken a number of measures, including provision of special bonus to R&D teams as recognition for their outstanding performance in international R&D competitions. NAMI also provided research excellence bonus out of the commercialization income to the R&D teams concerned. Furthermore, NAMI had a part-time PhD programme under which eligible staff with potential were fully subsidized to pursue part-time PhD study. Staff receiving subsidy under the said programme would be required to fulfil a two-year service commitment. NAMI also attracted talents through different recruitment channels, reviewed salary and benefits as appropriate, as well as strengthened communication and manpower deployment. In recruiting researchers under the Research Talent Hub, factors such as the ranking of the institution where the applicant graduated from, the years of experience and skills required for the position, would be taken into consideration. NAMI could also engage the required researchers through ITF project funding.

50. With reference to paragraph 5.12 of the Audit Report, the Committee sought information on the salary adjustment mechanism for NAMI's Chief Executive Officer, in particular the performance-linked pay, and the percentage of such pay in the remuneration received by the Chief Executive Officer in the past. The Committee also asked whether the Administration and the Board of NAMI considered that the current remuneration system of NAMI provided sufficient incentives to enhance the performance of the management. **Secretary for Innovation, Technology and Industry, Commissioner for Innovation and Technology, Chairwoman, NAMI and Chief Operating Officer, NAMI** explained at the public hearings, and **Commissioner for Innovation and Technology** supplemented in his letter dated 13 December 2024 (*Appendix 6*) that:

- the remuneration of the Chief Executive Officer of NAMI consisted of two components: (a) a fixed basic salary and (b) a variable,

performance-linked pay. In terms of basic salary, according to the contract of the Chief Executive Officer, this part of the salary would remain unchanged throughout the contract period. Upon contract renewal or signing of a new contract, all contract terms would be reviewed. The basic salary would be set with reference to the salary adjustment level of civil servants and other employees of NAMI, as well as the remuneration packages of chief executive officers of other R&D Centres under ITC. For contract renewal, the past performance of the personnel concerned also formed part of the consideration. According to the Funding Agreement, the appointment of the Chief Executive Officer and the terms of service required approval from the Board and the Commissioner for Innovation and Technology; and

- for performance-linked pay, the mechanism for the annual performance appraisal of the Chief Executive Officer and the release of performance-linked pay was established after the Board's approval. The mechanism stipulated that when determining the level of performance-linked pay, the performance of the personnel concerned as well as any other factors deemed appropriate by the Board would be taken into consideration. When the personnel concerned completed a one-year contract, an assessment panel composed of the Chairperson of the Board, chairmen of the functional committees and ITC representative(s) would conduct a comprehensive assessment on the performance of the personnel concerned in four parameters, namely (a) leadership, (b) personal effectiveness, (c) management, and (d) professional knowledge and networking. Afterwards, the panel would report the assessment and recommend the level of performance-linked pay to the Board. The final release of the pay was subject to the endorsement of the Board and approval of the Commissioner for Innovation and Technology. The level of performance-linked pay to the Chief Executive Officer had remained at 25% of the basic salary for the past five years.

51. According to paragraphs 5.12 to 5.14 of the Audit Report, even though the Board had approved in 2024 the updated distribution of performance grades of staff, the actual distribution of performance grade B in the period from 2019-2020 to 2023-2024 was still higher than the overall distribution approved by the Board. According to Table 24 in paragraph 5.14 of the Audit Report, the actual distribution of performance grades A and B in 2023-2024 even exceeded 80%. In view of a number of inadequacies in the daily operation of NAMI identified by Audit in the audit review, the Committee was concerned whether the above analysis on performance grades

reflected that NAMI was too lenient in appraising the performance of its staff. **Chief Executive Officer, NAMI** advised at the public hearings, and **Commissioner for Innovation and Technology** added in his letter dated 7 January 2025 (*Appendix 8*) that the overall distribution of staff performance grades recommended by the Board meant to serve as a reference for NAMI. Staff performance was assessed against a number of performance indicators with grading given based on actual performance. When the overall distribution had exceeded the recommended range, NAMI would report to the Board with explanations and seek the Board's endorsement. NAMI would continue to review and optimize its current performance appraisal mechanism.

52. According to paragraph 5.17 of the Audit Report, up to 30 June 2024, NAMI had not yet filled the Chief Science Officer post created in 2022-2023. The Committee asked NAMI to explain why the post had remained unfilled for more than two years and whether it had encountered recruitment difficulties or whether there was no longer an operational need for the post. **Chief Executive Officer, NAMI** advised at the public hearings, and **Commissioner for Innovation and Technology** added in his letter dated 7 January 2025 (*Appendix 8*) that NAMI created four new chief officer posts in 2022-2023, including the Chief Science Officer post which was responsible for driving the technical direction and development of NAMI in a longer term. Having considered cost-effectiveness and the development direction of NAMI, relevant tasks were shared among the other Chief Officers in the past two years. NAMI's Finance and Administration Committee discussed the matter again at its meeting on 7 November 2024. In view of the upcoming merger of NAMI with ASTRI, the recruitment for the Chief Science Officer would be stalled.

53. According to paragraphs 5.25 and 5.26 of the Audit Report, in the period from 2019-2020 to 2023-2024, there were shortfalls in the achievement of three (75%) out of four performance targets relating to publicity. The Committee sought explanation from NAMI on the reasons for the shortfalls and the measures in place to achieve the performance targets. **Commissioner for Innovation and Technology** advised at the public hearings and in his letter dated 7 January 2025 (*Appendix 8*) that in the period from 2019-2020 to 2023-2024, promotional activities such as exhibitions/seminars that NAMI had planned to organize or participate were postponed or cancelled due to the impact of the epidemic. The number of website visitors had also been affected and the relevant performance targets were not met as a result. NAMI would set clear, aggressive yet practicable targets based on the overall technology R&D and business development strategies, and with regard to resources and time constraints. NAMI would strive to carry out promotional activities as planned and adjust strategies and allocate resources as necessary. It would also organize industry exhibitions, seminars and other promotional activities through enhanced cooperation with relevant industry

associations, chambers of commerce or other enterprises and organizations. The content, structure, search engine, etc. of the NAMI website would be optimized to increase overall traffic and engagement rate.

54. Referring to paragraph 5.32 of the Audit Report and the information provided by the Director of Audit in his letter dated 5 December 2024 (*Appendix 9*), the Committee sought explanation on why, in respect of the ratio of operating expenditure to R&D project costs for the five R&D Centres in the period from 2019-2020 to 2023-2024, NAMI's ratio was on the high side (being the highest in three out of these five years). **Commissioner for Innovation and Technology** explained at the public hearings and in his letter dated 13 December 2024 (*Appendix 6*) that NAMI had set up a bio-healthcare laboratory in 2021-2022 and a battery laboratory in 2022-2023. The relevant rental, equipment and device costs had increased accordingly. The Government adopted a "zero-growth" principle over the R&D Centres' operating expenditure in the coming three financial years, i.e. the average annual operating expenditure in the coming three financial years was capped at the level of 2024-2025, with a view to controlling the operating expenditure of the R&D Centres as well as encouraging them to increase industry income and other income.

55. According to paragraph 5.34 of the Audit Report, NAMI's gross domestic product ("GDP") contributions towards Hong Kong had decreased by 29% from \$1,531 million in 2020-2021 to \$1,092 million in 2022-2023. Among the five R&D Centres, NAMI's GDP contributions decreased by the largest margin in the period. The Committee enquired whether ITC had looked into the reasons and formulate strategies to enhance NAMI's GDP contributions. **Commissioner for Innovation and Technology** indicated at the public hearings and in his letter dated 7 January 2025 (*Appendix 8*) that during the epidemic, some R&D Centres (included NAMI) had switched the focus to conducting more upstream R&D projects or providing pandemic-related technology support for government departments, thus resulting in a drop in the overall economic contributions generated by the R&D Centres. Although NAMI's GDP contributions had declined from 2020-2021 to 2022-2023, it had made a considerable amount of contributions (more than \$3.9 billion) over these three years. ITC would continue to review and assess regularly all R&D Centres' (including NAMI) GDP contributions and other performance. ITC would also work with NAMI's Board to urge NAMI to explore more opportunities of collaboration with the industry, and transferring technology for industry applications and commercialization, thereby driving economic growth and increase its GDP contributions.

F. Conclusions and recommendations

Overall comments

56. The Committee:

- stresses that:
 - (a) I&T is an important engine that activates and drives Hong Kong’s high-quality development. To align with the goal of supporting the development of Hong Kong into an international I&T centre under the National 14th Five-Year Plan, the Government should step up its efforts to develop I&T in the future, so as to provide sustainable impetus for economic development;
 - (b) at a time when Hong Kong is facing a huge fiscal deficit and has to rein in expenditure, it is vital that public resources are used properly to maximize their efficacy. Notwithstanding the Government’s announcement in November 2024 to merge ASTRI and NAMI, the Committee hopes that the current study of the observations and recommendations in the Audit Report will serve as reference for the new R&D institute to be formed from the merger, as well as other R&D Centres funded by ITF and even all subvented organizations, so that they can learn a lesson therefrom; and
 - (c) in addition to putting in place an effective regulatory mechanism to monitor the operation and performance of subvented organizations, the Government should from time to time review and enhance the corporate governance of such organizations to ensure that they have clear and unambiguous systems of accountability and guidelines on the control of administrative expenditure, so as to prevent any actual, potential or perceived abuse of power or conflict of interest. This can enhance the organizations’ good governance and credibility while meeting the public’s expectations for the proper use of public resources;

Project management

- notes that NAMI’s R&D projects are categorized into two types, namely “ITF-funded projects” and “contract research projects”. The former

include platform projects with industry contribution of at least 10% of the total project cost, collaborative projects with industry contribution of at least 30% of the total project cost, and seed projects and PSTS projects for which no industry contribution is required. “Contract research projects” are projects financially supported by the industry and do not involve funding support from ITF;

ITF-funded projects

- expresses serious concern that in relation to ITF-funded projects in the period from 2019-2020 to 2023-2024:
 - (a) in terms of the number of projects commenced, the performance targets were not met in four of the five years mentioned above, with the average shortfall for the four years being eight projects each year; and
 - (b) in terms of the number of projects completed, the performance targets were not met in each of the five years mentioned above, with the average shortfall being 17 projects each year;
- notes that:
 - (a) the number of projects commenced by NAMI fell short of the targets because local SMEs tended to adopt a wait-and-see attitude towards investing in I&T in recent years amid the uncertain economic environment, and hence were more willing to support platform projects that only required 10% sponsorship of the total R&D project cost;
 - (b) the number of projects completed by NAMI fell short of the targets mainly because of delays in project completion, which were attributed to technical difficulties encountered during the R&D process, late shipment of equipment/consumables amid the epidemic, difficulties in recruiting R&D staff, etc.; and
 - (c) NAMI has required its research staff to conduct preliminary research and characterization tests on relevant technologies before project commencement to identify potential technical difficulties in advance, thereby reducing the risk of project delay; in addition, NAMI has strengthened the monitoring function of the Project Administration Team, which has been put under the supervision of

the Chief Operating Officer, to enhance the management of projects at all stages from commencement to completion;

- expresses serious concern that:
 - (a) among the 46 projects completed in 2023-2024:
 - 1 (2%) project commenced six months later than the target date of commencement stipulated in the project agreement;
 - 34 (74%) projects were completed after the target dates of completion stipulated in the project agreements, with an average delay of 7.7 months; and
 - the final reports of 18 (39%) projects were submitted to ITC with an average delay of 13 days; and
 - (b) among the 47 projects with post-project evaluation reports due for submission in 2023-2024, 24 (51%) projects had their evaluation reports submitted to ITC, and for 2 (8%) of these 24 projects, the reports were submitted with delays of 4 and 47 days respectively. For the remaining 23 (49%) projects, the reports had not been submitted to ITC;
- notes that:
 - (a) for the 34 projects completed after the target dates of completion stipulated in the agreements as mentioned above, NAMI had made applications for extension to ITC, and the relevant projects were completed within the extended period;
 - (b) the main reason for the delayed submission of post-project evaluation reports was that the project coordinators needed time to collate relevant information in order to complete the reports, and in the case of collaborative projects, it also took time to seek comments from industry partners. Regarding the 23 projects the evaluation reports of which had not been submitted as mentioned above, the reports of 21 projects were subsequently submitted, while the reports of the remaining two projects were not required to be submitted as the projects were shelved;

- (c) NAMI has strengthened the accountability of the Project Administration Team. Apart from reminding individual project teams earlier to submit reports on time, it is also required to notify the management of anticipated cases of failure to submit reports on time for follow-up; and
 - (d) ITC has been regularly following up on projects in respect of which reports have not been submitted on time, and project coordinators are required to, before commencing new projects, submit overdue reports of all ITF-funded projects under their responsibilities, otherwise they are not allowed to commence new projects;
- expresses grave concern and dissatisfaction that in relation to the 73 platform projects and seed projects completed in the period from 2019-2020 to 2023-2024, up to 31 March 2024:
 - (a) 50 (68%) projects had not generated any licensing fee income since their completion;
 - (b) the remaining 23 (32%) projects had generated a licensing fee income of \$7.2 million. On average, the licensing fee income as a percentage of the project costs of the 23 projects was 7.4%; and
 - (c) there were no guidelines setting out the rationale for determining the licensing fees;
- notes that:
 - (a) of the 50 projects which had not generated any licensing fee income as mentioned above (comprising 30 seed projects and 20 platform projects), 16 (32%) were completed in 2023-2024 (i.e. representing an elapsed time of one year or less since completion); and 30 (60%) were seed projects of an exploratory nature that could pave the way for further R&D collaborations with the industry;
 - (b) as at November 2024, 28 of the 50 projects which had not generated any licensing fee income as mentioned above had given rise to 36 downstream projects; and
 - (c) NAMI has taken measures to increase the licensing fee income from projects, and has established a clear guideline and calculation mechanism whereby the corresponding licensing fees/royalties, trial duration and annual charges are defined;

Contract research projects

- expresses serious concern that in relation to contract research projects in the period from 2019-2020 to 2023-2024:
 - (a) in terms of the number of projects commenced, the performance targets were not met in three of the five years mentioned above, with the average shortfall for the three years being 2.3 projects each year;
 - (b) the target number of projects commenced decreased by 50% from 10 in 2022-2023 to 5 in 2023-2024, with no documentary evidence showing the rationale for adjusting the performance target significantly; and
 - (c) the target income from projects had been lowered by 32% from \$8.2 million in 2019-2020 to \$5.6 million in 2023-2024. The actual income outperformed the target income in four of the five years, with the over-achievements ranging from 4% to 88%;
- notes that:
 - (a) SMEs have been more conservative in investing in I&T amid the uncertain economic environment over the past few years. Consequently, projects that required full contribution from the industry were relatively more difficult to commence. However, in 2020-2021, in the light of the epidemic, some enterprises sought to apply nanotechnology and advanced materials to provide technical solutions that could improve public health safety and personal protection. Hence, seven contract research projects were added, resulting in an increase in the number of projects for that year;
 - (b) as SMEs needed more time to resume their business development after the epidemic, NAMI set a relatively conservative target for 2023-2024, but eventually the number of projects commenced exceeded the target; and
 - (c) when setting targets, NAMI will comprehensively consider the external economic environment, market demand, and NAMI's technological development, business development plans and human resources conditions. NAMI has set an income performance target of \$6 million for contract research projects in

2024-2025, representing an increase of 7% from the target of \$5.6 million for 2023-2024;

- strongly urges that NAMI should:
 - (a) having regard to its actual capabilities, consider setting upper and lower targets that are more aggressive yet practicable for all projects to be commenced and completed by it, as well as incomes from projects, so as to tie in with its future development direction; and
 - (b) initiate worthwhile projects and those worth pursuing with partners through communication and collaboration with the industry and relevant organizations (including non-local organizations), and closely monitor the project progress to ensure that the targets on numbers of projects commenced and completed, as well as incomes from projects, are met;

Cost-effectiveness

- notes that:
 - (a) the income of NAMI comprises government funding and other income. The latter mainly consists of industry sponsorships and commercialization income (e.g. income from contract research projects, licensing fees and royalties);
 - (b) in the period from 2019-2020 to 2023-2024, the amount of government funding ranged from \$166.4 million to \$247.4 million each year to support the operation of NAMI and the expenditure of ITF-funded projects, whereas the amount of other income ranged from \$42.8 million to \$60.4 million each year; and
 - (c) in the period from 2019-2020 to 2023-2024, NAMI's expenditure was the same as its income, ranging from \$226.8 million to \$290.2 million each year. According to NAMI's explanation, the income was the same as the expenditure because any unspent balance of project grants from ITF had to be returned to the Government. As far as ITF-funded projects are concerned, NAMI has returned a total of some \$21.9 million to the Government in the past five financial years, accounting for approximately 5.5% of the total funding amount of the relevant projects approved;

- expresses serious concern that:
 - (a) in the period from 2019-2020 to 2023-2024:
 - the administrative and operating expenses of NAMI increased by 35% from \$102.3 million in 2019-2020 to \$137.9 million in 2023-2024;
 - the operating expenditure of NAMI increased by 47% from \$78.7 million in 2019-2020 to \$115.9 million in 2023-2024; and the ratio of operating expenditure to R&D project costs increased from 66% in 2019-2020 to 74% in 2023-2024;
 - NAMI's other income (excluding government funding) decreased by 29% from \$60.4 million in 2019-2020 to \$42.8 million in 2023-2024;
 - NAMI's industry contribution³ decreased from 30.8% in 2019-2020 to 22.5% in 2023-2024. The performance targets on industry contribution were not met in four of the five years; and
 - the level of industry and other income of NAMI,⁴ which had been on a decreasing trend, decreased from 47% in 2019-2020 to 35% in 2022-2023, but increased to 46% in 2023-2024. While the level met ITC's targets for all of the five years, it fell short of NAMI's targets in two of the years (i.e. 2020-2021 and 2022-2023);⁵
 - (b) in 2022-2023 and 2023-2024, NAMI's actual level of industry and other income was the lowest among the five R&D Centres; and
 - (c) in the period from 2020-2021 to 2022-2023, NAMI's contributions to Hong Kong's GDP decreased by 29% from \$1,531 million in 2020-2021 to \$1,092 million in 2022-2023;

³ Industry contribution is calculated as industry contribution pledged divided by approved project expenditure.

⁴ The level of industry and other income is calculated as: (industry contribution pledged + other sources of financial contribution pledged + commercialization and other income received) ÷ project expenditure of projects approved by ITC × 100%. Since 2017-2018, ITC has set a target of 30%. In 2023-2024, the target was raised to 35%.

⁵ NAMI also sets its own targets for each year, which were higher than the targets set by ITC.

- notes that:
 - (a) the administrative and operating expenses of NAMI include some R&D-related expenditure, such as laboratory rental and equipment as well as technology and testing service fees. NAMI set up a bio-healthcare laboratory in 2021-2022 and a battery laboratory in 2022-2023 to carry out related R&D projects. The relevant rental, equipment and device costs have increased accordingly;
 - (b) in 2020-2021, the number of collaborative R&D projects commenced with industry contribution decreased due to the epidemic. In 2022-2023, despite the eased epidemic, the overall economy was still volatile and the industry tended to adopt a wait-and-see attitude towards investing in I&T. This had a direct impact on the number of projects commenced with industry contribution, hence affecting NAMI's level of industry and other income;
 - (c) to further encourage the R&D Centres to strengthen cooperation with the industry, ITC raised the target on level of industry and other income from 35% to 40% in 2024-2025, and will explore the possibility of raising the target to 50% in the long run;
 - (d) in the past, the R&D Centres were required to return incomes generated from ITF-funded projects to ITF. In order to encourage the R&D Centres to commercialize the R&D outcomes of such projects, ITC has, since July 2018, allowed the R&D Centres to retain part of their commercialization income for use in strategic activities (e.g. technology development and market trends analyses, R&D infrastructure building, and staff development); and
 - (e) during the epidemic, some R&D Centres (included NAMI) have switched the focus to conducting more upstream R&D projects or providing pandemic-related technology support for government departments, thus resulting in a drop in the overall economic contributions generated;
- urges that:
 - (a) NAMI should, after the epidemic, strengthen its work on industry sponsorships and commercialization to boost its other income;

- (b) NAMI should consider, subject to relevant accounting standards, recording the expenditure on setting up new laboratories as fixed assets, and amortizing or depreciating these assets progressively over the coming accounting periods, so as to reflect its financial position more accurately; and
- (c) the Administration should review whether the current practice of returning any unspent balance of ITF grants to the Government will indirectly encourage the R&D Centres to deliberately use up all the grants to avoid having any unspent balance, resulting in wastage;

Administrative expenditure and corporate governance

Business travels

- is surprised and expresses serious concern that:
 - (a) regarding the 20 business travels outside Hong Kong conducted by NAMI in the period from 2019-2020 to 2023-2024 which were examined by Audit:
 - there were modifications of travel arrangements for nine (45%) business travels, in which the same employee extended the stay for personal reasons. For three (33%) of these nine business travels, there were excess travelling costs. While the employee concerned did repay the excess travelling costs, NAMI had to pay such costs first for two of the travels; and
 - in respect of the nine business travels mentioned above, while the employee concerned had obtained separate approvals for the business travels and annual leave for the extended period of stay, approval had not been sought for the modification of business travel arrangements. The need for approval and the approving authorities for such modification of business travel arrangements were not specified in NAMI's guidelines; and
 - (b) regarding the subsistence allowance claims for 30 business travels conducted by NAMI in the period from 2019-2020 to 2023-2024 which were examined by Audit, there was scope for improving NAMI's guidelines on subsistence allowance claims involving the Chief Executive Officer. The approving authorities for

subsistence allowance claims involving the Chief Executive Officer were not specified in NAMI's guidelines. In reality, such claims were approved by the Chief Technology Officer. Furthermore, for subsistence allowance claims involving the Chief Executive Officer for extra meal costs or accommodation costs in addition to the entitled subsistence allowance, only exceptional approval from the Chief Executive Officer or his designate is required. In reality, approvals for such claims were given by the Chief Executive Officer himself;

Entertainment expenses

- expresses grave concern about the following found by Audit when examining 50 entertainment expense reimbursement claims approved in the period from 2019-2020 to 2023-2024:
 - (a) the approving authorities for entertainment expense reimbursement claims involving the Chief Executive Officer were not specified in NAMI's guidelines. In reality, such claims were approved by the Chief Operating Officer or the Chief Technology Officer;
 - (b) two (4%) claims involved meal costs exceeding the cost-per-head spending limits by \$39 and \$50 respectively. For the former claim, no approval was granted. For the latter claim, the justifications for granting approval were not documented;
 - (c) eight (16%) claims involved staff below the Section Director grade, with no prior approval obtained from Section Directors or above. Covering approvals were obtained 1 to 37 days after the entertainment expenses were incurred (averaging 18 days); and
 - (d) one (2%) claim involved an event in which the participating staff significantly outnumbered the guests entertained (eight staff members and two guests). The justifications for this arrangement were not provided in the relevant claim form;
- notes that:
 - (a) NAMI approves and monitors its administrative expenditure in accordance with the Corporate Governance Manual approved by the Board. The relevant guidelines were drawn up with reference to the practices of the host institution, HKUST, and have been

enhanced and updated where necessary. In respect of a number of administrative expenditure arrangements highlighted in the Audit Report, NAMI agrees that there were inadequacies in the prevailing procedures and arrangements which called for improvement;

- (b) NAMI has revised the guidelines by setting out the arrangements and procedures for vetting and approving modifications of business travel arrangements and claims for related expenses. NAMI will circulate the guidelines regularly to remind all staff to comply with them; and
- (c) the new guidelines clearly stipulate:
- employees should avoid varying business trips for personal reasons. Employees with a genuine need to vary their duty passage must submit an application for this purpose together with the application for the business travel, and bear any additional costs involved. NAMI will consider in a prudent manner whether to accept employees' applications, in particular those involving staff of supervisory grade, and will keep the relevant mechanism under review;
 - all modifications of business travel arrangements and claims for expenses (including subsistence allowances and entertainment expenses) involving the Chief Executive Officer are subject to the approval of the Chairperson of the Board. NAMI will review how best to assist the Chairperson of the Board in making approval decisions, and will update the relevant mechanism in a timely manner;
 - prior approval must be obtained for all entertainment expenses. Entertainment expense claims exceeding the spending limits will be approved only with sufficient justifications, which will be properly documented. In exceptional circumstances, if no formal prior approval can be obtained in time, covering approval must be obtained as soon as possible. The justifications for all approvals given will be properly documented; and
 - the reasonable ratio of NAMI staff to guests entertained, and that the justifications for exceptional cases must be documented;

- strongly urges that:
 - (a) as the Chief Executive Officer of NAMI is the most senior member of the management of the institute and is directly accountable to the Board, any decisions involving the personal interests of the Chief Executive Officer should be referred to the Board or any other independent committee, which is of a higher level, even if this is not expressly stipulated in the guidelines;
 - (b) supervisory staff should set a good example by proactively refraining from self-approval in cases where any actual, potential or perceived conflict of interest concerning themselves is involved, and should avoid referring such cases to their subordinates for approval, so as to ensure fairness and impartiality;
 - (c) supervisory staff should continuously refine and review guidelines on administrative expenditure to avoid any behaviour giving rise to a conflict of interest; and
 - (d) apart from circulating the guidelines regularly, NAMI should also enhance its employees' understanding of the guidelines through briefings by senior staff to avoid non-compliance;

Laboratory safety

- expresses serious concern and finds it unacceptable that:
 - (a) in May 2024, Audit accompanied the Laboratory Safety Team in the conduct of the laboratory safety inspections on two laboratories, and observed the following inadequacies:
 - for the inspection conducted on one of the two laboratories, the Laboratory Safety Team had an inspection report pre-filled with results of the checking procedures, even before commencing the inspection; and
 - some checking procedures listed in the inspection reports were not covered during the inspections;
 - (b) in the period from 2019-2020 to 2023-2024, 120 laboratory safety inspections were conducted, and in 62 (52%) of the inspections, one or more non-compliances were found. For 15 (24%) inspections

with non-compliances found, there was no documentary evidence showing that remedial actions had been taken; and

- (c) in the period from August 2022 to March 2024, 40 laboratory safety inspection reports were compiled, and up to 30 June 2024, for three (8%) of the inspection reports, there was no documentary evidence showing that the Directors of Research and Development had reviewed the inspection reports;
- notes that:
 - (a) after investigation, NAMI found that the staff concerned failed to correctly use the inspection checklist and strictly follow the standard protocol for laboratory safety inspections. NAMI has issued a written warning to the staff concerned, and amended the inspection checklist and updated procedures to prevent pre-filling or late filling;
 - (b) NAMI has instructed its staff to clearly record the non-compliances found during the laboratory safety inspections, follow-ups on corresponding remedial actions and their completion dates, as well as items that can be improved, in the inspection reports for review and approval; and
 - (c) NAMI will regularly circulate the laboratory safety manual and post safety codes in laboratories to raise safety awareness among staff, and will remind them to comply with the safety codes through unscheduled inspections, safety training and safety team meetings; and
- strongly urges that apart from putting in place a stringent equipment inspection and management system, clear safety labelling and operational procedures, and contingency measures, NAMI should also raise safety awareness among laboratory users through inspections, publicity and education to create a safety-conscious atmosphere, thereby ensuring the safety of its staff and the environment.

Specific comments

57. The Committee:

Performance indicators

- expresses serious concern that:
 - (a) regarding two performance indicators (respectively on “the number of companies participating in ongoing projects” and “the number of organizations benefiting from PSTS”), there were differences between the numbers reported in the papers submitted to LegCo and those based on NAMI’s supporting records for the period from 2019-2020 to 2023-2024;
 - (b) in the period from 2020-2021 to 2023-2024, the number of researchers engaged under the Research Talent Hub decreased by 29% from 31 in 2020-2021 to 22 in 2023-2024;
 - (c) regarding the 294 patent applications filed by NAMI for 89 projects completed in the period from 2019-2020 to 2023-2024, the results for 87 (30%) patent applications were concluded as at 31 March 2024. Of the 87 patent applications, 33 (38%) were discontinued, involving 25 projects; and
 - (d) only 25 (28%) of the 89 projects had patents granted as at 31 March 2024, while the number of pending patents for the period from 2019-2020 to 2023-2024 was on an increasing trend, with a significant increase of 108% from 77 as at 31 March 2020 to 160 as at 31 March 2024;
- notes that:
 - (a) all R&D Centres adopt “R&D project” as the base unit when calculating the aforesaid two performance indicators, meaning that if a company participates in multiple projects or an organization benefits from multiple projects at the same time, the performance indicators will be calculated based on the number of projects it participates in or benefits from. ITC will include an explanatory

note on the calculation basis of the performance indicators in future reports submitted to LegCo;

- (b) the number of researchers engaged under the Research Talent Hub is based on the number of R&D projects that can be commenced. In view of the decrease in the number of projects commenced in recent years and the challenges encountered in recruitment, NAMI will proactively increase the number of researchers engaged under the Research Talent Hub to meet R&D requirements based on different projects and market demand;
 - (c) during the patent application process, NAMI will generally apply for a provisional patent on an R&D project in order to secure the “priority date” of the patent application, so that NAMI will have priority over competitors when applying for a standard patent subsequently, and this is crucial to obtaining the ownership of the final standard patent. For the sake of effective utilization of resources, NAMI will choose not to file a standard patent application after the expiration date of the provisional patent should it discover during the subsequent R&D process that the technology under the provisional patent does not satisfy a basket of factors concerning the commercialization income the patent may generate, the maintenance cost, etc.; and
 - (d) NAMI will take a series of measures to facilitate the approval of standard patent applications, including the use of designated prior art search software for comprehensive searches of existing technologies, expanding the database of patent law firms and communicating closely with lawyers to enhance the quality of patent write-ups, and formulating a timetable upon receipt of the examiners’ opinions and responding to each examination opinion in a timely manner to shorten the overall examination time;
- considers that, as patent applications are processed in accordance with the first-filed-first-served principle, it is indeed very important for such applications to be filed early and in a phased manner, subject to ongoing evaluation. In particular, in the highly competitive I&T field, early filing can ensure priority rights in respect of technological achievements. Still, appropriate measures should be taken during the patent application process to increase the success rate of standard patent applications and to reduce unnecessary delays and discontinuation;

Corporate governance

- expresses serious concern that:
 - (a) among the 23 non-official members who served the Board of NAMI in the period from 2019 to 2023, 3 (13%) members had served (or would have served) the Board continuously for more than 6 years, ranging from 8 to 14 years;
 - (b) there was no documentary evidence showing that the Sub-Committee of the Technology Committee of NAMI held any meetings in the period from 2019 to 2023. In fact, it discussed and endorsed agenda items only by email circulation, contrary to the requirement of meeting on a weekly basis as stipulated in NAMI's Corporate Governance Manual; and
 - (c) there is room for improvement in declarations of interest by members of the Board of NAMI:
 - of the 15 declarations of interest on first appointment (i.e. first-tier declarations of interest) made in the period from 2019 to 2023, 2 (13%) were made 1 and 15 days respectively after the dates of first appointment of the members concerned;
 - as far as the Board meetings held in the period from 2019 to 2023 were concerned, some Board members had not made declarations (i.e. second-tier declarations of interest) before the relevant items were discussed at the relevant meetings; and
 - at 8 (40%) of the 20 Board meetings held in the period from 2019 to 2023, there were a total of 10 declarations of interest made by members regarding the matters under discussion. No decision of the Chairperson or the Board on five (50%) of the declarations was documented in the relevant minutes;
- notes that:
 - (a) NAMI's Board is not a government advisory or statutory body and thus the "six-year rule" stipulated in the Guide to Corporate Governance for Subvented Organisations does not apply. However, ITC will make its best efforts to take into account the appointment principle under the aforesaid Guide when appointing NAMI's non-official Board members;

- (b) the Sub-Committee of the Technology Committee of NAMI used to discuss and endorse agenda items under its purview by email circulation to ensure efficiency. To adhere to the guidelines set out in the Corporate Governance Manual, NAMI has already scheduled weekly meetings for reviewing and endorsing relevant agenda items; and
 - (c) NAMI will continue to step up efforts in reminding Board or Committee members that if they need to declare interests due to their personal or work capacities, they must declare them at meetings. In addition, declarations of interest made at meetings and related issues will be documented in detail;
- stresses that:
- (a) The Board and its functional committees are at the core of NAMI's corporate governance and are responsible for formulating NAMI's strategies and overseeing the operation of the management, while the management is responsible for executing the Board's decisions and reports to the Board. NAMI should ensure that the relevant minutes (which cover declarations of interest by Board members and decisions on such declarations) are accurate, comprehensive and properly filed, so as to provide a basis for subsequent follow-up actions; and
 - (b) NAMI should comply with the requirement of holding meetings as stipulated in the Corporate Governance Manual, which should be reviewed and revised in a timely manner;

Other issues

- expresses concern that:
- (a) for 10 (50%) of the 20 cases of recruitment by NAMI in the period from 2019-2020 to 2023-2024 which were examined by Audit, there was no documentary evidence showing the Selection Panel's decision on whether the members who had declared having personal or working relationships with the candidates should remain in the Panel or withdraw from the Panel;

- (b) in the period from 2019-2020 to 2023-2024, on average 57 staff left NAMI each year, ranging from 47 to 70 staff. The average staff turnover rate was 22.8%. The staff turnover rates ranged from 18.4% to 27.0%; and
 - (c) throughout the period from 2019-2020 to 2023-2024, the actual distribution of staff performance grades deviated from the overall distribution approved by the Board;
- recommends that NAMI should:
 - (a) establish an effective staff performance grading system to assess staff performance, and take measures to ensure, as far as possible, that the actual distribution of performance grades is in line with the approved overall distribution; and
 - (b) formulate clear and quantifiable assessment indicators for granting performance-linked pay to staff in addition to basic wages, so as to enhance staff performance and promote corporate development; and
- notes that the Commissioner for Innovation and Technology and the Chief Executive Officer of NAMI agree with all the recommendations in the Audit Report.

Follow-up action

58. The Committee wishes to be kept informed of the progress made in implementing the various recommendations made by the Committee and Audit.

Planning and management of sheltered space within Hong Kong waters

The Audit Commission (“Audit”) conducted a review to examine the efforts of the Marine Department (“MD”), the Civil Engineering and Development Department (“CEDD”) and the Water Supplies Department (“WSD”) in planning and management of sheltered space within Hong Kong waters.

2. In order to safeguard the safety of the vessels and their crew members, the Administration is committed to ensuring that sufficient sheltered space is provided within Hong Kong waters for local vessels to take refuge during typhoons or inclement weather. As at 30 June 2024, there were 14 typhoon shelters (“T/Ss”) and 18 sheltered anchorages (“S/As”) in different areas of Hong Kong, providing a total sheltered space of 421.6 hectares and 184.2 hectares respectively. MD carries out daily patrols within Hong Kong waters to ensure that fairways and passage areas inside T/Ss are unobstructed, vessels are berthed in a safe and orderly manner and comply with existing marine legislation. Ancillary facilities and services are provided by relevant government departments including CEDD and WSD to meet the needs of vessels berthed in T/Ss and S/As.

3. The Committee noted the following Audit’s findings:

Planning and provision of sheltered space

- MD conducted the Assessment of T/S Space Requirements around every five years. The latest assessment for the period from 2022 to 2035 projected that on a territory-wide basis, the supply of sheltered space for local vessels could adequately meet the demand throughout the period up to 2035. The demand for sheltered space was projected taking into consideration the projected increase in the number of pleasure vessels, among others. If any of the projects on provisioning of sheltered space in progress/under planning could not be completed by 2035, there might be a shortfall in sheltered space for meeting the projected demand;
- pursuant to the Merchant Shipping (Local Vessels) (Typhoon Shelters) Regulation (Cap. 548E), MD prepared a plan of each T/S showing the passage and made available a copy of such plan for inspection by the public. However, there was no similar legislative requirement for S/As;
- MD had designated areas for private mooring (“PM”) and issued permissions to lay PM at a specified space therein. According to MD, allocated PM spaces could not be used by other vessels for mooring

Planning and management of sheltered space within Hong Kong waters

without the consent of the respective PM permission holders. As at 30 June 2024, there were 43 PM areas within Hong Kong waters, and 1 978 PM permissions for mooring in these PM areas. While the sizes and boundaries of PM areas were not made available to the public, it would be difficult to distinguish a berthing space open to public use from that restricted to private use;

- in June 2023, a temporary wave monitoring station was installed in Hei Ling Chau T/S for a one-year wave-monitoring programme to monitor the wave attenuation performance of the floating barriers installed in March 2023. MD decided to extend the operation of the wave monitoring station to October 2024. The final assessment report on the wave attenuation performance of the floating barriers was expected to be completed by the end of 2024;
- MD conducted hydrographic surveys from time to time to assess water depth in T/Ss and S/As to ensure navigational safety of ships, normally at an interval of 48 months. As at 30 June 2024, the latest hydrographic surveys of four (29% of 14) T/Ss and eight (44% of 18) S/As were conducted more than 48 months ago (i.e. before 30 June 2020). MD took more than 270 days to complete the latest hydrographic surveys for one T/S and five S/As;
- according to a review conducted by the Fire Services Department in late April 2022, all fire lanes should have a water depth not less than 4.5 metres. As the water depth of some parts of fire lanes in Aberdeen South T/S was less than 3.5 metres, in May 2023, MD proposed to CEDD to carry out maintenance dredging. According to the dredging programme as of April 2024 and the notes of meetings between MD and CEDD, maintenance dredging work was scheduled to commence in April 2026 tentatively. In order to enhance the fire safety of sheltered space, MD needed to collaborate with relevant stakeholders to facilitate the dredging work in Aberdeen South T/S for meeting the requirement on water depth of fire lanes as far as practicable;

Management of sheltered space

- the Merchant Shipping (Local Vessels) Ordinance (Cap. 548) stipulated that every local vessel shall be certificated and licensed/granted permission for a laid-up vessel. Audit sample checked 770 local vessels berthed in seven T/Ss and one S/A during site visits conducted in June and July 2024 and found that: (a) 67 (9%) local vessels were

without valid operating licences/laid-up permissions, of which 43 local vessels were not issued with certificates of survey as required; and (b) the operating licences/laid-up permissions of 29 (43% of 67) local vessels had expired for more than one year;

- according to MD's database of local vessels as at 30 June 2024, of the 27 155 certificated local vessels, the operating licences/laid-up permissions of 6 500 (24%) local vessels had expired. Audit noted that after sending the notification letter of expiry to the vessel owner when the operating licence/laid-up permission had expired for more than two months, no further follow-up action would be taken by MD's Licensing and Port Formalities Section. MD needed to step up efforts to ensure timely renewal of operating licences/laid-up permission by vessel owners;
- from January 2021 to June 2024, MD incurred an expenditure of \$1.1 million for removing 28 sunken vessels. Among them, the ownership of 17 sunken vessels could not be ascertained whereas the ownership of the remaining 11 sunken vessels could be traced. Pursuant to Cap. 548, MD might recover the cost of any action taken or caused to be taken including all disbursements and other expenses incurred thereby as a civil debt from the vessel owners. However, as of August 2024, MD had not issued demand notes to the 11 vessel owners requesting them to repay the cost of removing the sunken vessels totalling \$448,500;
- Audit selected To Kwa Wan T/S for examination and noted that Vessel A was identified as sunken by MD in September 2018. MD had issued 115 removal notices to direct the vessel owner to raise and remove the vessel. One prosecution was initiated against the vessel owner in 2021 for not complying with the removal notice issued and the vessel owner was convicted with a fine of \$2,500. According to MD, in view of navigational safety, it had issued 19 direction notices (instead of removal notices) from February 2022 to September 2023 to direct the vessel owner to raise the vessel for determining the follow-up action required. During the period, MD initiated 16 prosecutions against the vessel owner for not complying with the direction notices issued. However, only one prosecution was successful with a fine of \$10,000 as the summonses could not be served on the vessel owner and the vessel owner was absent from hearing in the other 15 prosecutions. From 1 October 2023 to 30 June 2024, no further removal/direction notices had been issued to the owner of Vessel A;

Ancillary facilities and services

- according to the Waterworks Regulations (Cap. 102A), the charge for fresh water for shipping purposes shall be \$4.58 and \$10.93 per cubic metre when supplying to or for use on local vessels and non-local vessels respectively. Before purchasing fresh water from the shipping water selling machine, customers were required to enter their certificate of ownership numbers into the machine. Audit analysed the sales records of July 2024 extracted from the machine and found that of the 320 transactions, certificate of ownership numbers of 109 (34%) transactions could not be matched with those recorded in MD's list of local vessels as of June 2024;
- owners of water boats who wished to sell or offer for sale water from the waterworks to vessels were required to obtain permission from WSD. Of the 18 licensed water boats as at 30 June 2024 according to MD's records, no permission had been granted by WSD in relation to six water boats. Audit noted that: (a) two of the six water boats, of which their owners had not been granted WSD permission, had obtained fresh water of 3 218 cubic metres in July 2024 from the Tuen Mun water selling kiosk after checking relevant sales records; and (b) in 5 of the 12 permissions, the holders of the permission were different from the owners of the concerned water boats as recorded in MD's records; and
- Audit noted that the marine refuse cleansing contractor provided monthly black spots reports to MD. Audit analysed the black spots reports in the 21-month period from October 2022 (i.e. contract commencement) to June 2024 and found that for the black spots in 11 T/Ss and 6 S/As, the number of months with average cleanliness level rated as unsatisfactory ranged from 3 to 21 months. In particular, the average cleanliness level of the black spots in Aberdeen T/S had been rated as unsatisfactory in all the 21 months.

4. The Committee did not hold any public hearing on this subject. Instead, it asked for written responses to the issues raised by Audit. The replies from the **Director of Marine**, the **Director of Civil Engineering and Development** and the **Director of Water Supplies** are in *Appendices 10 to 12*.

5. The Committee wishes to be kept informed of the progress in implementing Audit's recommendations.

Producer Responsibility Scheme on Waste Electrical and Electronic Equipment

The Audit Commission (“Audit”) conducted a review on the work of the Environment and Ecology Bureau and the Environmental Protection Department (“EPD”) in the administration of the Producer Responsibility Scheme on Waste Electrical and Electronic Equipment (“WEEE”) (hereafter referred to as “WPRS”) and monitoring the design, construction and operation of the Waste Electrical and Electronic Equipment Treatment and Recycling Facility (i.e. WEEE·PARK).

2. Hon SHIU Ka-fai declared that he served as an unremunerated honorary adviser/an unremunerated member of some non-governmental organizations or trade associations upon their invitations. The organizations or trade associations concerned, or their members, might have participated in business related to WPRS. He also declared that he was a Legislative Council Member representing the Wholesale and Retail Functional Constituency, and members of that sector might have participated in business related to WPRS.

3. Since 1 August 2018, WPRS has been implemented in phases, which initially covers eight types of regulated electrical equipment (“REE”). Its scope has been expanded to cover two new types of REE starting from 1 July 2024. In March 2015, EPD awarded a design, build and operate contract to Contractor A for the development of WEEE·PARK. The operation stage commenced by phases on 21 October 2017 and 8 March 2018. As of March 2024, the total project cost was \$455.1 million and the total amount of operation fee was \$1,256 million.

4. The Committee noted the following Audit’s findings:

Administration of WPRS

- from October 2020 to March 2024, EPD received 95 applications for registration as registered suppliers of REE. According to EPD guidelines issued in October 2020, EPD should complete the checking and vetting of the applications within 10 working days after the submissions are in order. Audit noted that as of March 2024, of the 95 applications received, 4 were rejected by EPD. The processing of two (50% of four) applications was completed 16 and 26 working days (averaging 21 working days) after the submissions were in order;
- it was stated under the Product Eco-responsibility Ordinance (Cap. 603) that any person, in the course of business, manufacturing or importing REE for distribution in Hong Kong should follow the regulatory

Producer Responsibility Scheme on Waste Electrical and Electronic Equipment

measures of WPRS, irrespective of whether the sales platforms were online or not, and that there was a successful prosecution case in which an online sales platform importing cross-boundary REE was convicted. EPD needed to enhance the publicity on the obligations of suppliers under Cap. 603 in distributing REE in Hong Kong via cross-boundary and overseas online sales platforms;

- licensees of waste disposal licence for e-waste (“e-WDLs”) should submit quarterly and annual reports to EPD in accordance with the terms and conditions of e-WDLs. As of March 2024: (a) 82 (25%) of 331 quarterly reports and 25 (29%) of 87 annual reports due for submission by the licensees of e-WDLs were not submitted by the due dates; and (b) EPD did not lay down guidelines on the procedures to follow up overdue submission of quarterly and annual reports from the licensees of e-WDLs;
- according to EPD guidelines in November 2023, all registered suppliers of REE were targeted to be inspected within a 24 to 36-month cycle. As of March 2024: (a) the inspections conducted on 22 (11%) of the 208 registered suppliers of REE did not meet the target frequency (i.e. at least once in 36 months) and the periods between any two consecutive inspections on the same supplier ranged from 36.3 months to 5 years (averaging 3.5 years); and (b) last inspections of 7 (3% of 208) suppliers were conducted 36.1 months to 3.7 years (averaging 3.3 years) ago;
- a risk-based approach was adopted to conduct inspections on sellers of REE. From August 2018 to March 2024, of the 3 617 sellers of REE with removal service plans endorsed, 2 022 (56%) had not been inspected and 1 595 (44%) had been inspected for 1 to 19 times (averaging 1.7 times). While a considerable number of sellers of REE had not been inspected by EPD, some were inspected multiple times. There was no documentation showing the justifications of selecting sellers of REE for inspections;

Design, construction and operation of WEEE·PARK

- from October 2017 to October 2023, while the actual quantity of regulated WEEE treated in WEEE·PARK was below the overall design treatment capacity, the mix of regulated WEEE treated skewed heavily towards washing machines and refrigerators. In order to increase the treatment capacity of a treatment line, Consultant Y issued an

Producer Responsibility Scheme on Waste Electrical and Electronic Equipment

Employer's Change (valued at a cost of \$3.5 million) under Contract A in January 2019 to carry out the modification works. While EPD conducted a number of consultations, business impact assessment, feasibility studies, etc. in early 2010s, there was no specific consultation to assess the demand in using WEEE·PARK and to derive a more accurate estimate on the total quantity and the mix of regulated WEEE to be processed by WEEE·PARK;

- the design and construction works of WEEE·PARK commenced in April 2015 and the revised completion date was 19 July 2017. The completion of a substantial part of works was delayed by 93 days (i.e. from 20 July 2017 to 20 October 2017) due to the delays in obtaining the approvals for a utility service and a statutory licence from relevant authorities. The substantial completion of works was further delayed by 138 days (i.e. from 21 October 2017 to 7 March 2018) due to similar reasons. EPD needed to take measures to ensure the timely commissioning of operation, particularly those works projects involving approvals of utility services and statutory licences by relevant authorities;
- according to Contract A, monthly operation fee was paid to Contractor A based on the actual quantity of regulated WEEE treated during the month. From October 2017 to March 2024, there was a shortfall in yearly average treatment capacity of 32% and 80% for refrigerators and washing machines respectively. Contractor A was instructed to increase the processing capacity of washing machines and refrigerators of WEEE·PARK (incurring a top-up operation fee of \$165.3 million from October 2018 to March 2024). There was a need to explore the feasibility to redesign WEEE·PARK with a view to aligning its treatment capacity with the mix of sub-types of regulated WEEE;
- Contractor A did not regularly compile detailed records of maintenance work and follow-up actions in relation to instances of failure in facilities and equipment that required frequent maintenance and long repairing time, and did not report such information in the monthly and yearly operational reports;
- from October 2017 to March 2024, site accident record aspect was rated as "poor" in 14 (78%) of the 18 Contractor A's performance reports covering 43 non-fatal work injury accidents. Notwithstanding that Contractor A implemented employee development programs to improve occupational safety and health since November 2020, there was no

Producer Responsibility Scheme on Waste Electrical and Electronic Equipment

significant improvement to the site and occupational safety of WEEE·PARK. Of the 43 accidents, 25 (58%) happened after the implementation of the programs;

- Contractor A should salvage and refurbish selected items for each of the four sub-types of Type 1 regulated WEEE (i.e. air-conditioner, refrigerator, television and washing machine) collected into repaired products and donate them to non-governmental organizations for beneficial distribution to under-privileged households. From October 2017 to October 2023, there was a shortfall of the actual number of air-conditioners and refrigerators repaired against their respective targets for four operation years, ranging from 9 to 167 items (i.e. 7% to 91%) and 102 to 258 items (i.e. 16% to 40%) respectively;

Other related issues

- as of March 2024, of the 2 997 returns and 719 audit reports due for submission by the registered suppliers of REE from October 2020 to March 2024, 341 (11%) returns and 145 (20%) audit reports were overdue. The Director of Environmental and Protection responded that EPD would enhance the computer system to facilitate the submissions of returns and audit reports by the registered suppliers of REE and strengthen management control in case monitoring to keep track of the processing time; and
- since the implementation of WPRS in August 2018, EPD conducted two costing reviews on the recycling levies of REE under WPRS in May 2022 and May 2024 and decided not to adjust the recycling levies. However, overall cost recovery rate of the period covering 2018-2019 to 2028-2029 dropped from 105.2% (forecasted in May 2022) to 99.8% (forecasted in May 2024). EPD needed to closely monitor the cost recovery position of WPRS with a view to achieving full cost recovery and take actions where appropriate.

5. The Committee did not hold any public hearing on this subject. Instead, it asked for written responses to the issues raised by Audit. The replies from the **Director of Environmental Protection** are in *Appendix 13*.

6. The Committee wishes to be kept informed of the progress in implementing Audit's recommendations.

The Audit Commission (“Audit”) conducted a review on the regulation of operations of small unmanned aircraft (“SUA”) by the Civil Aviation Department (“CAD”).

2. SUA, more commonly known as “drone”, is defined as unmanned aircraft weighing 25 kilograms or less according to CAD. SUA has been gaining popularity both locally and worldwide. To cater for the applications and developments of SUA while safeguarding aviation and public safety, the SUA Order (Cap. 448G), a piece of subsidiary legislation made under the Civil Aviation Ordinance (Cap. 448), came into effect on 1 June 2022.

3. Under the SUA Order, there are three types of SUA, namely Category A1 SUA (with weight not exceeding 250 grams), Category A2 SUA (with weight exceeding 250 grams but not exceeding 7 kilograms) and Category B SUA (with weight exceeding 7 kilograms but not exceeding 25 kilograms). Moreover, there are two types of SUA operations, namely Standard Operations (i.e. operations of Category A1 and Category A2 SUA within the applicable operating requirements as specified by CAD) and Advanced Operations (e.g. operations of Category B SUA). While prior permission from CAD is not required for conducting Standard Operations, prior permission from CAD is required for conducting Advanced Operations.

4. The Committee noted the following Audit’s findings:

- under the registration system administered by CAD, both SUA and remote pilots for Category A2 Operations and Advanced Operations were required to be registered. As at 30 June 2024, there were 24 070 registered SUA and 25 721 registered remote pilots. During registration, the remote pilot registrant was required to go through safety information and know-how on safe SUA operations to enhance their safety awareness. In addition, remote pilots for Advanced Operations were required to undergo advanced training and assessment from an SUA Approved Training Organization (“ATO”) at their own cost, unless they were able to demonstrate an alternative means of compliance. As at 30 June 2024, there were 8 SUA ATOs that could offer advanced training and assessment;
- in order to prepare for the implementation of the SUA Order, various publicity campaigns targeting the mass public had also been rolled out

with an aim to promulgating the new Order to the public. Large-scale briefings were also provided to the industry, including existing and interested SUA operators, professional bodies, SUA associations, etc., and government bureaux and departments between March and May 2022;

Registration, training and assessment requirements

- according to CAD's guidelines, if an account holder of Electronic Portal for Small Unmanned Aircraft ("eSUA") applied for deletion of his account, unless the reason was already known from any prior communications, CAD would contact the account holder to confirm the intention to delete the account. There was no mention of the handling of valid SUA held under deleted eSUA accounts. As at 30 June 2024, there were 30 valid SUA held under 22 deleted accounts. If an eSUA account had been deleted, there might no longer be any responsible person for the valid SUA held under the deleted account;
- CAD officers would, on a daily basis, scrutinize a list of new applications for registration of SUA with a view to identifying any odd data (e.g. unreasonable weight). Applications with odd data should not be processed further. Audit examined the 6 030 (25%) registered SUA of the top five common models of Category A2 SUA in eSUA and found that there were odd data which might warrant further investigation by CAD;
- as at 30 June 2024, besides the eight SUA ATOs, one SUA ATO had obtained the approval in principle granted by CAD for providing training courses. Of the 10 applications (involving six initial applications and four renewal applications submitted by six SUA ATOs) approved in the period from 1 June 2022 to 30 June 2024, there was room for improvement in the assessment of initial applications and renewal applications. Deficiencies included experience and qualifications of instructors and practical assessors of the concerned SUA ATOs not verified, number of questions for each theoretical knowledge examination paper not specified in application, as well as inadequacies in vetting guidance documents on reporting procedures and handling of occurrences. However, there was no documentary evidence showing that CAD had followed up with the concerned SUA ATOs before granting approvals to them;

Advanced Operations Permission (“AOP”) and insurance requirements

- according to CAD records, 94 AOP granted for initial applications and renewal applications by CAD had expired on or before 30 June 2024. Of these 94 cases, scheduled oversight audits had not been conducted at least once within their AOP validity period for some cases: (a) no scheduled oversight audit had been conducted for nine (10%) cases, but the subsequent renewal of AOP of two cases had been granted by CAD. This was contrary to CAD’s guidelines that an AOP would only be renewed if a scheduled oversight audit had been performed in the past 12 months; and (b) for 11 (12%) cases, the scheduled oversight audits were conducted after the expiry of the respective AOP instead of within the respective validity periods, ranging from 2 to 43 days;
- according to CAD’s guidelines, an AOP holder should conduct a self-assessment covering all aspects of operations at least once every six months with a view to identifying any internal deficiencies and procedures that had not been properly implemented or that required further enhancement. Self-assessment records would be subject to CAD’s inspection during scheduled oversight audits and renewal applications of AOP. Audit sample check of the scheduled oversight audits conducted for 10 cases revealed that in six (60%) cases, there was no documentary evidence showing that CAD staff had inspected the self-assessment records; and in one (10%) case, while the pertinent AOP holder should have conducted two self-assessments during the one-year AOP validity period, only one self-assessment record had been inspected by CAD staff;
- according to CAD’s guidelines, for AOP covering a specified period of time, the AOP holder might submit an application to renew the pertinent AOP at least 30 calendar days prior to the expiry of the existing AOP (i.e. the specified date for submission of renewal applications). Of the 79 renewal applications for AOP approved by CAD as at 30 June 2024, there were time intervals, ranging from 1 day to 270 days, between the expiry dates of the previous AOP and the effective dates of the renewed AOP for 47 (59%) cases;
- when enacting the SUA Order, a phased approach was adopted for the mandatory insurance requirements in respect of third party liability for bodily injury and/or death. The first phase was mandatory insurance for Advanced Operations, which had taken effect immediately upon commencement of the SUA Order (i.e. 1 June 2022). For the second

phase relating to the mandatory insurance for Category A2 Operations, the readiness of the SUA operators and the insurance market in offering sufficient choices of third party insurance products had yet to be developed;

Other related issues

- as at 30 June 2024, while 13 cases of suspected violations of the SUA Order had been concluded, the investigation of 25 cases were in progress. Of the 25 cases, 14 (56%) cases had been received by CAD for handling for more than 180 days. In eight (57%) cases, the relevant key milestones showed that after collecting the relevant information and evidence, CAD took more than three months, ranging from 108 to 165 days, to proceed to the next follow-up actions; and
- from time to time, there were media reports on breaching the SUA Order by visitors. Moreover, according to CAD, of the 38 cases of suspected violations of the SUA Order handled by CAD as at 30 June 2024, visitors were involved in 13 (34%) cases. These indicated that visitors might not be well aware of the requirements under the SUA Order.

5. The Committee did not hold any public hearing on this subject. Instead, it asked for written responses to the issues raised by Audit. The replies from the **Director-General of Civil Aviation** are in *Appendix 14*.

6. The Committee wishes to be kept informed of the progress in implementing Audit's recommendations.

Residential Care Service Voucher Scheme for the Elderly

The Audit Commission (“Audit”) conducted a review of the Residential Care Service Voucher Scheme for the Elderly (“RCSV Scheme”) administered by the Social Welfare Department (“SWD”).

2. Adopting the principles of “money-following-the-user” and “users pay in accordance with affordability”, RCSV Scheme provides elderly persons with greater flexibility to freely choose and switch among residential care homes for the elderly participating in the Scheme (i.e. recognized service providers (“RSPs”)), and allows elderly persons who can afford less to receive more subsidies. Since the launch of RCSV Scheme in 2017 and up to 2023-2024, the total amount of subsidies for the Residential Care Service Voucher for the Elderly (“service voucher”) was about \$2,424.4 million.

3. The Committee noted the following Audit’s findings:

Administration of service vouchers

- as of March 2024, of the 7 110 service vouchers issued, 3 110 (44%) were cancelled and 4 000 (56%) remained valid. According to SWD, for those 3 110 cancelled service vouchers, the main reason for the elderly persons leaving RCSV Scheme was deceased (73%);
- the timing of utilization of the service vouchers was dependent on the voucher holders. As long as the number of the service vouchers issued was more than the quota, there was a possibility that the resources provided for service vouchers might be exceeded;
- there was no specified time frame for completing the processing of applications for service vouchers by SWD. For the 5 704 applications received in 2022-2023 and 2023-2024, Audit noted that as at 31 March 2024:
 - (a) the processing of 3 179 (56%) applications was completed with service vouchers issued. The time lapse between the application dates and issuance dates of the service vouchers ranged from the same day to about seven months;
 - (b) 330 (6%) applications were under processing. The time lapse between the application dates and 31 March 2024 ranged from three days to about five months; and

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- (c) the processing of 2 195 (38%) applications was completed without issuance of service vouchers, which included 1 882 (86%) withdrawn, 94 (4%) rejected, and 219 (10%) with the applicants passing away. For these 2 195 applications, the time lapse between the application dates and the processing completion dates ranged from the same day to about nine months;
- according to SWD guidelines, SWD staff was required to contact the case workers to obtain the valid results of the Standardised Care Need Assessment Mechanism for Elderly Services of the applicants within seven working days upon completion of service briefings for the applicants. However, the timing of the service briefings and the first contacts with the case workers was not readily available;
- Audit examined the records of 5 992 service vouchers with the trial period expired, and noted that: (a) for 12 service vouchers, the decisions of the voucher holders on whether to opt in or out from RCSV Scheme was not recorded in the Residential Care Service Voucher System; and (b) for 228 service vouchers with holders' decisions recorded in the above system, the opt-in or opt-out dates were one day to about nine months after the expiry of the trial period;
- according to SWD guidelines, the service vouchers would become invalid if they were not used for three consecutive months. As at 31 March 2024, there were 4 000 voucher holders, of which 17 were discharged from RSPs for 92 days to about 2.6 years. While the service vouchers concerned were not used for more than three consecutive months and became invalid, they were not yet cancelled;
- RSPs charged voucher holders for bed fees covering fees for voucher services and top-up payment for upgraded dormitory (if applicable). The voucher value was adjusted annually, and RSPs needed to reply to SWD whether their fees would be adjusted accordingly. For voucher value adjustment effective from April 2024, while documentation for scrutinizing the fees by SWD was not available as of August 2024, all 15 RSPs examined by Audit (including 11 RSPs who made no reply to SWD) were reimbursed with the subsidy based on the updated voucher value since April 2024;
- Audit examined add-on service fees charged by 10 contract homes, and noted that their add-on services were similar to the additional services, consumable items and incidental charges items provided by other types

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of RSPs (e.g. private homes). Contrary to the normal practice in which these charges were paid by voucher holders (who were given the option to buy these items/services at their discretion), the add-on services provided by contract homes were fully or partly subsidized by the Government regardless of the preference of the voucher holders. There was also large variation in price levels for some similar add-on services among these contract homes;

- RSPs needed to submit forms on their fee-charging items and price lists to SWD for scrutiny. For the 15 RSPs examined by Audit, the scrutinized fees for similar additional services, consumable items and incidental charges items varied among these RSPs. For the latest fee-charging forms submitted by these 15 RSPs, SWD's scrutiny records for seven (47%) RSPs were not available;

Monitoring of RSPs

- Audit examination of the relevant records of 30 voucher holders from April 2023 to March 2024 revealed that: (a) consumable items were overcharged in six cases (totalling \$2,703); (b) the justifications for charging consumable items not on the price list were not documented in four cases (totalling \$34,225); and (c) voucher holders receiving care supplement subsidy were charged for the relevant care supplements payable by the Government in two cases (totalling \$1,155). From October 2023 to March 2024, the justifications for not providing the required daily quantity of diapers to voucher holders receiving care supplement subsidy for diapers were not documented in seven cases;
- Audit examined the staff attendance records for March 2024 of three RSPs, and noted that for two RSPs, the shortfall in attendance rates for some types of staff ranged from 1% to 14%, contrary to the required attendance rates of 100% stipulated under the service agreements;
- as of March 2024, service monitoring visits conducted by SWD to 59 RSPs (out of 203 RSPs) had been overdue. Audit joined five service monitoring visits cum on-site supervisory checks to five RSPs in June and July 2024, and noted that in one visit, non-compliances with the service agreement (e.g. over-charging consumable items and incidental charges items) were not identified by SWD officers;

Other related issues

- from July 2023 to May 2024, for 2 155 monthly reimbursement forms for service voucher subsidies submitted by RSPs, there were delays in the submission of 559 (26%) forms. For 625 (29%) forms, re-submission of the forms by RSPs was required;
- according to SWD, there were many reasons inducing several submissions/re-submissions of monthly reimbursement forms, which included, among others, technical problems of RSPs. According to SWD, RSPs had been provided with user manual, training and video demonstration on the Voucher Information System for the Elderly to facilitate the reimbursement process;
- from March to May 2024, there was a total of 607 records on the bed vacancy information updated by 206 RSPs through the Voucher Information System for the Elderly. Audit noted that 148 (24%) records were updated on time, but the remaining 459 (76%) were not updated on the last day of every month as required; and
- as of March 2024, for 90 (44%) of 203 RSPs, the percentage of vacant beds open for accommodating voucher holders was 10% or less. The number of service vouchers had increased by 1 000 since 11 June 2024, but the number of beds for voucher holders only increased by 668 as of August 2024 (against the position in March 2024).

4. The Committee did not hold any public hearing on this subject. Instead, it asked for written responses to the issues raised by Audit. The replies from the **Director of Social Welfare** are in *Appendix 15*.

5. The Committee wishes to be kept informed of the progress in implementing Audit's recommendations.

The Hong Kong Polytechnic University: Repair and maintenance of university premises

The Audit Commission (“Audit”) conducted a review of the work of The Hong Kong Polytechnic University (“PolyU”) on the repair and maintenance of university premises.

2. Hon SHIU Ka-fai declared that he was a member of the Liberal Party, and he served as an unremunerated honorary adviser/an unremunerated member of some non-governmental organizations or trade associations upon their invitations. The organizations or trade associations concerned might have participated in the business of PolyU. Hon Louis LOONG Hon-biu declared that he was a Legislative Council Member representing the Real Estate and Construction Functional Constituency, and contractors in the sector might have carried out the projects concerned.

3. PolyU’s premises at its main campus of 102 300 square metres house a range of facilities. In 2022-2023, PolyU’s expenditure on repair and maintenance of university premises was \$146.8 million. From 2019-2020 to 2022-2023, the expenditure on the campus restoration and security enhancement work was \$235.8 million.

4. The Committee noted the following Audit’s findings:

Planned maintenance

- in 2022-2023 and 2023-2024, for 69 (93%) of 74 lifts and all 10 escalators in PolyU, the total number of incidents occurred was 413 for the lifts and 134 for the escalators, involving total downtime of 2 523 hours and 648 hours respectively;
- PolyU did not issue any warning letter to a contractor who failed to comply with the required service availability of lift at not lower than 98.5% in one month during the period from 2022-2023 to 2023-2024;
- for 488 (54%) of the 903 completed normal works orders created from July 2022 to March 2024, contrary to PolyU’s requirements, the works had commenced 1 to 214 days (averaging 9 days) before obtaining Section Heads’ approvals;
- for 1 042 of the 1 054 works orders created from July 2022 to March 2024, the time taken for issuing certificates of completion ranged from 0 to 652 days (averaging 70 days) from the date of works completion;

- Audit examined the records of site inspections for 30 service contracts that were in effect as at 1 April 2024, and found that there were variations in the mode, frequency and timing, and the documentation of the results of site inspections. PolyU's Operation Manual did not specify the mode, frequency, timing and scope of site inspections, and the requirement to record the results;

On-request maintenance and other repair and maintenance work

- spot checks were only conducted for 720 (0.9%) of the 80 997 job orders for on-request corrective maintenance completed from 2021-2022 to 2023-2024. The percentage of these job orders with spot checks conducted decreased from 1.9% in 2021-2022 to 0.7% in 2023-2024. The types of job covered in the spot checks ranged from one in 2022-2023 to nine in 2021-2022. The results of all these spot checks conducted in the period were not documented;
- Audit examined 76 625 corrective maintenance and 2 676 emergency maintenance job orders created and completed from 2021-2022 to 2023-2024 and found that the performance pledge for handling requests was not met for 6 080 (8%) corrective maintenance and 19 (1%) emergency maintenance job orders;
- from May 2021 to May 2024, for 1 163 (50%) of the 2 342 requests with cost estimates prepared, there were delays in the preparation of cost estimates by the quantity surveying consultant. The percentage of requests with delays in the preparation of cost estimates was the highest for urgent requests. Of the 471 urgent requests, there were delays (averaging 16 working days) in the preparation of cost estimates for 309 (66%) requests;
- for the processing of payment applications by the quantity surveying consultant from May 2021 to May 2024, there were delays in 1 950 (99%) of the 1 954 completed payment applications, ranging from 3 to 634 working days (averaging 117 working days);
- Audit reviewed the records of submissions of progress reports by the quantity surveying consultant in the 36-month period from May 2021 to May 2024 and found that, contrary to the contractual requirement, there was no record of the consultant's submission of progress reports for 27 (75%) of the 36 months;

Procurement of services

- Audit reviewed 60 tendering exercises for repair and maintenance service contracts conducted from 2019-2020 to 2023-2024 and found that among the 25 (41%) exercises: (a) in each of 8 exercises, only 1 tender was received; and (b) in each of 17 exercises, 2 tenders were received;
- in 52 of the aforesaid 60 tendering exercises, notifications were issued to the unsuccessful tenderers. In 44 (85%) of these 52 tendering exercises, notifications to the unsuccessful tenderers were not issued in a timely manner after the acceptance of the successful tenders, with the delay of 257 days on average;
- for the above 60 tendering exercises, Audit found that the declaration and undertaking forms for one member of each tender evaluation team (involving a total of three staff members) could not be located in seven (12%) exercises;
- Audit reviewed the responses from the invited contractors for expressing interest for inclusion in the tenderer lists in four tendering exercises for repair and maintenance term contracts conducted in the period from 2019-2020 to 2023-2024, and found that: (a) in each of the four tendering exercises, 65% to 84% (averaging 76%) of the invited contractors did not respond or expressed no interest for inclusion in the tenderer list; and (b) PolyU had not followed up with the invited contractors with no response or expressing no interest to ascertain the reasons behind;

Campus restoration and security enhancement work and other issues

- as at September 2024, access to PolyU campus was restricted to students, staff and authorized persons. Campus users should authenticate their identities using their access cards or access codes at the turnstiles at major campus access points;
- PolyU's guidelines did not set out the circumstances under which written warnings should be issued to the contractors with unacceptable health and safety performance. From 2019-2020 to 2023-2024, the written warnings were not issued in a consistent manner on some occasions;
- Audit examined the training records in the period from 2019-2020 to 2023-2024 of the staff of the Campus Facilities and Sustainability Office involved in repair and maintenance work, and noted that the percentage

of staff who did not meet the annual training requirement ranged from 43% (in 2020-2021) to 96% (in 2019-2020) each year; and

- Audit examined the records of 14 accidents related to repair and maintenance of university premises occurred to three campus users, seven contractors and four staff of the Campus Facilities and Sustainability Office respectively in the period from 2019-2020 to 2023-2024. While the accidents involved minor injuries, Audit noted that in 10 (71%) of the above 14 accidents, contrary to the Health, Safety and Environment Management Manual, the accident report forms were submitted to the Health and Safety Office more than 72 hours after the respective accidents.

5. The Committee did not hold any public hearing on this subject. Instead, it asked for written responses to the issues raised by Audit. The replies from the **President, The Hong Kong Polytechnic University** are in *Appendix 16*.

6. The Committee wishes to be kept informed of the progress in implementing Audit's recommendations.

A. Introduction

The Audit Commission (“Audit”) conducted a review of the implementation of the construction works of the Tuen Mun - Chek Lap Kok Link (“TM-CLKL”) and traffic management of TM-CLKL.

2. Hon Louis LOONG Hon-biu declared that he was a Legislative Council (“LegCo”) Member representing the Real Estate and Construction Functional Constituency, and contractors in the sector might have carried out the projects concerned.

Background

3. In November 2011 and June 2013, the Finance Committee of LegCo approved a total funding of \$46,708 million for the construction of TM-CLKL (“the TM-CLKL project”). The Highways Department (“HyD”) was the works agent responsible for implementing the TM-CLKL project. A consultancy agreement was awarded to Consultant X in November 2011 for the design and construction supervision work of the TM-CLKL project; and eight interrelated works contracts (Contracts A to H) were awarded between June 2013 and June 2022. The TM-CLKL project commenced in June 2013, and was substantially completed by December 2024. The Transport and Logistics Bureau (“TLB”) estimated that the total expenditure of the TM-CLKL project would be maintained at about \$42,200 million, i.e. about 90% of the approved project estimate of \$46,708 million.

4. TM-CLKL provides a strategic link connecting the North West New Territories to North Lantau, the Hong Kong International Airport and the Hong Kong-Zhuhai-Macao Bridge (“HZMB”). TM-CLKL includes the Southern Connection (mainly a sea viaduct between North Lantau and the Hong Kong Port (“HKP”), which is a reclaimed artificial island) and the Northern Connection (mainly the Tuen Mun-Chek Lap Kok Tunnel (“TM-CLKT”). The whole section of TM-CLKL was fully commissioned in December 2020. In September 2020, the Transport Department (“TD”) awarded the first management, operation and maintenance (“MOM”) agreement for TM-CLKT through open tender to Operator A at a fixed lump sum management fee of \$298.6 million for four years from 27 December 2020 to 26 December 2024.

Public hearings

5. The Committee held two public hearings on 20 December 2024 and 10 January 2025 to receive evidence. The opening statement made by **Ms CHAN Mable, Secretary for Transport and Logistics**, at the first public hearing is in *Appendix 17*.

Contract expenditure

6. According to paragraph 1.6 of the Director of Audit's Report No. 83 ("the Audit Report"), HyD awarded a consultancy agreement to Consultant X in November 2011 for the design and construction supervision work of the TM-CLKL project. As of August 2024, the consultancy fee paid to Consultant X was \$253.6 million. The Committee asked HyD to advise on how the consultancy fee was estimated. **Mr Tony YAU Kwok-ting, Director of Highways** explained at the public hearings, and **Secretary for Transport and Logistics** supplemented in her letter dated 8 January 2025 (*Appendix 18*) that the consultancy fee for the TM-CLKL project was estimated mainly on the basis of the scale and complexity of the project, as well as the estimated number of man-months of professional and technical staff required for completing the relevant design and contract administration works. The consultancy fees relating to the design and contract administration of the TM-CLKL project under the funding approved by the Finance Committee of LegCo in 2011 and 2013 were \$61.5 million (in September 2011 prices) and \$90.5 million (in September 2012 prices) respectively. The aforesaid fees were about \$70.9 million and \$122 million in money-of-the-day prices, totalling \$193 million. As of December 2024, the consultancy fee paid by HyD was \$253.6 million. This amount did not include the management fees and remuneration of the resident site staff, and the fees for the Environmental Project Office and independent environmental checker services. The actual consultancy fee paid for design and contract administration was higher than the original estimate, mainly due to the additional reference design and detailed design arising from the interfacing issues with the reclamation works of HKP of HZMB.

7. Referring to Table 3 in paragraph 1.8 of the Audit Report about the expenditures of the eight works contracts under the TM-CLKL project, the Committee asked the Administration to explain the factors to be considered in determining the provisions for price adjustments and contingencies in public works contracts, and was concerned whether the provisions for price adjustments would be used to cover additional expenditure incurred in works projects as a result of variation orders issued by consultant or claims by contractors when the project costs and contingencies were insufficient. **Secretary for Transport and Logistics, Director of Highways** and

Ms Sabrina LAW Chung, Deputy Secretary for Financial Services and the Treasury (Treasury)³ responded at the public hearings, and **Secretary for Financial Services and the Treasury** further explained in his replies dated 8 and 22 January 2025 (*Appendices 19 and 20*) that:

- the cost of a public works contract mainly comprised the construction cost of works items, provision for contingency and provision for price adjustment. The provision for contingency catered for additional costs arising from unforeseen circumstances (costs of variation orders such as those incurred by worse-than-expected ground conditions, additional works to meet local concerns, etc.). The project team would determine the required amount of contingency having regard to the uniqueness of a project and the risk it faced. The provision for price adjustment was to cope with fluctuations in the costs of labour and materials during the contract period, which helped eliminate uncertainties arising from fluctuations in construction price, so as to lower the risk cost in contractors' bids. The project team would also estimate the project cost for each year within the construction period, and work out the provision for price adjustment required for the contract based on the Government Economist's forecasts on the trend rate of change in prices of public sector building and construction output for the relevant contract period. However, the actual expenditure on price adjustment for each year would depend on the actual annual contract payments during the construction period, and would be adjusted with reference to the index figures of the costs of labour and materials provided by the Census and Statistics Department every month; and
- in the course of implementing public works projects, unforeseen circumstances might arise within the scope of the project, and any additional costs so incurred were generally met by project contingency and savings in construction costs. Only when there was a surplus in the provision for price adjustment, and it was not possible to deploy other resources within the works project, could Controlling Officers use such surplus in the provision for price adjustment to cover such additional costs. Under the existing mechanism, Controlling Officers could deploy resources to cope with unforeseen circumstances in implementing works projects, subject to the approved project estimates and in compliance with the above conditions. Controlling Officers must ensure proper use of funds under their control, having regard to economy, efficiency and effectiveness in the delivery of public service and the use of the public funds. The Financial Services and the Treasury Bureau ("FSTB") considered the current arrangement

reasonable, and would continue to review and enhance the control and monitoring of costs for public works projects together with the Development Bureau (“DEVB”).

8. Regarding the provisions for price fluctuation adjustments and contingencies in the works contracts for the TM-CLKL project, **Secretary for Transport and Logistics** supplemented in her letters dated 8 January and 7 February 2025 (*Appendices 18 and 21*) that the provisions for price adjustments in the works contracts for the TM-CLKL project were basically used to cover additional contractual expenditure arising from price increases in labour and materials. However, as other expenditure under the contracts (e.g. additional expenditure arising from the interfacing issues with the reclamation works of HKP of HZMB and the contractors’ claims) exceeded expectation and the contingency provisions in the contracts were insufficient, HyD used the surplus in the provisions for price adjustments to cover the additional expenditure arising from unforeseen circumstances under the works contracts. For the eight works contracts under the TM-CLKL project, as of August 2024, except Contracts E, F and G, the provision for price adjustment in the other contracts had been used to cover the additional costs arising from unforeseen circumstances. Details were set out in the letter from the Secretary for Transport and Logistics dated 7 February 2025.

9. The Committee further enquired about the measures in place to optimize the project cost estimate, strengthen cost control and monitor the expenditures of public works projects. **Secretary for Transport and Logistics** and **Deputy Secretary for Financial Services and the Treasury (Treasury)**³ responded at the public hearings, and **Secretary for Development** supplemented in her letter dated 23 January 2025 (*Appendix 22*) that:

- DEVB established the Project Cost Management Office in 2016 and upgraded it to become the Project Strategy and Governance Office (“PSGO”) in 2019. PSGO would track the development of projects from their inception to completion, including detailed design and funding application stages, by starting the project vetting process from the outset and conducting regular reviews and follow-up actions. Since 2018, public works had deployed the Project Surveillance System to monitor the performance of projects on a continuous basis and provide predictive analyses for forecasting the costs and time performances of ongoing projects. The Government had also since September 2020 adopted parallel tendering, under which the Government would first commence tendering exercise for a works project in order to reflect the

returned tender price in its funding application, thereby providing LegCo with a more accurate construction cost estimate which would reduce the risk of cost overrun; and

- PSGO (and formerly the Project Cost Management Office) had since July 2017 played an independent third party role to examine major variations of public works contracts involving \$1.4 million or above. The project team had to provide explanation for the major variations and analyse their implications on the works contract, including construction costs, construction period and operating expenses. PSGO would review the variations based on their cost-effectiveness and provide independent advice to the Controlling Officers after such review. Controlling Officers would then decide whether to issue the variation orders by taking into account PSGO's views and the funding availability of works projects.

10. According to paragraph 1.9(d) of the Audit Report, HyD estimated that the increase in total expenditures of Contracts A to H (net of the inflation costs absorbed in variations) was about \$7,387.3 million, which was about 22.6% of the total original contract sum of \$32,691.3 million. However, with such substantial increase, the project cost was still within the total approved project estimate of \$46,708 million for the TM-CLKL project. The Committee asked HyD to explain whether the above circumstances suggested inaccurate estimation of the cost of the TM-CLKL project at that time. **Secretary for Transport and Logistics** and **Director of Highways** responded at the public hearings, and **Secretary for Transport and Logistics** further explained in her letter dated 8 January 2025 (*Appendix 18*) that:

- the estimate of the Government in seeking funding approval from the Finance Committee of LegCo for the construction works of the TM-CLKL project in 2013 was prepared by HyD and the professional staff of Consultant X in accordance with the established mechanism, objective data and professional analyses. HyD had also set up a designated committee in accordance with the guidelines to monitor and review the estimate of the TM-CLKL project. Due to unforeseen factors encountered in the course of implementing the project, the actual expenditure differed from the estimate; and
- the Government issued internal guidelines in September 2020 which stipulated that, unless exempted by the relevant approving authority, the Government must adopt parallel tendering arrangement for the procurement of all works contracts and works-related consultancy

services funded by the Capital Works Reserve Fund, i.e. to commence the works tender invitation or consultant selection exercises prior to or in parallel to securing funding. The works or consultancy would only commence after funding was obtained from LegCo. At present, one of the main objectives of adopting parallel tendering arrangement was to reflect the returned tender prices as far as practicable in the approved project estimates so as to enhance their accuracy.

11. The Committee further enquired whether the Administration had adopted other measures (such as the use of technology), apart from parallel tendering, to achieve more accurate estimation of project costs, and how it ensured that the consultants engaged could be effective in assessing the project costs. **Secretary for Transport and Logistics** and **Director of Highways** advised at the public hearings, and **Secretary for Transport and Logistics** supplemented in her letter dated 8 January 2025 (*Appendix 18*) that HyD now required public works projects to make extensive use of Building Information Modelling (“BIM”) technology from the early planning and design stages of the projects, and to make use of relevant software to assist in the preparation of bills of quantities for works contracts to enhance the accuracy of quantity surveying. HyD was also exploring the use of new technologies for site investigation, such as geophysical survey technology, to better capture the geological conditions and estimate the associated project costs. According to the guidelines in the Project Administration Handbook for Civil Engineering Works, the consultants were required to assign professionals from another independent team within the firm to conduct reviews on the cost-significant items in the bills of quantities prepared by the consultants. The consultants were also required to make reference to the contract price databases of DEVB and HyD to enhance the accuracy of their cost estimates. HyD would also conduct spot-checking on those cost-significant items as appropriate, and conduct quarterly assessments on the consultants’ work, including their performance in cost estimate and preparation of tender documents, the results of which would affect the consultants’ chances of winning future tenders for the government consultancy agreements.

B. Administration of Contracts A and B

12. According to Note 12 in paragraph 2.2 of the Audit Report, for the 27 days of delay without extensions of time granted by HyD, liquidated damages of \$95.8 million in total were imposed and deducted from the payment to Contractor A. The Committee asked HyD to explain how the above damages were calculated. **Director of Highways** advised at the public hearings, and **Secretary for Transport and Logistics** further explained in her letter dated 8 January 2025 (*Appendix 18*) that

in preparing the contract terms for Contract A, Consultant X had specified the latest completion dates for different stages and parts of the relevant works and assessed the potential loss to the Government in the event that the contractor failed to complete the relevant stage or part of the works as scheduled, including additional costs for works supervision, additional sum payable in respect of further price increase, and delay in receiving the return on invested capital, in accordance with the guidelines in the Environment, Transport and Works Bureau Technical Circular (Works) No. 4/2003. The amount of such loss was calculated on a daily basis and specified in the contract as liquidated damages. According to Consultant X's assessment, after taking into account the extensions of time granted for different stages and parts of the works, Contractor A was still liable for delays in certain stages and parts of the works under Contract A and was required to pay liquidated damages of \$95.8 million in total.

13. According to paragraphs 2.3 and 2.4 of the Audit Report, there were contractual disputes between HyD and Contractor A, mainly involving claims arising from delays caused by the reclamation works of HKP and the fresh watermain diversion works. Subsequently, the Government made an additional payment to Contractor A under the dispute resolution mechanism specified in the contract. The Committee queried whether the aforesaid incident reflected that Consultant X had made an incorrect estimation of Contractor A's claims, and enquired about the roles and responsibilities of Consultant X under the resolution mechanism. **Director of Highways** responded at the public hearings, and **Secretary for Transport and Logistics** further explained in her letter dated 8 January 2025 (*Appendix 18*) that the contractual disputes between HyD and Contractor A mainly involved interfacing issues with the reclamation contract for HKP and the claims related to the fresh watermain diversion works, and so on. When handling Contractor A's claims, Consultant X made an assessment of costs which the consultant considered reasonable based on the information submitted by the contractor at that time and other site records. If the contractor was not satisfied with the consultant's final assessment, the contractor might lodge a dispute with the Government in accordance with the contractual mechanism. In the course of dispute resolution, the contractor submitted additional information to the Government in support of its claims. HyD also engaged an independent expert to vet the information submitted by the contractor and sought legal advice on the justifications for the disputed issues, the possible arbitration or litigation risks, the estimated legal costs, etc., and recommended to the approving authority the most advantageous option for the Government. The Government's additional payment to Contractor A under the dispute resolution mechanism specified in the contract, taking into consideration the above information and opinion, did not reflect that Consultant X had not reasonably assessed Contractor A's claims. Under the resolution mechanism, the consultant would provide the Government with factual records of the issues in

dispute to assist the Government's expert and legal team in understanding the details of various issues in dispute.

14. According to paragraph 2.5 of the Audit Report, the works under Contract B were substantially completed in June 2020. However, as of August 2024, the account of Contract B had not been finalized. The Committee enquired about the reasons for the account not yet being finalized more than four years after the completion of the works and when the finalization of the account was expected to be completed, as well as the estimated final contract sum of Contract B. **Director of Highways** advised at the public hearings, and **Secretary for Transport and Logistics** supplemented in her letter dated 8 January 2025 (*Appendix 18*) that the account of Contract B had not been finalized more than four years after the completion of the works mainly because at the drafting stage of the Audit Report, the sealing-off works for the tunnel emergency access hatches carried out by Contractor B were just completed in September 2024, and Contractor B was now proceeding with the remaining handover procedures, including updating the operation and maintenance manuals for the service gallery. Based on the latest progress, Consultant X was expected to issue the Certificate of Completion for Maintenance Works to Contractor B and complete the contract finalization in the first half of 2025. The final contract sum for Contract B was expected to be similar to the current latest contract expenditure (i.e. \$21,370 million).

15. Regarding the incident of lateral movements of seawall of HKP mentioned in paragraph 2.7(b) and Note 19 of the Audit Report, the Committee asked HyD to explain the cause of the incident and why the Government did not take any substantive follow-up action until 2016 even though it had already noticed the larger-than-expected movement of seawall in 2014. The Committee also enquired whether there was adequate communication regarding the handover issues between the works of Contracts A and B and the HKP reclamation works beforehand, and what lesson HyD had learnt from this incident in the management of public works contracts. **Director of Highways** responded at the public hearings, and **Secretary for Transport and Logistics** further explained in her letter dated 8 January 2025 (*Appendix 18*) that:

- to minimize the environmental impacts of reclamation, HyD, along with the consultant for the reclamation works of HKP of HZMB ("the Reclamation Consultant") decided to adopt the non-dredged method for seawall construction, which was the first of its kind in Hong Kong. Compared with the conventional construction method, the new method could avoid dredging and dumping of large amount of silt, minimize backfilling materials, and reduce marine traffic volume and the amount of suspended solid in the sea during construction. In designing the

non-dredged reclamation, the Reclamation Consultant had taken into account the anticipated settlement and lateral movements of the reclaimed land during the course of the works. HyD appointed an independent overseas expert in 2010 (i.e. before the reclamation contract was tendered) to review the design of the Reclamation Consultant, and the works commenced only after the expert had confirmed that the relevant design was appropriate;

- in October 2014, the seawall of the artificial island of HKP of HZMB experienced a larger-than-expected lateral movement. HyD had immediately investigated the cause of the incident in conjunction with the Reclamation Consultant and contractors. It had also worked with Consultant X to review the impact of the aforesaid movement of seawall on the TM-CLKL project, and had taken follow-up actions which included:
 - (a) Contract A: due to the delay in the reclamation works, Contractor A only started to enter and take over the site in phases from July 2015 to July 2016. Consultant X issued several variation orders from July to November 2015, instructing Contractor A to install additional monitoring equipment and carry out ground investigation to verify the actual conditions of the reclamation site and underground soil layers at that time, and providing the necessary information to enable Contractor A to review the design of the foundation of viaduct and structure; and
 - (b) Contract B: Contractor B was arranged to carry out drilling at the seawall locations of the artificial island in early 2015. Based on the drilling results, two overseas experts recommended that the tunnel alignment be lowered by 10 metres (“m”) to ensure construction safety. Consultant X issued the relevant variation order in September 2015, instructing Contractor B to lower the alignment of the sub-sea tunnel;
- since the non-dredged seawall construction method was the first of its kind in Hong Kong and neither the Reclamation Consultant nor the overseas expert engaged by HyD could envisage the larger-than-expected lateral movement of the top of seawall at that time, Consultant X proceeded with the reference design for Contract A and Contract B on the basis that there would be no significant seawall movement; and

- both the HKP of HZMB and TM-CLKL projects were complex and large-scale infrastructure projects for which the respective critical parts had to be completed within a tight schedule in order to meet the commissioning target of HZMB. For similar projects in the future, HyD would minimize the interfaces between works contracts as far as practicable, including exploring the possibility of using the same contractor to carry out the design and construction of the reclamation and subsequent works, etc., so as to minimize interfacing issues between contracts. In addition, HyD would also adopt the “New Engineering Contract” (“NEC”) approach under which the building of partnering relationship between the contracting parties would be fostered through the contract terms of mutual trust and collaboration, as well as the mechanisms such as early warnings and compensation matters specified in the contract. With the risk jointly managed by the contracting parties, the project management performance and its cost-effectiveness would be enhanced as a result.

16. According to paragraphs 2.12(a) and (b) of the Audit Report, before tendering of Contract A, based on the as-built records, HyD estimated that the length of the watermain to be diverted was about 270 m. However, after commencement of Contract A, taking into account the actual site conditions, the actual length of the watermain to be diverted was measured to be about 422 m, which was 56% longer than the estimated length. The Committee requested HyD to explain why the estimated length of the watermain to be diverted as set out in Contract A was based solely on the as-built records without detailed site investigation being conducted at the planning stage. **Director of Highways** advised at the public hearings, and **Secretary for Transport and Logistics** further explained in her letter dated 8 January 2025 (*Appendix 18*) that in recommending the need for excavation of trench pits, the engineering consultant would take into account the as-built records provided by the utility undertaking, the adequacy of underground space in the vicinity of the construction locations, the impact on the traffic due to excavation of trench pits, as well as the cost-effectiveness of excavating trench pits, and so on. In general, at the reference design stage, the engineering consultant would only recommend the excavation of trench pits at some critical locations to ascertain the feasibility of the construction works and to ensure that there would be sufficient space to carry out the necessary construction works. Since the watermain in question was located at Cheung Tung Road on Lantau Island and the underground space in the vicinity of the construction locations was relatively sufficient according to the as-built records provided by the utility undertaking, Consultant X considered that the watermain would not affect the feasibility of the construction works under Contract A and therefore did not excavate any trench pits at the reference design stage. With the advancement of

technology, HyD was exploring more extensive use of non-excavation techniques (e.g. ground-penetrating radar, etc.) in future projects to assist in confirming the actual location of underground pipelines and the length of pipelines that needed to be diverted.

17. According to paragraph 2.14 of the Audit Report, the above watermain diversion works were carried out between April 2015 and March 2017, but the relevant variation order (with a total amount of \$9.4 million) was only issued in July 2018 retrospectively after completion of the works. HyD advised that it had been preparing the variation order with Consultant X since 2015. The Committee requested HyD to explain why the relevant variation order could only be issued more than three years after the commencement of the works, and also asked whether HyD had established any mechanism or procedure to allow contractors to commence works before the formal issuance of a variation order under special circumstances. **Secretary for Transport and Logistics** and **Director of Highways** responded at the public hearings, and **Secretary for Transport and Logistics** further explained in her letters dated 8 January and 7 February 2025 (*Appendices 18 and 21*) that:

- HyD, Consultant X and representatives of Contractor A discussed the arrangements for and details of the relevant watermain diversion works in a number of works progress meetings since 2014, and written meeting minutes were formally issued after each meeting. All parties involved in the meetings at that time, including HyD, the resident site staff and the contractor, agreed that the diversion works needed to be carried out first due to the tight construction programme, so all stakeholders were fully aware of the variation and the progress of the relevant works. As some details of the watermain diversion works, including suspension of water supply and temporary water supply arrangements required for the connection of the watermain, had to be adjusted according to the actual situation, HyD and Consultant X arranged to issue the written variation order after the completion of the entire watermain diversion works to reflect all the variations involved in the process; and
- HyD did not establish any mechanism or procedure that allowed contractors to commence works before the issuance of formal variation orders under special circumstances. TLB and HyD considered that it was not a common practice to commence works before the issuance of formal variation orders, and such practice was not desirable. HyD had reminded its consultants and staff again to strictly comply with the contractual terms relating to the issuance of variation orders in writing and the relevant guidelines in the Project Administration Handbook for

Civil Engineering Works. In addition, NEC introduced an early warning mechanism to encourage the client's representatives and contractors to identify and raise potential risks that might affect the project at an early stage, and to jointly negotiate and formulate the optimal solution for the smooth implementation of the project according to the prescribed framework and time frames in the contract.

18. The Committee further enquired about the responsibilities of HyD and Consultant X in the tendering exercise for the TM-CLKL project, as well as HyD's considerations and approval procedures for the issuance of variation orders by Consultant X in respect of the proposed variations in the TM-CLKL project. **Director of Highways** explained at the public hearings, and **Secretary for Transport and Logistics** added in her letter dated 8 January 2025 (*Appendix 18*) that in the tendering exercise for the TM-CLKL project, Consultant X was mainly responsible for preparing cost estimates and tender documents (including applicable contract terms, construction specifications, bills of quantities and drawings for the construction works, etc.) for each works contract based on its reference design or detailed design; while HyD was mainly responsible for checking the above-mentioned work of Consultant X, evaluating the tender submissions, recommending the successful contractors to the Tender Board and awarding the works contracts to the relevant contractors for commencing the construction works. When Consultant X considered that some of the works needed to be varied to suit the actual site conditions, Consultant X first had to estimate the scope and cost of works associated with the proposed variation order. If the estimated cost of the variation order exceeded a certain limit, Consultant X had to obtain prior approval from HyD before issuing the variation order. In vetting and approving the variation orders, the HyD's approving officers would take into account factors such as the justifications for the proposed variation orders, the impact on the progress of works, the cost-effectiveness of the proposed variations, etc., and would record and notify Consultant X in writing of the relevant approval results.

19. Secretary for Transport and Logistics mentioned in her reply dated 8 January 2025 that prior to 21 August 2020, the issuance of variation orders exceeding \$300,000 required prior approval from the relevant works departments. The relevant limits were subsequently increased to \$800,000 and \$1 million in August 2020 and October 2023 respectively in accordance with the guidelines issued by DEVB. The Committee enquired about the reasons behind the above adjustment, and whether variation orders not requiring prior approval should still be reported to the relevant works departments before issuance. **Director of Highways** explained at the public hearings, and **Secretary for Transport and Logistics** added in her letter dated 7 February 2025 (*Appendix 21*) that:

- under the original mechanism, engineering consultants could issue variation orders of \$300,000 or less without any prior notice to the relevant works departments. However, engineering consultants were required to submit a copy of each variation order they issued to the works departments and reported all variation orders issued in their monthly progress reports. The works departments would follow up with the engineering consultants immediately if they had any queries; and
- in the 2020 review of the management system of public works consultants, DEVB found that the threshold for authorizing consultants to issue variation orders had not been updated in accordance with the trend movements of tender prices for various types of works since its formulation in 1990s. Hence, the threshold was adjusted upward from the then \$300,000 to \$800,000 after taking into account factors such as the increase in the Building Works Tender Price Index compiled by the Architectural Services Department, the Civil Engineering Works Index compiled by the Civil Engineering and Development Department, and the Construction Cost Index compiled by HyD over the same period. This helped to streamline the management process and reduce the time required for administrative vetting and approval, so that necessary variation to and adjustment of works could be implemented in a timely manner, thereby speeding up the delivery of the projects and achieving the Government's objective of enhancing speed and efficiency. The above-mentioned limit was updated to \$1 million in 2023 in a subsequent review. DEVB issued guidelines to works departments in 2024 requiring them to conduct random checks on not less than 5% of the variations orders that did not require prior approval by the works departments in every six months during the construction period to ensure that the justifications for issuing the variation orders were adequate and the associated cost estimates were reasonable.

20. According to paragraph 2.17 of the Audit Report, during the design stage, Contractor A contended that when circulating various design submissions to Consultant X and relevant stakeholders for comments, such submitted designs were approved by Consultant X beyond the prescribed time frames due to the later-than-expected responses from some stakeholders. Contractor A therefore submitted a claim for additional design fees. The Committee enquired whether Consultant X had played a coordinating role during the consultation process, how much time the relevant stakeholders were given to respond, and what measures would be taken to ensure that consultants and the relevant stakeholders would respond to contractors on matters relating to the design of the project in a timely manner. **Director of Highways**

advised at the public hearings and **Secretary for Transport and Logistics** supplemented in her letter dated 8 January 2025 (*Appendix 18*) that:

- when vetting Contractor A's designs, Consultant X must ensure that the design complied with the basic technical requirements of Contract A. At the same time, Consultant X must also take into account the comments of relevant stakeholders (including other government departments and utility undertakings) on the design. Given the numerous design items involved in the project, some of the more complex designs might need to be adjusted several times in response to stakeholders' comments before a proposal acceptable to all stakeholders could be formulated, resulting in a longer overall preparation time than that expected by Contractor A. For some of the more complex designs, Consultant X had convened design review meetings with the contractor and relevant stakeholders to enhance the efficiency of the approval process;
- Contract A did not specify the response time by which the relevant stakeholders should respond to Contractor A. However, based on the Project Design Plan drawn up by Contractor A, it was anticipated that the relevant stakeholders could respond to the first circulation of the design documents within three weeks and the re-circulation of the revised design documents within two weeks. The review time required by the relevant stakeholders depended not only on the complexity of the design but also on other factors (including the quality of the design submitted and other workload of the relevant stakeholders). Since Contract A was a "design and build" contract, the contractor had to bear reasonable risks associated with the approval of the design; and
- to enhance the efficiency of design submission and approval in the future, HyD was exploring the enhancement of the existing electronic platform to allow contractors, consultants and stakeholders to submit and respond to design documents through electronic means so as to minimize the time required for circulation of documents. The platform could also provide notification to alert the relevant stakeholders on a regular basis to address outstanding design responses and to notify HyD and consultants for early intervention in complex cases.

21. According to paragraphs 2.18 and 2.19 of the Audit Report, after the commencement of Contract A, Contractor A found that the actual rockhead levels at various piling works locations were deeper than the envisaged levels in the

Geotechnical Baseline Report. Between February 2014 and July 2015, Contractor A submitted 31 claims for additional payments in connection with the deviation in sub-surface conditions for piling works. Consultant X certified an additional payment of \$52.2 million to Contractor A for these claims. Paragraphs 2.23(d)(ii) and 2.24 of the Audit Report mentioned that HyD agreed to explore new technologies and digital tools for conducting more thorough ground investigations in implementing works contracts involving piling works. The Committee enquired about the relevant details and progress. **Secretary for Transport and Logistics** advised in her letter dated 7 February 2025 (*Appendix 21*) that HyD would proactively utilize geophysical survey techniques when taking forward future works projects. Such techniques could detect changes or anomalies in the geological conditions between drillholes, thus helping project teams to better understand the geological conditions and carry out design work.

22. According to paragraphs 2.25 and 2.26 of the Audit Report, Contractor B was required to carry out reclamation works in Tuen Mun under Contract B. After carrying out further pre-construction ground investigation, Contractor B estimated that the required quantity of rock fill material was about 850 000 cubic metres (“m³”), which was about 90% more than the quantity of 441 400 m³ specified in Contract B. Due to the substantial increase in quantity of rock fill material and the need for Contractor B to procure from non-local market, there was an increase in cost by more than two times from \$160/m³ to \$456/m³. Contractor B submitted a claim for additional payment attributable to the substantial increase in quantity of rock fill material, and Consultant X certified a sum of \$115.8 million for the claim. The Committee asked HyD to explain why there was such a serious miscalculation in the quantity of rock fill material and whether this involved professional negligence; whether Consultant X’s estimation of the quantity of rock fill material had been checked by HyD before tendering, and what measures would be taken in the future to ensure a more accurate estimation of the materials required for the works. In addition, regarding additional project expenditures arising from this type of cost-significant variation orders and fluctuation of material prices, the Committee enquired whether consideration would be given to establishing an approval mechanism. **Secretary for Transport and Logistics** and **Director of Highways** responded at the public hearings, and **Secretary for Transport and Logistics** further explained in her letters dated 8 January and 7 February 2025 (*Appendices 18 and 21*) that:

- Consultant X had carried out ground investigation in accordance with the guidelines in the Port Works Design Manual during the design stage, but the geological data obtained might not fully reflect the geological conditions of the whole site. Consultant X also specified in the contract documents of Contract B that Contractor B was required to carry out more closely spaced ground investigation after the commencement of

the contract so as to verify the depth of excavation as well as the quantity of rock fill materials required for the construction of the seawall. As Consultant X had already carried out a certain amount of ground investigation in accordance with the guidelines in the Port Works Design Manual during the detailed design stage and assessed the quantity of rock fill material according to the investigation results, HyD considered that Consultant X's recommendations at that time did not involve professional negligence;

- HyD had checked the tender documents (including the drawings and bills of quantities) in accordance with the Project Administration Handbook for Civil Engineering Works before tendering. Based on the ground investigation information at the design stage and the depth of seawall excavation recommended by Consultant X, HyD considered that there were no irregularities in the relevant drawings and bills of quantities. After the commencement of the contract, Contractor B carried out additional ground investigation as required under the contract. Consultant X subsequently worked out the depth of seawall excavation based on the latest ground investigation information and the actual quantity of rock fill material required was larger than the estimate made before tendering. The above situation was not due to any omission in checking of tender documents;
- HyD had reminded its staff and consultants to carry out more ground investigation when taking forward projects involving reclamation, especially in areas with more geological variations, so as to estimate the quantity of fill material required for reclamation as accurately as possible. HyD would also explore the use of geophysical surveys and sonar scanning techniques with a view to capturing geological and seabed information more cost-effectively; and
- the additional cost relating to the procurement of rock fill was incurred as a result of contractual claims, and the total cost of the entire TM-CLK Link project did not exceed the approved project estimate. Under the current mechanism, HyD would manage various works contracts in accordance with the Project Administration Handbook for Civil Engineering Works and other applicable guidelines after the public works projects had obtained funding approval from the Finance Committee of LegCo. Relevant clauses and mechanisms were already included in standard engineering contracts to handle claims that might arise from substantial increases in quantity of works.

23. According to Note 30 in paragraph 2.26 of the Audit Report, HyD gave a “poor” performance rating in the aspect of cost estimates and quality of tender documents/drawings in Consultant X’s quarterly performance assessment report from October to December 2013. Given that the quantity of rock fill material specified in Contract B was estimated by Consultant X, the Committee enquired whether, apart from reflecting Consultant X’s dereliction of duty in the performance appraisal report, HyD had established a penalty mechanism in the consultancy agreement, e.g. deduction of consultancy fees due to poor performance. **Secretary for Transport and Logistics** and **Director of Highways** responded at the public hearings, and **Secretary for Transport and Logistics** supplemented in her letters dated 8 January and 7 February 2025 (*Appendices 18 and 21*) that:

- notwithstanding the fact that Consultant X had carried out ground investigation according to the guidelines in the Port Works Design Manual and required Contractor B to carry out more closely spaced ground investigation in Contract B to confirm the excavation depth of the seawall and the quantity of rock fill material required, HyD considered that Consultant X could have exercised better professional judgment in arranging for more ground investigation at an earlier stage so as to assess the quantity of rock fill material more accurately. In view of the above considerations, HyD gave a “poor” performance rating to Consultant X in the aspect of cost estimates and quality of tender documents/drawings in its performance report for that quarter. The relevant assessment results would have a bearing on Consultant X’s chances of winning tenders for government consultancy agreements within the three years following the issuance of the relevant assessment report. Apart from reflecting Consultant X’s performance in the performance assessment report, the consultancy agreement did not include other penalty mechanism such as deduction of consultancy fees for poor performance; and
- it was not appropriate to introduce penalties in consultancy agreements for public works projects so as to deduct the consultancy fee in the event of unsatisfactory performance. It was because the amount of deduction involved could not simply be linked to the performance of the consultants but should be commensurate with the actual loss incurred by the Government. Exercising such penalties might also give rise to disputes and jeopardize the effective implementation of the consultancy agreements. Moreover, the penalty might increase the risk premium in the consultants’ tender price, thereby further increasing the overall project cost. It would therefore be more appropriate for the Government to claim compensation from the consultants in accordance

with the legal mechanism when the consultants were found to be professionally negligent in performing their services resulting in loss to the Government. The relevant mechanism had been clearly stipulated in the existing consultancy agreements for public works projects.

24. The Committee further enquired whether Consultant X had participated in tenders for government consultancy agreements within the three years following the issuance of the relevant assessment report and how its bids had fared, and what measures were in place to hold consultants accountable for poor performance. **Secretary for Transport and Logistics** advised in her letter dated 7 February 2025 (*Appendix 21*) that:

- consultancy agreements for public works projects mainly adopted a “two-envelope” tender evaluation approach whereby tenderers were required to submit a technical proposal and a fee proposal at the same time. In assessing the technical proposals, works departments would examine the consultants’ job experience, understanding of the projects, proposed manpower inputs, and past performance (including performance reports), etc. In the subsequent assessment of fee proposals, works departments would use the pre-tender estimate of the consultancy fee as the basis to examine whether the consultants’ tender prices were reasonable and whether they were commensurate with the proposed manpower inputs. Works departments would calculate a combined score based on the weighting stipulated in the tender documents. Normally, the tenderers with the highest combined score would be awarded the consultancy; and
- Consultant X had participated in tenders for government consultancy agreements within the three years after the issuance of the relevant assessment report and was awarded tenders during the period. The past performance of Consultant X had been reflected in the combined score during tender evaluation. Apart from reflecting the consultant’s performance in the performance assessment report, if a report or document submitted by the consultant failed to meet the requirements of the consultancy agreement, the consultant would not be paid for that part of the consultancy fee until the relevant report or document was accepted by HyD.

25. The Committee enquired about the procurement procedures for sourcing additional rock fill material at that time, the considerations for the supplementary procurement price, and the mechanisms and processes for monitoring reclamation works by the works departments. **Director of Highways** and **Mr Patrick NG Wai-hong, Project Manager/Major Works, HyD** explained at the public hearings, and **Secretary for Transport and Logistics** supplemented in her letter dated 8 January 2025 (*Appendix 18*) that:

- between late 2013 and 2014, a number of reclamation projects (including HKP of HZMB, HZMB Hong Kong Link Road and the TM-CLKL project) were underway. As a result, there was a shortage of local rock fill supply at that time. Therefore, Contractor B needed to procure additional rock fill material (about 400 000 m³) from the Mainland. Shortly thereafter, the transportation cost for procuring rock fill from the Mainland increased significantly, for which Contractor B submitted a claim. Consultant X assessed the additional cost of procuring the rock fill based on the prevailing market conditions and the contractor's quotation, and, as required by the contract, consulted HyD in the process. HyD considered Consultant X's assessment of the relevant claim reasonable; and
- Regarding the mechanisms and processes for the monitoring of the reclamation works under the TM-CLKL project, before commencing reclamation works, Contractor B was required to submit information on the proposed suppliers and specifications of the rock fill material for Consultant X's review. Upon Consultant X's preliminary approval, Consultant X would visit the quarry concerned together with the contractor to inspect and check the rock fill material to ensure its compliance with the contract requirements. During transportation of the rock fill material, Consultant X and Contractor B would use the global positioning system to monitor the transportation time and route of the barges. When the rock fill material was delivered to the reclamation site, Consultant X would board the barge to re-inspect the rock fill material before unloading and collect samples of the rock fill material according to the contract requirements for testing at the Public Works Laboratories to ensure that the rock fill material delivered to the reclamation site would comply with the contract requirements. Consultant X would also monitor the whole unloading process and conduct joint surveys with Contractor B to confirm the quantity of rock fill material used in the works. The relevant survey records would be signed by both Consultant X and Contractor B and submitted to HyD for record.

26. According to paragraphs 2.27 to 2.29 of the Audit Report, when the tender documents for Contract B were circulated to the New Territories Regional Office of HyD, which was responsible for the maintenance of civil works of TM-CLKT, in August 2012, the office did not provide comment on the thermal barrier in tunnel. It was only after Contract B commenced that the office expressed concerns about the spray type thermal barrier specified in Contract B. In the end, Consultant X issued two variation orders under Contract B at a total additional cost of \$328.7 million to change the thermal barrier from spray type to board type. The Committee requested HyD to explain why the office did not provide comment early, and whether the additional costs incurred included the removal of the spray type thermal barrier.

27. **Director of Highways** responded at the public hearings, and **Secretary for Transport and Logistics** further explained in her letter dated 8 January 2025 (*Appendix 18*) that when reviewing Contract B's tender documents in 2012, the New Territories Regional Office of HyD did not provide comment at that time, taking into account the fact that both the spray type and board type thermal barriers were both acceptable designs, and that spray type thermal barrier had been applied in the Mainland and overseas. Subsequently, in 2014, fire accidents occurred in some road tunnels in the Mainland where spray type thermal barriers had been used. The repair work involved the removal of coating, inspection of the structure and re-application of the spray type thermal barriers, which was more complicated than expected and required a long period of time which affected the tunnel operation and resulted in higher repair costs. However, the repair of board type thermal barriers was quicker and had less impact on tunnel operation and other electrical and mechanical equipment. By making reference to the experience of the relevant cases and taking into account that TM-CLKT was an extremely important strategic road, the New Territories Regional Office of HyD expressed concerns about the use of spray type thermal barrier in the tunnel in late 2015. Consultant X subsequently recommended that the thermal barrier in the tunnel should be changed to board type to make the long-term inspection, maintenance and repair work more efficient and cost-effective. After obtaining approval from HyD, Consultant X issued the relevant variation order in November 2016. At that time, Contractor B had not yet procured or installed the spray type thermal barriers and therefore the relevant variation order did not result in any unnecessary additional work.

28. According to paragraph 2.33 of the Audit Report, on 28 June and 29 July 2021, significant flooding incidents occurred at the southern portal of TM-CLKT, which caused disruption to tunnel traffic for about three hours and about an hour respectively. Paragraphs 2.42(b)(iii) and 2.43 of the Audit Report mentioned that HyD had agreed to continue to enhance the design of the road drainage system in

response to climate change in implementing tunnel works projects. The Committee enquired about the relevant details and progress. **Secretary for Transport and Logistics** advised in her letter dated 7 February 2025 (*Appendix 21*) that HyD issued new design guidelines in 2023 which stipulated that the drainage system of tunnels must have additional capacity to cope with severe rainstorms due to extreme weather conditions and projected climate change by the end of the 21st century. HyD staff and consultants were required to follow the relevant guidelines in designing the tunnel drainage systems when taking forward works projects.

29. According to paragraphs 2.36 to 2.40 of the Audit Report, with the offer of a lump sum saving of \$12 million, Contractor B proposed to the Government the construction of a service gallery underneath the entire length of the carriageway along TM-CLKT and the provision of 45 emergency access hatches along the tunnel carriageway as supplementary evacuation/rescue routes. The above facilities were new designs and being used for the first time in a tunnel in Hong Kong. After the commissioning of TM-CLKT in December 2020, the emergency access hatches continued to malfunction (e.g. accidental opening of access hatch covers) despite rectification works were carried out by Contractor B. In October 2023, the relevant parties decided to seal off all emergency access hatches and the works were subsequently completed in September 2024. The Committee enquired whether HyD had conducted any feasibility study on the aforementioned new designs before accepting Contractor B's proposal, and whether any investigation into the incidents was conducted. Given that the Government had strengthened the monitoring system for the emergency access hatches at a cost of \$8.8 million in the light of such incidents, the Committee also questioned whether the cost should be borne by Contractor B. **Director of Highways** responded at the public hearings, and **Secretary for Transport and Logistics** further explained in her letter dated 8 January 2025 (*Appendix 18*) that:

- TM-CLKT is the first sub-sea tunnel in Hong Kong constructed using tunnel boring machine method. Compared with the conventional rectangular immersed tube construction method, the circular tunnel constructed using tunnel boring machine provided additional space underneath the carriageway. Contractor B therefore proposed in the detailed design stage to provide a service gallery underneath the carriageway to make better use of the space at the bottom part of the tunnel and reduce the time required to close the carriageway for routine inspections and maintenance, and also offered a lump sum saving of \$12 million to the Government for the relevant proposal. As a result of the proposal, some of the electrical and mechanical equipment originally planned to be placed inside the tunnel would be placed in the service gallery underneath the carriageway instead. As the change might

slightly increase the cost of subsequent electrical and mechanical works contracts to be tendered (e.g. installation of additional airlocks, fans, firefighting equipment and intercoms, etc.), Consultant X had reviewed and confirmed that the aforementioned cost savings would be sufficient to offset the costs that the Government would incur for installing additional equipment in the subsequent electrical and mechanical works contract. Taking into account the above considerations, the Government adopted the new facility proposed by Contractor B;

- the entire proposal for the service gallery (including the emergency access hatches and covers) was put forward by Contractor B at the detailed design stage and relevant government departments (including the Fire Services Department and the Electrical and Mechanical Services Department (“EMSD”), etc.) were consulted to ensure that the proposal complied with the relevant statutory requirements and technical standards. Although this was the first time in Hong Kong that emergency access hatches and covers were provided on carriageway, similar design had been used in pedestrian walkways, cycle tracks and airports in Germany, Belgium and Spain with no adverse incidents reported. After reviewing the proposal and considering responses from various government departments, Consultant X decided to approve the detailed design;
- HyD and Consultant X conducted an investigation after the incidents involving the emergency access hatch covers. The results indicated that although the design of the emergency access hatch covers could withstand vehicle loads, the high density and speed of heavy vehicles travelling on the roads in Hong Kong had resulted in the damage or displacement of the components of the covers, or even their accidental opening due to negative air pressure. After the incidents of the emergency access hatch covers, Contractor B carried out remedial works to all emergency access hatch covers and borne all the costs of associated works; and
- HyD and Consultant X considered it necessary to improve the monitoring equipment in the tunnel and service gallery so that the staff responsible for tunnel management and operation could remotely monitor the real-time situation of all emergency access hatch covers from the control centre for prompt response. After completion of the improvement works, the relevant monitoring equipment effectively assisted the tunnel management and operation, and enabled real-time transmission of the situation of the emergency access hatch covers to the

control centre. Since the improvement of the above monitoring equipment was to facilitate the tunnel management and operation and was not part of the rectification works, the associated costs were borne by HyD.

C. Other contract management issues

30. According to paragraphs 3.2 and 3.3 of the Audit Report, the works under Contract C included the toll plaza and associated works for the Northern Connection of TM-CLKL. Contract C commenced in July 2014 and was completed in September 2019 (see Table 2 in paragraph 1.7 of the Audit Report), with the final contract sum nearing \$3.1 billion. However, the 2019 Policy Address announced the initiative of waiving the tolls for TM-CLKT, which rendered the toll plaza and associated facilities of the tunnel immediately obsolete. The Committee enquired about the amount involved in the relevant part of the works. **Director of Highways** responded at the public hearings, and **Secretary for Transport and Logistics** added in her letter dated 8 January 2025 (*Appendix 18*) that the total amount involved in the works for the toll plaza and associated facilities was about \$78.95 million, of which about \$40.7 million was the cost of demolition works.

31. Regarding the unforeseeable adverse ground conditions encountered for the slope and retaining wall works under Contract C mentioned in paragraphs 3.4 and 3.5 of the Audit Report, the Committee asked why the actual ground conditions were so different from those envisaged at the design stage, and whether there were any new measures or techniques at present that could increase the accuracy of the estimates. **Director of Highways** explained at the public hearings, and **Secretary for Transport and Logistics** added in her letter dated 7 February 2025 (*Appendix 21*) that due to the inherent complexity and variability of the geology, the actual conditions encountered at the construction stage might differ significantly from the ground conditions anticipated at the design stage. Regarding the relevant slope works, Consultant X had made reference to the past ground investigation information and carried out ground investigation in accordance with the relevant guidelines on ground investigation in the area of the proposed slope. As regards the retaining wall works, since Lung Mun Road adjacent to the retaining wall was a single-lane one-way carriageway, it was not feasible to close the road section to carry out ground investigation during the design stage. As such, Consultant X had made reference to the drillhole data in the vicinity of about 15 m away during the design stage. The subsequent discovery of soil joints, lateral joints, longitudinal joints and soft soil layers during the construction of slope and retaining wall was unforeseeable. HyD would proactively utilize the geophysical survey techniques to enhance the accuracy of the ground investigation when taking forward works projects.

32. The Committee further enquired why the actual time and cost implications of the variation order issued for replacing the existing fill below the base of the retaining wall with concrete were more than the estimated potential delay and prolongation cost (i.e. the delay was extended from the original 3.5 months to 273 days, and the prolongation cost was increased from about \$13.6 million to \$31.5 million). **Secretary for Transport and Logistics** explained in her letter dated 7 February 2025 (*Appendix 21*) that the longer-than-expected delay caused by the relevant variation order was due to the fact that the contractor had to take a longer time to deal with a group of telecommunication ducts during the construction of the retaining wall. Consultant X and the contractor had consulted the relevant telecommunications company on the group of telecommunications ducts prior to the issuance of the variation order. At that time, the telecommunications company was of the view that the section of ducts could be diverted to make room for the construction of the retaining wall. Subsequently, based on a site inspection, the telecommunications company indicated that the diversion works would take more than two years to complete. In order to avoid further delay in the works, the contractor had to provide additional temporary protection and supports so as to support and avoid damage to the group of telecommunications ducts. Such arrangements, coupled with the need to accommodate the relevant ducts and work in a more confined environment, had significantly affected the efficiency of the contractor's work and excavation. In addition, the extended construction period due to the above situation straddled the rainy season which further affected the works.

33. According to paragraphs 3.7 and 3.8 of the Audit Report, after completion of Contract C in September 2019, dislocation of covers of several sewerage manholes and cut-off drains in carriageways occurred in the period between May 2021 and February 2023. Eventually, Consultant X issued three variation orders (valued at a total additional cost of \$3 million) to carry out the modification works to prevent dislocation of manhole and drain covers. The Committee asked what lessons HyD had learnt from the above incidents. **Secretary for Transport and Logistics** explained in her letter dated 7 February 2025 (*Appendix 21*) that the above-mentioned incidents were caused by the manhole covers being driven over by more frequent, high-speed and heavy vehicles than expected. HyD would explore the possibility of further upgrading the manhole covers for road sections where frequent, high-speed and heavy vehicles were expected to drive over from the original E600 class (with a capacity of 60 tonnes) to F900 class (with a capacity of 90 tonnes), which was generally applicable to airport runways and was equipped with tightening screws so as to prevent the covers from dislocation. In addition, HyD updated the standard drawings applicable to transverse drains in July 2023 which included the use of thickened drain covers and the provision of more tightening screws to prevent cover dislocation.

34. Referring to paragraphs 3.10 and 3.11 of the Audit Report, the Committee asked HyD to explain why, apart from changing the approved type of thermal barrier in TM-CLKT (see paragraphs 2.27 to 2.29 of the Audit Report), the New Territories Regional Office of HyD had only provided its comments on the change to a design for easier manual dismantling after the final design of the Vitreous Enamel panel walls had been approved, and such design changes involved the issuance of a variation order at a cost of \$5.5 million. **Director of Highways** responded at the public hearings, and **Secretary for Transport and Logistics** further explained in her letter dated 7 February 2025 (*Appendix 21*) that Consultant X circulated the tender documents for Contract B and Contract D in 2012 and 2016 respectively. At that time, there was no guideline specifying the type of thermal barrier and that tunnel fittings should be dismantled manually as far as practicable to facilitate inspection and maintenance in the long run. Subsequently, after the commencement of the relevant works contract, the New Territories Regional Office of HyD proposed the use of board type thermal barrier and the split of Vitreous Enamel panel into two rows to enhance the cost-effectiveness of the maintenance work and to avoid disruption to traffic as part of the tunnel tubes needed to be closed for the works. Given that the relevant fittings had yet to be installed before the above changes were made, it did not result in any unnecessary additional works and expenditure. HyD issued new design guidelines in 2023 which required the use of board type thermal barrier in general and tunnel fittings should be dismantled manually as far as practicable, to enable more efficient and cost-effective inspection, maintenance and repair works in the long run.

35. Regarding the omissions and discrepancies of information in the tender documents for Contract D mentioned in paragraph 3.13 of the Audit Report, the Committee requested HyD to explain that, for the vehicular access to be constructed under Contract D, why its concrete paving, drainage and the associated emergency vehicular access signage were not specified in the contract drawings, resulting in the subsequent need to issue a variation order valued at \$5.5 million for carrying out the related works, and whether this involved negligence of Consultant X or the relevant staff of HyD. In addition, regarding the 10 instructions issued for clarifying the details of works (involving a total additional cost of \$92.6 million) in respect of the discrepancies among contract documents under Contract D (such as drawings and Particular Specifications), the Committee queried whether Consultant X was liable for the above events as Consultant X was responsible for the preparation of the tender documents (including the construction specifications and drawings, etc.). **Director of Highways** responded at the public hearings, and **Secretary for Transport and Logistics** further explained in her letter dated 7 February 2025 (*Appendix 21*) that:

- Consultant X and HyD had checked the tender documents in accordance with the requirements of the relevant guidelines before tendering

Contract D, which involved more than 6 000 pages of documents and 1 800 drawings. This was an isolated omission, and the relevant variation order amounted to about 0.2% of the original contract sum of \$2.59 billion, and did not involve any unnecessary additional works. HyD considered that the overall performance of Consultant X in preparing the tender documents was not unacceptable;

- of the 10 instructions for clarifying the details of works, 7 were issued to clarify the construction details due to the need to tie in with the latest situation of other “design-and-build” contracts or updated guidelines on design standards, and the amount involved was about \$91.9 million (about 3.55% of the original contract sum of \$2.59 billion). The above seven instructions were not caused by Consultant X’s omission in preparing the tender documents. The remaining three instructions involved isolated omissions in the preparation of the tender documents by Consultant X and amounted to about \$0.7 million (about 0.03% of the original contract sum of \$2.59 billion). HyD would holistically review the performance of Consultant X and reflect this in its final performance assessment report as appropriate; and
- HyD updated its internal guidelines in 2018 to explicitly require its staff to scrutinize the tender documents submitted by the engineering consultants, which included spot checking of tender documents, bills of quantities and drawings. HyD and its consultants also made extensive use of the BIM technology in the production of drawings to ensure that the details of sections/elevations/layout plans/reinforcement in all drawings were compatible with each other and to minimize human errors.

36. According to paragraph 3.16 of the Audit Report, Consultant X issued two variation orders under Contract D valued at \$3.9 million and \$2.6 million respectively for the introduction of the BIM technology and the Smart Fire System Mobile Application to enhance the operational efficiency and fire safety of TM-CLKL. The Committee enquired why the decision to adopt the above technologies was made after the commencement of the works, and what the benefits of the two technologies were. **Director of Highways** explained at the public hearings, and **Secretary for Transport and Logistics** supplemented in her letter dated 7 February 2025 (*Appendix 21*) that as the BIM technology and the Smart Fire System Mobile Application were not widely adopted in the market when the relevant contracts were tendered in 2017, Consultant X did not make the adoption of the relevant technologies a requirement for the contractor in the tender document. Subsequently, in response

to the new guidelines issued in 2019, HyD was required to conduct road safety audits for newly constructed roads. As some of the road works had not yet been completed at the time, the project team proposed to use the BIM technology to produce drive-through simulation videos, so that the road safety auditor could make recommendations on traffic signs and road markings, etc. based on the simulation videos at an early stage. The videos would also help provide clear driving information to the public before the commissioning of TM-CLKL, and they had been uploaded onto TD's website for public viewing and accumulated over 150 000 views so far. The Smart Fire System Mobile Application could automatically notify the tunnel frontline staff of the location of the fire signal through the mobile application when the tunnel fire service installations detected the high temperature warning or fire signal, thus enhancing the speed of response. By allowing the tunnel staff to follow up on the high temperature warning signal immediately, it could help reduce the need for operation of fire engine/ambulance due to false fire alarms so as to better utilize rescue resources. HyD would proactively incorporate suitable new technologies into the tender documents when planning future works projects.

37. With regard to the two fatal accidents at the construction sites of Contracts A and B mentioned in paragraph 3.23 of the Audit Report, the Committee enquired why the summonses against Contractor B and its subcontractor in respect of the fatal accidents were dismissed after trial. In respect of the above two fatal accidents, Contractor A and its subcontractor were convicted and fined, and therefore the performance assessment reports of Contractors A and B were respectively given “very poor” and “poor” ratings in the site safety aspect by HyD. The Committee asked whether HyD had imposed other penalties on the two contractors, such as banning them from participating in tenders. **Director of Highways** explained at the public hearings, and **Secretary for Transport and Logistics** supplemented in her letter dated 7 February 2025 (*Appendix 21*) that regarding the summonses against Contractor B and its subcontractor, the court dismissed the relevant prosecution after trial, having regard to the relevant circumstances of the case. Regarding the safety performance of the contractors, HyD would monitor and follow up site safety matters in accordance with the Construction Site Safety Manual (“CSSM”) and the relevant technical circulars and guidelines in taking forward public works projects. In case of poor safety performance of a contractor or even a fatal accident, HyD would handle the matter in accordance with the Contractor Management Handbook and relevant technical circulars, such as suspending the contractor from tendering. For the case of Contractor A, following the fatal industrial accident, a “very poor” performance rating was reflected in the site safety aspect in Contractor A's performance report for that quarter. Its overall performance was also rated as “adverse”. However, given that Contractor A's performance (including site safety aspect) improved in the following

quarter and its overall performance was rated as “not adverse”, it was not required to disqualify Contractor A from tendering under the mechanism.

38. The Committee noted that according to Note 39 in paragraph 3.2 of the Audit Report, Contractor A and Contractor D were the same company. The Committee asked why Contractor A could still be awarded Contract D in 2018 even though it was given a “very poor” performance rating by HyD in 2016 due to the aforesaid fatal site accident, and whether HyD had taken into account Contractor A’s past performance in assessing Contract D’s tender documents. **Director of Highways** responded at the public hearings, and **Secretary for Transport and Logistics** further explained in her letter dated 7 February 2025 (*Appendix 21*) that tender evaluation of public works contracts comprised two parts. First, tenderers’ technical competence and past performance (including performance reports) were assessed, followed by considering their tender prices. After summation of the technical and price scores, the tender with the highest overall score would be recommended for acceptance. To protect public interest, the financial capability of the tenderer with the highest overall score and the reasonableness of its bid would also be assessed by the works departments, so as to ensure that the successful tenderer was fully capable of completing the works in accordance with the terms of the contract. For tenders with unreasonably low prices, even if they obtained the highest overall scores, they would not be recommended for acceptance. In assessing the tenders for Contract D, HyD had evaluated the technical competence and past performance of the tenderers and their submitted tender prices in accordance with the above evaluation mechanism. Contractor A’s performance in site safety of public works projects in the past three years (including the “very poor” performance rating given by HyD in 2016) had also been reflected in the combined scores in the relevant tender assessment. Apart from Contract D, Contractor A was also awarded other public works contracts in these three years.

39. According to paragraph 3.24 of the Audit Report, in the period from the contract commencement dates of the respective contracts to August 2024, 173 non-fatal reportable accidents happened at the construction sites of Contracts A to F and H. According to CSSM, the contractors were required to report the reportable accidents and submit the related reports to Consultant X in a timely manner. However, Consultant X had not compiled the relevant management information on accidents reported by contractors. The Committee was concerned about how HyD could accurately capture the information on the reportable site accidents to ensure effective monitoring of site safety. **Director of Highways** explained at the public hearings and **Secretary for Transport and Logistics** added in her letter dated 7 February 2025 (*Appendix 21*) that:

- Consultant X had kept information on each of the accident, but needed to take time to check the relevant information to verify whether the contractors had reported the accidents on time in accordance with CSSM. Consultant X and HyD could have better compiled management information to facilitate easy access to the relevant records at any time. HyD would develop standardized computer reports and provide guidelines to require consultants managing works contracts to prepare relevant accident management information, including the time sequence of the contractors' reporting of accidents and records of whether the contractors had delayed the reporting of accidents, etc.; and
- according to the guidelines provided in CSSM, if HyD/consultants were aware of any omission/late reporting of accidents by the contractors, they must request the contractors to provide information and accident report forms within three months for inclusion of the accidents in the statistics, or to provide sufficient evidence to prove that the cases concerned were not reportable accidents and should be withdrawn. Otherwise, HyD would take the initiative to include the accident cases in the statistics and assess the performance of the contractors in accordance with the relevant technical circulars.

40. According to paragraph 3.24 of the Audit Report, there were two and seven cases of late submissions of preliminary accident reports by Contractors A and B respectively, with delays ranging from 8 to 98 days. The Committee enquired about the details and follow-up actions concerned, and expressed concern as to whether the aforesaid delay in reporting site accidents by the contractors also contravened the regulation on reporting work injuries under the Employees' Compensation Ordinance (Cap. 282), in addition to violating the requirements stipulated in CSSM. **Director of Highways** responded at the public hearings, and **Secretary for Transport and Logistics** further explained in her letter dated 7 February 2025 (*Appendix 21*) that:

- under subsection (1A) of section 15 of the Employees' Compensation Ordinance, notice of any accident which resulted in the total or partial incapacity of the employee for a period exceeding 3 days immediately following the accident shall be given to the Commissioner for Labour by the employer not later than 14 days after the accident in the prescribed form to report work injuries. In addition, subsection (1B) of section 15 also provided that if the happening of such accident was not brought to the notice of the employer or did not otherwise come to his knowledge within such periods of 14 days referred to in subsection (1A), then such

notice shall be given not later than 14 days after the happening of the accident was first brought to the notice of the employer or otherwise came to his knowledge;

- according to CSSM, the contractor was required to immediately notify the consultant verbally of a fatal or serious injury accident and must submit a preliminary accident report to the consultant within 24 hours. In case of any other reportable accident (i.e. an accident resulting in incapacity for more than three days), the contractor was required to submit to the consultant a specified Injury Report Form within seven days. In the event of deliberate delay in reporting accidents by the contractor, the consultant would reflect it in the relevant sub-item in the contractor's quarterly performance assessment; and
- among the nine accidents, eight cases were minor or non-symptomatic accidents involving slip, finger bruise, foot injury, waist sprain, and so on. The remaining case involved fall of construction materials from a worktable causing injury to a worker. The late reporting of accidents to the consultants by contractors was mainly due to the failure of some injured workers or their employers to report the work injuries to the contractors in a timely manner, and the time taken by the contractors to verify whether the incidents were substantiated (in particular the relatively minor/non-symptomatic ones) or whether they were reportable accidents. However, the timing of the contractors' reporting of the nine site accidents to the Labour Department was in compliance with the requirements of the Employees' Compensation Ordinance mentioned above.

41. The Committee further enquired whether there was a delay in the reporting of fatal site accidents mentioned in paragraph 3.23 of the Audit Report to the Labour Department, and whether the requirements in CSSM were in full compliance with the relevant legislation in Hong Kong. Apart from the follow-up actions mentioned in paragraph 3.30 of the Audit Report, what measures HyD had put in place to enhance site safety (e.g. mechanism of removal from the list), strengthen the monitoring of the contractors' performance in site safety, and ensure that contractors comply with the relevant requirements for timely reporting of construction site accidents. **Director of Highways** responded at the public hearings, and **Secretary for Transport and Logistics** supplemented in her letter dated 7 February 2025 (*Appendix 21*) that the requirements set out in CSSM were in compliance with the relevant legislation in Hong Kong, and Contractor A and Contractor B had duly reported the fatal site accidents mentioned in paragraph 3.23 of the Audit Report in accordance with the

requirements set out in CSSM. According to the Technical Circular (Works) No. 5/2023 issued by the Development Bureau in July 2023, if a contractor on the approved list was involved in a serious accident, the contractor's tender eligibility in the relevant category of public works might be suspended with immediate effect. The regulatory action of tender suspension was not only applicable to future tenders, but also to works contracts for which the contractor had submitted a tender but had not yet been awarded. HyD would actively make use of the Smart Site Safety System to monitor the site conditions in real time to enhance management efficiency and help the project teams keep track of the construction situation, so as to identify potential risks and minimize accidents at an early stage.

42. Paragraph 3.27 of the Audit Report mentioned that for 16 out of 83 months of Contract B's contract period, the conditions for triggering the site safety monitoring procedure¹ were met and reports should be submitted by Contractor B in this regard to report on the problem areas in relation to site safety, actions taken/to be taken to improve the safety performance and ways to monitor the site safety improvement measures. However, Contractor B did not submit the required reports for 3 out of the 16 months. The Committee enquired how HyD monitored/evaluated the site safety improvement measures implemented by Contractor B in the event that the latter failed to submit the reports. **Secretary for Transport and Logistics** explained in her letter dated 7 February 2025 (*Appendix 21*) that the two-month moving average of the accident rate and three-month moving average of the accident rate under the site safety monitoring procedure were a warning mechanism, the main purpose of which was to require the contractors to conduct immediate reviews and take effective measures when the accident rate was on an upward trend, with a view to improving safety performance in the short term so as to bring down the accident rate. The reason for Contractor B's non-reporting of these three months was that it took time to investigate and confirm some of the "reportable" accidents. After the workers had reported or the contractor had completed their investigations, the accident statistics for certain months in the past had to be adjusted upward, resulting in the accident rate exceeding the limit. However, as the site environment had changed at that time and the two-month moving average of the accident rate and three-month moving average of the accident rate figures at that time were already below the maximum limits stipulated in the works contract, the contractor did not submit the supplementary reports. Notwithstanding the above, HyD and Consultant X still held safety review meetings

¹ According to the site safety monitoring procedure laid down in the contracts, the contractors were required to submit a report to Consultant X when: (a) there were two or more accidents in the previous two months and the two-month moving average of the accident rate (i.e. the number of reportable accidents per 100 000 man-hours worked) was higher than 0.6; and/or (b) there were three or more accidents in the previous two months and the three-month moving average of the accident rate was higher than 0.9.

with Contractor A and Contractor B respectively to review in detail all the “reportable” accidents and summarized the safety measures that needed to be improved and documented them in the safety review report for record purpose.

D. Operation and traffic management

43. According to paragraph 4.2 of the Audit’s Report, in September 2020, TD awarded the first MOM agreement for TM-CLKT through open tender to Operator A at a fixed lump sum management fee of \$298.6 million for four years from 27 December 2020 to 26 December 2024. A new agreement was awarded to the same operator in September 2024 at a fixed lump sum management fee of \$553.6 million for six years. In other words, the average annual management fee had been increased by 24% from \$74.65 million in the previous agreement to \$92.27 million in the new agreement. The Committee enquired about the reason for the above increase, the criteria for tender evaluation and whether Operator A secured the new agreement by bidding with the lowest bid. **Ms Angela LEE Chung-yan, Commissioner for Transport** explained at the public hearings, and **Secretary for Transport and Logistics** supplemented in her letter dated 8 January 2025 (*Appendix 18*) that:

- the tendering exercise for the agreements for MOM for government tunnels was conducted in accordance with the Government’s Stores and Procurement Regulations, by way of open tendering and on the principle of “open and fair competition”, and in compliance with the tendering procedures and assessment criteria. Regarding the new agreement for MOM for TM-CLKT, TD stipulated in the relevant tender documents that the assessment would be divided into two parts, namely technical assessment and price assessment, which would account for 70% and 30% of the total score respectively. The tender assessment panel (comprising staff members from TD and EMSD) assessed the technical proposals submitted by the tenderers in accordance with the prescribed selection criteria and marking scheme, including the tenderers’ capability in the MOM of the relevant traffic and transport facilities, etc., and assessed the price proposals by the tenderers which had passed the technical assessment. The tender assessment panel, after taking into account the total scores obtained by the tenders in both the technical and price assessments, recommended to the Central Tender Board the adoption of the tender with the highest total score. The operator of the new agreement for TM-CLKT was the tenderer with the highest total score among the tenderers and its bid price was the second lowest. TD awarded the new agreement of TM-CLKT after the Central Tender Board had approved the assessment results; and

- it was estimated that the increase in the management fee for the new agreement of TM-CLKT had already reflected factors such as rising operating costs and cumulative inflation in the past few years. Coupled with the continuous increase in traffic volume of TM-CLKT due to the development of HZMB, the Hong Kong International Airport and Tung Chung New Town, TD had increased under the new agreement 10 staff in total (representing an increase of 7% as compared with that in the first agreement) to carry out the duties of traffic control staff and maintenance staff at the tunnel entrances and exits to ensure the safe operation and operational efficiency of the tunnel. As the maintenance period of some tunnel facilities and equipment had expired, the tunnel operator needed to repair or replace the relevant facilities and equipment during the contract period of the new agreement of TM-CLKT, resulting in a corresponding increase in related maintenance expenses. Taking into account the above reasons, TD considered that the increase in management fee of the new agreement for TM-CLKT was reasonable.

44. According to paragraph 4.5 of the Audit Report, the actual number of designated ranks of staff employed by Operator A of TM-CLKT in the period from its commissioning in December 2020 to June 2024 was less than that specified in the MOM agreement, with a monthly staff shortfall ranging from 8 to 30 staff, representing 6% to 21% of the manning level of 140 staff. However, paragraph 4.7 of the Audit Report mentioned that TD found in a review in February 2024 that the traffic volume and associated operation and maintenance needs had increased. Therefore, the manning level in the new MOM agreement, which commenced in December 2024, would increase from 140 to 150. The Committee enquired about the measures put in place by TD to assist and ensure that Operator A could meet the requirements of the new agreement and recruit sufficient staff. **Commissioner for Transport** responded at the public hearings, and **Secretary for Transport and Logistics** supplemented in her letter dated 7 February 2025 (*Appendix 21*) that:

- the operator had organized a number of in-house training courses to enhance the capabilities of serving operators to take up suitable positions. The operator had co-organized a training course with the Hong Kong Institute of Vocational Education in August 2024 to recruit traffic officer trainees through the “Employment First, Training Later” scheme under the Employees Retraining Board (“ERB”). Upon completion of the course, students could be transferred to become traffic officers and officially join the tunnel management industry. The operator had liaised with ERB on the organization of the next training course as soon as possible in 2025. The operator would continue to

conduct staff recruitment publicity through various channels, including placing recruitment advertisements and participating in open recruitment events organized by the Labour Department or major recruitment media to attract newcomers to join the tunnel industry. The operator would also redeploy staff on leave to fill vacancies in designated ranks;

- TD had, where appropriate, allowed the operator to employ some applicants who did not have one year's experience in traffic control or public transport facility management to take up the post of assistant traffic officer, and had provided training for these staff. Upon completion of the training and passing the examination, they could become traffic officers. TD had also given approval for the operator to suitably employ applicants who did not hold a driving licence as traffic officers, starting from the effective date of the new agreement, and assign the applicants to non-driving positions in order to attract new recruits to the tunnel management industry and enhance the supply of manpower resources and recruitment efficiency. In the long run, TD would consider making good use of technology to reduce the manpower requirement, such as studying the installation of sensors on roadside and tunnel equipment to detect out-of-gauge vehicles and the condition of tunnel equipment, thereby reducing the frequency of manual inspections and patrols. TD would liaise with relevant technology companies and consider conducting trials of such technology in the tunnel environment; and
- TD had always been concerned about the manning level of the operator. In fact, the shortage of operation and maintenance staff had improved significantly from its peak. The operator had identified/recruited sufficient staff when the new agreement commenced. Apart from urging the operator to improve the working environment and remuneration, TD would continue to supervise the operator to continuously review their human resource plans and work with them to discuss coping strategies, make timely adjustments and take appropriate measures in the light of the actual circumstances to maintain the stability of its workforce and attract newcomers to join the tunnel management industry, thereby complying with the agreed staffing levels for various types of employees as stipulated in the agreement.

45. Regarding the seven issues that arose during recovery operations conducted by the heavy recovery vehicles ("HRVs") used in TM-CLKT between May 2021 and May 2024 as mentioned in paragraphs 4.15 and 4.16 of the Audit Report, the

Committee enquired why the causes were not ascertained until three years after experiencing a number of similar problems (i.e. September 2024), and requested details of the remedial measures. **Commissioner for Transport** advised at the public hearings, and **Secretary for Transport and Logistics** further explained in her letter dated 7 February 2025 (*Appendix 21*) that:

- TM-CLKT, with a total length of approximately 5 kilometres and a depth of about 60 m below sea level, was currently the longest and deepest road tunnel in Hong Kong. The depth and gradient of the tunnel would affect the stability of a vehicle's centre of gravity, especially when an accident occurred on a steeper section in the tunnel, where the vehicle's centre of gravity might become unstable due to the changes in gravitational force, resulting in the tilting up of front wheels. In addition, the weight of a towed vehicle was also a significant factor contributing to the tilting up of front wheels. If the weight of a towed vehicle exceeded the design load capacity of the recovery vehicle, it would cause the centre of gravity of the recovery vehicle to shift, further increasing the risk of losing stability. EMSD had assigned engineers to conduct professional and technical assessments to verify the performance of the recovery vehicles. The operator had also conducted rounds of on-site demonstrations to simulate the operation of HRVs under different conditions, including the stability, traction and safety of the recovery vehicle. As the entire process involved coordination among various parties, it took time to identify the causes of the problems and improvement solutions; and
- TD and EMSD were considering enhancing the axle load capacity of HRVs and converting the vehicle type concerned from heavy goods vehicles to special purpose vehicles. Subject to the advice/approval from HyD and EMSD, TD expected that the modification works could be completed within 2025. As HRVs were government vehicles, the relevant expenses involved in improving their load-bearing capacity would be borne by the Government. Since the details of the modification work were yet to be finalized, information on the related expenses was not available at this stage. EMSD had set up a hotline for operators to contact EMSD when encountering such situations, so that EMSD could provide technical assistance, analyse and investigate the incident as soon as possible.

46. The Committee further enquired whether the same model of HRVs was used in other tunnels, and whether similar problems had occurred; and whether TD had established appropriate specifications and requirements for the procurement of HRVs for tunnels in accordance with the design and conditions of different tunnels, as well as carried out field tests. **Commissioner for Transport** advised at the public hearings, and **Secretary for Transport and Logistics** supplemented in her letter dated 7 February 2025 (*Appendix 21*) that HRVs of the same type were also currently used in other government tunnels. Records showed that no similar problems had occurred with these HRVs during vehicle recovery operations. The procurement of HRVs was based on operational requirements. Tenders were scrutinized by the Government Logistics Department to ensure that the procurement procedures were in line with the Government's material supply and procurement requirements, and were conducted through open tender. The lifting appliances and lifting gears on each HRV were inspected, examined and tested by registered professional engineers, and certification documents were issued in accordance with the Factories and Industrial Undertakings (Lifting Appliances and Lifting Gear) Regulations (Cap. 59J). Before the delivery of HRVs, TD and EMSD would conduct testing and inspection of the vehicles and make appropriate adjustments to the vehicles if necessary to ensure that the vehicle specifications complied with the tender requirements, operational needs and relevant safety requirements. In the future planning and procurement of HRVs, TD and EMSD would place more emphasis on local conditions in order to formulate technical specifications and requirements that better suit the actual environment.

47. According to paragraph 4.17 of the Audit Report, although over-height vehicle detectors were provided by the Administration to the operator of TM-CLKT, no other equipment or technology was provided for auto-detection of other types of out-of-gauge vehicles (e.g. over-length). In paragraph 4.21(f) of the Audit Report, TD stated that it would explore additional measures to help the operator of TM-CLKT identify out-of-gauge vehicles passing through the tunnel. The Committee enquired about the progress. **Commissioner for Transport** advised at the public hearings, and **Secretary for Transport and Logistics** supplemented in her letter dated 7 February 2025 (*Appendix 21*) that to assist the operator of TM-CLKT in identifying out-of-gauge vehicles, TD and EMSD had approached the relevant technology companies. Their preliminary view was that it was generally feasible to install additional detectors for over-height, over-width, and over-length vehicles on the existing infrastructure, although further studies on the detection of overweight vehicles were needed. TD and EMSD would thoroughly consider the feasibility of using the relevant identification technology in the tunnel environment and conduct appropriate testing, with a view to enhancing the safety and operational efficiency of the tunnel.

48. According to paragraph 4.25 of the Audit Report, TD stated at a meeting of the Tuen Mun District Council in September 2020 that the commissioning of TM-CLKL would not have a significant impact on the traffic in Tuen Mun. According to the research by Consultant X, the congestion on the busier major road sections in Tuen Mun would remain manageable until 2026. However, as pointed out in paragraph 4.26 of the Audit Report, a traffic survey conducted by Consultant X under the project in 2021 after the commissioning of the Northern Connection of TM-CLKL in December 2020 showed that traffic flows at the relevant major road sections in Tuen Mun (including Wong Chu Road) had increased. Furthermore, the volume/capacity (“v/c”) ratio of Wong Chu Road had exceeded 1.0 (i.e. indicating the onset of traffic congestion) since 2022 and increased to 1.17 in 2023.² The Committee enquired whether TD had conducted further studies or investigations on the traffic congestion situation in Tuen Mun, the current v/c ratio of Wong Chu Road, and the measures taken to improve traffic congestion in Tuen Mun. **Commissioner for Transport** responded at the public hearings, and **Secretary for Transport and Logistics** further explained in her letter dated 7 February 2025 (*Appendix 21*) that:

- in 2020, Consultant X conducted an assessment on the traffic condition of busier major roads in Tuen Mun and anticipated that the traffic condition would still be manageable till 2026, and TD agreed with the assessment at that time. Since then, TD had been monitoring the traffic situation in Tuen Mun. According to TD’s observation, Tuen Mun Road (Town Centre Section) and Wong Chu Road were congested during peak hours on weekdays, with a v/c ratio of 1.17 in 2023. However, the overall traffic situation in Tuen Mun was still at a manageable level. As for the traffic data for 2024, they were still being compiled. To maintain the road traffic condition in Tuen Mun at a manageable level, TD formulated corresponding short-term traffic management measures, including arranging for the widening of junction on Ming Kum Road and Lung Mun Road. This enabled vehicles to smoothly travel between Tuen Mun Road (Fu Tei Section) and TM-CLKT using the route along Tsing Tin Road, Ming Kum Road, Tsing Wun Road and Lung Mun Road, thereby diverting traffic away from Tuen Mun Road (Town Centre Section) and Wong Chu Road;

² A v/c ratio is an indicator of the traffic condition of a road: (a) a v/c ratio equal to or less than 1.0 means that a road has sufficient capacity to cope with the anticipated volume of vehicular traffic and a v/c ratio above 1.0 indicates the onset of traffic congestion; (b) a v/c ratio between 1.0 and 1.2 indicates a manageable degree of congestion; and (c) a v/c ratio above 1.2 indicates more serious traffic congestion with traffic speeds deteriorating progressively when there is further increase in traffic.

- the Government was taking forward a group of major transport infrastructure projects to connect the Northwest New Territories with Lantau and the urban areas, including Route 11 (section between Yuen Long and North Lantau), Tuen Mun Bypass, Tsing Yi – Lantau Link and Widening of Yuen Long Highway (section between Lam Tei and Tong Yan San Tsuen) to meet the transport and logistics demand arising from the progressive development of the Northwest New Territories. The Government also planned to prioritize the extension works of major roads in Tuen Mun before the commissioning of the Tuen Mun Bypass, including the proposed Lung Fu Road Slip Roads and Hoi Wing Road Slip Road, to enhance the capacity of the road network in the district; and
- TD, in conjunction with HyD, was studying different options to improve congested road sections in the district, including adjusting the road markings on Wong Chu Road to rationalize the traffic in the vicinity of Wong Chu Road slip roads, and taking forward the next phase of the junction improvement works, so as to allow vehicles travelling between Tuen Mun Road and TM-CLKT to travel along Tsing Tin Road, Ming Kum Road, Tsing Wun Road and Lung Mun Road more smoothly. When formulating traffic plans, TD would take into account the future development of the area as a whole, including the implementation of various infrastructure projects and the impact on major roads in Tuen Mun after the implementation of time-varying tolls at the Tai Lam Tunnel.

E. Conclusions and recommendations

Overall comments

49. The Committee:

- is strongly of the view that:
 - (a) good cost management in the implementation of works projects can ensure that projects are completed within budget and on time, thereby enabling the proper use of public funds and enhancing the economic benefits of these projects. Maintaining strict fiscal discipline in the delivery of public infrastructure and public works

projects is all the more necessary, especially as the Government is currently facing a significant fiscal deficit;

- (b) a project consultant has key roles and functions in facilitating project delivery, which include providing professional technical expertise, planning and design, risk management and serving as a bridge of communication between various stakeholders. As such, the consultant's performance will have a direct impact on the cost-effectiveness and construction efficiency of works projects; and
- (c) timely reporting of accidents on construction sites facilitates the responsible works departments to oversee the safety condition of construction sites and identify potential safety risks, thereby enabling them to formulate targeted preventive measures to reduce accidents and protect workers' safety. A robust reporting mechanism for construction site accidents also ensures that the safety management work complies with the requirements of relevant legislation;

Cost control

- notes that the cost of a public works contract mainly comprises the construction cost of works items, provision for contingency and provision for price fluctuation adjustment. The provision for contingency caters for additional costs arising from unforeseen circumstances, such as variation orders due to unpredicted geological conditions or additional works. The provision for price fluctuation adjustment is to cope with fluctuations in the cost of labour and materials during the contract period;
- expresses grave concern that:
 - (a) according to both FSTB and DEVB, under the existing mechanism, during the implementation of public works projects, if the provision for contingency in contracts and savings in construction costs are insufficient to cover additional costs incurred due to unforeseen circumstances, and when it is not possible to deploy other resources, and there is a surplus in the provision for price adjustment, Controlling Officers can use the surplus in the price adjustment provision to cover such additional costs, subject to the approved project estimates and in compliance with the above conditions;

- (b) TLB advised that the provisions of price adjustments in the works contracts for the TM-CLKL project were basically used to cover additional expenditure arising from price increases in labour and materials. However, as other expenditure under the contracts (e.g. additional expenditure arising from the interfacing issues with the reclamation works of HKP of HZMB and the contractors' claims) exceeded expectation and the contingency provisions in the contracts were insufficient, HyD used the surplus in the provisions for price adjustments to cover the additional expenditure arising from unforeseen circumstances. For the eight works contracts under the TM-CLKL project, five contracts required the use of the surplus in the provisions for price adjustments; and
- (c) the total original contract sum of the eight works contracts under the TM-CLKL project was \$32,691.3 million. TLB estimated that the final total expenditure for the works contracts would be about \$36.6 billion, which exceeded the original total contract sum by 12% (i.e. an increase of about \$3.9 billion). Notwithstanding this, even after adding other expenditures (including the costs of resident site staff employed by consultants and consultancy fees) of \$5.5 billion to the final total expenditure for the works contracts, the total expenditure for the TM-CLKL project remains within the total funding of \$46.708 billion approved by LegCo;
- considers that while HyD has deployed resources under the works projects in accordance with the existing mechanism, and the TM-CLKL project as a whole has not exceeded its approved project estimate with the full coverage by the contingency provision, the total expenditure under the works contracts has in fact exceeded the original total contract sum. Such circumstance is not desirable from the perspective of cost management;
- notes that the Government has adopted parallel tendering since September 2020, which means that the Government will first commence tendering exercise for a works project in order to reflect the returned tender price in its submitted funding application, thereby providing LegCo with a more accurate construction cost estimate. PSGO of DEVB has since 2017 played an independent third party role to review variations of public works contracts involving \$1.4 million or above based on the principle of cost-effectiveness, and provide independent advice to the Controlling Officers after such review;

- urges that :
 - (a) HyD and other works departments to be mindful of cost control in the implementation of works projects, exercise restraint and maintain strict discipline in resource utilization, and adhere to the original resource allocation in works projects; and
 - (b) FSTB and DEVB review the existing mechanism for resource utilization in works projects and explore potential areas for optimization. For example, consideration could be given to establishing a multi-level monitoring mechanism for the use and deployment of resources to enhance transparency and accountability;
- requests that:
 - (a) TLB report to the Committee on the total final expenditure of the TM-CLKL project; and
 - (b) FSTB and DEVB report to the Committee on the findings of the review of the existing mechanisms for resource utilization in public works projects;

Performance of Consultant X

- notes that:
 - (a) in the tendering exercise for the TM-CLKL project, Consultant X was responsible for preparing cost estimates and tender documents (including applicable contract terms, construction specifications, bills of quantities and drawings for the construction works, etc.) for each works contract based on its design; while HyD was responsible for checking the abovementioned work of Consultant X, evaluating the tender submissions, recommending the successful contractors to the Tender Board and awarding the works contracts to the relevant contractors for commencing the construction works; and
 - (b) in the course of implementing the TM-CLKL project, Consultant X is the Engineer or Supervising Officer responsible for supervising individual contract works. HyD, being the managing department of the entire project, is responsible for overseeing the

implementation of the contract works (e.g. vetting and approving major variations, and offering views on the assessment of contractual claims) and the performance of Consultant X;

- expresses grave concern that:
 - (a) during the design stage, Contractor A contended that when circulating various design submissions to Consultant X and relevant stakeholders for comments, such submitted designs were approved by Consultant X beyond the prescribed timeframes due to the later-than-expected responses from some stakeholders. Contractor A submitted a claim for additional design fees due to delayed responses to and longer-than-expected approvals on various design submissions;
 - (b) regarding the retrospective issuance of the variation order (valued at an additional cost of \$9.4 million by Consultant X) relating to watermain diversion works under Contract A more than one year after completion of the works in 2017 (i.e. more than three years after commencement of the works in 2015), although HyD stated that all stakeholders were aware at that time that the diversion works needed to be carried out first under the tight construction programme, it acknowledged that this practice was unsatisfactory. In this case, Consultant X did not strictly adhere to the contractual terms for the issuance of variation orders in writing and the relevant guidelines in the Project Administration Handbook for Civil Engineering Works;
 - (c) regarding the serious inaccuracy in the estimation of the quantity of fill material required for the reclamation works in Tuen Mun under Contract B, HyD advised that Consultant X had carried out ground investigation in accordance with the guidelines in the Port Works Design Manual and assessed the quantity of rock fill material according to the investigation results. As such, HyD was of the view that Consultant X's recommendations at that time did not involve professional negligence, but considered that Consultant X could have exercised better professional judgement. In the quarterly performance assessment report from October to December 2013, HyD gave a "poor" performance rating to Consultant X in the aspects of cost estimates and quality of tender documents/drawings; and

- (d) regarding the 10 instructions issued for clarifying the details of the works in respect of the discrepancies amongst contract documents under Contract D (such as contract drawings and Particular Specifications), three of these instructions were caused by omissions in the preparation of the tender documents by Consultant X, amounting to about \$0.7 million;
- strongly urges that:
 - (a) TLB and DEVB explore, where appropriate, the introduction of risk-sharing clauses in consultancy agreements and a mechanism to deal with compensation events whereby consultants should assume certain responsibilities in relation to the progress, cost control and risk management of works projects. When taking forward a works project, HyD should proactively seek legal advice and consider bringing claims for compensation to protect the Government's interests if the consultant is found to be involved in potential legal liabilities, such as professional negligence or breach of contract;
 - (b) TLB and DEVB explore the establishment of an explicit reward and punishment mechanism to provide appropriate incentives or impose penalties on consultants based on their performance in order to enhance their performance and accountability; and
 - (c) during the implementation of works projects, HyD and other works departments should strengthen the management of consultant performance, maintain close communication and regularly share project progress with consultants to understand potential risks and facilitate the timely adoption of contingency measures;

Site safety

- expresses grave concern that:
 - (a) from the commencement dates of the respective contracts to August 2024, 2 fatal accidents and 173 non-fatal reportable accidents happened at the construction sites of Contracts A to F and H, involving sick leave ranging from 4 to 750 days;
 - (b) according to the requirements set out in CSSM issued by DEVB, contractors are required to report reportable accidents in a timely

manner and submit the relevant reports to Consultant X. However, Consultant X did not properly compile the relevant management information to make it readily available for inspection;

- (c) for reportable accidents, there were two and seven cases of late submission of the preliminary accident report by Contractors A and B respectively, with delays ranging from 8 to 98 days; and
 - (d) for 16 out of the 83 months for Contract B, the conditions for triggering the site safety monitoring procedure³ were met. However, for 3 out of the 16 months, Contractor B did not submit the required reports to Consultant X detailing the problem areas in relation to site safety, actions taken/to be taken to improve the safety performance and the way the site safety improvement measures to be monitored;
- notes that:
- (a) under subsection (1A) of section 15 of the Employees' Compensation Ordinance (Cap. 282), notice of any accident which results in the total or partial incapacity of the employee for a period exceeding 3 days immediately following the accident shall be given to the Commissioner for Labour by the employer not later than 14 days after the accident in the prescribed form for the purpose of reporting work injuries. In addition, subsection (1B) of section 15 also provides that if the happening of such accident was not brought to the notice of the employer or did not otherwise come to his knowledge within such periods of 14 days referred to in subsection (1A) then such notice shall be given not later than 14 days after the happening of the accident was first brought to the notice of the employer or otherwise came to his knowledge;
 - (b) the requirements for reporting work injuries in CSSM are higher than the statutory requirements. According to CSSM, the contractor is required to immediately notify the consultant verbally

³ According to the site safety monitoring procedure laid down in the contracts, the contractors shall submit a report to Consultant X when: (a) there are two or more accidents in the previous two months and the two-month moving average of the accident rate (i.e. the number of reportable accidents per 100 000 man-hours worked) is higher than 0.6; and/or (b) there are three or more accidents in the previous two months and the three-month moving average of the accident rate is higher than 0.9.

of a fatal or serious injury accident and must submit a preliminary accident report to the consultant within 24 hours. For other reportable accidents (i.e. accidents resulting in incapacity for more than three days), the contractor is required to submit to the consultant a specified Injury Report Form within seven days of the occurrence of such accidents. In the event of deliberate delay in reporting accidents by the contractor, the consultant will reflect it in the contractor's quarterly performance assessment;

- (c) Contractor A and Contractor B have duly reported the aforementioned two fatal site accidents in accordance with the requirements set out in CSSM; and
- (d) regarding the aforementioned nine site accidents which were not reported to the consultant in a timely manner, the timing of the contractors' reporting of the accidents to the Labour Department was in compliance with the requirements of subsection (1A) of section 15 or subsection (1B) of section 15 of the Employees' Compensation Ordinance. Among these nine site accidents, eight cases were minor or non-symptomatic accidents involving slip, finger bruise, foot injury, waist sprain, etc. The remaining case involved fall of construction materials from a work table causing injury to a worker;
- reiterates that while the statutory liability for reporting work injuries lies with the employers of the injured workers, HyD, as the managing department of the TM-CLKL project, has a duty to urge the project consultant to supervise the contractors in reporting construction site accidents in accordance with the requirements of CSSM and ensure strict compliance with the established reporting mechanism to effectively protect the lives, safety and health of workers; and
- notes that:
 - (c) HyD will develop standardized computer reports and provide guidelines to require consultants managing works contracts to prepare relevant accident management information, including the time sequence of the contractors' reporting of accidents and records on whether the contractors have delayed the reporting of accidents, etc.;

- (d) HyD will actively make use of the Smart Site Safety System to monitor the site conditions in real time to help the project teams keep track of the construction situation, so as to identify potential risks and minimize accidents at an early stage; and
- (e) the Director of Highways Department agrees with Audit's recommendations in paragraph 3.29 of the Audit Report.

Specific comments

50. The Committee:

Inter-contractual coordination

- expresses grave concern that as a result of the delays of HKP reclamation works under another works contract of HyD and lateral movements of the seawalls of HKP, Contractors A and B were unable to carry out subsequent works under Contracts A and B as planned, causing substantial works variations (involving a total additional cost of \$7,937 million) and incurring prolongation costs and disruption costs of \$1,006.4 million, and extensions of time granted under Contracts A and B (of 779 and 475 days respectively);
- urges that HyD should:
 - (a) strive to minimize the interfaces between works contracts as far as practicable for similar projects in the future, including exploring the possibility of using the same contractor to carry out the design and construction of the reclamation and subsequent works, etc.; and
 - (b) explore the adoption of the early contractor involvement approach in public works contracts to facilitate the participation of contractors in the design and site investigation stages of works projects, so as to identify potential risks and problems in the projects at an early stage, thereby avoiding delays or overspending in the works projects;

- notes that:
 - (a) HyD will adopt the “New Engineering Contract” approach by introducing mechanisms such as early warning and compensation events in the contracts, with a view to promoting the establishment of partnership relationship and joint risk management between the contracting parties, so that the project management performance and its cost-effectiveness will be enhanced; and
 - (b) the Director of Highways has agreed with Audit’s recommendations in paragraph 2.10 of the Audit Report;

Pre-construction site investigation

- expresses grave concern and dissatisfaction that:
 - (a) before tendering of Contract A, based on the as-built records, HyD anticipated that the length of the watermain to be diverted was about 270 m. However, after commencement of Contract A, taking into account the actual site conditions, the actual length of the watermain to be diverted was measured to be about 422 m, which was 56% longer than the estimated length;
 - (b) the actual rockhead levels at various piling works locations under Contract A were deeper than the envisaged levels in the Geotechnical Baseline Report, and there was a need to change the construction method for constructing longer piles. An additional payment of \$52.2 million was required for the 31 claims submitted by Contractor A in this regard;
 - (c) further pre-construction ground investigation carried out by Contractor B revealed that the estimated quantity of rock fill material required for the reclamation works under Contract B was about 850 000 m³, which was about 90% higher than the quantity of 441 400 m³ originally specified in Contract B. Due to a shortage of local rock fill supply at that time, Contractor B needed to procure additional rock fill material from the Mainland, substantially increasing transportation cost. The price of additional rock fill material procured also went up from the original \$160/m³ specified in Contract B to \$456/m³, resulting in an additional \$115.8 million being paid to Contractor B for its claim; and

- (d) after the commencement of Contract C, despite the fact that pre-contract ground investigation had been carried out during the design stage, unforeseeable adverse ground conditions were encountered for a particular section of the slope. This resulted in a variation order valued at \$176.9 million issued by Consultant X, instructing Contractor C to carry out additional ground investigation, the construction of the slope based on revised design and delay recovery measures; the construction works of another retaining wall under Contract C also encountered unforeseen ground conditions after commencement, resulting in a variation order valued at \$21.1 million being issued by Consultant X to address the issues;
- strongly demands that HyD should:
 - (a) actively explore new technologies that are cost-effective and mature so as to better understand the geological conditions at an early stage of the projects and minimize additional expenditure arising from unanticipated ground conditions; and
 - (b) when a certain quantity of building materials needs to be re-procured in the course of works projects (such as the abovementioned rock fill issue), consider the establishment of an open tender mechanism for this purpose to ensure that the procurement process complies with the principles of fairness, openness and transparency;
- notes that:
 - (a) HyD has now required the extensive use of BIM technology in public works projects from the early planning and design stages to improve the accuracy of quantity surveying, and that the use of new technologies (e.g. geophysical survey technology) for site investigation be explored to better understand the geological conditions and estimate the relevant project costs; and
 - (b) the Director of Highways has agreed with the relevant Audit's recommendations in paragraphs 2.23, 2.42 and 3.18 of the Audit Report;

Tender evaluation mechanism

- notes that:
 - (a) consultancy agreements for public works projects mainly adopt a “two-envelope” tender evaluation approach whereby tenderers are required to submit a technical proposal and a fee proposal at the same time. In assessing technical proposals, works departments will examine the consultants’ job experience, understanding of the projects, proposed manpower inputs, and past performance (including performance reports), etc. In the subsequent assessment of fee proposals, works departments will use the pre-tender estimate of the consultancy fee as the basis to examine whether the consultants’ tender prices are reasonable and whether they are commensurate with the proposed manpower inputs. Works departments will calculate a combined score based on the weighting stipulated in the tender documents. Normally, the tenderer with the highest combined score will be awarded the consultancy; and
 - (b) tender evaluation of public works contracts comprises two parts: the tenderers’ technical competence and past performance (including performance reports), and their tender prices. After summation of the technical and price scores, the tender with the highest overall score will be recommended for acceptance. The financial capability of the tenderer with the highest overall score and the reasonableness of its bid will also be assessed by the works departments, so as to ensure that the successful tenderer is fully capable of completing the works in accordance with the terms of the contract. Tenders with unreasonably low prices will not be recommended for acceptance, even if they obtain the highest combined scores;
- expresses grave concern that:
 - (a) HyD rated Consultant X’s performance in cost estimates and quality of tender documents/drawings as “poor” in the quarterly assessment report from October to December 2013. HyD indicated that the result of the assessment would have a bearing on Consultant X’s chances of winning tenders for government consultancy agreements within the three years following the issuance of the relevant assessment report. However,

Consultant X had participated in tenders for government consultancy agreements and had been awarded contracts. According to HyD, Consultant X's past performance had been reflected in the combined scores in the tender evaluation; and

- (b) Contractor A and Contractor D of the TM-CLKL project were the same company. A “very poor” performance rating was given by HyD in the site safety aspect in Contractor A's performance report for the period from March to May 2016 due to a fatal site accident, but it could still be awarded Contract D two years later in 2018. HyD advised that following the fatal site accident, a “very poor” performance rating was reflected in the site safety aspect in Contractor A's quarterly performance report. Its overall performance was also rated as “adverse”. In view of the improvement in Contractor A's performance (including site safety aspect) in the following quarter and that its overall performance was rated as “not adverse”, it was not required to disqualify Contractor A from tendering under the mechanism. HyD indicated that in assessing the tenders for Contract D, the technical competence and past performance of the tenderers and their submitted tender prices had been evaluated in accordance with the evaluation mechanism for public works projects. Contractor A's performance in terms of site safety in the past three years (including the “very poor” performance rating given by HyD in 2016) had also been reflected in the combined scores in the relevant tender assessment. In addition to Contract D, Contractor A had also been awarded other public works contracts in those three years;
- notes that according to the Technical Circular (Works) No. 5/2023 issued by DEVB in July 2023, if a contractor on the approved list is involved in a serious incident, the contractor's tender eligibility in the relevant category of public works may be suspended with immediate effect;
 - is strongly of the view that it is necessary for the Administration to review the existing tender evaluation mechanism for public works projects in order to give more weight to the past performance of tenderers, and to explore the introduction of a “blacklist” mechanism to increase the deterrent effect and to motivate the industry to improve service quality;

Application of new designs and materials

- expresses grave concern that:
 - (a) Contractor B proposed to construct a service gallery underneath the entire length of TM-CLKT carriageway and provide 45 emergency access hatches along the tunnel carriageway as supplementary evacuation/rescue routes. Contractor B offered the Government a lump sum saving of \$12 million for the proposal. The above facilities were new designs and were being used for the first time in a tunnel in Hong Kong. After the commissioning of TM-CLKT in December 2020, the emergency access hatches continued to malfunction (i.e. accidental opening of an access hatch cover) despite rectification works (the cost incurred was borne by Contractor B) carried out by Contractor B. In this connection, the Government strengthened the monitoring system for the emergency access hatches cover at a cost of \$8.8 million. In October 2023, the relevant parties finally decided to seal off all emergency access hatches;
 - (b) when vetting the tender documents in 2012, the office responsible for the maintenance of the civil works of TM-CLKT (i.e. the New Territories Regional Office of HyD) did not provide comment on the spray type thermal barrier in the tunnel. It was only after the commencement of Contract B that the office expressed concerns about the spray type thermal barrier specified in Contract B. In the end, two variation orders (totalling \$328.7 million) were issued to implement the works associated with the change to board type thermal barrier for long-term operation and maintenance benefits;
 - (c) in April 2016, the New Territories Regional Office of HyD made no comment on the reference design of the Vitreous Enamel panels in the tunnel at the planning stage. The design was finally approved in March 2019 and the office commented on it in the same month, resulting in the need to issue a variation order valued at \$5.5 million under Contract D to change to a more maintenance friendly design; and
 - (d) after the commencement of Contract D, two variation orders at the cost of \$3.9 million and \$2.6 million were issued for the introduction of BIM and the Smart Fire System Mobile Application

respectively to enhance the operational efficiency and fire safety of TM-CLKL;

- strongly recommends that HyD should:
 - (a) conduct adequate feasibility studies, risk assessments and field tests on the new designs and materials that are proposed to be used in the future to minimize the problems that may occur; and
 - (b) enhance internal communication and collaboration, remind the relevant parties to give due consideration to future maintenance needs when selecting designs and materials, and to comment early on the new designs or materials proposed to be used so as to include new proposals as appropriate in tender documents;
- notes that the Director of Highways has agreed to the relevant Audit's recommendations in paragraphs 2.42 and 3.18 of the Audit Report;

Other contract management issues

- expresses grave concern and dissatisfaction that:
 - (a) between June and July in 2021, two significant flooding incidents occurred at the south portal of TM-CLKT, disrupting tunnel traffic for about three hours and about an hour respectively. Consultant X issued a variation order valued at \$6.4 million for the construction of additional U-channels for the as-constructed gullies;
 - (b) Consultant X estimated that the issuance of a variation order under Contract C to replace the soft materials below the base of the retaining wall could result in a potential delay of 3.5 months in completion and prolongation cost of \$13.6 million, but the actual impact on time and costs of issuing such a variation order eventually amounted to an extension of time of 273 days (i.e. about nine months) and an additional payment for prolongation cost of \$31.5 million;
 - (c) after completion of Contract C, dislocation of covers of several sewerage manholes and cut-off drains occurred between May 2021 and February 2023. To avoid affecting road safety, three variation

orders (valued at \$3 million) were required to carry out the relevant modification works; and

- (d) some of the works relating to the construction of the vehicular access required under Contract D were not specified in the contract, resulting in the need for Consultant X to issue a variation order valued at \$5.5 million to carry out the relevant works; and due to the discrepancies among contract documents (e.g. among various contract drawings or between Particular Specifications and contract drawings) under Contract D, Consultant X was also required to issue 10 instructions to clarify the details of works, resulting in an additional cost of \$92.6 million;
- strongly urges HyD to draw lessons from relevant experience to enhance the management of works contracts and actively use technology to assist staff in vetting tender documents;
- notes that the Director of Highways has agreed with the relevant Audit's recommendations in paragraphs 2.42 and 3.18 of the Audit Report;

Tunnel operation and traffic management

- expresses serious concern that:
 - (a) since the commissioning of TM-CLKT in December 2020 and up to June 2024, the actual number of designated ranks of staff employed by TM-CLKT Operator A was less than that specified in MOM agreement, with a monthly staff shortfall ranging from 8 to 30 staff, representing 6% to 21% of the manning level of 140 staff. However, TD found in a review in February 2024 that the traffic volume and associated operation and maintenance needs had increased. Therefore, the manning level in the new MOM agreement commenced in December 2024 had increased from 140 to 150;
 - (b) HRVs used in TM-CLKT experienced a total of seven issues during recovery operations conducted between May 2021 and May 2024. However, TD, EMSD and the manufacturer of HRVs, could not ascertain the underlying causes of the issues until September 2024 (i.e. three years after the issues first occurred) and possible improvement measures are being explored;

- (c) apart from over-height vehicle detectors, TD did not provide Operator A with any other equipment or technology for the automatic detection of other types of over-gauge vehicles (e.g. over-length or over-width vehicles); and
 - (d) with the full commissioning of the Northern Connection of TM-CLKL in December 2020, the traffic v/c ratio of Wong Chu Road (i.e. one of the relevant major road sections in Tuen Mun) had exceeded 1.0 (i.e. indicating the onset of traffic congestion) since 2022 and increased to 1.17 in 2023;⁴
- recommends that:
- (a) TD should take timely measures to facilitate Operator A's employment of adequate manpower as stipulated in the MOM agreement to ensure that the operation of the tunnel will not be affected;
 - (b) TD and EMSD should set out appropriate specifications and requirements for the procurement of HRVs for tunnels in accordance with the design and conditions of different tunnels, and carry out field tests; and
 - (c) TD should closely monitor the impact of the commissioning of the Northern Connection of TM-CLKL on the traffic within the Tuen Mun area, and actively explore measures to improve the traffic condition;
- notes that:
- (a) the Commissioner for Transport has agreed with Audit's recommendations in paragraphs 4.19 and 4.28 of the Audit Report;
 - (b) the Director of Electrical and Mechanical Services has agreed with Audit's recommendations in paragraph 4.19(e) of the Audit Report; and

⁴ A v/c is an indicator of traffic condition of a road: (a) a v/c ratio equal to or less than 1.0 means that a road has sufficient capacity to cope with the anticipated volume of vehicular traffic; while a v/c ratio above 1.0 indicates the onset of traffic congestion; (b) a v/c ratio between 1.0 and 1.2 indicates a manageable degree of congestion; and (c) a v/c ratio above 1.2 indicates more serious congestion with traffic speeds deteriorating progressively with further increase in traffic.

- (c) the Director of Highways has agreed with Audit's recommendations in paragraph 4.20 of the Audit Report; and
- strongly demands TD to report in a timely manner:
 - (a) details of the conversion works for HRVs and the related expenditure;
 - (b) the traffic v/c ratio of Wong Chu Road in 2024; and
 - (c) the implementation timetable of the specific measures and road works to divert traffic in the vicinity of Tuen Mun Road and Wong Chu Road, as well as the latest development of other related improvement proposals.

Follow-up action

51. The Committee wishes to be kept informed of the progress made in implementing the various recommendations made by the Committee and Audit.

Youth Development Fund

The Audit Commission (“Audit”) conducted a review of the implementation of the funding schemes under the Youth Development Fund (“YDF”).

2. In the 2015 Policy Address, the Chief Executive of the Hong Kong Special Administrative Region announced the set-up of a \$300 million YDF as one of the initiatives to enhance support for the youngsters through supporting innovative youth development activities which are not covered by existing schemes, including subsidy in the form of matching fund for non-governmental organizations (“NGOs”) to assist young people to start their own businesses. A number of funding schemes have been launched to promote youth development through collaboration with NGOs, including the Funding Scheme for Youth Entrepreneurship in the Guangdong-Hong Kong-Macao Greater Bay Area (“the Entrepreneurship Scheme”), the Funding Scheme for Experiential Programmes at Innovation and Entrepreneurial Bases in the Guangdong-Hong Kong-Macao Greater Bay Area (“the Experiential Scheme”), the Funding Scheme for Youth Adventure Training Activities and the Funding Scheme for Youth Positive Thinking Activities.

3. As at 30 June 2024, the total approved commitment of YDF amounted to \$900 million, and the amounts approved and disbursed under various funding schemes of YDF totalled \$244.6 million and \$166.8 million respectively. The Home and Youth Affairs Bureau (“HYAB”) is responsible for the implementation of youth development initiatives including YDF.

4. The Committee noted the following Audit’s findings:

Entrepreneurial funding schemes

- YDF provided entrepreneurial support for youth through the Entrepreneurship Matching Fund and the Entrepreneurship Scheme. Both schemes provided young entrepreneurs with start-up capital support, while the latter provided more entrepreneurial support and incubation services to them;
- NGOs could apply for operating projects under these two schemes. An NGO applicant was required to provide a proposal detailing the objectives of the project and expected outcomes, selection and assessment process for young entrepreneurship applicants (“YEAs”), number of expected YEAs selected and corresponding budget and milestone achievements, etc. for HYAB’s vetting and the Youth

Youth Development Fund

Development Commission (“YDC”)’s consideration and approval. An assessment panel was formed under the Action Group on Youth Development Fund and Programmes to assess the funding proposals and make recommendations thereon. Upon selection of the NGO operators by the assessment panel, HYAB signed a funding agreement with each of them;

- under the Entrepreneurship Matching Fund, 9 (27%) NGOs were selected as operators out of 33 applications received with a total approved funding of \$24.3 million. As for the first round of the Entrepreneurship Scheme (February 2021 to June 2024), 16 (48%) NGOs were selected as operators out of 33 applications received with a total approved funding of \$136.8 million;
- HYAB, being the secretariat of YDC and the Action Group on Youth Development Fund and Programmes, had reported progress of the implementation of the two schemes, but had not compiled statistics and reported the acceptance rate of YEAs regularly; up to June 2024, HYAB did not maintain and report statistics of the survival rates of start-ups established under the two schemes;

The Entrepreneurship Scheme

- out of 2 805 applications received by the 16 NGO operators, only 217 (8%) YEAs were selected for providing start-up capital subsidy and related services;
- Audit’s examination of the implementation of projects by two NGO operators under the first round of the Entrepreneurship Scheme discovered that one of the operators (Operator A) had not kept proper documentation on the declarations of conflict of interest during the YEA selection process (including the assessment panel members from external parties);
- according to HYAB’s guidelines, an NGO operator was required to sign an agreement with each selected YEA, and the agreements must incorporate the “applicable terms and conditions” from the funding agreements between HYAB and NGO operators. However, HYAB had not specified which terms and conditions were “applicable”. Audit’s examination of the agreements of the 16 NGO operators with selected YEAs noted inconsistencies in the terms and conditions incorporated;

Youth Development Fund

- according to the funding agreements, if the scope/scale of the programmes/activities against the funding proposals under the entrepreneurial support and incubation services had been reduced, the subsidy shall be reduced on a proportional basis or to such amount as the Government deems fit. However, for some programmes/activities, there were instances that HYAB still made the final payments of the services component subsidy to the NGO operators concerned without adjustments despite the expected number of persons benefited was not met;
- there were delays in the submission of reports by the 16 NGO operators for the period from February 2021 to June 2024. Among 158 reports which were due for submission on or before 30 June 2024, 86 (54%) reports were submitted late, ranging from 4 days to 27 months (averaging six months);

The Experiential Scheme

- in February 2021, HYAB entered into funding agreements with 15 NGO operators for implementing 18 programmes under the first round of the Experiential Scheme with a target of 767 participants. As of August 2023, there was a shortfall of six (33%) programmes and 466 (61%) participants, which were contributed by withdrawals of three NGO operators, cancellations of three programmes, and less participants recruited by some NGO operators than estimated. According to HYAB, the shortfalls were mainly because of the COVID-19 epidemic;
- NGO operators were responsible for recruiting applicants to join the programmes/activities. According to Operator C's funding proposal, it should openly recruit participants via different promotion channels including arranging eight roadshows in various tertiary institutions. Audit noted that Operator C only provided one roadshow to four tertiary institutions each, totalling four roadshows;
- NGO operators were required to submit a list of participants of the programme to HYAB. This information facilitated the cross-checking of the participants' eligibility that they had not participated in programmes organized under the Experiential Scheme by other NGO operators. Audit noted that, of the 45 participants of the programme of Operator C, the particulars of five (11%) participants on the list submitted to HYAB by Operator C did not tally with its records. The

Youth Development Fund

same discrepancies were also found in its post-trip questionnaires submitted to HYAB;

- for the period February 2021 to August 2023, there were delays in submission of completion reports and audited financial statements by NGO operators (ranging from 10 to 113 days). While there were delays in submission of completion reports by eight NGO operators and submission of audited financial statements by 12 NGO operators, HYAB only sent overdue report reminders to seven (58%) NGO operators. Furthermore, the reminders were not sent timely, i.e. ranged from 1 to 86 days (averaging 39 days) after the due dates of the reports;

Other youth development schemes

- Audit's examination revealed that as at 30 June 2024 (with the schemes having operated for a year): (a) for the Funding Scheme for Youth Adventure Training Activities, the actual number of participants ranged from 15% to 55% of the target numbers, with three out of the four NGO operators achieving less than half of the target numbers; and (b) for the Funding Scheme for Youth Positive Thinking Activities, the actual number of participants ranged from 17% to 84% of the target numbers, with four out of the seven NGO operators achieving less than half of the target numbers;
- for the Pilot Scheme on Youth Outdoor Adventure Training Activities, HYAB required the NGO operator to procure external consultancy services to conduct a review on the effectiveness of the scheme. Audit examined the records of the procurement process and noted changes to the tender price of the successful tenderer had been made by the NGO operator during the tender assessment process but there was no documentation on the justifications for the amendments, and no adjustment had been made to the other three tenderers' tender prices; and

Other related issues

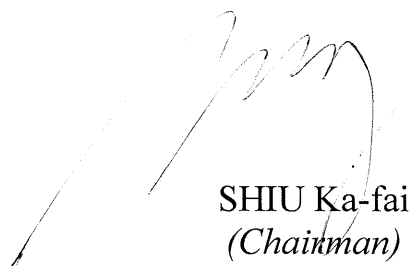
- since the establishment of YDF in 2016, YDC and its relevant Action Groups had been overseeing the implementation of YDF's funding schemes and programmes. Audit noted that since YDC's establishment in April 2018 and up to July 2024, HYAB had only reported the overall utilization of YDF to YDC once and had not reported the projected utilization of YDF.

Youth Development Fund

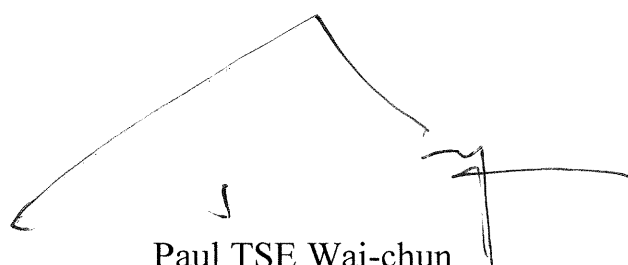
5. The Committee did not hold any public hearing on this subject. Instead, it asked for written responses to the issues raised by Audit. The replies from the **Secretary for Home and Youth Affairs** are in *Appendix 23*.

6. The Committee wishes to be kept informed of the progress in implementing Audit's recommendations.

**SIGNATURES OF THE CHAIRMAN,
DEPUTY CHAIRMAN AND MEMBERS OF THE COMMITTEE**



SHIU Ka-fai
(Chairman)



Paul TSE Wai-chun
(Deputy Chairman)



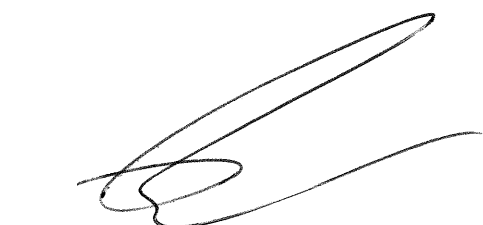
YUNG Hoi-yan



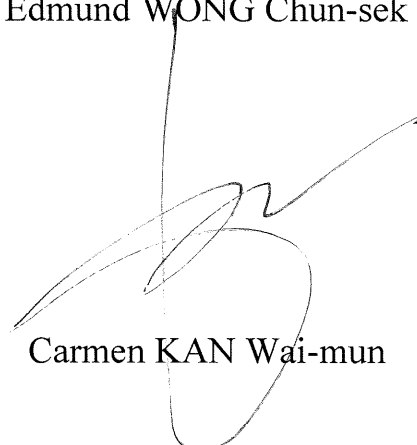
LUK Chung-hung



Edmund WONG Chun-sek



Louis LOONG Hon-biu



Carmen KAN Wai-mun

12 February 2025

**CHAPTERS IN THE DIRECTOR OF AUDIT'S REPORT NO. 83
DEALT WITH IN THE PUBLIC ACCOUNTS COMMITTEE'S REPORT**

**Director of
Audit's Report
No. 83**

**P.A.C.
Report No. 83**

<u>Chapter</u>	<u>Subject</u>	<u>Chapter</u>
1	Nano and Advanced Materials Institute	1
2	Planning and management of sheltered space within Hong Kong waters	2
3	Producer Responsibility Scheme on Waste Electrical and Electronic Equipment	3
4	Regulation of operations of small unmanned aircraft	4
5	Residential Care Service Voucher Scheme for the Elderly	5
6	The Hong Kong Polytechnic University: Repair and maintenance of university premises	6
7	Tuen Mun - Chek Lap Kok Link	7
8	Youth Development Fund	8

**RULES OF PROCEDURE OF
THE LEGISLATIVE COUNCIL OF
THE HONG KONG SPECIAL ADMINISTRATIVE REGION**

72. Public Accounts Committee

(1) There shall be a standing committee, to be called the Public Accounts Committee, to consider reports of the Director of Audit –

- (a) on the accounts of the Government;
- (b) on such other accounts required to be laid before the Council as the committee may think fit; and
- (c) on any matter incidental to the performance of his duties or the exercise of his powers as the committee may think fit.

(2) The committee shall also consider any report of the Director of Audit laid on the Table of the Council which deals with examinations (value for money audit) carried out by the Director relating to the economy, efficiency and effectiveness of any Government department or public body or any organization to which his functions as Director of Audit extend by virtue of any Ordinance or which receives public moneys by way of subvention.

(3) The committee shall consist of a chairman, deputy chairman and 5 members who shall be Members appointed by the President in accordance with an election procedure determined by the House Committee. *(L.N. 214 of 2005)*

(3A) The chairman and 2 other members shall constitute a quorum of the committee. *(L.N. 214 of 2005)*

(3B) In the event of the temporary absence of the chairman and deputy chairman, the committee may elect a chairman to act during such absence. *(L.N. 214 of 2005)*

(3C) All matters before the committee shall be decided by a majority of the members voting. Neither the chairman nor any other member presiding shall vote, unless the votes of the other members are equally divided, in which case he shall give a casting vote. *(L.N. 214 of 2005)*

(4) A report mentioned in subrules (1) and (2) shall be deemed to have been referred by the Council to the committee when it is laid on the Table of the Council.

(5) Unless the chairman otherwise orders, members of the press and of the public shall be admitted as spectators at meetings of the committee attended by any person invited by the committee under subrule (8).

(6) The committee shall meet at the time and the place determined by the chairman. Written notice of every meeting shall be given to the members and to any person invited to attend a meeting at least 5 clear days before the day of the meeting but shorter notice may be given in any case where the chairman so directs.

(7) *(Repealed L.N. 214 of 2005)*

(8) The chairman or the committee may invite any public officer, or, in the case of a report on the accounts of or relating to a non-government body or organization, any member or employee of that body or organization, to give information or any explanation or to produce any records or documents which the committee may require in the performance of its duties; and the committee may also invite any other person to assist the committee in relation to any such information, explanation, records or documents.

(9) The committee shall make their report upon the report of the Director of Audit on the accounts of the Government within 3 months (or such longer period as may be determined under section 12 of the Audit Ordinance (Cap. 122)) of the date on which the Director's report is laid on the Table of the Council.

(10) The committee shall make their report upon the report of the Director of Audit mentioned in subrule (2) within 3 months (or such longer period as may be determined by the Council) of the date on which the Director's report is laid on the Table of the Council.

(11) Subject to these Rules of Procedure, the practice and procedure of the committee shall be determined by the committee.

**Paper presented to the Provisional Legislative Council
by the Chairman of the Public Accounts Committee
at the meeting on 11 February 1998 on
Scope of Government Audit in the
Hong Kong Special Administrative Region -
'Value for Money Audits'**

SCOPE OF WORK

1. The Director of Audit may carry out examinations into the economy, efficiency and effectiveness with which any bureau, department, agency, other public body, public office, or audited organisation has discharged its functions.
2. The term "audited organisation" shall include -
 - (i) any person, body corporate or other body whose accounts the Director of Audit is empowered under any Ordinance to audit;
 - (ii) any organisation which receives more than half its income from public moneys (this should not preclude the Director from carrying out similar examinations in any organisation which receives less than half its income from public moneys by virtue of an agreement made as a condition of subvention); and
 - (iii) any organisation the accounts and records of which the Director is authorised in writing by the Chief Executive to audit in the public interest under section 15 of the Audit Ordinance (Cap. 122).
3. This definition of scope of work shall not be construed as entitling the Director of Audit to question the merits of the policy objectives of any bureau, department, agency, other public body, public office, or audited organisation in respect of which an examination is being carried out or, subject to the following Guidelines, the methods by which such policy objectives have been sought, but he may question the economy, efficiency and effectiveness of the means used to achieve them.

GUIDELINES

4. The Director of Audit should have great freedom in presenting his reports to the Legislative Council. He may draw attention to any circumstance which comes to his knowledge in the course of audit, and point out its financial implications. Subject to these Guidelines, he will not comment on policy decisions of the Executive Council and the Legislative Council, save from the point of view of their effect on the public purse.

5. In the event that the Director of Audit, during the course of carrying out an examination into the implementation of policy objectives, reasonably believes that at the time policy objectives were set and decisions made there may have been a lack of sufficient, relevant and reliable financial and other data available upon which to set such policy objectives or to make such decisions, and that critical underlying assumptions may not have been made explicit, he may carry out an investigation as to whether that belief is well founded. If it appears to be so, he should bring the matter to the attention of the Legislative Council with a view to further inquiry by the Public Accounts Committee. As such an investigation may involve consideration of the methods by which policy objectives have been sought, the Director should, in his report to the Legislative Council on the matter in question, not make any judgement on the issue, but rather present facts upon which the Public Accounts Committee may make inquiry.

6. The Director of Audit may also -

- (i) consider as to whether policy objectives have been determined, and policy decisions taken, with appropriate authority;
- (ii) consider whether there are satisfactory arrangements for considering alternative options in the implementation of policy, including the identification, selection and evaluation of such options;
- (iii) consider as to whether established policy aims and objectives have been clearly set out; whether subsequent decisions on the implementation of policy are consistent with the approved aims and objectives, and have been taken with proper authority at the appropriate level; and whether the resultant instructions to staff accord with the approved policy aims and decisions and are clearly understood by those concerned;

- (iv) consider as to whether there is conflict or potential conflict between different policy aims or objectives, or between the means chosen to implement them;
- (v) consider how far, and how effectively, policy aims and objectives have been translated into operational targets and measures of performance and whether the costs of alternative levels of service and other relevant factors have been considered, and are reviewed as costs change; and
- (vi) be entitled to exercise the powers given to him under section 9 of the Audit Ordinance (Cap. 122).

PROCEDURES

7. The Director of Audit shall report his findings on value for money audits in the Legislative Council twice each year. The first report shall be submitted to the President of the Legislative Council within seven months of the end of the financial year, or such longer period as the Chief Executive may determine. Within one month, or such longer period as the President may determine, copies shall be laid before the Legislative Council. The second report shall be submitted to the President of the Legislative Council by the 7th of April each year, or such date as the Chief Executive may determine. By the 30th April, or such date as the President may determine, copies shall be laid before the Legislative Council.

8. The Director's report shall be referred to the Public Accounts Committee for consideration when it is laid on the table of the Legislative Council. The Public Accounts Committee shall follow the rules governing the procedures of the Legislative Council in considering the Director's reports.

9. A Government minute commenting on the action Government proposes to take in respect of the Public Accounts Committee's report shall be laid on the table of the Legislative Council within three months of the laying of the report of the Committee to which it relates.

10. In this paper, reference to the Legislative Council shall, during the existence of the Provisional Legislative Council, be construed as the Provisional Legislative Council.

**Witnesses who appeared before the Committee
(in order of appearance)**

Prof Dong SUN	Secretary for Innovation, Technology and Industry
Mr Ivan LEE Kwok-bun	Commissioner for Innovation and Technology
Mrs Elina CHAN NG Ting-ting	Assistant Commissioner for Innovation and Technology (Research and Development Centres)
Prof CHENG Shuk-han	Chairwoman, Nano and Advanced Materials Institute
Mr Andy FUNG	Chief Executive Officer, Nano and Advanced Materials Institute
Ms Jenny YIU	Chief Operating Officer, Nano and Advanced Materials Institute
Ms CHAN Mable	Secretary for Transport and Logistics
Ms Amy WONG Pui-man	Deputy Secretary for Transport and Logistics 1
Miss CHENG Sze-ling	Principal Assistant Secretary for Transport and Logistics 2
Ms Gillian LAM Yuk-ting	Principal Assistant Secretary for Transport and Logistics 5
Mr Tony YAU Kwok-ting	Director of Highways
Mr Patrick NG Wai-hong	Project Manager/Major Works Highways Department
Mr Derek CHUNG Chi-yan	Chief Engineer 6/Major Works Highways Department
Mr William WONG Chi-yui	Senior Engineer 2/Northern Metropolis Highway Highways Department
Ms Angela LEE Chung-yan	Commissioner for Transport

Ms Vilian SUM Wai-lam

Chief Traffic Engineer/New Territories West
Transport Department

Mr Albert HO Kwan-hang

Principal Transport Officer/Management
Transport Department

Note: The above post titles were those of the witnesses at the time when they attended the public hearings of the Committee.

**Public Accounts Committee (Public Hearing)
7 December 2024 (Saturday)**

**Chapter 1 of the Director of Audit's Report No. 83
Nano and Advanced Materials Institute**

**Opening Remarks by
the Secretary for Innovation, Technology and Industry**

Chairman,

First of all, I would like to thank the Director of Audit for preparing the audit report on the Nano and Advanced Materials Institute (NAMI), setting out observations and recommendations on the operation, management and corporate governance of NAMI. These will help improve NAMI's management of research and development (R&D) projects, strengthen the promotion and enhancement of industry income and commercialisation work, optimise administrative expenditure, and uphold better corporate governance, thereby benefitting NAMI in terms of operating efficiency and effectiveness. The Government and NAMI agree with all the recommendations in the report.

NAMI was established in 2006 as a non-profit-making company limited by guarantee wholly owned by its host institution, the Hong Kong University of Science and Technology. NAMI focuses on conducting market-driven, demand-led R&D in nanotechnology and advanced materials. In recent years, NAMI has devoted significant efforts in developing forward-looking technologies in research areas such as low-carbon materials, new generation building materials, advanced battery technologies etc., thereby promoting economic growth and sustainable development in Hong Kong, contributing towards our development of "new quality productive forces".

The operating and R&D expenditure of NAMI are mainly funded by the Government. NAMI's Board of Directors (Board) is responsible for supervising NAMI's operation and strategic directions. NAMI is required to submit, after seeking its Board's endorsement, annual plans and reports, financial estimates and audited accounts, quarterly reports and

various performance indicators to the Innovation and Technology Commission (ITC), allowing ITC to monitor NAMI's overall operation and performance at a macro level and to report to the Panel on Commerce, Industry, Innovation and Technology of the Legislative Council on a regular basis.

Over a decade, NAMI has been acting as a focal point for technology collaboration among the Government, industry, academia and research sectors to drive applied R&D and fulfil its public mission of conducting technology transfer to the industry and support the industry to realise the commercialisation of R&D results. NAMI has the largest number of R&D projects involving industry participation among all the public R&D centres. Its partners range from small and medium enterprises in Hong Kong to large corporations in the Mainland. NAMI has successfully realised its R&D outcomes. For example, the Hong Kong Housing Society adopted NAMI's high strength lightweight concrete technology combining it with Modular Integrated Construction technology to build an elderly home at Jat Min Chuen in Shatin. Moreover, the R&D results of NAMI's have gained international recognition as evidenced in the over 150 awards received by NAMI, including prestigious ones such as Edison Awards, R&D 100 Awards, etc. We fully recognised these remarkable efforts made by NAMI.

As NAMI is funded by the Government, we understand the public would be concerned about how NAMI uses public money and whether resources have been efficiently deployed to fulfil its mission. The Government also attach high importance to this audit report. As a company, NAMI conducts its daily operation in accordance with its Corporate Governance Manual. When inadequacies and rooms for improvement are identified, the Manual should be revised. NAMI should step up its efforts in conducting applied R&D, driving technology transfer and facilitating commercialisation of R&D results. The Government should also strengthen monitoring and NAMI's Board should tighten supervision over NAMI. I understand NAMI has already implemented most of the recommendations in the audit report. The Government has urged NAMI to proactively follow up on the remaining recommendations. Meanwhile, we will continue to strengthen the monitoring of NAMI's operation to ensure proper use of public money.

Finally, in order to fully implement the directions outlined in the “Hong Kong Innovation and Technology Development Blueprint” and to accelerate the development of “new quality productive forces”, the Government will further the restructuring of the layout of the public R&D centres in Hong Kong. To this end, we have announced the proposed merger of the Hong Kong Applied Science and Technology Research Institute and NAMI to pool their strengths in applied R&D to create synergies. We will take into account the recommendations in this audit report as we work out the relevant arrangements during the process.

We and colleagues from NAMI are happy to answer Members’ questions. Thank you, Chairman.

Ends

**Mr Fung Chun-Yu, Chief Executive Officer
Nano and Advanced Materials Institute**

**Opening Remarks for the
Public Accounts Committee on
7 December 2024**

Chairman,

- First of all, on behalf of Nano and Advanced Materials Institute (NAMI), I would like to express my gratitude to Audit Commission once again for the audit work on NAMI. We have already followed up on most of the recommendations. The remaining recommendations will be addressed by the end of this financial year.

(1) Project Management:

- NAMI has been focusing on conducting applied research and development (R&D) in nanotechnology and advanced materials and supporting the industry in their transformation and upgrading through technology transfer, thus leading to successful realisation of R&D outcomes. However, various technical factors of which some of them are beyond control could affect the commencement, completion and even successful development of R&D work. That said, we have adjusted our project management arrangements from October 2024 onwards. The role of the Project Administration Team has been strengthened and the Team is responsible for closely monitoring project progress with the respective R&D teams. The Team is required to report direct to me and the Chief Operating Officer which enables us to identify issues as early as possible and to address them promptly.
- We have already stepped up efforts in showcasing the technological strength of NAMI to the industry, aiming to boost industry confidence in participating in R&D. Our goal is to increase the number of new projects and create more opportunities for generating industry income.
- We have strengthened our laboratory safety monitoring mechanism including increasing the frequency of random

inspections and regularly circulating the laboratory safety manual to all relevant staff.

(2) Industry Income and Commercialisation work:

- NAMI strives to generate more R&D projects in collaboration with industries through promotions such as exhibitions and roadshows. We are planning to use the Shenzhen Science and Technology Park as a key promotion showcase to expand our cooperation with the Greater Bay Area and other Mainland cities. Additionally, we will launch various licensing models to flexibly support different industry partners in order to advance research outcome and enhance the transfer of these results into income.
- As a public R&D centre, NAMI needs to strike a balance between fulfilling its public mission of benefitting the industry through extensive technology transfer and increasing its level of industry income.

(3) Administrative Expenditure and Corporate Governance:

- NAMI manages its administrative expenditure in accordance with the Corporate Governance Manual which has been approved by the Board. Specific guidelines for business travel arrangements and entertainment expenses were initially formulated with reference to our host institution, the Hong Kong University of Science and Technology and has been enhanced and updated where necessary.
- Several issues related to administrative expenditure were highlighted in the audit report and had received quite some media attention, including the approval for airfares and hotel accommodations during business travel. Although colleagues concerned had followed the prevailing guidelines in handling these matters, we agree with the recommendation of the Audit Commission that there were inadequacies in the procedures and arrangements which called for improvement.
- In following up, we have amended the specific guidelines based on the audit recommendations. These amendments included clearly setting out the approval mechanism and procedures for expenditure claims and for modifying business travel arrangements, as well as

requiring Board's approval for arrangements concerning the Chief Executive Officer. Additionally, we will regularly circulate the guidelines to remind all staff to comply with them.

(4) Other Issues:

- It is particularly important to recruit and retain talent, as well as to upgrade laboratory equipment in innovative R&D fields such as nanotechnology and advanced materials. This required greater investment and capital inputs which in turn raised our operating expenditure in the past few years. We will uphold fiscal prudence and strive to secure more industry sponsorship for R&D projects in order to conduct our work more efficiently and effectively. Ultimately, we are aiming to make a greater contribution to Hong Kong's GDP.
- There is room for improvement at various management aspects at NAMI and the observations of this Audit Report motivate us to make greater efforts continuously. NAMI will be dedicated to improving and enhancing both the quality and quantity of our work to firmly support Hong Kong's development as an international I&T centre.
- We welcome the Chairman and all members to share their valuable insights on NAMI with us. Thank you.

Your Ref: CB3/PAC/R83

13 December 2024

Ms Shirley CHAN
Clerk, Public Accounts Committee
Legislative Council Secretariat
Legislative Council Complex
1 Legislative Council Road
Central, Hong Kong

Dear Ms Chan,

Public Accounts Committee
Chapter 1 of the Director of Audit's Report No. 83
Nano and Advanced Materials Institute

Thank you for your letter of 10 December 2024 to the Secretary for Innovation, Technology and Industry, requesting the Administration to coordinate the responses from the Government and the Nano and Advanced Materials Institute (NAMI) regarding information requested therein in related to the captioned Audit Report. This Commission is authorised to reply.

The reply from the Commission and NAMI in relation to the information requested in the incoming letter is at Annex. Among others, as the "Tripartite Agreement" (i.e. Appendix 1 to 3) is a contractual document and the "Corporate Governance Manual" (i.e. Appendix 6 to 7) contains guidelines on NAMI's internal operation (including recruitment and procurement matters), these five documents are restricted to Public Accounts Committee's internal consumption only.

As for question (b) (iv) under "Part 1: Introduction" on providing NAMI's income and expenditure on a cash-basis from 2019-2020 to 2023-2024, as due consultation with the relevant bureau/department is needed, the relevant data cannot be submitted in this reply. The Commission is working closely with NAMI to follow-up and provide the requested information as soon as practicable

Yours sincerely,



(Mrs Elina Chan)

for Commissioner for Innovation and Technology

c.c. Secretary for Innovation, Technology and Industry
Secretary for Financial Services and the Treasury
Director of Audit
Chairperson of Nano and Advanced Materials Institute
Chief Executive Officer of Nano and Advanced Materials Institute

Part 1. Introduction

(a)	(i)	In 2006, the Government, the host institute i.e. the Hong Kong University of Science and Technology (HKUST) and the Nano and Advanced Materials Institute (NAMI) signed a tripartite funding agreement (the Tripartite Agreement) setting out the respective obligations and responsibilities. The respective obligations and responsibilities of the three parties under the Tripartite Agreement are summarised as below: ➤ NAMI is responsible for driving and coordinating applied research and development (R&D) in accordance with their technology roadmap and promoting technology transfer and commercialisation of R&D deliverables. NAMI should conduct its operation in accordance with the terms of the Tripartite Agreement, including submitting an annual plan as vetted and endorsed by the Board of Directors (Board) (comprising the annual estimates, major activities (including R&D projects and technology transfer plans) and performance targets etc.) to the Commissioner for Innovation and Technology (CIT) for approval. Within the financial year, NAMI is required to submit quarterly reports to CIT as vetted and endorsed by the Board. The quarterly reports set out NAMI's main activities and cash flow in each quarter. For the last quarterly report of each financial year (i.e. annual report), NAMI should report its operation for the whole financial year (including actual performance against the performance targets and actual financial situation). NAMI is also required to submit the audited accounts to CIT as vetted and endorsed by the Board. ➤ HKUST, as the host institute, wholly owns NAMI. Currently, HKUST mainly provides administrative support (such as tendering and procurement, employee and property insurance, information technology systems etc.) to NAMI.

		➤ The Government funds the operating expenses of NAMI through the Innovation and Technology Fund (ITF), and monitors the operation and performance of NAMI by vetting annual plans and estimates, quarterly reports/annual reports and audited accounts.
	(ii)&(iii)	Since the establishment of the public R&D centres (including NAMI) in 2006, the Government has continued to review the role, positioning, performance indicators of and resources allocated to each R&D centre, and make adjustments based on industry needs and technological development as appropriate. The Government has been regularly submitting progress reports on the R&D centres to the Panel on Commerce, Industry, Innovation and Technology of the Legislative Council (LegCo), and has respectively reported to the Finance Committee (FC) of the LegCo in 2009, 2012, 2015, 2020 and 2024 on the comprehensive review of the performance of the R&D centres and seek the FC's approval to increase their commitments to continue funding the R&D centres' operation. In the latest review, the Government reviewed the positioning and focus areas of the R&D centres, as well as the key technology areas for Hong Kong's future development. In order to continue to support the development of new energy and automobile-related technologies and other industries in Hong Kong, the Government announced in June 2024 that the Automotive Platforms and Application Systems R&D Centre would incorporate into the Hong Kong Productivity Council from April 2025, and announced in November 2024 that the Hong Kong Applied Science and Technology Research Institute (ASTRI) would merge with NAMI. Having thoroughly considered the Government's financial situation and the need to foster Hong Kong's innovation and technology (I&T) development, the Government proposed adopting a "zero-growth" principle over the R&D centres' operation expenditure in the coming three financial years, i.e. the average operating expenditure in the coming three financial years shall be capped at the level in 2024-25, with a view to controlling the operation expenditure of the R&D centres and encouraging them to increase the industry

		and other incomes, thereby ensuring that the limited resources from the Government are put to a good use. On the revisions of the Tripartite Agreement, after the FC approved the commitment for the establishment of NAMI in 2005 and supported its first five years of operation (i.e. 2006-07 to 2010-11), the three parties, namely the Government, HKUST and NAMI signed the first five-year “Tripartite Agreement” (<u>Appendix 1</u>) in 2006, and subsequently revised it on the following occasions, including: ➤ After the FC approved in 2009 and 2012 increase in commitment to extend NAMI’s operation to 2013-14 and 2016-17 respectively, revisions on the Tripartite Agreement were made in 2011 and 2012 accordingly for the extensions. ➤ For the revision made in 2013, major changes included changing the specific agreement end date arrangement in the Tripartite Agreement to an open-ended term, as well as strengthening the control on the use of Government funding and NAMI’s performance indicators etc. (<u>Appendix 2</u>); and ➤ After the FC agreed in 2018 that R&D centres could retain part of its commercialisation income for strategic activities, relevant revision was made to the Tripartite Agreement accordingly (<u>Appendix 3</u>).
	(iv)	NAMI indicated that the first “Articles of Association” (<u>Appendix 4</u>) was issued in 2006. It was only revised once in 2008 (<u>Appendix 5</u>). The revision was to change the quorum for passing written resolution from all directors to two-thirds of the directors. In addition, NAMI issued its first “Corporate Governance Manual” (<u>Appendix 6</u>) when it was established in 2006, which was subsequently revised in the following years. Main revisions include:

***Note by Clerk, PAC:** Appendices 1 to 6 not attached.

		➤ 2007: Added clauses to stipulate that NAMI would adhere to the procurement policy of its host institute i.e. HKUST ➤ 2009: Added clauses to provide for the establishment and terms of reference of the Audit Committee and elucidated the terms of reference, composition and meeting requirements of the Finance and Administration Committee (FAC) ➤ 2010: Added clauses to incorporate the code of conduct for Directors recommended by the Independent Commission Against Corruption, and the authority to approve receipt of gifts ➤ 2012: Revised the authority to approve manpower expenditures ➤ 2014: Revised the authority to approve expenditure from operating funds, project funds and administrative overheads ➤ 2019: Provided for changes to staffing positions, probity requirements for Directors and staff; revised authority to approve operating expenditures and procurement contracts; and ➤ 2022: Revised the authority to approve expenditure from operating funds, project funds and administrative overheads For the latest version of the “Corporate Governance Manual”, please see <u>Appendix 7</u>. Every revision of NAMI’s “Corporate Governance Manual” was discussed at the Board and the FAC, and approved by the Board.
	(v)	The information stated in the report submitted to FC in June 2005 (Annex 1 of FCR(2005-06)21) was the initial proposal on establishing NAMI from the host institute i.e. HKUST. At that time, the proposed Board only comprised of the President and three Vice-Presidents of HKUST.

***Note by Clerk, PAC:** *Appendix 7 not attached.*

		Subsequently in November 2005, the Preparatory Committee tasked for the setting up of NAMI deliberated and decided that the composition of the Board should be broadened to include CIT, representative from HKUST, and representatives from academia, industry, chamber of commerce, and research institutions. In this form, the Board took up the role and function of the Steering Committee mentioned in the initial proposal.
	(vi)	NAMI indicated that its Project Administration Team (PAT), which used to be supervised by the Chief Commercial Officer, has changed to be supervised by the Chief Operating Officer (COO) from October 2024 onwards, making it independent from business development so that it could focus on monitoring R&D projects' progress and their management, thereby striving for timely project commencement and completion, thus enhancing the quality of project management. The latest NAMI's organisation chart is at <u>Appendix 8</u> .
	(vii)	ASTRI and NAMI respectively drive and co-ordinate applied R&D in the areas of information and communications technologies, and nanotechnology and new materials. Merging the two centres through organic integration will enhance their complementary advantages on applied R&D and create synergies, thereby boosting the capability for conducting high value-added applied R&D work, strengthening the support for industry development, and fostering new industrialisation. After merging the two centres, overall savings in operating costs are expected to be achieved through rationalisation and consolidation in the medium to long run. Regarding the staff establishment, appropriate arrangements would be manifested through redeployment and natural wastage. The Innovation and Technology Commission (ITC) will commission an independent consultant to make suggestions on the transitional arrangements and implementation plan on the merger. The Government expects to commence the transition process in 2025-26.
(b)	(i)	NAMI indicated that when formulating the annual estimates, it referred to the expenditures of different

		items in the past, and collect the financial needs from different divisions regarding the R&D direction and business development plan for the coming year. After deliberation and consolidation by the management, it would first submit to FAC for deliberation and review before submitting to the Board. Only the annual estimates endorsed by the Board would be submitted to ITC for approval. When vetting the annual estimates, ITC will consider whether the estimates is reasonable and meets the actual needs of NAMI. For individual item(s) with noticeable difference against those of the previous years, ITC will request NAMI to provide explanation to facilitate the vetting process. During the entire vetting process, relevant teams within ITC (including the finance team) will participate in the review and provide recommendations to CIT.
	(ii)	NAMI indicated that the administrative and operating expenses included R&D-related expenses, such as laboratory rental fee, laboratory consumables, technology and testing service fees etc. NAMI has set up a healthcare laboratory in 2021-22 to carry out bio-and-health-related R&D projects. A battery laboratory was set up in 2022-23 to carry out R&D projects related to advanced battery materials. The relevant rental, facilities and equipment costs have increased accordingly. Items with larger annual expenditures from 2019-20 to 2023-24 and the corresponding amounts and percentages are shown in <u>Appendix 9</u>.
	(iii)	NAMI indicated that in the past few years, due to the impact of the epidemic and the external environment, the uncertain economic outlook has made local small and medium-sized enterprises (SMEs) adopting a wait-and-see attitude on investment in I&T, resulting in decline of NAMI's income. In the post-epidemic period, SMEs still face many challenges and need time to resume business development and regain confidence in investing I&T. NAMI would strengthen commercialisation work in the future and focus on increasing income.

	(v)	As far as operating expense is concerned, as stated in the reply to (b)(i) above, when approving the annual estimates of NAMI, ITC will consider whether the estimates is reasonable and meets the actual needs of NAMI. The unspent fund will be reflected through an offsetting arrangement when ITC applies to the FC for increase in commitment to extend the operation period of NAMI. When it was recommended to the FC in 2020 to increase the commitment to extend the operation period of NAMI to 2024-25, ITC had deducted the estimated remaining commitment of NAMI as of 31 March 2021 by about 11.9 million (see LegCo FCai (FCR(2020-21)1)). For projects funded by ITF, NAMI is required to submit a project proposal to the Technology Committee (TC) under the Board for discussion and review. Only proposals endorsed by the TC will be submitted to ITC for approval. When reviewing proposals, ITC will consider whether the expenditure requirements are reasonable and meet the actual R&D need. ITC also requires NAMI to submit progress/final reports and audited accounts for approved projects to report on whether the project has achieved the project deliverables and the project spending. Upon completion of the project, NAMI needs to return all unspent fund to the Government. In fact, NAMI has refunded a total of approximately \$21.9 million of project grant to the Government in the past five financial years, accounting for approximately 5.5% of the total funding amount of the concerned approved projects.
(c)	(i)&(ii)	The Board of NAMI provides steering on policy and strategic direction, and supervises the management of NAMI. The Board holds at least 4 meetings every year, additional meetings will be held when necessary. The major functions of the Board include: (a) Steer NAMI's R&D direction; (b) Monitor regularly the operational and financial sustainability of NAMI; (c) Examine and endorse annual plan, annual estimate and performance targets; and (d) Examine and endorse quarterly reports, annual report and annual audited account.

		NAMI's Board has three functional committees, namely TC, FAC and Audit Committee. The major functions and operation of the committees are as follows: (a) TC: Responsible for making recommendations to the Board on NAMI's technological development roadmap and research plans, examining NAMI's R&D project applications and supervising R&D progress and commercialisation work. The TC holds at least 5 meetings every year. (b) FAC: Responsible for overseeing the financial and administrative arrangements for NAMI's operations including assist the Board in formulating and examining financial, accounting, administrative and human resources policies and procedures, reviewing the projected and actual operating expenses, and providing advice on financial impacts of NAMI's business plans and activities etc. The FAC holds at least 4 meetings every year. (c) Audit Committee: Responsible for reviewing the internal control/risk management policies and procedures for project management, business, finance and operation, and to ensure NAMI complies with relevant laws/regulations, accounting practices and accounting standards etc. The committee hold at least one meeting every year. As HKUST is the host institute, its representative is a member of the Board. NAMI also makes reference to the guidelines provided by the host institute to develop more detailed internal guidelines for various administrative and financial matters. The Government monitors the operations and performance of NAMI on a macro level on the whole, and as stated in the Tripartite Agreement, requires NAMI to formulate its own Corporate Governance Manual to set out rules and guidelines for NAMI's daily operations.

		As a company, NAMI's Board supervises its operation, R&D work and development. The non-official directors of the Board come from different backgrounds with distinct professional knowledge. They play an important role to steer the R&D direction and supervise the operation and financial arrangements of NAMI.
	(iii)	Since Audit Commission (AC) confirmed in April 2024 that it would conduct an audit on NAMI until the Audit Report was released on 27 November, both NAMI and ITC have been actively working with the AC to facilitate its work. The sequence of key activities is at <u>Appendix 10</u> .
(d)		The Government funds public R&D centres. The R&D centres serve as a platform for coordinating applied R&D and promoting technology transfer to the industry. They help the industry to upgrade its technology, promote the adoption of local technology products and services by public sector organisations, nurture research talents and consolidate and strengthen the capability of local research teams. Since 2017-18, ITC has been requiring all R&D centres to submit progress report on the following six performance indicators (i.e. the indicators listed in Table 2 of the Audit Report) to monitor and evaluate whether the R&D centres have effectively fulfilled the above-mentioned missions and to measure the work progress and performance of the R&D centres: (1) Level of industry and other income; (2) Number of on-going projects involving industry participation; (3) Number of companies participating in on-going projects; (4) Number of organisations benefitting from Public Sector Trial Scheme (PSTS); (5) Number of researchers engaged under Research Talent Hub; and (6) Number of patents filed and granted. Since the establishment of the above performance indicators in 2017-18, ITC has established a common target indicator for all R&D centres on "the level of industry and other income". To encourage R&D

	centers to strengthen cooperation with the industry, ITC has raised the original 30% target to 35% and 40% in 2023-24 and 2024-25 respectively. As for other performance indicators, since each R&D centre is distinct (such as scale, technology areas, focal points etc.) and the industries they serve are also different, it is difficult to devise a set of uniform indicators. Currently, R&D centres formulate their targets based on their respective focus of development and industry trends, which are more flexible and realistic. Nevertheless, we will continue to explore different methods with R&D centres to optimise the effectiveness of monitoring R&D centres' performance.
(e)	For the 242 R&D projects completed during 2019-20 to 2023-24 mentioned in para. 1.15 of the Audit Report, the categorisation of project types is listed out in <u>Appendix 11</u>.
(f)	The ITF finances projects that can help enhancing the I&T level of Hong Kong's manufacturing and service industries and promote the development of I&T. Applicants for R&D-related funding schemes under the ITF must be local research institutes, enterprises or industrial and trade associations etc. In order to encourage local research institutes to cooperate with research institutes outside Hong Kong, ITC has allowed up to 50% of the R&D work and the related expenses of funded projects to be conducted outside Hong Kong. In addition, the Mainland-Hong Kong Joint Funding Scheme and the Guangdong-Hong Kong Technology Cooperation Funding Scheme under the ITF aim to support and encourage Hong Kong to strengthen research cooperation with universities, research institutes and technology enterprises in the Mainland.

Part 2. Project Management

(g), (h)&(i)	NAMI indicated that in terms of the number of projects commenced, as mentioned in the reply to (b)(iii) above, local SMEs have tended to wait and see in investing in I&T in recent years amid the uncertain economic environment, and were more willing to support platform projects that only require 10% sponsorship of the total R&D project cost. In fact, NAMI can achieve the targets for the number of platform projects commenced in recent years and the actual numbers have been steadily increasing, which reflected the actual situation. In terms of the number of completed projects, the main reason for not reaching the target was project delay. The main reasons for project delay were owing to unforeseen technical difficulties encountered during the R&D process, delayed shipments of equipment/consumable affected by the epidemic as well as encountered difficulty in recruiting R&D staff etc. In order to reduce project delays due to unforeseen technical difficulties, from January 2024 onwards, NAMI has required research staff to conduct preliminary research and characterisation tests on relevant technologies and methods before start of the project, in order to identify potential technical difficulties in advance, thereby reducing the risk of project delay and improving project efficiency. In addition to the reply to (a)(vi) above that PAT has been moved to under COO's supervision, NAMI has also strengthened the monitoring function of PAT to enhance the management of different stages of project from commencement to completion. In accordance with the funding requirement, ITC requires the funded research institutes (including NAMI) to complete a project according to the schedule specified in the project proposal. Nevertheless, ITC understands that research institutes may experience project delays due to different reasons. Hence, if research institutes need to extend the project period for successfully development of project deliverables, they can submit change request to ITC. ITC will carefully examine the justifications for the relevant change request. Even if project extension is approved, ITC would urge the relevant research institute to complete the relevant project as soon as possible. For the

		34 projects mentioned in para. 2.7(b) of the Audit Report, NAMI has submitted change requests to ITC for project extension and the relevant projects were completed within the extended period. As for the Board/committee's meeting minutes, NAMI indicated that it tended to record the meeting discussions succinctly in the past. NAMI would adopt the audit recommendation and record the discussion of meeting more appropriately in the future. NAMI's performance indicators on the number of projects commenced in 2024-25 (including Collaborative Project, Seed Project, PSTS project and Platform Project) and the performance indicators on the number of projects completed, as well as the number of Platform projects commenced in 2019-20 to 2023-24 are set out in <u>Appendix 12</u>.
(j)	(i)	NAMI explained that the main reason for the delayed submission of post-project evaluation report was that the relevant project coordinator needed time to consolidate relevant information in order to complete the report. For Collaborative projects, it also took time to seek comment from industry partners. Regarding the 23 Collaborative projects mentioned in para. 2.12(a) of the Audit Report, NAMI has submitted post-project evaluation reports to ITC for 21 projects, while the remaining 2 projects were not required to submit the post-project evaluation reports as they were withdrawn.
	(ii)	NAMI indicated that in the past, PAT was responsible for reminding individual project team to submit reports before the designated dates and assisting them to solve problems that might lead to late submission of reports. NAMI has strengthened the accountability of PAT. In addition to earlier reminder to individual project team to submit reports on time, it is also required to notify the management on the potential cases which may fail to submit reports on time for follow-up.
	(iii)	ITC has been regularly following up on projects that have not submitted reports on time, including issuing reminder to project coordinators through the ITC Funding Administrative System. In addition, ITC will also regularly review the submission status of project reports

		and remind them through telephone calls. Apart from the above-mentioned monitoring measures, ITC also requires project coordinator to submit overdue reports and/or audited accounts for all projects they are responsible for before allowing them to commence new projects.
(k)		NAMI indicated that it would conduct detailed market demand analysis to determine market trend and technology development direction and would also strengthen cooperation with the industry and organised seminars regularly with relevant departments/organisations. In addition, NAMI would establish a strict project monitoring mechanism to closely monitor projects' progress and promptly solve problems to ensure projects would be completed as planned. Research staff would also be required to conduct preliminary research and characterisation tests before project commencement to ensure the feasibility of the project and reduce risks. NAMI would establish a regular evaluation mechanism to conduct phased evaluation on projects in order to discover and solve issues in a timely manner, project plans would be adjusted based on the feedback. NAMI would actively seek opinions from industry partners, and work with them to follow up on the project evaluation reports that should be submitted by them. NAMI hoped to improve relevant performance as soon as possible through the series of new measures.
(l)	(i)	NAMI indicated that, as mentioned in the reply to (b)(iii) above, SMEs have been more cautious in investing in I&T under the uncertain economic environment in the past few years. Consequently, contract research projects that required full contribution from the industry partner was relatively more difficult to commence.
	(ii)	NAMI indicated that in 2020-21, due to the epidemic, relevant companies actively sought solutions to apply nanotechnology and advanced materials to provide technical solutions that could improve the safety of public hygiene and personal protection. Seven new contract research projects were signed, resulting in the increase of number of contract research project that year.
	(iii)	NAMI indicated that when setting the target for 2023-24, the actual situation of 2022-23 was took into consideration. In view of the economy still needing more time to recover

		from the epidemic and SMEs still facing many challenges and needed longer time to resume their business development, NAMI set a relatively conservative target at the beginning, but in the end the number of project commenced exceeded the target, helping companies to solve their pain points.
	(iv)	NAMI indicated that in 2024-25, the performance indicator for the number of contract research project commenced is 8. At present, NAMI has commenced 6 contract research projects, and NAMI would strive to achieve the target in the next few months.
(m)		NAMI explained that when setting annual targets, it took into account the prevailing economic environment, market demand for different technologies, and the industry's desire to launch new projects. As the economic environment in the past few years still needed to be improved, NAMI therefore decided to lower the targets. Notwithstanding the challenges faced, NAMI still strived to communicate with the industry, explaining to them that innovation, technology and R&D could help to enhance their competitiveness. These efforts paid off and more projects were commenced than the target.
(n)		NAMI explained that when setting targets, it would comprehensively consider the external economic environment, market demand, NAMI's technological development, business development plans and human resources conditions. NAMI would set a target that was both aggressive and feasible in line with the capabilities and future development direction of NAMI. NAMI has set an income performance target of \$6 million for contract research projects in 2024-25, an increase of 7% from the \$5.6 million in 2023-24. NAMI will strive to achieve the performance target in the next few months.
(o)	(i)	NAMI indicated that the management has investigated the cause afterwards. The concerned staff failed to correctly use the inspection checklist and strictly follow the standard procedures for conducting laboratory safety inspections. The management agreed with AC's recommendations that it was necessary to improve the laboratory safety inspection arrangement and has amended the relevant report templates, and strengthened measures for laboratory

		safety inspections. Written warning has been issued to the concerned staff.
	(ii)	NAMI indicated that the current laboratory safety team comprises of a senior laboratory safety manager who is the person in charge of the team, and two laboratory safety managers responsible for general safety management and instrument and chemical safety management respectively. The staff arrangement is adequate for the moment.
	(iii)	NAMI indicated that the inspection checklist and procedures have been amended, including adding a new “inspection time” field to the checklist to prevent prefill or late filling. And a safety manager was assigned in each laboratory to supervise daily safety management. NAMI has implemented a two-tier inspection process: (1) The different sector research teams will perform self-inspection on the safety of their respective laboratories on a weekly basis and report to the heads of division and laboratory safety team for review and endorsement; (2) Laboratory safety team will conduct inspection on a bi-monthly basis, the reports will be reviewed and endorsed by the heads of division, the Chief Technology Officer (CTO) and COO.
	(iv)	Sample inspection form provided by NAMI is set out in <u>Appendix 13</u> .
(p)	(i)	NAMI indicated that it has instructed the concerned staff to clearly record the violations identified during the laboratory safety inspections, follow up on the corresponding remedial actions and filled in the completion date in the inspection reports. NAMI has also set a time limit to relevant R&D directors to review the safety inspection reports.
	(ii)	NAMI indicated that the incidents mentioned in para. 2.26 and 2.28 of the Audit Report have been reported to the Board, and the concerned staff have also been instructed to record the remedial actions and items that can be improved for all violations identified during the laboratory safety inspections for review and approval by the relevant R&D Directors and CTO in a timely manner.
(q)		R&D centres, including NAMI, adopt R&D project as the base unit when calculating the performance indicators “number of companies participating in on-going projects”

	and “number of organisations benefitting from the PSTS”, meaning that when a company participates in multiple projects or an organisation benefits from multiple projects at the same time, the performance indicators will be calculated based on the number of projects it participates/benefits from. Since ITC first reported the performance indicators of “number of companies participating in on-going projects” and “number of organisations benefitting from the PSTS” to LegCo in 2017-18, it required all R&D centres to adopt a consistent method to calculate relevant data. ITC agreed with AC’s recommendation and would include an explanatory note on the calculation basis of the performance indicators in future reports submitted to LegCo to avoid any misunderstanding.
(r)	NAMI indicated that the number of researchers hired under the Research Talent Hub (RTH) was based on the number of R&D projects that could be commenced. In view of the decrease in the number of project commenced in the past few years and the challenges encountered in recruitment, NAMI would strive to, as far as possible, increase the number of researchers hired under RTH according to different projects and market needs to meet R&D requirements.

Part 3. Industry income and Commercialisation

(s)	NAMI indicated that the level of industry and other income fell from 47% in 2019-20 to 35% in 2022-23, mainly because the epidemic severely impacted the Hong Kong economy, affecting the progress and income of commercialisation of R&D deliverables, as reflected by the relevant performance indicator in 2022-23. After the epidemic, SMEs still faced many challenges and needed more time to resume their business development. As the epidemic is gradually under control, Hong Kong's economy began to recover in 2023-24. NAMI has also actively organised various seminars and participated in exhibitions to promote NAMI's technology and strengthen cooperation with Mainland industries. As market demand rebounded, NAMI's level of industry income and other income has also improved. For many years, NAMI has been able to achieve the performance indicator on level of industry and other income set by ITC.
(t)	The smooth accessibility and dissemination of information about R&D outcomes help enhance the market's understanding and apprehension of R&D, playing a positive role in promoting the transformation and commercialisation of R&D outcomes. The Innovation and Technology Commission established the Innovation Hub@HK website to showcase more than 560 R&D outcomes by 12 local universities and public research institutes as well as 28 InnoHK research laboratories. The website serves as a one-stop search platform, allowing the industry to customise search criteria according to its needs and contact individual research institute and university to explore commercialisation opportunities, thereby facilitating commercialisation of research outcomes and technology transfer to the industry. In order to promote the commercialisation of NAMI's project deliverables, NAMI indicated that it would improve patent management, conduct regular market demand analysis, strengthen cooperation with universities, other research institutes and enterprises, and enhance market promotion and brand building in local market, Mainland and countries along the "Belt and Road". Combined with continuous improvement, it helped to promote the organic combination of technological innovation and market demand, thereby enhancing the market competitiveness and influence of NAMI.

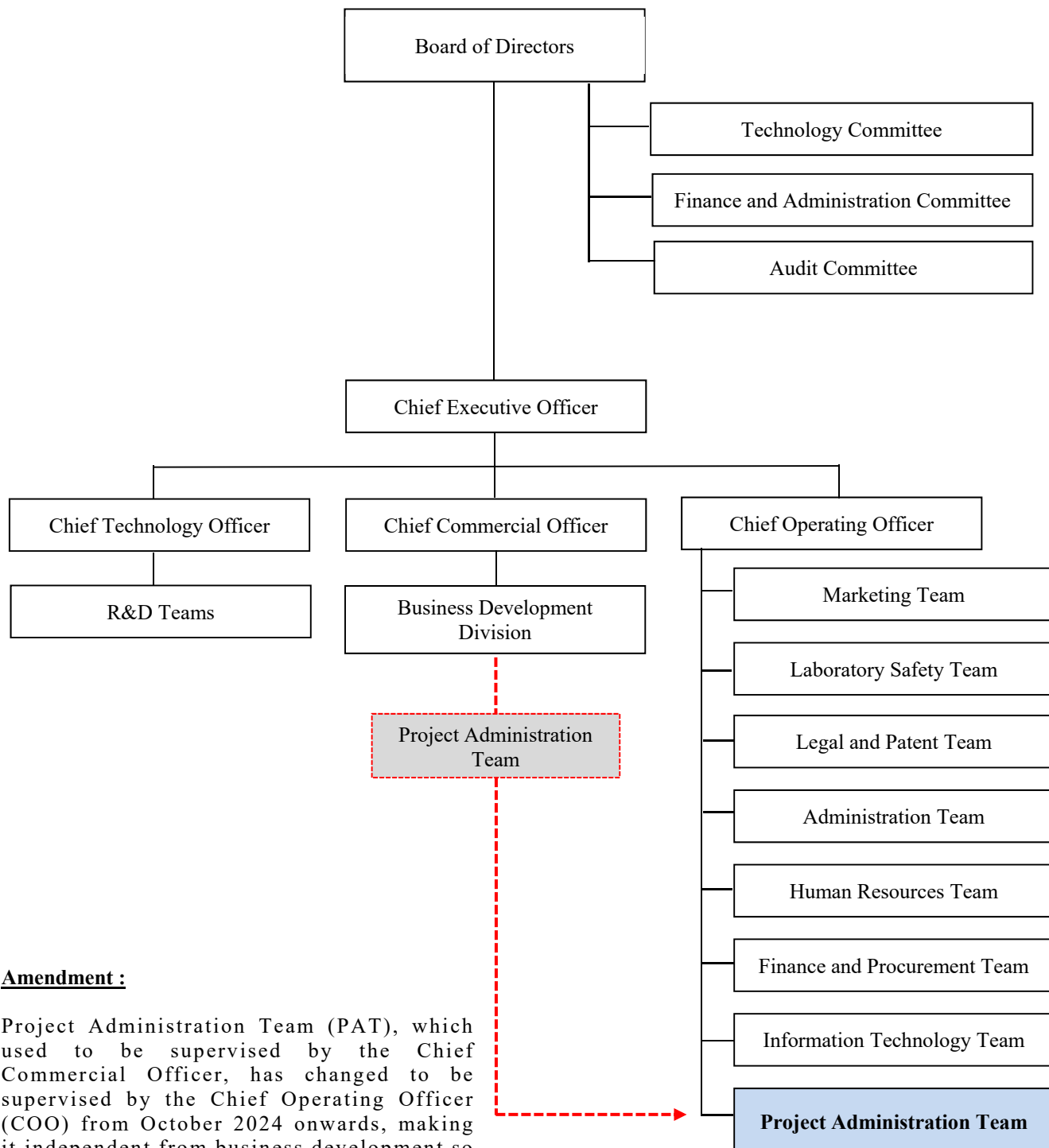
Part 5. Other Issues

(u)	The remuneration of the Chief Executive Officer (CEO) of NAMI consists of two components: (i) a fixed basic salary and (ii) a variable, performance-linked pay. In terms of basic salary, according to the CEO's contract, this part of the salary will remain unchanged throughout the contract period (usually two years). Upon contract renewal or signing of a new contract, all contract terms will be reviewed. The basic salary will make reference to the salary adjustment level of civil servant and other employees of NAMI, as well as CEO's remuneration of other R&D centers under ITC. For contract renewal, the past performance of the relevant personnel formed part of the consideration. According to the Tripartite Agreement, the appointment of CEO and the terms of service require approval from the Board and CIT. For performance-linked pay, the mechanism and specific arrangements for the annual performance appraisal of the CEO and the release of performance-linked pay were established after the Board's approval. The mechanism stipulates that when determining the level of performance-linked pay, the performance of the relevant personnel will be taken into consideration as well as any other factors deemed appropriate by the Board. In terms of specific arrangements, when the relevant personnel completed a one-year contract, an assessment panel composed of the chairman of the Board, chairmen of the functional committees and ITC representative will conduct a comprehensive assessment on the performance of the relevant personnel in four parameters, namely (i) leadership, (ii) personal effectiveness, (iii) management; and (iv) professional knowledge and networking. Afterwards, the panel will report the assessment and recommend the level of performance-linked pay to the Board. The final release of the performance pay is subject to the endorsement of the Board and approval of CIT. The arrangement of performance-linked pay to CEO has been implemented in accordance with the mechanism approved by the Board all along. The pay level for the past five years were 25% of the basic salary.
(v)	The Government has been devoting resources in taking forward policy measures to foster Hong Kong's I&T development with fiscal prudence, and controlling the operating expenditure of the R&D Centres, thereby ensuring that the limited resources from the Government are put to a good use. As mentioned in NAMI's reply to (b)(ii) above, NAMI has set up a healthcare laboratory in 2021-22 to carry out bio-and-health-related R&D projects. A battery laboratory was set up in 2022-23 to carry out R&D projects

	related to advanced battery materials. Relevant lab rental fee, equipment and device costs have also increased accordingly. Having thoroughly considered the Government's financial situation and the need to foster Hong Kong's I&T development, we propose adopting a "zero-growth" principle over the R&D Centres' operation expenditure in the coming three financial years i.e. the total operating expenditure in the coming three financial years shall not exceed the amount equivalent to three-fold of their operating expenditure as paid by the ITF or recurrent subvention in 2024-25, with a view to controlling the operating expenditure of the R&D Centres and encourage them to increase industry and other income.

Nano and Advanced Materials Institute

Organisation Chart



**NAMI's Larger Cost Items from 2019-20 to 2023-24
and the Corresponding Amounts and Percentages**

	2019-20	2020-21	2021-22	2022-23	2023-24
Item	(in \$ million)				
R&D-related expenses, laboratory consumables, technology and testing service fees	28.1 (27%)	30.1 (29%)	36.1 (31%)	38.2 (29%)	38.8 (28%)
Laboratory and office equipment and related depreciation	30.2 (30%)	29.8 (29%)	31.8 (27%)	32.8 (25%)	34.8 (25%)
Rent	14.7 (14%)	14.5 (14%)	18.5 (16%)	22.3 (17%)	22.7 (16%)
Management fee and utilities	9.6 (9%)	9.6 (9%)	10.5 (9%)	12.0 (9%)	12.6 (9%)

Sequence of Key Activities on NAMI Audit

Date	Follow up action
11 April 2024	Audit Commission sent kick-off memo to ITC on the commencement of the audit work on NAMI
29 April – 7 October 2024	Audit Commission reviewing files at NAMI
9 May 2024	Audit Commission, NAMI and ITC held kick-off meeting on the Audit
5 – 11 June 2024	Audit Commission reviewing files at ITC
June – September 2024	NAMI and ITC provided written responses and relevant documents in response to questions on different aspects from Audit Commission. Discussion were also made by means of phone calls and emails
20 August 2024	NAMI and ITC met with Audit Commission to discuss the initial observations from Audit Commission
2 September 2024	Audit Commission sent the advance draft of the audit report to NAMI and ITC
9 September 2024	Audit Commission sent the revised advance draft of the audit report to NAMI and ITC
30 September 2024	NAMI and ITC provided initial responses to Audit Commission on the revised advance draft of the audit report and the three parties had a final exit meeting
5 October 2024	NAMI briefed the Chairlady of the Board and the chairpersons of the three functional committees in detail on the advance draft of the audit report and consulted them for NAMI's responses
7 October 2024	Audit Commission sent the formal draft audit report to NAMI and ITC and requested formal responses
15 October 2024	NAMI reported to all members of the Board of Directors on the content of the formal draft audit report and sought the Board's endorsement on NAMI's responses

Appendix 10

18 October 2024	NAMI and ITC submitted formal responses to Audit Commission
27 November 2024	Audit Commission publicly released the audit report

Appendix 11**Completed Projects from 2019-20 to 2023-24**

Project type	2019-20	2020-21	2021-22	2022-23	2023-24	Total of past 5 financial years
Collaborative project	25	22	13	12	26	98
Seed project	10	6	15	5	7	43
Platform project	4	1	6	7	12	30
Public Sector Trial Scheme project	1	3	3	2	1	10
Contract research project	15	12	19	8	7	61
Total	55	44	56	34	53	242

**Performance Indicators for the Number of Projects Commenced
in 2024-25**

	Target of commenced projects in 2024-25
Collaborative project	14
Seed project	15
Public Sector Trial Scheme project	5
Platform project	17
Total :	51

**Performance Indicator for the Number of Projects Completed
in 2024-25**

	Target of completed projects in 2024-25
Total :	58

**Performance Indicators and Actual Number of Platform Projects
Commenced in 2019-20 to 2023-24**

	2019-20	2020-21	2021-22	2022-23	2023-24
Target (a)	5	8	10	15	16
Actual (b)	6	12	12	15	16
Shortfall/ (Surplus) (c) = (a) – (b)	(1) (20%)	(4) (50%)	(2) (20%)	0 (0%)	0 (0%)

Appendix 1. List used during the inspection on 30 May, 2024

<u>General Safety Issues</u>										
	Item	Y	N	N / A	Details	Remedial Actions	Responsible Party	Target Completion Date	Person to Follow-up	Actual Completion Date
1	Safe access provided and maintained for all workplaces	✓								
2	Equipment and materials are properly arranged	✓								
3	Circulating areas are free from obstructions	✓								
4	Work area is generally clean and in good structural condition	✓								
5	Sufficient lighting and ventilation are provided in all workplaces	✓								
6	Suitable PPE are provided and staff dress properly	✓								
<u>Chemicals: Inventory, Storage, and Handling</u>										
7	Chemicals are stored and segregated properly	✓								
8	Chemicals are labeled properly especially those on bench top	✓								
9	All chemicals are in the inventory list and are within expiry date	✓								
10	MSDS binder is properly maintained	✓								
<u>Hazardous Waste Disposal</u>										

	Item	Y	N	N / A	Details	Remedial Actions	Responsible Party	Target Completion Date	Person to Follow-up	Actual Completion Date
11	Chemical waste containers are properly labeled (chemical names) and capped	✓								
12	Secondary containment used for waste container	✓								
13	Chemical waste log sheet is filled out properly	✓								
14	Broken glasses and empty chemical glass bottles are disposed of properly	✓								
<u>Biological Safety</u>										
15	Biohazardous agents are stored properly			✓						
16	Biohazard symbols are posted on all equipment, such as refrigerator, centrifuge, incubator etc.			✓						
17	Autoclave is inspected annually			✓						
18	Biological waste containers are stored and labeled properly			✓						
<u>Fume Hoods, Laminar Flow Cabinet and Biological Safety Cabinet</u>										
19	Hoods are free of all unnecessary items	✓								
20	Annual certification label is posted	✓								
21	Ventilation is sufficient	✓								
22	Front sash is at appropriate level	✓								
23	Airflow indicator functions properly	✓								

<u>Spill Control Kits</u>										
24	Control kits are placed	✓								
25	Kits are properly labeled and accessible	✓								
<u>Safety Showers/Eyewash Stations</u>										
	Item	Y	N	N / A	Details	Remedial Actions	Responsible Party	Target Completion Date	Person to Follow-up	Actual Completion Date
26	Safety showers and eyewashes are inspected annually	✓								
27	Safety showers and eyewashes are easily accessible and free from obstruction	✓								
<u>Emergency Procedures</u>										
28	Fire Extinguishers are stored properly and free from obstruction	✓								
29	Fire sprinkler or other fire facilities are free from obstruction	✓								
30	Inspection tag is in valid period	✓								
31	Emergency notification procedure and updated contact are posted	✓								
32	Emergency procedures and updated fire escape route are posted	✓								
33	Emergency ventilation switches are free from obstruction and function properly	✓								
34	Exit sign is readily visible/illuminated	✓								
<u>Personal Protective Equipment</u>										

[illegible]

[illegible]

Appendix

	*Name of Chemical	Approved quantity	Checked quantity
1	Sodium hydride --> "Sodium hydride, 60 % dispersion in mineral oil"	3 kg	
2	Potassium tert-butoxide --> Potassium tert-butoxide solution (in THF)	2 L	

3	Boron tribromide	1 L	
4	Trifluoroacetic acid	3 L	
5	Nitromethane	3 L	
6	1,2-Dibromoethane	1 L	
7	Hydrazine, anhydrous	5 kg	
8	Epibromohydrin	1 L	
9	METHYL ORTHOSILICATE	10 kg	
10	Methyl iodide	3 L	
11	n-Octylamine, 99+%	2 kg	
12	Lithium nitride	1 kg	
13	Divinyl sulfone	2 kg	
14	Lithium hexafluorophosphate	5 kg	
15	Terephthaloyl chloride, 99+%	2 kg	
16	Iodoacetic acid	2 kg	
17	Potassium tert-butoxide	2 kg	
18	2,2'-Azobis(2-methylpropionitrile)	5 kg	
19	2,2'-Azobis(2,4-dimethylvaleronitrile)	2 kg	
20	Methanesulphonyl chloride	1 L	
21	Tributylphosphine	1 L	
22	4,4'-Methylenebis(cyclohexylamine)	5 kg	
23	Trifluoroacetic anhydride	3 L	
24	Trimethylsilylcyanide	5L	
25	3-(Triethoxysilyl)propyl isocyanate	1 L	
26	Sulfur monochloride	1 L (1.69 kg)	
27	Trimethylaluminium	1 L	
28	n-Butyllithium solution (2.5 M in hexanes)	3 L	

29	Methylolithium solution (1.6 M in diethyl ether)	1 L	
30	Lithium aluminium hydride solution in THF	1 L	
31	1-Hydroxybenzotriazole monohydrate	1 kg	
32	Acryloyl chloride	3 L	
33	1,3-Cyclohexanediyl(methylamine), mixture of isomers	2 kg	
34	Oxalyl chloride	3 L	
35	1,1,1,3,3,3-Hexafluoro-2-propanol	10 L	
36	BORON TRIFLUORIDE DIETHYL ETHERATE	2 kg	
37	Acetone	40 L	
38	Ethanol	40 L	
39	Isopropanol	40 L	
40	Methanol	40 L	

Your Ref: CB3/PAC/R83

10 February 2025

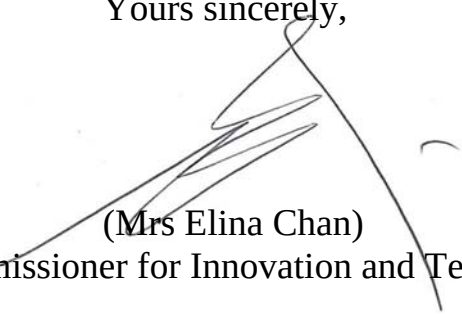
Ms Shirley CHAN
Clerk, Public Accounts Committee
Legislative Council Secretariat
Legislative Council Complex
1 Legislative Council Road
Central, Hong Kong

Dear Ms Chan,

**Public Accounts Committee
Chapter 1 of the Director of Audit's Report No. 83
Nano and Advanced Materials Institute**

In response to question (b)(iv) on providing income and expenditure of Nano and Advanced Materials Institute (NAMI) from 2019-2020 to 2023-2024 on a cash-basis under "Part 1: Introduction" in your letter of 10 December 2024 to the Secretary for Innovation, Technology and Industry, the reply from the Commission, in consultation with the relevant bureau/department, is at **Annex**.

Yours sincerely,


(Mrs Elina Chan)
for Commissioner for Innovation and Technology

c.c. Secretary for Innovation, Technology and Industry
Secretary for Financial Services and the Treasury
Director of Audit
Chairperson of Nano and Advanced Materials Institute
Chief Executive Officer of Nano and Advanced Materials Institute

**Income and Expenditure of Nano and Advanced Materials Institute
from 2019-2020 to 2023-2024 on a cash-basis**

	2019-20	2020-21	2021-22	2022-23	2023-24
	(in \$ million)				
<i>Income</i>					
Income related to operating expenditure (Note 1)	80.4	79.1	96	109	117.7
Income related to R&D projects (Note 2)	158.9	167.6	179.1	174.6	181.1
Other income (Note 3)	16.4	19.6	17.7	15.7	15.9
Total	255.7	266.3	292.8	299.3	314.7
<i>Expenditure</i>					
Operating expenditure (Note 1)	78.7	79.8	96	108.6	115.9
R&D project expenditure (Note 2)	120	128.9	146.3	146.9	156.2
Administrative overhead related to R&D projects	12.5	13.2	11.4	11.9	12.3
Other expenditure (Note 3)	14.9	15.9	14.5	15	15.4
Total	226.1	237.8	268.2	282.4	299.8
<i>Unspent funds returned to the Government by Nano and Advanced Materials Institute (Note 4)</i>	6.5	9.3	3.1	4.9	6.5

Note 1: To meet the anticipated cashflow requirement, after reviewing the quarterly reports submitted by the Nano and Advanced Materials Institute (NAMI), the Innovation and Technology Commission (ITC) will quarterly disburse to NAMI the funds required for its operating expenditure in the succeeding quarter in advance. As there is time gap between NAMI paying its operating expenditure and ITC disbursing the funds, income related to operating expenditure and actual operating expenditure will not match. Overall speaking, the funds disbursed to NAMI for paying its operating expenditure will not exceed the commitment as approved by the Finance Committee (FC) of the Legislative Council. The unspent funds will be reflected through an offsetting arrangement when ITC applies to FC for increase in commitment to extend the operation period of NAMI. For example, the amount of NAMI's increase in commitment in 2020 approved by FC was offset by the estimated remaining commitment. Details are contained in FCR(2020-21)1.

Note 2: Include Government funding and industry sponsorship in relation to R&D projects. Insofar as R&D projects funded by the Innovation and Technology Fund are concerned, according to the current arrangement, funding will be disbursed in advance to meet R&D expenditure needs, which is impacted by the duration of the

subject project (which could reach 2-3 years), the progress of the project, estimated cashflow requirements, etc. The disbursement in each instalment may not be exhausted within the same financial year, hence the income related to R&D projects is larger than the relevant expenditure.

Note 3: Include income and expenditure related to licensing fee/royalties, contract service, Research Talent Hub, Reserve Fund etc.

Note 4: NAMI must return to the Government any unspent funds, including unspent funds upon R&D project completion, unspent funds under the Research Talent Hub, etc.

Your Ref: CB3/PAC/R83

7 January 2025

Ms Shirley CHAN
Clerk, Public Accounts Committee
Legislative Council Secretariat
Legislative Council Complex
1 Legislative Council Road
Central, Hong Kong

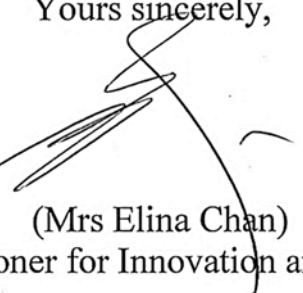
Dear Ms Chan,

Public Accounts Committee
Chapter 1 of the Director of Audit's Report No. 83
Nano and Advanced Materials Institute

Thank you for your letter of 19 December 2024 to the Secretary for Innovation, Technology and Industry, requesting the Administration to coordinate the responses from the Government and the Nano and Advanced Materials Institute (NAMI) regarding information requested therein in related to the captioned Audit Report. This Commission is authorised to reply.

The reply from the Commission and NAMI in relation to the information requested in the incoming letter is at the Annex. Among others, as Appendices 1 to 3 contain guidelines on NAMI's internal operation (including licensing fee calculation basis and procurement matters) and commercial information (including royalties share), these three documents are restricted to Public Accounts Committee's internal consumption only.

Yours sincerely,


(Mrs Elina Chan)
for Commissioner for Innovation and Technology

c.c. Secretary for Innovation, Technology and Industry
Secretary for Financial Services and the Treasury
Director of Audit
Chairperson of Nano and Advanced Materials Institute
Chief Executive Officer of Nano and Advanced Materials Institute

Part 2. Project Management

(a)	(i)	NAMI stated that the nature of violations found in their seven laboratories were similar, including overall laboratory cleanliness and tidiness, staff did not wear appropriate protective equipment while conducting experiments, chemical storage and labeling did not comply with relevant guidelines, and access blockage of first aid equipment such as eyewash stations, emergency showers, etc.
	(ii)	NAMI stated that revised arrangements had been implemented to avoid future violations, including quarterly circulation of laboratory safety manual via email or as and when the guidelines were updated, and posting of safety rules in the laboratory to enhance employees' safety awareness. The laboratory safety team would also conduct random safety inspections every day, provide safety training for new employees and relevant employees every two months, and hold safety team bi-monthly meetings with laboratory leaders to remind employees to follow the laboratory safety regulations.
(b)	(i)	NAMI stated that it had developed and implemented a two-tier laboratory inspection mechanism, having made reference to the practice of the Massachusetts Institute of Technology and the Chinese Academy of Sciences in respect of laboratory environment. For the first tier, technical teams in charge of the respective laboratories would conduct weekly safety inspections, report and take follow-up actions as appropriate. Such records would be reviewed and endorsed by the person in charge of the subject technical teams and the laboratory safety team. For the second tier, bi-monthly inspections would be conducted by the laboratory safety team. The inspection procedures would be reviewed by the person in charge of the subject laboratory technical teams. Inspection reports and follow-ups would be further reviewed by the Chief Operating Officer and Chief Technology Officer (CTO). For any violations spotted, detailed remedial actions and improvement measures would be recorded by the relevant person in charge of the subject

		laboratory after the safety inspection. Photos would be attached as evidence that the issues had been properly followed up. All these would be submitted to R&D Director and CTO for endorsement. The laboratory safety team would verify if the violations had been rectified during their daily inspections.
	(ii)	NAMI stated that the above-mentioned measures for improving laboratory safety had been implemented since mid-December 2024. No violations had been spotted so far. NAMI would keep reviewing relevant arrangements to ensure proper laboratory operation and employee safety.

Part 3. Industry income and Commercialisation

(c)	NAMI stated that in 2020-21, with the outbreak of the COVID-19 epidemic, the number of new collaborative projects involving industry sponsorship had decreased and the "level of industry and other income" was adversely impacted. In 2022-23, despite the eased epidemic, the overall economy was still volatile. Industry partners generally adopted a wait-and-see attitude towards investing in innovative technologies. This had directly affected the number of new collaborative projects sponsored by the industry and contract research projects and hence NAMI's "level of industry and other income". Considering that the economic situation had stabilised and having regard to the Government's intention to further encourage the R&D Centres to strengthen cooperation with the industry, thereby facilitating the R&D Centres' technology transfer to the industry and commercialisation of R&D results, the Innovation and Technology Commission (ITC) raised the "level of industry and other income" target to 35% from 2023-24.
(d)	ITC set the "level of industry and other income" target for R&D Centres at 35% since 2023-24. Having considered that all Centres had eventually achieved beyond the 35% target in 2023-24, and with a view to further encouraging R&D Centres to strengthen cooperation with the industry, ITC subsequently raised the target to 40% in 2024-25, and would explore the possibility of raising the target to 50% in the long run. Notwithstanding the aforementioned, R&D Centres had the public mission to widely transfer technology to the industry and considerations over other objective factors (such as the overall economic situation) should also be taken into account when setting targets. Considering that the economic environment still challenging in the short run, ITC would continue to monitor the situation in the coming year before fixing any implementation timetable for adjusting the target further upward. At the same time, ITC would continue to encourage R&D Centres to strengthen cooperation with the industry to achieve relevant performance targets.
(e)	ITC regularly reports the R&D Centres' progress of work to the Panel on Commerce, Industry, Innovation and Technology of the Legislative Council (LegCo). In the

		relevant Panel papers, figures on the Centres' "level of industry and other income" were provided. On the other hand, in NAMI's annual reports, figures related to "industry income" and "other income" were presented as separate entries. The figures presented in the said two documents were therefore different, as mentioned in the Audit report.
(f)	(i)	NAMI stated that the patents data listed in the Audit Report had covered seed projects, platform projects, collaborative projects with industry sponsorship less than 50% of the total project cost, and NAMI's in house small-scale experiments for initial feasibility study. Among the 142 approved patents, 69 were from seed projects (49%), 39 from platform projects (27%), 11 from collaborative projects (8%), and 23 from small-scale experiments (16%). Among the 81 discontinued patent applications, 26 were provisional patents that automatically expired without submitting further standard patent applications. For the remaining 55 discontinued standard patent applications, 28 were from seed projects (51%), 15 from platform projects (27%), 7 from collaborative projects (13%) and 5 from small-scale experiments (9%).
	(ii) & (iii)	NAMI stated that for patent application, it would generally apply provisional patent for a R&D project in order to secure the "priority date" of the patent application. With the possession of the priority date, when applying standard patent, NAMI would have priority over competitors who wanted to register the same technology and this was crucial to obtaining the ownership of the final standard patent. For the sake of effective resources utilisation, NAMI would not submit a standard patent application after the expiration date of the provisional patent if it would discover during the subsequent R&D process that the technology under a said provisional patent could not satisfy a basket of factors that warrant standard patent application, e.g. the amount of commercialisation income the patent might generate, maintenance costs, whether the technology could be used as background intellectual property for future R&D projects, availability of similar yet more sophisticated patents within NAMI or in the market, whether the patent would match the future

		development of NAMI, etc. During the standard patent application process, NAMI would keep reviewing the application based on these factors to determine whether the application should be continued. Seed projects, platform projects, collaborative projects with industry sponsorship less than 50% of the total project cost, and small-scale experiments have higher threshold in innovativeness. There were no significant differences in the successful application rate among these projects, which was above 70%. NAMI stated that they would generally encounter the following difficulties during patent application: ➤ Technical complexity: High-end technologies often involved complex technical details which were difficult to present in patent application documents. It was also not easy to review such documents. ➤ Prior art search: it would take 12-24 months for each patent application to be disclosed. Consequently, when searching for similar technologies in the patent database to determine the innovativeness of a technology, more recent applied patents information might not be revealed. ➤ Legal and normative changes: Patent regulations and examination standards might vary with countries and regions, which would increase the complexity and uncertainty of high-end technology patent applications. NAMI would take a series of measures to enhance the possibility of getting standard patent applications approved, e.g. to use designated prior art search software for comprehensive search of existing technology, expand patent law firms database and communicate closely with lawyers to enhance the quality of patent filing write-up, formulate a timetable after receiving examiner's opinions and respond to each examination opinion in a timely manner to shorten the overall time.
(g)	(i)	NAMI stated that in addition to transferring its patented technology to the industry through licensing arrangements, it had also conducted technology transfer through

		collaborative projects and contract researches for the industry. In general, if an industry would sponsor more than 50% of the total cost of an R&D project, the industry sponsor would own the intellectual property right(s) to be generated by the subject project for direct commercialisation, and no licensing arrangement would be involved. Among the 50 projects that did not induce any licensing fee (included 30 seed projects and 20 platform projects), 16 projects (32%; including 6 seed projects and 10 platform projects) were completed in 2023-24 (i.e. 1 year or less since project completion date). And, 30 (60%) were seed projects of exploratory nature that could pave way for further R&D collaborations with the industry. Seed projects often derive downstream platform projects, collaborative projects, or contract research projects, thereby generating commercialisation income. As of November 2024, 28 of those 50 projects (included 17 seed projects and 11 platform projects) had derived 36 downstream projects (including 24 platform projects, 9 collaborative projects and 3 contract research projects and other applied research projects).
	(ii)	NAMI stated that past successful examples included a collaborative project related to separator-free lithium-ion battery derived from two seed projects. In addition to the industry sponsorship provided by the relevant industry partner for the project, NAMI also received a royalty of more than \$150,000. Another seed project involving oral nuclear-shell microsphere technology had led to a platform project for encapsulated probiotics with targeted delivery function. NAMI also received over \$30,000 licensing fee.
	(iii)	NAMI stated that they had taken the following measures to increase licensing fee income from projects: ➤ Strengthen the screening of platform and seed projects, such as requiring active industry participation for each project through, for example, provision of relevant trial production support to the industry to increase the chance of successful

		commercialisation after project completion and thereby increase licensing fee income. ➤ produce small batch of the project deliverable/prototype where feasible for promotion to the industry with a view to facilitating the industry's adoption of related technology. ➤ actively cooperate with strategic partners and arrange dedicated technology display areas such as in the Hong Kong Science Park Shenzhen Branch, Nanshan Zhiyuan Shenzhen-Hong Kong Youth Innovation and Entrepreneurship Base, the exhibition hall of Jiangmen Science and Technology Bureau etc., to increase the chance of technology licensing and receive licensing fee. In addition, NAMI had compiled a summary of the list of licensable technologies for promotion through chambers of commerce, exhibitions and promotional meetings. NAMI would also actively participate or organise briefings in the Greater Bay Area cities, Belt and Road countries and Southeast Asian countries to promote cross-region exchanges and cooperation in technology.
	(iv)	NAMI stated that a clear guideline and calculation mechanism had been established, with different levels of charging set based on project cost. Respective licensing fees, trial duration and annual charges were further defined under each level. Please refer to <u>Appendix 1</u> for details. The licensing fee might be further adjusted taking into account project cost and technical considerations.
	(v)	NAMI stated that collaborative projects involving 50% of funding from industry sponsorship and contract research with 100% sponsorship from the industry generally would not involve licensing fee but royalty. After the completion of a collaborative project or contract research project, according to the contract terms, royalty would be charged based on usage or sales volume. For details of the royalty charges from 2019-20 to 2023-24, please refer to <u>Appendix 2</u>.

***Note by Clerk, PAC:** Appendices 1 and 2 not attached.

(h)	In the past, R&D Centres were required to return incomes generated from the Innovation and Technology Fund (ITF)-supported projects (such as income generated by commercialisation of project deliverables) to ITF. In order to encourage R&D Centres to commercialise R&D outcomes of R&D projects, with the approval of the Finance Committee of LegCo in July 2018, ITC allowed R&D Centres to retain part of their commercialisation income for use in strategic activities, such as technology development and market trends analyses, R&D infrastructure building, staff development or experimental projects, etc., so as to further incentivise commercialisation of R&D outcomes. NAMI was required to submit a detailed proposal every year regarding the use and estimates of the strategic reserve fund. The proposal had to be endorsed by the Board of Directors and approved by the Commissioner for Innovation and Technology.

Part 4. Administrative expenditure and Corporate governance

(i)	(i)	NAMI stated that the new guideline had clearly stated that employees should avoid varying business trip for personal reasons. Employees with genuine need to vary duty passage should submit such the application together with that for the business travel and bear any additional costs involved.
	(ii)	NAMI stated that they would consider in a prudent manner whether to accept application for variation of duty trips due to personal reasons, in particular those involving staff in supervisory grade. NAMI would also continue to review relevant mechanism to ensure rationality and transparency.
	(iii)	As advised by the Civil Service Bureau, the provision of duty passage for civil servants travelling on duty outside Hong Kong is governed by the Civil Service Regulations. An officer who wishes to vary his duty passage arrangements for personal reasons should seek prior approval from the approval authority. Approval may be given subject to the conditions that (a) the modification would not undermine the original justifications for the passage arranged by the Department; (b) additional expenses, if any, must be met by the officer; and (c) savings, if any, should not be used to subsidise the officer's personal travel. The authority for modification of passage rests with Heads of Department, or the relevant Permanent Secretary (or supervising officer if there is no relevant Permanent Secretary) if the officer travelling is a Head of Department.
(j)	(i), (ii) & (iii)	NAMI stated that according to the previous edition of the "Corporate Governance Manual", the approving personnel for expenses was dependent on the amount of the claim involved instead of the rank of the claimant. Details are contained in <u>Appendix 3</u> . Nevertheless, NAMI agreed with the Audit Commission's recommendation that there was room for improvement in the previous guidelines regarding the approval mechanism of subsistence allowance and entertainment expense involving Chief Executive Officer (CEO). NAMI had subsequently revised the relevant specific guidelines in October and November 2024 respectively, stipulating that all subsistence allowances and entertainment expenses involving CEO must be approved by the Chairperson of

***Note by Clerk, PAC:** *Appendix 3 not attached.*

		the Board. Please refer to <u>Appendix 4 and 5</u> for the revised specific guidelines. NAMI was reviewing the criteria for making approval recommendations and decisions to better assist the Chairperson of the Board. The relevant mechanism would be updated in a timely manner.
(k)		NAMI stated that the business travel quoted in the Audit Report with an excess amount of \$607 involved 1 meal arrangement for 7 staff, and the business travel with an excess amount of \$4,700 involved 8 meal arrangements (5 to 6 staff were involved in each meal, and the excess amount per head was about \$105). All the business trips mentioned in the Audit Report involved participation in large-scale exhibitions or conferences. The main reason for meal expenses in excess of allowance was that staff were under tight event schedule and there lacked cheaper dining options in the vicinity of the relevant event venues. NAMI had revised the relevant guideline in November 2024 to improve the approval process for meal expenses exceeding the subsistence allowance. The CEO had also elaborated on the relevant guideline rationales to all employees at a town hall meeting held in December, instructing all to follow the guideline to ensure proper use of public fund.
(l)		NAMI stated that of the two cases quoted in the Audit Report with excess entertainment expenses, one was for lunch, of which the maximum allowance per head was \$450, while the other case was for dinner, of which the maximum allowance was \$600. The relevant limits were set according to the guidelines of its host institution, the Hong Kong University of Science and Technology (HKUST), and would be revised subject to updates from HKUST. NAMI had revised the relevant guidelines in October 2024 to enhance the approval process for excess entertainment expense, including the requirement that subsistence allowances and entertainment expenses involving CEO must be approved by the Chairperson of the Board. All employees had been reminded to comply with the allowance limits of entertainment expenses. Relevant guidelines would be recirculated on a quarterly basis. NAMI had also reminded all employees that applications in excess of the limit would be approved only

		with sufficient justifications, and the justifications would be properly documented.
(m)		NAMI stated that for those 8 entertainment expenses claims, the relevant employees had made verbal reports to their respective supervisors prior to the event and received formal covering approvals afterwards. NAMI agreed that there was room for improvement and had revised the relevant guideline in October 2024 to clearly stipulate that prior approval must be obtained for all entertainment expenses. In exceptional circumstances, if formal prior approval could not be obtained, covering approval must be obtained promptly. All prior and covering approvals and the corresponding justifications would be properly documented.
(n)		NAMI stated that the subject entertainment case involved two industry partners. As the discussion would involve collaboration and promotion plans for commercialisation of multiple projects, 8 NAMI employees joined, including CEO, Chief Officers, technical managers and marketing managers of the related fields. In relation to the subject case where the claimant had not provided justifications, NAMI agreed that there was room for improvement. It had already revised the relevant guideline in October 2024 to set out the reasonable ratio on the number of NAMI staff to guests being entertained. For exceptional cases, justifications must be provided and documented.
(o)		NAMI stated that the subcommittee had discussed and approved agenda items, including audited accounts after project completion and project-related change requests (such as project extension, adjustment of conditions of project deliverable, etc.), through emails. Since November 2024, regular weekly meetings had resumed to discuss and approve relevant agenda items. NAMI would review the arrangement and consider appropriate revision to the Corporate Governance Manual as and when required.
(p)		NAMI's Board of Directors is not a Government Advisory and Statutory Body and the "Six-year" rule does not apply. However, ITC has been making its best effort to take the rule into consideration when appointing non-official Board members. NAMI's Board is responsible for monitoring routine operation and financial aspects of NAMI,

		examining and endorsing various reports, vetting R&D projects as well as steering the research direction including commercialisation of R&D deliverables. Therefore, the key consideration in appointment is whether the candidate/personnel possesses the specific expertise, professional background and relative experience required for NAMI's future development needs. If it is recommended to reappoint a member who has already served the Board for more than six years, considerations and justifications will be specified.
(q)		NAMI stated that it would continue to strengthen efforts in reminding Board members or committee members to declare conflict of interests due to personal or work capacities at meetings. In addition, NAMI would improve record keeping practice. Details of declarations made and whether the members concerned had remained in the meeting or vote on matters concerned would be properly documented.

Part 5. Other Issues

(r)	NAMI stated that the relevant cases mainly involved working relationships. For instance, the applicants were current NAMI staff, former staff, former summer interns, etc. For the 10 recruitment cases, details of the declarations of interest of the selection panel members are in <u>Appendix 6</u> .
(s)	(i) The number and percentage of R&D staff resigned between 2019-20 and 2023-24 are shown in <u>Appendix 7</u> .
	(ii) NAMI stated that employee resignation reasons mainly included change in work fields, further study pursuits, depart from Hong Kong and family causes. NAMI had taken a number of measures to retain staff, e.g. provision of special bonus to R&D teams as recognition for their achieving outstanding performance in international competitions. NAMI also provided research excellence bonus out of the commercialisation income to relevant R&D teams. Furthermore, NAMI had a part-time PhD programme to fully subsidise staff with potential to pursue part-time PhD study. Staff receiving subsidy under the said programme would be required to fulfill a 2-year service commitment. The service period would begin upon receipt of the last tuition fee reimbursement or upon graduation, whichever is later.
	(iii) NAMI stated that employee turnover had certain impact on the operation of the Centre. In order to reduce the impact of staff turnover on R&D work, other than the measures mentioned in the reply to (s)(ii) above, NAMI also attracted talents through different recruitment channels, reviewed salary and benefits as appropriate, as well as strengthened communication and manpower deployment.
	(iv) NAMI stated that when considering whether to hire researchers under Research Talent Hub, factors such as the ranking of the institution where the applicant graduated from, the years and skills required for the position, etc., would be taken into consideration. In addition, NAMI could also hire required researchers through ITF project funding.

(t)	NAMI stated that it had made reference to the overall distribution of employee performance ratings recommended by the Board. Nevertheless, employee performance was assessed based on a number of performance indicators with grading provided based on actual performance. When the overall distribution had exceeded the recommended range, NAMI would report to the Board with explanations and seek the Board's endorsement. NAMI would continue to review and optimise its current performance rating mechanism.
(u)	NAMI stated that four new chief officer posts were created in 2022-2023, including the Chief Science Officer post which was responsible for driving the technical direction and development of NAMI in a longer term. Having considered cost-effectiveness and the development direction of NAMI, relevant tasks were shared among the other Chief Officers in the past two years. The Finance and Administrative Committee under the Board discussed the matter again at its meeting on 7 November 2024. In view of the upcoming merger of NAMI with the Applied Science and Technology Research Institute, the recruitment for the Chief Science Officer would be stalled.
(v)	NAMI stated that during the period from 2019-2020 to 2023-2024 (2020-2023 in particular), due to the impact of the COVID-19 epidemic, promotional activities such as exhibitions/seminars that NAMI had planned to organise or participate were postponed or cancelled. The number of website visitors had also been affected and the relevant performance targets were not met. NAMI would set clear, aggressive yet practicable targets based on the overall technology R&D and business development strategies, and with regard to resources and time constraints. NAMI would strive to carry out promotional activities as planned and adjust strategies and allocate resources as necessary. NAMI would also organise industry exhibitions, seminars and other promotional activities through enhanced cooperation with relevant industry associations, chambers of commerce or other enterprises and organisations. The NAMI website content, structure and search engine would be optimised to increase overall traffic and engagement rate.

(w)	NAMI stated that the administrative and operating expenses had included some R&D-related expenditure, such as laboratory rental and equipment, technology and testing service fees, etc. NAMI had set up a healthcare laboratory in 2021-22 to carry out bio-and-health-related R&D projects. A battery laboratory was also set up in 2022-23 to carry out R&D projects related to advanced battery materials. The relevant rental, facilities and equipment costs had increased accordingly.
(x)	In the past few years, the overall economic situation has been severely affected by the COVID-19 epidemic and the local economy needs more time to recover. During the epidemic, some R&D Centres (included NAMI) have switched the focus to conduct more upstream R&D projects or provide pandemic-related technology support for the Government, thereby the overall economic contributions by the R&D Centres have inevitably dropped. Although NAMI's GDP contributions has declined from 2020-21 to 2022-23, it has made a considerable amount of contributions (more than \$3.9 billion) over these three years. ITC will continue to review and assess regularly all R&D Centres' (including NAMI) GDP contributions and other performance. ITC will also work with NAMI's Board to urge NAMI to exploring more opportunities of collaboration with the industry, and transferring technology for industry applications and commercialisation, thereby driving economic growth and increase its GDP contributions.

NANO AND ADVANCED MATERIALS INSTITUTE LIMITED

Financial Circular No. 2/2024
Regulations on Provision of Meals to Guests and Staff

The Guiding Principles

1. Staff members should exercise prudent judgement and economy when entertaining guest(s) for official purposes in order to avoid any public perception of extravagance. The following guiding principles on the hosting of official meals should be closely adhered to:

- (a) Official meals should only be provided with good cause.
- (b) Frequency – Official entertainment should only be carried out on a need basis. Repeated provision of official meals for the same group of guests within a short period of time should be avoided.
- (c) Number of staff members – The number of staff members who attend to assist the host should be kept to the minimum.
- (d) Scale and format – When deciding the format, place, and scale of entertainment, the objective of the event, status of the principal guest(s) and the standard of entertainment appropriate to the occasion should be taken into account. As a rule of thumb, lavish official meals must be avoided.

Coverage

2. This Financial Circular covers dollar limits of meal costs for entertaining external guests, recruitment, and working meals.

Regulations

3. The meal cost limits set out below should be inclusive of all expenses incurred on food and beverages consumed on the occasion, service charges and tips. The costs of food and beverages that are separately procured and provided for consumption at the same official meal should also be taken into account in the overall expenditure. Staff members claiming

reimbursement of meal costs should provide details of any food and beverages that are separately purchased for consumption at the same event.

Provision of Meals to Non-Staff Members

Entertaining external guests

4. A maximum meal cost per head of **\$600** is set **for dinner, \$450 for lunch and \$200 for breakfast** for entertaining external guests. Exceptional approval from Chief Executive Officer /Chief Operating Officer should be obtained if the meal cost exceeds the limit (CEO's claim would be subject to approval by Chairman of the Board).

5. This dollar limit is not applicable to banquets/dinners/lunches organized for the participants of workshops/conferences/corporate programs financed by registration/program fees.

6. All claims for meal costs for entertaining external guests are restricted to Section Directors and above, and those with **prior** approval from Section Directors or above. Such claims should be supported by receipts and details regarding the purpose of the entertainment and participants.

7. There ought to be a reasonable ratio of NAMI staff to guests on all occasions of entertaining external guests, which normally should be **2:1**. Full justifications should be given for exceptional cases. It must be emphasized that successful reimbursement of unreasonable claims is not guaranteed.

8. For staff members attending meals for entertaining external guests, their capacity should be consistent with or related to their roles and posts.

Recruitment meals

9. For recruitment meal costs incurred locally, the maximum reimbursable amount for each person is the same as that for entertaining external guests as per paragraph 4 above.

10. For recruitment meal costs incurred overseas, the maximum reimbursable amount for each person is the same as that for local recruitment meal OR 1.5 times of the relevant applicable subsistence allowance rate for each meal during overseas business travel, whichever is higher.

Provision of Meals to Staff Members

Working meals

11. Working meals without involving external guests may be claimed by staff members, for example, attend an exhibition counter with insufficient time for or not given a meal break, attend meeting/activities required by NAMI during a normal meal time, etc. The maximum **working meal** cost per head is **\$100**. Meals for general staff gathering purposes cannot be claimed as working meals.

Reimbursement Procedures

12. To claim reimbursement of the meal costs incurred, supporting documents (official receipt(s), name of participants and their titles, information about the event, any food and beverages that are separately purchased for consumption at the same event, etc.), should be provided.

Exception

13. Any exception to the above rules would require the approval of Chief Executive Officer/Chief Operating Officer.

NANO AND ADVANCED MATERIALS INSITUTE LIMITED

Financial Circular No. 1/2024 (revised)
Travelling outside Hong Kong on Business

NAMI will fund the necessary expenses incurred by staff for business travel in the performance of their duties of employment or travel by any eligible non-staff to or from the place they are required to attend as part of NAMI business.

Travel Authorization

2. For any business travel outside Hong Kong, prior approval from Sector Head and Chief Executive Officer (CEO) / Chief Operating Officer (COO) as appropriate should be sought for the whole trip period from date of departure to date of return, with details of the business travel itinerary (CEO's business travel and related claims would be subject to approval by Chairman of the Board). Staff should submit application for business travel through the Human Resource Management System, and if approval through the System may not be granted before commencement of the business travel, prior approval by email is needed. The number of staff travelling on the same business purpose should be restricted as appropriate.

3. Approval from Sector Head and CEO / COO is required for any revised itinerary from the approved ones. Staff should avoid modification of business travel arrangements for personal reasons, and prior approval is necessary.

Expenses

4. Where NAMI business is undertaken wholly or partly outside Hong Kong, NAMI will fund the cost of round-trip travel between Hong Kong and the destination where the business duties would be carried out (including local transportation costs between home/place of residence and airport/train or ferry station, if deemed necessary). Claims for relevant expenses should be supported by official receipts and any other supporting documents. These include boarding pass for air travel and hotel bills for accommodation showing the identity of the staff and the period, etc.

5. Other claims which are deemed necessary and appropriate including normal meal costs and travelling expenses for business journeys incurred during the period of business travel are allowed and should be supported by official receipts and any other relevant documents.

6. NAMI will also fund identifiable expenses as follows within city or between cities upon production of relevant receipts.

- Airport tax
- Taxi/coach fare to/from airport
- Official telephone/internet charges
- Car hire charges (including parking, fuel costs, tunnel tolls, insurance, etc.)
- Foreign currency charges & exchange difference on actual rate from system exchange rate
- Entry visa fees

CEO / COO shall determine if any expense not being specifically mentioned above should be separately reimbursed.

7. NAMI will also provide subsistence allowance & hotel accommodation for approved duty/business trip outside Hong Kong.

Air Travel

8. NAMI has appointed designated travel agents for air travel arrangement services to staff for NAMI approved business travels. The following rules should be observed:

Travel arrangements through NAMI appointed travel agents

NAMI shall settle all “business related” travelling costs directly with the appointed travel agents (but not other outside travel agents). “Business related” cost is the airfare for itinerary solely for business related destination(s) and period(s) and in the flight class that the staff is entitled.

- Other “non-business related” travelling costs (excess of the actual costs over the “business related” costs) shall be borne and settled by staff.
- Staff should not pay for the “business related” travelling costs to the appointed travel agents and claim reimbursement.

Travel arrangements NOT through NAMI appointed travel agents

- Under exceptional circumstance and with approval from CEO / COO, staff may make travel arrangements through outside agents or purchase online and provide the official receipt and other supporting documents (e.g. air-ticket stubs) to claim reimbursement.

- If there is any “non-business related” element in the receipts, staff should obtain quotation from one of the appointed travel agents to ascertain the “business related” costs for comparison. Only the lower of the actual costs or the quoted price will be reimbursed.

9. If staff purchases an ineligible higher class air ticket or the air ticket involves both business and personal stay/stop-over, the “business related” costs will be ascertained by a contemporaneous quotation:

- obtained from one of the appointed travel agents;
- for itinerary solely for business related destination(s)/period(s);
- for same airline as the actual air-ticket; and
- for same flight class as the actual air-ticket, or the class that the staff is entitled, whichever is lower.

10. If sponsorship for airfare is provided by external organization, the maximum amount that can be charged to NAMI funding (or the reimbursable amount) should be the airfare of the entitled class of ticket minus the sponsorship amount. Staff are not allowed to use sponsorship money to top up to an ineligible higher class of air tickets, unless it is specifically stated in writing that the sponsorship can be used to pay for the excess cost of airfare above the NAMI normal allowable entitlement amount.

11. Maximum eligibility for different classes of air ticket for NAMI staff is as follows:

Business class

- CEO
- Staff at the rank of Chief Officer for long-haul flights where the flying time exceeds 5 hours (excluding transit time).

Upgradable economy class

- Staff below the rank of Chief Officer for long-haul flights where the flying time exceeds 5 hours (excluding transit time). The upgradable economy class means the cheapest upgradable economy class permitting mileage upgrade to business class.

Flexible economy class

- All staff except for those stated above.
- Allow flexible economy travel that provides the required flexibility for making

changes to the itinerary with expectation that staff will choose the lowest cost option.

- Flexible economy class is not the same as Premium economy class.

12. The air ticket will be issued in the name of the staff on business travel. Provision of air passage to approved visiting personnel outside Hong Kong normally follows that which is applicable to general NAMI staff as set out above. “Trading down” of travel tickets, i.e. travelling by a lower class in order to claim an extra ticket for staff’s family member or guest, will not be permitted.

13. For a candidate coming to Hong Kong to attend an interview, the eligibility for the different classes of air ticket will be the same as that which is applicable to NAMI staff, i.e. depending on the position for which the candidate is interviewed.

Rail/Ferry Fares

14. Travel by standard class should be the default in most instances. Staff on business travel to Mainland China or Macau should buy train tickets or ferry tickets themselves and obtain reimbursement after completing the trip, with an acceptable official receipt, ticket stubs, etc.

15. Staff may apply for upgrade of the class of travel due to special needs if well justified. Approval from CEO / COO is required for the upgrade.

Car Hire

16. NAMI will fund identifiable travelling expenses within city or between cities only for business journeys. It includes car hire charges (including fuel costs and insurance), taxi fares, coach fares and expenses for other appropriate mode of transportation which will be reimbursed, based on actual cost, including trips to/from the airports.

17. Car hire for cross region travel between Hong Kong and China; within city or between cities of designated country, which is well justified for business purposes, are allowed. Proposed driving route, quotation of car hire and the estimated related cost should be reviewed and approved by CEO / COO before commencement of the trip.

Travel Insurance

18. When travelling abroad on NAMI business, staff with place of departure from Hong

Kong will be covered by NAMI's group travel insurance policy. For place of departure outside Hong Kong, staff are required to purchase appropriate travel insurance by themselves and claim reimbursement.

Subsistence Allowance

19. A staff member travelling outside Hong Kong on official duties is paid a daily subsistence allowance on the basis of number of nights outside Hong Kong. For claims of the subsistence allowance for accommodation, receipt(s) from hotel/guest house is needed to support the claim (Note). Staff may also claim subsistence allowance for overnight stay solely for transit purpose if no other alternative travelling arrangement is available which can avoid such overnight stay and fit the staff's business schedule. Moreover, subsistence allowance may also be claimed for the "bridge period" between two separate business events within the same trip, if it can be proven that the alternative of arranging separate trips is less cost effective and the bridge period is less than 5 nights. In this case the subsistence allowance rate applicable will be the lower of the two subsistence allowance rates for locations before and after the bridge period. All personal and private travelling expenses will not be reimbursed.

20. The nights away from Hong Kong should be analyzed in the travel application as (i) business night (including the night before or after which business duty will be carried out if justified), (ii) non-business night on weekend/public holiday in-between the duty period, (iii) overnight stay with accommodation for transit only, (iv) overnight travel on plane/train, or (v) night on personal leave day. Staff should also indicate for which nights subsistence allowance will be claimed.

21. 60% of the subsistence allowance is deemed to cover accommodation, 5% for breakfast, 10% for lunch, 15% for dinner, and 10% for other minor out-of-pocket expenses. Prior approval from CEO / COO is required for hotel accommodation expenses exceeding 60% of normal subsistence allowance rate under special circumstance. This may include a staff member attending events and staying in designated event hotels (conference/event details showing the names of the designated hotels are required).

22. Approval from CEO / COO is required for staff claiming extra meal costs in addition to the entitled subsistence allowance. Such claim should be well justified and supported by original receipts. Only actual costs incurred will be reimbursed if exceptional approval is granted.

23. In the event that any of the expenses set out above are paid through other means such as out of the registration fee for a conference or meals paid out of official entertainment account, separate claim for the corresponding subsistence allowance as stated in para. 21 will not be allowed.

24. Hotel accommodation-related taxes are not included in the subsistence allowance rates for the United States of America (USA) destinations. The taxes paid during duty visits in the USA shall be reimbursed on an “actual-expenses” basis. To facilitate the reimbursement arrangement, breakdown of hotel accommodation-related taxes should be shown on the hotel bill and/or receipt. This arrangement is not applicable to non-USA destinations as the subsistence allowance rates have already taken into account the hotel accommodation-related taxes to be incurred.

25. If a staff member stays with friends, relatives or stays in his/her own house, or cannot provide any hotel receipt (Note), the 60% subsistence allowance for accommodation will not be allowed.

26. The rates of daily subsistence allowance for duty outside Hong Kong are set out in Appendix. The daily rates of subsistence allowance, accountable or non-accountable, which are set out in the currencies of the countries to be visited are converted into and paid in Hong Kong dollars on a reimbursement basis.

27. As soon as the business trip is completed, a staff member has to set out the amount of claims (which may be at or lower than the standard rates of subsistence allowance) and the budget line charging account in the relevant reimbursement claim form, and forwarded to the Administration Unit as early as possible, together with the used ticket stub(s), the hotel receipt(s) and receipt(s) for other necessary expenses.

28. When a staff member buys the foreign currency, the actual exchange rate may be higher or lower than the book rate used. In the event that the actual exchange rate is higher than the book rate, staff member could claim reimbursement on the basis of the actual Hong Kong dollars required for the actual amount of foreign currency exchanged. The claim has to be supported by the relevant bank exchange memo. Where the actual exchange rate is lower than the book rate, the actual reimbursement will be made on this actual rate.

For one day business trip (non-air)

- Prior approval from Sector Head should be sought for any claim for taxi fare from home

(Hong Kong/Mainland China)/office to the borders/High Speed Rail Station/train station, and vice versa.

- Meal costs (lunch or dinner) are not reimbursable except for occasional working meals (i.e. performing official duties during a normal meal time), and the reimbursable amount is capped at the prevailing rate of working meal, which is HKD 100.

Note

A valid receipt should contain the following minimum information:

- (i) Name of the claimant,
- (ii) Check-in and check-out dates; and
- (iii) Room charge(s) paid by the claimant (that is, a direct actual payment of room charge(s). The settlement of room charges through the redemption of coupons, bonus points, purchased points or other kinds of rewards are not considered as “paid” and will not be reimbursed.)

Nov 2024

**Declarations of Interest of Selection Panel Members for Cases Involving
Personal or Working Relationships with Applicants**

	Applied Post	Selection Panel Members	Relation
1	Chief Commercial Officer	Chairpersons of the Board of Directors, Finance and Administration Committee, and Technology Committee, Assistant Commissioner for Innovation and Technology, and Chief Executive Officer	Existing NAMI staff
2	Chief Technology Officer	Chairpersons of Board of Directors, Finance and Administration Committee, Technology Committee, and Audit Committee, Science Advisor of the Innovation and Technology Commission, and Chief Executive Officer	Existing NAMI staff
3	Business Development Manager	Chief Commercial Officer, Chief Operating Officer, Research and Development Director	Candidate once interviewed by the Research and Development Director
4	Senior Engineer	Senior Technology Manager, and Technology Manager	Former NAMI staff
5	Senior Engineer	Research and Development Director, Senior Technology Manager, and Technology Manager	Met at a seminar before
6	Engineer	Research and Development Director, Senior Technology Manager, and Senior Engineer	Classmate
7	Engineer	Research and Development Director, Senior Technology Manager, and Senior engineer	Staff of a NAMI's licensee company

Appendix 6

8	Engineer Trainee	Senior Technology Manager, and Technology Manager	Former NAMI summer intern
9	Senior Engineer	Research and Development Director, and Senior Technology Manager	Ex-colleague
10	Senior Engineer	Research and Development Director, Senior Technology Manager, and Technology Manager	Ex-colleague

R&D Staff Turnover Rate from 2019-20 to 2023-24

	2019-20	2020-21	2021-22	2022-23	2023-24
Number of R&D Staff Resigned	47	53	58	48	40
Percentage of R&D Staff	25.9%	27.6%	28.6%	24.2%	20.8%



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來函檔號 Your Ref.: CB3/PAC/R83

5 December 2024

Ms Shirley CHAN
Clerk, Public Accounts Committee
Legislative Council
Legislative Council Complex
1 Legislative Council Road
Central
Hong Kong

Dear Ms CHAN,

Public Accounts Committee
Consideration of Chapter 1 of the Director of Audit's Report No. 83
Nano and Advanced Materials Institute

Thank you for your letter on the captioned subject dated 4 December 2024.

As requested, a table showing the analysis of the ratio of operating expenditure to Research and Development (R&D) project costs for all the five R&D Centres established under the Innovation and Technology Commission during the period from 2019-20 to 2023-24 is enclosed for your reference (see Appendix).

Yours sincerely,

(Ms WAN Suet-fun, Flora)
for Director of Audit

**Ratio of operating expenditure to R&D project costs for the five R&D Centres
(2019-20 to 2023-24)**

R&D Centre		2019-20	2020-21	2021-22	2022-23	2023-24
Automotive Platforms and Application Systems R&D Centre	Operating expenditure (\$ million) (a)	20.6	19.7	23.8	26.8	29.4
	R&D project costs (\$ million) (b)	48.7	49.9	77.9	70.9	79.7
	Ratio (%) (c) = (a) ÷ (b) × 100%	42%	39%	31%	38%	37%
Hong Kong Applied Science and Technology Research Institute	Operating expenditure (\$ million) (d)	170.2	174.0	181.8	186.5	202.1
	R&D project costs (\$ million) (e)	358.6	333.2	298.7	284.6	318.4
	Ratio (%) (f) = (d) ÷ (e) × 100%	47%	52%	61%	66%	63%
Hong Kong Research Institute of Textiles and Apparel	Operating expenditure (\$ million) (g)	39.2	42.2	41.2	47.3	54.2
	R&D project costs (\$ million) (h)	82.2	59.2	68.8	67.5	72.9
	Ratio (%) (i) = (g) ÷ (h) × 100%	48%	71%	60%	70%	74%
Logistics and Supply Chain MultiTech R&D Centre	Operating expenditure (\$ million) (j)	42.5	45.6	66.6	52.7	70.8
	R&D project costs (\$ million) (k)	96.7	86.7	112.4	145.4	171.5
	Ratio (%) (l) = (j) ÷ (k) × 100%	44%	53%	59%	36%	41%
Nano and Advanced Materials Institute	Operating expenditure (\$ million) (m)	78.7	79.8	96.0	108.6	115.9
	R&D project costs (\$ million) (n)	120.0	128.9	146.3	146.9	156.2
	Ratio (%) (o) = (m) ÷ (n) × 100%	66%	62%	66%	74%	74%

Source: Audit Commission analysis of Innovation and Technology Commission records

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APPENDIX 10

MARINE DEPARTMENT

HARBOUR BUILDING
38 PIER ROAD
HONG KONG

G.P.O. BOX 4155
HONG KONG

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17 January 2025

Public Accounts Committee
Legislative Council
Legislative Council Complex
1 Legislative Council Road
Central
Hong Kong
(Attn: Ms Shirley CHAN)

Dear Ms CHAN,

Public Accounts Committee

Consideration of Chapter 2 of the Director of Audit's Report No. 83 Planning and management of sheltered space within Hong Kong waters

Thank you for your letter dated 18 December 2024. Our replies to the questions raised by the Public Accounts Committee are set out at **Annex**.

Yours sincerely,

(L.K. LAW)

for Director of Marine

Encl.

c.c. Secretary for the Environment (email: stloffice@tlb.gov.hk)
Director of Civil Engineering and Development (email: michael.fong@cedd.gov.hk)
Director of Water Supplies (email: roger_yl_wong@wsd.gov.hk)
Secretary for Financial Services and the Treasury (email: sfst@fstb.gov.hk)
Director of Audit (email: ncylam@aud.gov.hk)

同心協力，促進卓越海事服務

We are One in Promoting Excellence in Marine Services

Public Accounts Committee
Chapter 2 of the Director of Audit's Report No. 83
“Planning and Management of Sheltered Space within Hong Kong Waters”

(I) Questions responded by the Marine Department

Part 2: Planning and Provision of Sheltered Space

- 1) In connection with paragraph 2.5 of the Director of Audit's Report No. 83 (Audit Report), the increase in projected demand for sheltered space was mainly due to the projected increase in the number of pleasure vessels. In 2021, the actual demand from pleasure vessels was 240.3 hectares (42% of the total demand) while the projected demand from pleasure vessels was expected to increase to 311.1 hectares (47% of the total demand) in 2035. Please provide the projected and actual demand from pleasure vessels from 2015 to 2024, as well as the justifications for the projected demand from pleasure vessels in 2035.**

Reply: It is the established policy of the Government to provide sheltered space in Hong Kong on a territory-wide basis, and assess the supply and demand of sheltered space in a holistic approach. The latest round of territory-wide assessment under the “Assessment of Typhoon Shelter Space Requirements 2022-2035” was conducted in two phases from August 2020 to December 2022.

In the first phase commenced in August 2020, the Marine Department (“MD”) commissioned a private survey company to conduct a survey with locally-licensed vessels on shelter arrangements through telephone interviews and questionnaires, with a view to providing an estimation of these vessels’ need for taking shelter within Hong Kong waters for assessment of sheltered space requirements in the second phase as followed.

In June 2021, MD commissioned the Department of Logistics and Maritime Studies of the Hong Kong Polytechnic University (“PolyU”) to carry out the second phase to assess the projected supply and demand of sheltered space from local vessels between 2022 and 2035. In assessing demand for sheltered space by pleasure vessels, PolyU took into account the expected changes in the number of vessels, the estimation of sheltered space in Hong Kong waters taken up by vessels obtained in the first phase and the average area of sheltered space occupied. In this assessment, PolyU calculated the average area of sheltered space occupied through aerial photography. For the expected changes in the number of vessels, there has been an upsurge in the number of open cruisers in 2021. PolyU considered that local people

purchased relatively more affordable pleasure vessels when they were unable to travel due to travel restriction during the COVID-19 pandemic. Data in 2021 are therefore treated as outliers in the projection on number of such vessels. The relevant actual and projected demand of sheltered space for pleasure vessels are provided at **Appendix**.

- 2) **According to paragraph 2.11 of the Audit Report, in order to provide information on the sizes and boundaries of sheltered anchorages (“SAs”), the Audit Commission considers that MD needs to make available on its website the layout plans of SAs for public information. Please advise of the following:**
- (a) as mentioned in paragraph 2.18(c) of the Audit Report, MD plans to conduct an overall review of the 18 SAs along with the next round of Assessment of Typhoon Shelter Space Requirements exercise in 2025, and the layout plans of SAs will be updated and made available to the public on MD’s website after review. In this connection, does MD mean that the layout plans of SAs are not available at this moment? If so, what are the reasons for failure to maintain the layout plans; if not, why they are not uploaded to the website as soon as possible; and**
 - (b) if the layout plans are to be made available for public information only after the next round of Assessment of Typhoon Shelter Space Requirements exercise in 2025, what is the earliest expected time for uploading the plans to the website?**

Reply: SAs are generally located in bays where waters are sheltered by surrounding natural geographical environment and/or existing man-made structures. The SAs could serve as ideal places for vessels to withstand wind and wave during passage of typhoon and inclement weather. A preliminary review of SAs was conducted in last round of “Assessment of Typhoon Shelter Space Requirements (2022-2035)” and, subsequently, the “Location Plan of Typhoon Shelters and Sheltered Anchorages” showing the locations of individual SAs and typhoon shelters within Hong Kong waters was updated in August 2022 and uploaded to the MD’s webpage for public information accordingly. Regarding the layout plans of individual SAs, as some SAs were established long time ago, their layout plans are drawn on the old geodetics system and, therefore, there is a need to redraw and update them with current geodetics system. MD plans to review the 18 SAs within Hong Kong waters during the new round of “Assessment of Typhoon Shelter Space Requirements” in 2025 for production of updated layout plans by the end of 2027 or early 2028. The updated layout plans will then be uploaded to MD’s webpage for public information.

- 3) **Under paragraph 2.12 of the Audit Report, MD has designated areas for private moorings (“PMs”) of local vessels and issued permissions to lay PMs at a specified space therein. As at 30 June 2024, there were 43 PMs areas within Hong Kong waters that involved 1 978 permissions for PMs in these areas. Among them, 1 789 (90%) were located in typhoon shelters and SAs. Would MD provide the following statistics in the past 3 years:**

- (a) **the numbers of applications received for laying a PMs and cases in which permission was issued;**

Reply: From 1 July 2021 to 30 June 2024, MD received a total of 86 applications for laying of PMs. Of which, the Department issued a total number of 80 permissions to lay PMs.

- (b) **the number of complaints received regarding the use of allocated PMs spaces by other vessels for mooring without the consent of the respective PMs permission holders; and**

Reply: According to MD’s records, from 1 July 2021 to 30 June 2024, 10 cases have been received concerning the use of PMs without the owners’ consent.

- (c) **the shortest, longest and average processing time required upon receipt of the above complaints.**

Reply: MD handled the captioned complaints immediately upon receipt of them. According to the MD’s record, the shortest time required for handling a case was one day, the longest time was 75 days and the average handling time was 13 days. 80 percent of the cases were completed processing within 10 days or less. For the case requiring 75 days for processing, as the complaint was originated from vessels illegally occupying private moorings located in shallow water, MD had to arrange for a special vessel with shallow draught to conduct onsite investigation and arrange contractor to carry out follow-up action in accordance with the established procedures.

- 4) **As mentioned in paragraphs 2.17 and 2.18 of the Audit Report, the Audit Commission has recommended that MD should make available the information (e.g. the size and boundary) on PMs areas in sheltered space. However, MD responded that they would only explore the audit recommendation for the time being. Would MD advise on the reasons for not taking forward the audit recommendation.**

Reply: According to the para. 2.13 of Chapter 2 of the Director of Audit's report No.83, it was stated that some PM areas are within typhoon shelters and SAs which are difficult to be distinguished by public. Hence, a recommendation is made in para. 2.17(d) for MD to make the general layout plans of PM areas available on MD's website for public information.

MD has established a number of PM areas within Hong Kong waters for authorised persons to lay their PMs. Some of which are within the typhoon shelters and SAs. PM equipment consists of a floating mooring buoy to which vessel could secure itself. The mooring buoy is usually painted in a colour that is easily visible, such as white or eye-catching colour, so that coxswain could easily spot and give a wide berth to them to avoid any collision or inadvertent entry to the PM areas.

PM areas feature a number of eye-catching floating mooring buoys lining up in a regular and orderly pattern to form a distinct area that can easily be spotted by coxswain. To further assist coxswain in identifying the PM areas, and to address the recommendation of the Audit Report, MD plans to upload the layout plans of PMs areas with general information (including size and boundary) to MD's website in Q3 of 2025 for public information. Meanwhile, MD is exploring ways that are more effective and more in line with the routine operation of vessels, including showing the boundaries of PM areas in nautical charts to facilitate safe navigation of vessels.

- 5) **With reference to paragraph 2.21 of the Audit Report, the final assessment report on the wave attenuation performance of the floating barriers was expected to be completed by the end of 2024 or early. Please advise on whether the report has been completed and when it will be published; whether the Administration has any plans to introduce floating barriers to other places (such as SAs); If so, what are the details; if not, what are the reasons?**

Reply: The Civil Engineering and Development Department ("CEDD") had provided the draft report on the performance of floating barriers in Hei Ling Chau Typhoon Shelter in mid-December 2024, and a meeting was scheduled for 2 January 2025 to brief MD of the report by its consultant, which concluded that the performance of floating barriers is satisfactory. The report will be finalised in Q1 of 2025. MD is willing to work with relevant departments to explore the necessities and feasibility of installing floating barriers in other typhoon shelters or SAs.

- 6) **According to paragraph 2.35 of the Audit Report, MD stated that hydrographic surveys for typhoon shelters and SAs were normally conducted at an interval of 48 months. Nevertheless, the Audit Commission found that, as at 30 June 2024, the latest round of survey for two of the SAs was conducted 104 months ago. Please advise on the**

reason why hydrographic surveys for the two said SAs (Sai Kung and Tsam Chuk Wan) had not been conducted for over eight years.

Reply: The Hydrographic Office of MD arranges hydrographic survey work based on workload and job priorities. The Sai Kung and Tsam Chuk Wan SAs were not within the scope of navigation charts that required updated in the past few years, leading to longer intervals between surveys. The Hydrographic Office will review job priorities to ensure that the surveys for these two SAs will be scheduled in a timely manner in the future and an updated survey will be arranged in 2025.

7) With reference to Table 5 in paragraph 2.36 of the Audit Report, more than 270 days were needed to complete the latest round of hydrographic survey for 23% of the sheltered spaces. MD explained in paragraph 2.37 of the Audit Report that the time taken to complete surveys depended on the availability of three specialised hydrographic survey launches, weather conditions and data irregularities found during data processing and checking. Would MD advise on the following:

(a) are there any internal guidelines stipulating the target surveying time of specific marine channels; if yes, please provide the target surveying time of the respective sheltered spaces; if not, will there be any plans to draw up relevant target time; and

Reply: The progress of hydrographic survey work involves multiple internal and environmental factors, as well as utilisation of resources and other unexpected survey requirements. The Hydrographic Office will take the following measures to ensure that the surveys of typhoon shelters and SAs can be completed within a reasonable time.

Short-term measures

The Hydrographic Office will implement enhanced resource planning by optimizing the allocation of equipment and manpower, with regular reviews to accommodate changes and ad hoc requests. Survey schedules will incorporate monsoon seasons into buffer periods, particularly to complete fieldwork before adverse sea conditions arise in the north-eastern Hong Kong waters. Technical staff will be encouraged to consult supervisors promptly when encountering potential data irregularities during initial data processing phases, helping to identify and resolve data problem early in the survey process. This measure will be implemented starting from January 2025.

Long-term measures

The Hydrographic Office will establish a structured training program in the first quarter of 2025 to build up technical staff's expertise in early identification of data irregularities, thereby enhancing survey efficiency. A

standardised time interval framework for SAs surveys will be implemented in the second quarter of 2025 to ensure regular and timely updates of bathymetric data. After six months of implementation, these measures will be thoroughly reviewed to assess their effectiveness and make necessary adjustments based on the operational feedback and performance metrics.

- (b) how is the current workload of the three hydrographic survey launches; what are their operating days per year and operating hours per day; has the Government explored whether new technologies have been adopted by other regions to conduct hydrographic surveys at present to enhance efficiency?**

Reply: Based on the records of the past year (i.e. from July 2023 to June 2024), the three hydrographic survey vessels have operated for a total of 303 days, approximately 9 hours each day. This includes safety inspections before and after sailing, inspections of the surveying systems, travel to and from the work site, and about 3 to 4 hours for hydrographic data collection.

The Hydrographic Office will from time to time explore new technologies for hydrographic surveying and monitor developments in this field in other regions. It is procuring an unmanned survey vessel equipped with a multi-beam echo sounder, which will be used for hydrographic surveys in shallow water areas. This vessel is expected to be operational by early 2025. It is anticipated that the unmanned survey vessel, with its multi-beam echo sounder, will be more effective for hydrographic surveying in typhoon shelters and SAs, thereby improving the efficiency of surveys in these locations.

- 8) In connection with paragraph 2.40 of the Audit Report, would MD advise on the following:**

- (a) after recommending CEDD to conduct maintenance dredging works at the Aberdeen South Typhoon Shelter in May 2023, how many meetings were convened with CEDD before deciding to commence maintenance dredging works in April 2026 tentatively; has any measure been taken for the works to commence as early as possible; if yes, what are the details; if not, what are the reasons; and**

Reply: In May 2023, MD proposed maintenance dredging at Aberdeen South Typhoon Shelter to CEDD. Subsequently, two additional meetings were held with CEDD. MD recognised that when to commence the works hinges on the progress of relocating the affected vessels. Given the huge number of vessels and stakeholders involved, it is anticipated that the relocation of affected vessels may take long time. In order to allow sufficient time to complete the preparatory works, the commencement of maintenance

dredging works was tentatively scheduled for April 2026. In case the relocation can proceed smoothly, the maintenance dredging works may commence earlier.

Given the difficulty of the relocation and the time required which are affected by the number of vessels involved, MD is now discussing with CEDD to review if alternative method can be adopted, e.g. utilising smaller dredging plants to reduce the required working area as well as the number of affected vessels.

- (b) according to the summary of discussion between MD and CEDD, whether the said maintenance dredging works can commence in April 2026 will be subject to the completion of preparatory work and temporary vacation of the vessels within the proposed dredging area. In this regard, what measures will MD take to ensure relevant work can be commenced and completed as scheduled?**

Reply: MD will take the following measures to ensure that relevant works can be carried out as scheduled according to actual needs.

Short-term measures:

1. MD is working closely with CEDD to study if alternative method can be adopted to minimise the number of moored vessels affected by the proposed dredging works. For example, utilising smaller dredging plants to reduce the required working area.
2. MD will also discuss with the Fire Service Department to consider arranging fire drills in Aberdeen South Typhoon Shelter to evaluate the effectiveness of the new technology and firefighting tactics such as the use of unmanned vessels, and to identifying whether there is an imminent need to conduct maintenance dredging for large fireboats.

Long-term measure:

The expansion of Aberdeen South Typhoon Shelter will provide extra mooring spaces. MD will collaborate with relevant stakeholders to temporarily relocate the affected vessels to the expansion area, facilitating the maintenance dredging works in the Aberdeen South Typhoon Shelter.

Part 3: Management of Sheltered Space

- 9) According to Table 6 in paragraph 3.3 of the Audit Report, MD**

initiated 1 144 prosecutions for the offence of “failing to license a certificated local vessel” from 2021 to 2023. Please advise on the minimum and maximum penalties for the above offence.

Reply: The minimum and maximum penalties for successful prosecution of the above offences are a fine of \$600 and \$25,000 respectively.

- 10) It was stated in paragraph 3.5 of the Audit Report that, according to Harbour Patrol Section Prosecution Guidelines, when a patrol officer detects any local vessel without a valid operating licence, he should initiate prosecution against the vessel owner, his agent and the coxswain subject to collection of sufficient evidence. Please explain the meaning of “collection of sufficient evidence”.**

Reply: In regard to this prosecution, “collection of sufficient evidence” means that after inspection of the suspected vessel and checking of its licensing records on scene, in case the patrol officer has initially confirmed the vessel without a valid operating licence, prosecution should be initiated against the vessel owner, his agent and the coxswain who do not have any reasonable excuse. The evidence gathered includes (but is not limited to) photographs of the vessel taken by the patrol officer on scene and sketch plans for the location, photocopies of the relevant licenses and certificates of the suspected vessel, and evidence such as the printout of the records about the relevant licence and certificates issued by the MD to the vessel for counter checks. According to MD’s records, over 98% of the prosecution cases were initiated based on sufficient evidence.

- 11) According to paragraph 3.6 of the Audit Report, with the accompany of MD staff, the Audit Commission visited seven typhoon shelters and one sheltered anchorage and sample checked 770 local vessels berthed therein by taking photographs. It was found that 67 (9%) local vessels were without valid operating licences/laid-up permissions, and the operating licences/laid-up permissions of 29 (43% of 67) local vessels had expired for more than one year. Upon enquiry, MD informed the Audit Commission in September 2024 that for the 29 local vessels with licences expired for more than one year, prosecutions were initiated against the owners of five (17%) vessels in 2023 for expired licences. Would MD advise of the following:**

- (a) the outcomes of the prosecutions; whether the owners of the five vessels have been sentenced to penalties; if so, of the details; if not, the reasons; and**

Reply: All five vessels were successfully prosecuted and their owners were fined (minimum \$1,000 and maximum \$6,200).

- (b) whether any information is available on the reasons why the owners of the five vessels have not yet submitted licence applications despite having been prosecuted for nearly one year; and whether the enforcement efforts of MD are inadequate and the relevant penalties lack deterrent effect.**

Reply: According to MD's records, two of these vessels have obtained valid laid-up licences. There are a number of reasons for vessel owners not applying for licences, and there is no evidence to suggest that failure of the vessel owners concerned to apply for licences is due to the inadequate enforcement efforts of MD and the lack of deterrent effect of the relevant penalties. Moreover, according to the relevant ordinance (i.e. section 13 of the Merchant Shipping (Local Vessels) Ordinance (Cap. 548)), the maximum penalty upon conviction is a fine of \$25,000 and imprisonment for one year. In addition, apart from routine enforcement actions, MD also arranges special operations to combat vessels without valid operating licences/laid-up permits in accordance with operational priorities and resources.

- 12) According to paragraph 3.9 of the Audit Report, after sending the notification letter of expiry to the vessel owner when the operating licence/laid-up permission of local vessels had expired for more than two months, no further follow-up action would be taken (e.g. sending reminders) by the Licensing and Port Formalities Section; and in the Government's response in paragraph 3.13 of the Audit Report, the Director of Marine agreed to step up efforts in following up with vessel owners on expired operating licences/laid-up permissions, and take prosecution action as appropriate. Would MD advise whether any more effective measures are in place to expedite the vessel owners' processing of licence renewal, apart from further issuing letters to notify and remind the vessel owners concerned?**

Reply: For the 6,500 Operating Licence ("OL")/laid-up permits expired vessels, MD has started to contact and remind all the owners to renew the OL or cancel the Certificate of Ownership if the vessel has already been destructed or permanently left Hong Kong waters. On the other hand, MD is aware that some of the owners of OL expired vessels might have already passed away if the owner is an individual or dissolved if the owner is a company. MD is seeking legal advice to explore further action to be taken against these vessels. In addition, apart from routine enforcement actions, MD also arranges special operations to combat vessels without valid OLs/laid-up permits in accordance with operational priorities and resources.

Moreover, MD plans to complete upgrading of the electronic system by

Q3 2025¹, under which reminder emails will be sent to vessel owners automatically through the electronic system two months before and two months after the expiry date of OL, reminding vessel owners to expedite the renewal of licences.

13) According to paragraph 3.16 of the Audit Report, pursuant to the Merchant Shipping (Local Vessels) Ordinance (Cap. 548), MD may recover the cost of any action taken or caused to be taken including all disbursements and other expenses incurred thereby as a civil debt from the vessel owners. However, the Audit Commission noted that, as of August 2024, MD had not issued demand notes to request the repayment of the cost of removing the sunken vessels totalling \$448,500 from the 11 vessel owners. Would MD advise of the following:

(a) the total number of sunken vessels removed in the past ten years; among them, the number of vessels the ownership of which is uncertain; the total expenditure involved; and

Reply: According to MD's records, a total of 192 sunken vessels were removed from typhoon shelters and SAs in the past 10 years (i.e. from 1 January 2015 to 23 December 2024), involving a total expenditure of about \$4,583,700, of which 77 could not be identified for the ownership.

(b) the total number of demand notes issued to the vessel owners concerned in respect of the removal of sunken vessels in the past ten years; and the amount of money involved and the amount successfully recovered in the end.

Reply: According to records, vessels have been generally disintegrated to the extent that they are difficult to identify the ownership after the salvage operation. If a demand note is to be issued to the owner to recover the salvage cost, it may involve disputes with the owner over the confirmation of the vessel's identity and legal liabilities. Therefore, it was difficult for MD to issue a demand note to the owner of a sunken vessel in the past. Nevertheless, MD has asked the officers concerned to explore the use of latest equipment, such as underwater detection cameras, to take photographs that can be used to identify the vessel prior to salvage in the event of the discovery of a sunken vessel in the future. During the salvage operation, the officers concerned will also pay more attention to the hull features such as the certificate of ownership number, etc., and take as many photographs as possible from different angles to ascertain the identity of the vessel.

¹ Since the implementation of e-Certificate on 5 July 2024, vessel owners are required to provide a valid email address for receiving electronic certificate upon renewal of vessel licences.

- 14) According to paragraph 3.19 of the Audit Report, after Vessel A was identified as sunken in September 2018, MD had repeatedly issued removal notices and initiated prosecutions against the vessel owner. For the 16 prosecutions initiated from February 2022 to September 2023, only one prosecution was successful as the remaining summonses could not be served on the vessel owner; and from 1 October 2023 to 30 June 2024, no further removal/direction notices had been issued to the vessel owner. Would MD advise why no initiative has been taken to deal with the vessel after all these years, and when is the vessel planned to be removed?

Reply: In principle, it is the responsibility of the vessel owner to salvage or remove the sunken vessel. To ensure that the vessel owner fulfils his responsibility, MD will, in accordance with established procedures, issue a removal notice to direct the vessel owner to float or remove the sunken vessel. If the vessel owner is unable to fulfil such responsibility, MD will consider arranging salvage service. As the circumstances of each sunken vessel are different, such as the size and location of the vessel, the sea conditions around the vessel, etc., the whole process will take some time to complete. Depending on the circumstances, MD will accord priority to those sunken vessels that pose a threat to navigational safety and will place Emergency Wreck Marker Buoys at the locations of sunken vessels to facilitate mariners in identifying the locations of new obstructions during the process. However, as the court summonses have repeatedly failed to reach the owner of Vessel A, MD considers that the removal of Vessel A needs to be achieved by means other than prosecution. Therefore, in July 2023, MD has planned to arrange for salvage, removal and disposal services for the sunken vessels in the To Kwa Wan Typhoon Shelter (including Vessel A) by phases. The first phase of the salvage operation commenced on 2 December 2024 and the next phase of the salvage operation will commence in the next financial year.

Part 4: Ancillary Facilities and Services

- 15) According to paragraph 4.17 of the Audit Report, the Audit Commission analysed the sales records of July 2024 extracted from the shipping water selling machine and found that of the 320 transactions, the certificate of ownership numbers of 109 (34%) transactions could not be matched with those recorded in MD's list of local vessels as of June 2024. Would MD advise on whether, in designing the shipping water selling machine, the need to verify the input of certificate of ownership numbers prior to sale was considered; if so, what accounts for the discrepancies in the records; if not, what is the rationale for requiring customers to input the relevant numbers?

Reply: The Water Supplies Department ("WSD") will provide a reply to this question after consulting MD.

- 16) According to paragraphs 4.19 and 4.20 of the Audit Report, while there were 18 licensed water boats as at 30 June 2024 according to MD's records, WSD could only retrieve the records of the permission to sell fresh water relating to 12 of them. According to WSD, no permission had been granted in relation to the remaining six water boats. Would WSD and MD explain or advise of the following:
- (a) the reasons for the discrepancy between the records of the fresh water sale permit issued by WSD to the owners of licensed water boats and the records of water boats licences maintained by MD; whether a notification mechanism has been set up by WSD and MD in respect of the relevant records; if so, why has the discrepancy occurred; if not, how can effective monitoring of the sale of fresh water by water boats be ensured;
 - (b) given that there is no specified validity period for the permits issued by WSD, whether this will potentially create loopholes in monitoring; and
 - (c) whether WSD has taken any action to investigate if the owners of the six vessels have sold fresh water to other vessels without permission; if so, what are the details of the investigation; what follow-up actions will be taken against the vessel owners who have violated the regulations; if not, how to ensure that the fresh water sold by the six licensed water boats without the permission of WSD meets the required standards?

Reply: WSD will provide a reply to this question after consulting MD.

- 17) According to paragraphs 4.23 to 4.25 of the Audit Report, the average cleanliness level of the black spots in Aberdeen Typhoon Shelters had been rated as unsatisfactory in all the 21 months. Would MD please advise:
- (a) whether the contractor concerned has been successful in bidding for marine refuse cleansing and disposal service contracts in the past; if so, what has been its past performance;

Reply: The black spots reports mentioned in paragraph 4.25 of the Audit Report are reference documents prepared on a monthly basis by MD's contractor for marine refuse cleansing and disposal services (hereinafter referred to as the "Contractor") for reference purpose. The evaluation ratings included in the reference documents were intended for the Contractor's use in arranging daily marine cleansing services. The Contractor provides daily marine refuse cleansing and disposal services from 0800 to 1800 hours round the year. The cleanliness rating in the reference document is based on the contractor's assessment of the area's cleanliness level before the commencement of daily cleansing services. This assessment aims to facilitate the arrangement of marine cleansing

operation accordingly, including the deployment of cleaners and vessels, as well as indicating to cleaners about the locations where marine refuse has accumulated. The major reason for the contractor rating the cleanliness level as “unsatisfactory” is accumulation of marine refuse overnight, which occurs outside of the Contractor’s service hours. The Contractor starts collecting and disposing the marine refuses during service hours for resuming the cleanliness level of the area. To avoid any misunderstanding in the future, the Contractor has revised the relevant reference document. According to MD’s records, the Contractor is also the successful bidder of the previous Marine Refuse Cleansing and Disposal Services and their service performance has met the contract requirements.

- (b) apart from reminding the contractors during meetings to enhance refuse removal at specific locations, whether other measures have been implemented to ensure the timely removal of marine refuse, such as following the contractors in carrying out the relevant work for monitoring; if so, what are the details; if not, what are the reasons; and**

Reply: To ensure timely cleansing of marine refuses, MD has instructed the Contractor to document the arrival times of their staff, as well as the cleanliness level of the commencement and completion of their cleansing operation to monitor if the Contractor’s service performance meets the contract requirements. This department has also requested the Contractor to provide records of their working vessels’ navigation tracks to monitor the Contractor and ensure the requests for cleansing services were performed timely and accurately.

- (c) the subsidiary company of the contractor concerned has also been awarded another contract covering the marine oil pollution and marine hazardous and noxious substances spillage cleansing services. What is the service performance of this company?**

Reply: According to MD’s records, the Contractor responsible for Marine Oil Pollution and Marine Hazardous and Noxious Substances Spillage Cleansing, Confinement, and Remediation Services has met the contract requirements in terms of service performance.

遊樂船隻避風泊位面積的需求
Demand of Sheltered Space for Pleasure Vessels

公頃
Hectares

年份 Year	需求 Demand	
	實際 Actual	預測 Projection
2015	194.1 (-)	
2016	199.8 (+3.0%)	
2017	205.2 (+2.7%)	
2018	209.6 (+2.1%)	
2019	211.9 (+1.1%)	
2020	223.2 (+5.3%)	
2021	240.3 (+7.6%)	
2022	252.4 (+5.0%)	236.6 (-)
2023	255.9 (+1.4%)	242.4 (+2.5%)
2024	251.5 (-1.7%)	248.2 (+2.4%)
2025		253.9 (+2.3%)
2026		259.6 (+2.3%)
2027		265.3 (+2.2%)
2028		271.1 (+2.2%)
2029		276.8 (+2.1%)
2030		282.5 (+2.1%)
2031		288.2 (+2.0%)
2032		294.0 (+2.0%)
2033		299.7 (+1.9%)
2034		305.4 (+1.9%)
2035		311.1 (+1.9%)

註： 數字指年底的情況，並根據《2022 至 2035 年避風塘面積需求評估》所採用的方法編制。括號內數字表示與對上一年同期比較的變動百分率，並以未經進位數字計算。

Note: Figures refer to year-end position and are compiled according to the methodology adopted in the "Assessment of Typhoon Shelter Space Requirements 2022-2035". Figures in brackets refer to percentage changes over the same period in preceding year and are derived from unrounded figures.



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 101 Princess Margaret Road,
 Kowloon, Hong Kong

(Urgent by Email: hhchan@legco.gov.hk)

16 January 2025

Public Accounts Committee
 Legislative Council Complex
 1 Legislative Council Road
 Central, Hong Kong

(Attn.: Ms. Shirley CHAN)

Dear Ms. CHAN,

Public Accounts Committee

Consideration of Chapter 2 of the Director's Audit's Report No. 83

Planning and management of sheltered space within Hong Kong waters

Thank you for your letter dated 18 December 2024 regarding the captioned.

I attach an Appendix stating our response for your attention please.

Yours sincerely,

(C T LAU)

for Director of Civil Engineering and Development

Encl.

c.c. Secretary for the Transport and Logistics (email: stlooffice@tlb.gov.hk)
 Director of Marine (email: dmooffice@mardep.gov.hk)
 Director of Water Supplies (email: roger_yl_wong@wsd.gov.hk)
 Secretary for Financial Services and the Treasury (email: sfst@fstb.gov.hk)
 Director of Audit (email: ncylam@aud.gov.hk)

Public Accounts Committee

Chapter 2 of the Director of Audit's Report No. 83

Planning and management of sheltered space within Hong Kong waters

(II) Questions answered by the Civil Engineering and Development Department

Part 2: Planning and provision of sheltered space

- 1) According to paragraph 2.28 of the Director of Audit's Report No. 83, the Civil Engineering and Development Department ("CEDD") planned to perform underwater inspections for 2 breakwaters in shallow water area in 2025 with the procurement of latest technology available in the market – multi-beam echo sounder. Please advise the estimated expenditure for the relevant latest technology and whether it is only applicable to the two concerned breakwaters in shallow water area. If the latest technology is only applicable to the two concerned breakwaters, will CEDD consider using other methods to conduct underwater inspections?

Response from the Civil Engineering and Development Department:

The estimated expenditure for the latest technology is \$2.7 million, which will be used for the procurement, installation, trials and refinements of the relevant equipment. The small remote controlled survey boat under the latest technology is not only applicable for inspecting the two concerned breakwaters in shallow water area, but also applicable for inspecting other 38 seawalls (about 14 kilometers long in total) in shallow water area.



水務署
Water Supplies Department

香港灣仔告士打道七號入境事務大樓
Immigration Tower, 7 Gloucester Road, Hong Kong.

本署檔號 : (7) in in WSD/GRG 4-35/4/6/24 Pt. 1
Our ref.
來函檔號 : CB3/PAC/R83
Your ref.

電話 : 2829 4355
Tel.
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17 January 2025

Ms Shirley CHAN
Clerk to the Public Accounts Committee
Legislative Council Complex
1 Legislative Road
Central, Hong Kong

Dear Ms CHAN,

Public Accounts Committee
Consideration of Chapter 2 of the Director of Audit's Report No. 83
Planning and Management of Sheltered Space
within Hong Kong Waters

Thank you for your letter of 18 December 2024 with regard to Chapter 2 of the Director of Audit's Report No. 83.

I enclose the responses of this Department to the questions as required under Part (III) and question no. 15 under Part (I) attached to your letter.

Yours sincerely

(K C LEE)
for Director of Water Supplies

Encl

c.c. Secretary for Development
Secretary for Financial Services and the Treasury
Director of Audit



Director of Audit's Report No. 83 Chapter 2
“Planning and management of sheltered space within Hong Kong waters”

WSD's Reply to Enquiries from the Public Accounts Committee
of the Legislative Council

Section III : Questions for WSD's Response

Part 4: Ancillary Facilities and Services

1) According to Paragraphs 4.19 and 4.20 of the Report, whilst there were 18 licensed water boats as at 30 June 2024 according to MD's records, WSD could only retrieve the records of the permission for resale of water relating to 12 water boats. According to WSD, no permission had been granted in relation to the remaining 6 water boats. Would WSD and MD please explain:-

- (a) Why were there discrepancies between records of permission to resale of water to water boats issued by WSD and the licensed water boats in MD's records. Has WSD and MD established any notification mechanism on such records? If yes, why did such discrepancies happen? If not, is there any effective supervision on the resale of water by water boats?**
- (b) Given that there is no expiration date on WSD's permission, would this cause any regulatory loophole on the water boats; and**
- (c) For the six water boats without WSD's permission, has WSD launched any investigation on unauthorised resale of water to other ships? If yes, please provide the details of the investigation and the corresponding follow-up action(s) to owners who contravene such regulations. If not, how to ensure the fresh water sold by those six licensed water boats without WSD's permission complies with relevant water quality standards?**

(a) & (b) If the licensed water boat owners plan for resale of water to other ships, they should submit application to WSD for each of their vessels for approval. Upon vetting of each application, WSD would grant written

approval of resale of water to each vessel. In cases that a water boat is not involved in the resale of water to other ships, such as replenishing water for their fleet only, the vessel owner is thus not required to submit application to WSD. Therefore, there may be discrepancies between the number of water boats registered in MD's record and the number of approval granted for resale of water by WSD.

If there is any change of particulars on the COO (such as the vessel is sold or transferred to another owner) or the expiration of the water boat license, the approval of resale of water would also correspondingly be voided. Nevertheless, there was no established notification mechanism regarding the licensing records of water boats between WSD and MD. Since November 2024, WSD and MD have enhanced the cooperation on the information exchange of vessel licenses and owner for water boats, establishing a new monitoring and notification mechanism. MD would regularly provide the information of water boat licenses and their owners to WSD, so as to monitor if there is any change of licensee or validity of the water boats. Furthermore, it is also understood that water boats are required to provide health certificates issued by the Department of Health, which certified the relevant sanitary requirements of the water tanks, for the application of new or renewal of the vessel licence. As such, whilst the approval of resale of water does not specify any date of expiration, there is no regulatory loophole on the water boats.

(c) WSD started an investigation in October 2024. Investigations for two water boats have been concluded. During the interviews with the owners of the two vessels, it was revealed that they did not resell the water to other ships, and the owners made relevant statements on this matter. With the interview results and information gathered, there is insufficient evidence to suggest that these two water boats were involved in unauthorised resale of water to other ships. WSD is now liaising with the vessel owners of the other four water boats to investigate if there is any unauthorized resale of water to other ships. Upon the completion of the investigation, WSD would seek legal advice if there is any evidence of contravening the Waterworks Regulation on unauthorised resale of water, and will proceed with prosecution accordingly. As local vessels can freely purchase fresh water from the Water Selling Kiosks and SWSM, WSD has not observed any unauthorised resale of water to other ships thus far.

Section I

Part 4: Ancillary Facilities and Services

- 15) According to Paragraph 4.17 of the Report, the Audit Commission (AUD) had analysed the sales records of the automatic shipping water selling machine (SWSM) in July 2024. It was found that, of the 320 transactions recorded, the certificate of ownership (COO) numbers in 109 transactions could not match with those records in list of local vessels of the Marine Department (MD) as of June 2024. Would MD please advise that if it was the intention to sell water to vessels with valid COO input to the SWSM? If yes, why were there discrepancies of COO numbers in the records? If not, why it was designed to request the customers to input the COO numbers?**

The concerned SWSM was designed by the Water Supplies Department (WSD). WSD has been conducting a trial operation on automatic SWSM at the Tuen Mun Water Selling Kiosk with a view to providing 24-hour water selling service. In accordance with the Merchant Shipping (Local Vessels) (Typhoon Shelters) Regulation (Cap. 548E), local vessels are permitted to enter and anchored in typhoon shelters, and are allowed to purchase fresh water by using the SWSM. In this trial design, the COO numbers of the vessels are shown on the transaction summary to facilitate users to make record and report to their companies.

To ascertain that the needs of local vessels' users could be fulfilled by the SWSM, WSD is currently reviewing the trial operation of the SWSM in terms of its convenience to users, the objectives to record the COO numbers, the necessity to enter correct COO numbers and to make optimization measures as needed. Initial users' feedback shows that the input of the COO numbers is rather complicated, and that not every customer requires a transaction summary for record. As such, WSD plans to enhance the interface of the SWSM so that users can make purchases by simply declaring that the water is for use by local vessel. Nevertheless, some users have also suggested that making the input of the COO numbers should be optional in case the users would like to keep the transaction record and report to their companies. WSD plans to implement the measures in 2025 Q1 tentatively.

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6 January 2025

Ms. Shirley CHAN
Clerk to the Public Accounts Committee
Legislative Council
Legislative Council Complex
1 Legislative Council Road
Central, Hong Kong

Dear Ms. CHAN,

**Public Accounts Committee
Consideration of Chapter 3 of the Director of Audit's Report No. 83
Producer Responsibility Scheme on Waste Electrical and Electronic Equipment**

Your letter dated 17 December 2024 to the Director of Environmental Protection requesting information of the captioned Report refers. We have prepared detailed a reply for the reference of the Public Accounts Committee. Please refer to the enclosure of this letter.

Yours sincerely,

(WONG Chi-wah, Steve)
for Director of Environmental Protection

c.c. Secretary for Environment and Ecology (email: see@eeb.gov.hk)
Director of Environmental Protection (email: dep@epd.gov.hk)
Secretary for Financial Services and the Treasury (email: sfst@fstb.gov.hk)
Director of Audit (email: ncylam@aud.gov.hk)

Enclosure

**Chapter 3 of the Director of Audit's Report No. 83
Producer Responsibility Scheme on Waste Electrical and Electronic Equipment**

**Environmental Protection Department's Response to
Public Accounts Committee's Questions**

Part 2: Administration of the Producer Responsibility Scheme on Waste Electrical and Electronic Equipment

- 1) According to paragraph 2.4(b) of the Director of Audit's Report No. 83 (the Audit Report), from October 2020 to March 2024, the Environmental Protection Department (EPD) received 95 applications for registration as registered suppliers of regulated electrical equipment (REE). Among these applications, 4 were rejected by EPD, with 2 taking 16 and 26 working days respectively to process after the submissions were in order. Would EPD please advise:
- (a) according to the time pledge, the department should complete the processing of relevant applications within 10 working days from the date the submissions are in order. Why did it take 16 and 26 working days to process the 2 rejected applications after the submissions were in order;
 - (b) the reasons for rejecting the applications despite the documents being complete; and
 - (c) whether measures have been taken to facilitate applicants in completing their applications; if they have, of the details; if not, the reasons for that?

(a) – (b) Regarding the 2 rejected applications, the submitted documents indicated that the electrical appliances did not fall under the category of regulated electrical appliances (REE). EPD thereafter contacted the applicants who stated they would provide further information. However, EPD did not receive any supplementary information from the applicants before the deadlines. Subsequently, EPD contacted the applicants again to inform them of the reasons for rejecting their applications (reason: their appliances did not fall under the category of REE). As the waiting time for the applicants' responses (14 days and 25 days respectively) were counted, the processing time for these 2 applications was longer than usual.

(c) EPD has established a thematic website for the Producer Responsibility Scheme on Waste Electrical and Electronic Equipment (WPRS), detailing the documents and information required for applying as registered suppliers of REE. "Guidance Notes for Suppliers" and "Information Booklet for Supplier" available on the website outline the relevant statutory requirements and application information under the scheme to facilitate applicants in completing their applications. Applicants may choose to submit applications by using traditional paper forms or the more convenient electronic system, "Regulated Electrical Equipment Information Management System". If applicants have any enquiries, they can seek assistance through EPD's general enquiry hotline, the technical support hotline of the "Regulated Electrical Equipment Information Management System" or via email.

- 2) **According to paragraph 2.4(b) of the Audit Report, from October 2020 to March 2024, EPD received 95 applications for registration as registered suppliers of REE. Among these applications, 24 applications were withdrawn by the applicants, accounting for approximately 25% of the applications. Would EPD please advise:**
- (a) why there was such a high rate (25%) of withdrawn applications;**
 - (b) whether the department has assessed how much resources were used to process these applications before withdrawal; and**
 - (c) whether measures have been taken to reduce the number of withdrawn applications; if they have, of the details; if not, the reasons for that?**

(a) Upon receipt of an application for registration as a registered supplier of REE, EPD would vet and confirm information for each application, and follow up carefully and timely according to the guidelines. During the processing period, applicants can withdraw their applications on their initiative or withdraw after confirmation with EPD. Among the 24 withdrawn applications, the reasons for withdrawal include errors in the applications, the appliances being confirmed as non-REE, or the applicant not being a supplier (i.e. the company was not engaged in distribution of REE).

(b) – (c) EPD actively follows up with applicants on each application to ensure they understand the content of WPRS and are fully aware of the relevant statutory requirements and related information. However, due to a wide variety of cases and enquiries handled by staff daily, EPD does not have data specifically related to the resources in handling applications which were withdrawn by applicants. Besides, EPD promotes WPRS and disseminates information on application through various channels such as the scheme's website and its "Frequently Asked Questions" webpage, and provides trade associations with updates of the WPRS. In complementary with EPD's enquiry hotline, incorrect applications have reduced notably.

- 3) **According to paragraph 2.5 of the Audit Report, the Audit Commission considers that EPD needs to take measures to ensure that the processing of applications received for endorsement of the removal service plans (RSPs) and registration as registered suppliers of REE is timely completed in accordance with the stipulated time pledges. The Audit Report paragraph 2.15(a) mentions that EPD will take measures to strengthen the monitoring of the processing of applications received and facilitate application process by adopting a pragmatic approach in the work arrangement. In this regard, would EPD please explain what specific measures and work arrangements were put in place.**

EPD has implemented all recommendations of the Audit Commission to ensure timely completion of applications within the specified time pledges, including:-

- further enhancing administrative management, regularly reporting processing time and progress of applications to senior management, with a view to strengthening the monitoring;
- reviewing and updating internal guidelines to ensure applications are processed within the specified time pledges; and
- updating the electronic information management system to remind staff to follow up on pending applications.

In the fourth quarter of 2024, all applications were processed within the time pledges. EPD will continue monitoring the processing of applications to ensure fulfillment of the service commitments.

4) According to paragraph 2.14(d) of the Audit Report, the Audit Commission recommends that the Director of Environmental Protection should enhance publicity on the obligations of suppliers under the Product Eco-Responsibility Ordinance (Cap. 603) in distributing REE in Hong Kong via cross-border and overseas online sales platforms. Paragraph 2.15(d) of the Audit Report states that EPD will implement the above recommendation. Would EPD please advise:

- (a) the specific measures to enhance publicity; and**
- (b) whether the effectiveness of enhanced publicity has been evaluated; if it has, of the details; if not, the reasons for that?**

(a) EPD has advertised the free removal services under the WPRS through online sales platforms to consumers since mid-December 2024. Messages have also been disseminated through the platforms to merchants about the legal obligations of suppliers and sellers under the WPRS for distributing REE in Hong Kong.

(b) As the publicity work has just begun, there is currently insufficient data to evaluate their effectiveness. EPD will regularly monitor the compliance of suppliers and sellers and step up the inspection work and evaluation of effectiveness.

5) According to paragraph 2.18 of the Audit Report, as of March 2024, out of 331 quarterly reports and 87 annual reports that the licensees of the waste disposal licence for e-waste (e-WDL) were required to submit by their due dates, the Audit Commissions noted that 82 (25%) quarterly reports and 25 (29%) annual reports were not submitted before their due dates. The Audit Report paragraph 2.19 mentions that EPD had not established guidelines on the follow-up procedures for overdue submissions of quarterly and annual reports by licensees of e-WDLs, but had issued warning letters for four overdue annual reports. However, according to paragraph 2.17 note 16 of the Audit Report, under the Waste Disposal Ordinance, any person who contravenes any terms and conditions of e-WDLs commits an offence and is liable to fines and imprisonment. Would EPD please advise:

- (a) whether there were licensees being prosecuted for overdue submission of quarterly and annual reports; if there were, of the details; if not, the reasons for that; and**
- (b) whether EPD's updated guidelines in September 2024 cover under what circumstances prosecution would be considered, as mentioned in paragraph 2.21 of the Audit Report; if they do, of the details; if not, the reasons for that?**

(a) As of September 2024, no licensee had been prosecuted for overdue submission of quarterly and annual reports. The reasons are as follows:-

In coming to a decision whether to take prosecution actions against non-compliance cases, EPD's enforcement officers would take into account all factors and circumstances of the cases, including the seriousness of the non-compliance cases (i.e. the pollution caused to the environment), the sufficiency of the evidence collected, the compliance history of the offenders, whether a prosecution is in the interest of the public, etc. The quarterly/annual reports mainly collect information regarding the methods and quantities of e-waste disposal with a view to monitoring the performance of licensees. For overdue submission of quarterly/annual reports not involving illegal disposal of waste or causing environmental pollution, in general, EPD will not take immediate prosecution actions, but will issue reminders/warning letters to the licensees. Licensees generally submit relevant reports after receiving reminders or warnings.

Regarding the overdue submission of quarterly and annual reports from the licensees of e-WDLs mentioned in the Audit Report, EPD had followed up with the licensees concerned and understood that the main reason for the overdue submission of reports was due to the interruption of normal operation of facilities during the COVID-19 epidemic. Considering the pressure and impact posed by the epidemic on the recycling trade, EPD deemed that it was appropriate to flexibly handle the submission of quarterly/annual reports from licensees as long as no environmental pollution was caused. Other reasons included the fact that some report submission deadlines coincided with general holidays, resulting in slight delays of a few days; the disposal facilities had ceased operation during the reporting period and the disposal facilities had not yet commenced operation as of the end of the reporting period.

(b) To ensure timely submission of quarterly and annual reports by the licensees of e-WDLs, EPD updated the internal guidelines in September 2024 to require EPD staff to issue reminder to licensees on the last day of each quarter and year, prompting them to submit the reports accordingly. Besides, the updated guidelines had stipulated procedures for EPD staff to follow up overdue submissions of quarterly and annual reports, including issuing reminders to licensees who have not submitted the reports by the due date, and issuing warning letters to licensees who have not submitted the reports one month after the due date. If the licensees still have not submitted the reports three months after the due date, enforcement actions would be considered with due consideration given to the actual circumstances of each case. EPD had also arranged internal training to help our staff understand and adhere to the updated guidelines.

- 6) According to paragraphs 2.30 and 2.31 of the Audit Report, from August 2018 to March 2024, EPD conducted 682 inspections on registered suppliers of REE. According to the EPD's guidelines revised in November 2023, all registered suppliers of REE are targeted to be inspected within a 24 to 36-month cycle. The Audit Commission noted that as of March 2024, among 208 registered suppliers of REE, 22 of them with inspection frequencies not meeting the target, with the last inspection for 7 suppliers conducted between 36.1 months and 3 years ago. Would EPD please advise:**
- (a) why 22 registered suppliers did not meet the inspection frequency target; and**
 - (b) what specific measures will be taken to improve the inspection frequency?**

(a) The EPD enforcement guideline states that “all registered suppliers are targeted to be inspected within a 24 to 36-month cycle”. Due to COVID-19 epidemic, it took more than 36 months to conduct inspections to 22 suppliers. However, amongst 20 of the 22 suppliers, from the commencement of the WPRS on 1 August 2018 till March 2024, 2-4 field inspections had been conducted to each of them. Apart from conducting field inspections to suppliers, EPD will periodically review the quarterly return and annual audit reports submitted by the suppliers, and will follow up and monitor the compliance status of the suppliers by phone calls and email which are part of the enforcement control work. Yet, such compliance monitoring work is not counted as compliance check records.

(b) According to the recommendation made by the Audit Commission, EPD has reviewed the allocation of manpower resources. The relevant enforcement guideline has also been reviewed and updated to ensure that the inspections of registered suppliers are conducted according to the target timeline.

7) According to paragraph 2.32 of the Audit Report, EPD adopts a risk-based approach to inspect sellers of REE. The Audit Commission noted that from August 2018 to March 2024, among 3 617 sellers of REE with RSPs endorsed, 2 022 (56%) were not inspected while 1 595 (44%) were inspected ranged from 1 to 19 times. While a considerable number of sellers of REE had not been inspected by EPD, some were inspected multiple times. However, there was no documentation showing the justifications of selecting the above sellers of REE for inspections. Would EPD please advise:

- (a) why there was such a high proportion (56%) of sellers who have not been inspected;**
- (b) why some sellers were inspected as many as 19 times in less than 6 years;**
- (c) why there was no documented record showing criteria for selecting sellers for inspection; and**
- (d) even with a risk-based approach in place for inspections, whether the public will still perceive this arrangement as biased?**

(a) Due to the vast number of sellers, and taking into consideration the resource allocation for enforcement and/or non-enforcement duties, EPD will perform inspections on a risk-based approach. Factors to be taken into consideration of priority, amongst others, are complaint records, intelligence analysis, non-compliance records of the sellers, whether the seller is a chain store, the types of REE being sold and the geographical locations, etc.

(b) At the beginning of the implementation of the WPRS, apart from publicity work to the public and relevant stakeholders, EPD stepped up inspections to the sellers. Since some of the sellers operated as a chain store, and/or operate under different shop names, the number of inspections performed to individual sellers was higher than others. Besides, for sellers selling both REE and non-REE, EPD needed to perform multiple rounds of inspections so as to successfully conduct interviews with consumers who had bought REE, in order to verify the compliance status of the sellers when selling REE under the WPRS.

(c) EPD has been adopting a risk-based approach for carrying out inspections to sellers, which are selected according to principles listed in the respective enforcement guideline, and for performing duties following the established procedure and guidance. EPD has based on Audit Commission's recommendation to clearly record in the inspection reports the reason for selecting the sellers and collectors for inspection.

(d) Considering the allocation of resources for enforcement work and other duties, the most effective way is to adopt a risk-based approach in conducting inspections, including complaint handling, investigation arising from intelligence and arranging for special enforcement action, etc.

8) According to paragraph 2.39(b) of the Audit Report, EPD will document in the inspection reports of sellers of REE the selection criteria for the inspection cases, for example, initiated from intelligence or following up a complaint, etc. Would EPD please advise:

- (a) whether this measure has been implemented; if no, what are the reasons; when will it be implemented; and**
- (b) whether target inspection frequencies will be established; if they will, of the details; if not, the reasons for that?**

(a) EPD has already implemented this measure and plans to incorporate the workflow in the revamped electronic system to enhance management and supervision work.

(b) As mentioned in the above response to question 7, considering the allocation of resources for enforcement work and other duties, the most effective approach is still the risk-based inspections.

Part 3: Design, Construction and Operation of the Waste Electrical and Electronic Equipment Treatment and Recycling Facility

9) According to paragraphs 3.4 and 3.5 of the Audit Report, the Audit Commission found that, from October 2017 to October 2023, while the actual quantity of regulated Waste Electrical and Electronic Equipment (WEEE) treated in WEEE·PARK was below its overall design treatment capacity, the mix of regulated WEEE treated skewed heavily towards washing machines and refrigerators. In order to increase the treatment capacity of a treatment line, Consultant Y issued an Employer's Change under Contract A in January 2019 to instruct Contractor A to carry out related modification works at a cost of \$3.5 million. The Audit Commission noted that while EPD conducted a number of consultations, business impact assessments, feasibility studies and surveys in the early 2010s, there was no specific consultation to assess the demand in using WEEE·PARK and to derive a more accurate estimate on the total quantity and the mix of regulated WEEE processed by WEEE·PARK. Would EPD please advise:

- (a) why there was no consultation to assess the demand in using WEEE·PARK in the early 2010s; and**
- (b) before expanding the scope of regulated appliances to include stand-alone tumble dryers and dehumidifiers starting from 1 July 2024**

(paragraph 1.5 of the Audit Report), whether there was market research and consultation conducted so as to more accurately assess the demand for additional processing capacity; if there was, of the details; if not, the reasons for that?

(a) EPD conducted a number of consultations, business impact assessments, feasibility studies and surveys with various stakeholders in early 2010s, focusing on sellers' obligations, licensing requirements, import and export permit control, and the establishment of WEEE·PARK to underpin the WPRS and to treat about half of the quantity of the regulated WEEE generated in Hong Kong. Though there was no consultation on the treatment demands for WEEE·PARK on individual sub-types of regulated WEEE, EPD appointed a consultant to commission a focused study in 2014 to project the quantity of WEEE (including regulated WEEE and other WEEE) generated annually in Hong Kong in 2014 - 2019. EPD considered the study results to be the latest and best available information at that time and therefore, accepted the treatment capacity proposed by Contractor A, which had made reference to the results of that study, as the design treatment capacity for Contract A. After the implementation of WPRS, however, due to high transportation costs and low recycling values, washing machines and refrigerators had become the majority of the regulated WEEE received by WEEE·PARK, causing deviations from the designed treatment capacity of the facility. In view of the deviation between the projection in the previous study and the actual situations, together with uncertainties in the actual quantity of regulated WEEE generated, EPD agrees with Audit Commission's recommendations that, when considering adding new types of regulated WEEE, EPD would conduct more comprehensive market surveys and consultations with stakeholders with a view to better assessing the treatment demands.

(b) The Government has been maintaining close communication with the trade and industry to gather their views on the implementation of WPRS. In preparing and drafting the bill for expanding the REE, consultations have been held annually with stakeholders to gauge their views since 2022. Members of the general public had also been expressing to EPD their wish on expanding the scope of REE and provision of door-to-door collection service to cover large REE such as refrigerators and washing machines of larger capacities. The enhancement of WPRS has taken into account the views from the trade and the general public, the experiences of implementing WPRS during the past 6 years, the reuse and disposal of WEEE in landfills, market researches on various electrical appliances (including past and projected sales data) as well as developments in recycling technology.

10) According to paragraphs 3.8 and 3.9 of the Audit Report, the design and construction works of WEEE·PARK commenced in April 2015 and the revised completion date of the construction works was 19 July 2017. The Audit Commission noted that the completion of a substantial part of the works was delayed by 93 days due to the delays in obtaining the approval for a utility service and a statutory licence from relevant authorities, and the substantial completion of works was further delayed by 138 days also due to the delays in obtaining the approvals for a utility service and statutory licences from relevant authorities. In Audit Commission's view, in implementing works projects involving construction of facilities, EPD needs

to take measures to ensure timely commissioning of operation, particularly those works projects involving approvals of utility services and statutory licences by the relevant authorities. According to paragraph 3.14(b) of the Audit Report, EPD will ensure that sufficient time should be taken into account for the approvals of utility services and statutory licences for its future liaison with contractors, with a view to ensuring the timely commissioning of operation. Would EPD please advise:

- (a) since the approvals of utility services and statutory licences is not within EPD's jurisdiction, what measures EPD will take to ensure sufficient time is reserved for their approvals; and**
- (b) if too much time is reserved, it may deviate from the principle of enhancing the speed as well as efficiency. How can a balance be struck in reserving sufficient time for the approval?**

(a) – (b) In implementing works projects involving construction of facilities in the future, EPD will include the relevant detailed requirements for applying all necessary utility services and statutory licences in the tenders, and reserve approval time from relevant government departments and agencies for vetting applications when setting the completion dates of the works contracts, to allow sufficient time for contractors to apply for and obtain the relevant licences and permits. After the commencement of works, EPD will also liaise with relevant government departments and agencies of all necessary licences for the works as early as possible, to better understand the relevant procedures and time requirements for assessment of the reasonableness of the programme submitted by the contractors, so as to refine the programme where appropriate in response to potential delays. During the approval process, EPD will actively liaise with relevant government departments and agencies to monitor the progress and supervise the contractors to submit necessary documents as early as possible, to ensure timely commissioning of the operation of the facilities while avoiding excessive time reserved for the approval process.

- 11) Paragraph 3.15 of the Audit Report states that according to Contract A, monthly operation fee is paid to Contractor A based on the actual quantity of regulated WEEE treated during the month. The amount of operation fee should be ascertained and determined in accordance with the unit rate stipulated in Contract A. With reference to Table 3 in paragraph 3.16 of the Audit Report, the Audit Commission analysed the quantity of regulated WEEE treated from October 2017 to March 2024 and noted that there was a shortfall in yearly average treatment capacity of 32% and 80% for refrigerators and washing machines respectively. According to paragraph 3.17(a) of the Audit Report, top-up operation fee would be paid to Contractor A for treating washing machines and refrigerators beyond their respective sub-type-specific design treatment capacities. From October 2018 to March 2024, a top-up operation fee of \$165.3 million was incurred, representing 13% of the total operation fee of \$1,256 million to Contractor A. In this regard, according to paragraph 3.24(c) of the Audit Report, the Audit Commission has recommended that the Director of Environmental Protection should explore the feasibility to redesign WEEE·PARK with a view to aligning its treatment capacity with the mix of sub-types of regulated WEEE. According to paragraph 3.25(c) of the Audit Report, EPD will explore the**

feasibility of redesigning WEEE·PARK in the next follow-on contract involving capital works. In this regard, would EPD please advise if there has been any progress on exploring the feasibility of redesigning WEEE·PARK; if there has, of the details; if not, the reasons for that?

Currently, after adjustment of the operation, WEEE·PARK's processing capacity is sufficient to handle the regulated WEEE received locally every month. Therefore, there is no immediate need to redesign WEEE·PARK in the coming years till the end of the current contract. When tendering the next follow-on contract involving capital works of WEEE·PARK, EPD will appoint a works consultant to conduct a feasibility study, including exploring the feasibility of redesigning WEEE·PARK, and will incorporate relevant requirements into the contract specifications based on the study's findings.

- 12) According to paragraph 3.28 of the Audit Report, the Audit Commission noted that Contractor A did not regularly compile detailed records of maintenance works and follow-up actions in relation to instances of failure in facilities and equipment that required frequent maintenance and long repairing time, and report such information in the monthly and yearly operational reports. Paragraph 3.30(b) of the Audit Report suggests that EPD needs to take measures to ensure Contractor A maintains records on the above-mentioned matters and reports them in operational reports. Paragraph 3.35(c) of the Audit Report mentions that the Director of Environmental Protection said that Contractor A is required to promptly report any maintenance works potentially affecting the normal operation of WEEE·PARK to EPD and record such work in its monthly reports. EPD will also continue to enhance the monitoring of maintenance and repair works which may lead to serious disruption to any facility operation and impact on the handling capacity of WEEE·PARK, and request Contractor A to include detailed records of such works in the monthly and yearly operational reports. In this regard, please advise if EPD has taken any other measures to enhance the monitoring of Contractor A's maintenance and repair works records apart from requiring timely reporting and recording above-mentioned above maintenance and repair works; if it has, of the details; if not, the reasons for that?**

EPD has requested Contractor A to report and compile detailed records of maintenance and repair works, and the Contractor A now reports such records in the monthly operational reports. In addition, EPD staff conduct daily inspections at the facility to monitor the operational conditions of WEEE·PARK's facilities and equipment. During monthly progress meetings with Contractor A, EPD discusses the arrangement of major maintenance works that are in progress, completed, under planning or may affect the normal operation with a view to ensuring the smooth operation of the WEEE treatment process.

- 13) According to paragraph 3.32 of the Audit Report, since the commissioning of WEEE·PARK in October 2017 and up to March 2024, the site accident record aspect was rated as “poor” in 14 of the 18 Contractor A’s performance reports, involving 43 non-fatal work injury accidents. The Audit Commission noted that notwithstanding that Contractor A has implemented employee development programmes to improve occupational safety and health since November 2020, there was no significant improvement to the site and occupational safety of WEEE·PARK. Of 43 accidents, 25 happened after the programmes were implemented. According to paragraph 3.35(d) of the Audit Report, the Director of Environmental Protection said that the department has been making relentless efforts in reminding Contractor A to enhance site and occupational safety and will certainly continue to do so. Would EPD please advise:
- (a) apart from reminding Contractor A, the specific measures put in place to ensure Contractor A enhances site and occupational safety; and
 - (b) the effectiveness of these measures?

(a) – (b) EPD has requested Contractor A to timely report all accidents and provide EPD with the relevant investigation reports, and avoid recurrence of similar incidents through accident root cause analysis and formulation of remedial measures, including provision of more suitable personal protective equipment and improvement of working procedures and environment. Furthermore, EPD reviews and discusses each accident with Contractor A in the monthly progress meetings to ensure that the remedial measures are implemented properly. Since 2022, Contractor A has implemented various programmes on improving occupational safety and health, including employment of an external consultant to review the site and management of occupational safety of WEEE·PARK in 2022. In 2023, based on the consultant’s recommendations, Contractor A set work and safety related training targets and code of practices for all employees, strengthened employees’ safety awareness through enhanced training based on the training targets and code of practices, increased the frequency of safety committee meetings to enhance monitoring on the effectiveness of the implemented measures and integrated safety performance into the work indicator of supervisors and managers. These measures have been effective. The number of accidents to employees resulting incapacity (for a period of 3 days or more) decreased in 2023 and 2024 comparing with that of 2022. EPD will regularly review the effectiveness of these measures, with a view to improving the site and occupational safety of WEEE·PARK.

- 14) According to paragraphs 3.44 to 3.45 of the Audit Report, under Contract A, Contractor A should salvage and refurbish selected items from each of the 4 sub-types of Type 1 regulated WEEE (i.e. air conditioner, refrigerator, television, and washing machine) collected into repaired products, and donate these repaired products to non-governmental organisations through the network of registered social workers in Hong Kong for beneficial distribution to under-privileged households. With reference to paragraph 3.45 and Table 4 of the Audit Report, the Audit Commission examined the number of products repaired for donation for the 6 operation years from October 2017 to October 2023 and found that number of products repaired for certain sub-types was below respective target. In particular, there was a shortfall of the

actual number of air conditioners and refrigerators against their respective targets for 4 operation years, while that for refrigerators ranges from 16% to 40% below the targets. Would EPD please advise:

- (a) the reasons for Contractor A's failure to meet the targets for refurbishing air conditioners and refrigerators; and**
- (b) what measures will be taken to encourage Contractor A to meet the targets for refurbishing air conditioners and refrigerators?**

(a) – (b) Under Contract A, the target of repaired products refurbished and donated in every operation year was set on the basis of the overall number. Contractor A fulfilled the contract requirements and achieved the respective target for every operation year in the past. However, the actual number of repaired products donated for certain sub-types deviated from the respective targets, mainly due to external factors such as public demand for repaired products of each sub-type, application status, the condition and number of regulated WEEE Contractor A collected from the public, and the suitability of these items for repair and donation. Additionally, whether the recipients' needs can be matched with suitable repaired products (e.g. size, type and function of electrical appliance fit for the use and home environment of the recipients) can affect these quantities. Despite this, EPD will review the demand trends with a view to refining and setting a target for each sub-type of repaired products as commensurate with the market demand as practicable for the remaining operation years of Contract A.

- 15) According to paragraph 3.49(c) of the Audit Report, the Director of Environmental Protection said that EPD will review the trend of the demand more comprehensively with a view to setting realistic target for each sub-type of repaired products as commensurate with the market demand as practicable for the remaining operation years of Contract A. Would EPD please advise whether the response from the Director of Environmental Protection reflect that the targets set for the past 6 operation years were not practicable?**

Under Contract A, the target of repaired products refurbished and donated in every operation year was set on the basis of the overall number. The overall number of products refurbished and donated by Contractor A fulfilled the contract requirements in every operational year in the past. Therefore, the overall refurbishment and donation target is practicable. However, there were deviations when comparing the actual donation quantities of repaired products in individual sub-types to their targets. In light of this, EPD will review the demand trends annually with a view to refining and setting a target for each sub-type of repaired products for the remaining operation years of Contract A.

Part 4: Other Related Issues

16) According to paragraph 4.18 of the Audit Report, EPD will upgrade the computer system to facilitate the submissions of returns and audit reports by registered suppliers of REE and to strengthen management control on case monitoring for tracking the processing time. Would EPD please advise:

- (a) the differences or improvements in functionality of the computer system before and after the upgrade;**
- (b) the budget and actual expenditure involved in the upgrade; and**
- (c) the timeline for the computer system upgrade.**

(a) The computer system of the WPRS has been in operation since 2018. After the upgrade, it will optimise existing functionalities and add more convenient features, including automatic reminders for suppliers to submit relevant returns and audit reports within deadlines, easy access to past submissions, preliminary data verification and alerts, and exploring the feasibility of connecting with the "iAM Smart" system, etc. to meet registered suppliers' expectations for more stable, secure and efficient services. Additionally, the computer system will enhance the internal management functions, such as data processing and process tracking of case, real-time statistic summary and new database indexing technologies, etc. to strengthen management and supervisory work.

(b) – (c) Preparatory work for the computer system upgrade has begun, and the service contract is expected to be awarded in mid-2025, targeting for completion within 24 months. As the upgrade work is still in the preparatory stages, there are no budget expenditure figures available at this moment.

17) According to paragraph 4.21 of the Audit Report, since the implementation of WPRS in August 2018, EPD has conducted two costing reviews on the recycling levies of REE under WPRS in May 2022 and May 2024 respectively, and decided not to adjust the recycling levies. However, according to the forecast in the May 2024 review, the Audit Commission noted that the cost recovery rate for 2024-25 to 2028-29 would follow a downward trend and decreased from 96.2% for 2024-25 to 89.5% for 2028-29. Would EPD please advise:

- (a) how EPD responds to the downward trend in cost recovery rate in the May 2024 review; and**
- (b) why the Director of Environmental Protection still stated in paragraph 4.29(a) of the Audit Report that the revenue of WPRS is broadly in line with the expenditure?**

(a) The recycling levy for REE under WPRS was determined based on the “polluter-pays” principle, and by making reference to the various costs involved in WEEE·PARK’s construction and its operation within the ten-year contractual period, in addition to other manpower and administrative expenditures for the PRS, with a view to eventually achieving full cost recovery over the ten-year period.

Owing to the timing difference between the collection of recycling levies for REE from the registered suppliers by EPD and the treatment of relevant REE as regulated e-waste

with the latter lagging behind, coupled with various factors that may affect the cost recovery rate such as inflation rate, proportions of the various types of REE treated, fluctuations in the sales volume of REE, etc., the projected cost recovery rate for 2024-25 to 2028-29 will be relatively volatile, and may show a downward trend. However, the overall cost for WPRS is expected to be recovered in the 10-year period.

(b) According to the EPD's latest costing review, the overall cost recovery rate over the 10-year period (i.e., from 2018-19 to 2028-29) is 99.8%, which is close to full cost recovery level. In other words, the revenue of the Scheme is broadly in line with the expenditure.



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APPENDIX 14

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By Fax and Email
06 January 2025

Ms Shirley Chan
Clerk to the Public Accounts Committee
Legislative Council
Legislative Council Complex
1 Legislative Council Road
Central
Hong Kong

Dear Ms Chan,

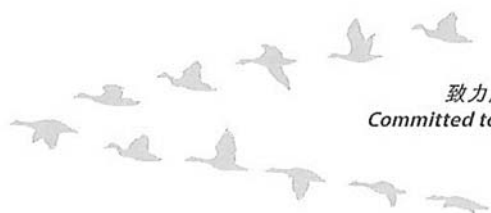
Public Accounts Committee
Director of Audit's Report No. 83 Chapter 4
Regulation of Operations of Small Unmanned Aircraft

Thank you for your letter ref CB3/PAC/R83 dated 17 December 2024. In consultation with the Transport and Logistics Bureau, our responses to your enquiries are set out in the Appendix.

Yours sincerely,

(Raymond Ng)
for Director-General of Civil Aviation

c.c. Secretary for Transport and Logistics (Email: stlooffice@tlb.gov.hk)
Secretary for Financial Services and the Treasury (Email: sfst@fstb.gov.hk)
Director of Audit (Email: ncylam@aud.gov.hk)



致力於安全、有效率及可持續發展的航空運輸系統
Committed to a Safe, Efficient and Sustainable Air Transport System

**Director of Audit's Report No. 83 Chapter 4
Regulation of Operations of Small Unmanned Aircraft
Enquiries and Information Requested**

Part 1: Introduction

- 1) According to Director of Audit's Report No. 83 ("Audit Report") Paragraph 1.5(a), as at 30 June 2024, there were 24,070 registered small unmanned aircraft ("SUA"). Please advise the number of SUA owners who were (i) a natural person of at least 18 years of age, (ii) body corporate and (iii) unincorporated body.

As at 30 June 2024, there were 24,070 registered small unmanned aircraft ("SUA"). 20,670 registrants were a natural person of at least 18 years of age, 2,896 registrants were body corporate, and 504 registrants were unincorporated body.

- 2) According to Audit Report Paragraph 1.5(a) and 1.5(b), remote pilots for advanced operations are required to undergo advanced training and assessment from an SUA approved training organization, unless they are able to demonstrate an alternative means of compliance. Please advise:
 - (a) What are "alternative means of compliance"?
 - (b) Among the 25,721 registered remote pilots, (i) how many remote pilots underwent advanced training and assessment from an SUA approved training organization and were assigned advanced rating by the Civil Aviation Department ("CAD"); (ii) how many remote pilots were assigned advanced rating by alternative means of compliance?
 - (c) How many remote pilots were registered for Category A2 operations and advanced operations?; and
 - (d) Since the commencement of the SUA Order, how many remote pilots have applied for, and been assigned, advanced rating every year? What were the number of rejected applications and the reason of rejection?
- (a) Alternative means of compliance include:
 - (i) Apart from undergoing advanced training and assessment from an SUA approved training organization, in order to facilitate experienced remote pilots as well as those who have already gone through similar training and assessment in other

jurisdictions, the Civil Aviation Department (“CAD”) may issue advanced rating to them subject to the proof of competency and possession of experience (e.g. relevant certification, SUA qualification issued by other jurisdictions and records of SUA operations recognised by CAD).

- (ii) Apart from the above, as a transitional arrangement (until 30 November 2023) to facilitate the transition to the SUA Order, experienced remote pilots, who possessed proof of experience of SUA operations in certain organization together with the relevant records, may also apply to CAD for assignment of advanced rating.

(b) Among the 25,721 registered remote pilots, 1,712 remote pilots underwent advanced training and assessment from an SUA approved training organization and were assigned advanced rating by CAD, while 635 remote pilots were assigned advanced rating by alternative means of compliance.

(c) 25,721 remote pilots were registered for Category A2 operations while 2,347 remote pilots were registered for advanced operations.

(d) Since the commencement of the SUA Order on 1 June 2022, 1,100, 822 and 425 remote pilots have applied for, and been assigned, advanced rating in June – December 2022, 2023 and the first half of 2024 respectively. So far, CAD has not rejected any application for the assignment of advanced rating.

- 3) According to Audit Report Paragraph 1.7(b), please advise the details of the effort on publicity campaigns after the full commencement of the SUA Order in December 2022:

- (a) The number, content and type of the effort on publicity campaigns every year;
- (b) The reach of the effort on publicity campaigns; and
- (c) The expense of the effort on publicity campaigns.

In order to prepare for the implementation of the SUA Order, CAD has launched a series of publicity campaigns on SUA, including launching promotional campaign in various modes of public transport, broadcasting promotional videos on television, broadcasting online promotional videos, displaying promotional banners at the restricted flying zones designated under the SUA Order, distributing leaflets (including promotional souvenirs) at the tourists’ hotspots, conducting online promotion and briefing stakeholders from different sectors, so as to enhance the public

awareness of the SUA Order and the safety awareness of SUA operations. Effort on publicity campaigns continued after the full commencement of the SUA Order in December 2022. Details (up to December 2024) are as follows:

	Arrangement and Reach (if applicable)	Expense (Hong Kong Dollars)
Public transport	Advertisements displayed at the interior and exterior of buses, and at the bus stops and tram stops for six to eight weeks since December 2022	1,200,000 (one-off)
Promotional videos on television	Since May 2022	565,000 (one-off)
Online promotional videos	Since June 2022	
Banners	Displayed at various locations in Hong Kong	151,000 (one-off)
Leaflets (including promotional souvenirs)	Distributed to nearly 4,000 people on 17 occasions	
Online promotion	e-Banner displayed online (Note)	95,000 (Note)
Briefing for stakeholders from different sectors	Participation in 18 events (including exhibitions, open days, etc.)	No additional expenses were involved

Note: At least 90,000 hit rates according to the contract.

- 4) According to Audit Report Paragraph 1.7(c), large-scale briefings were provided to the industry between March and May 2022. Please advise:
- (a) The number of briefings;
 - (b) The number of participants and participating organizations; and
 - (c) The expense of each briefing.

During March and May 2022, CAD organized two online briefing sessions for the SUA community and government departments. The briefing session on 18 March 2022 was targeted for the SUA community and attended by around 230 participants from some 100 organizations, while the briefing session on 13 May 2022 was targeted for the government departments and was attended by around 390 participants from some 30 government departments. No additional expenses were involved.

Part 2: Registration, Training and Assessment Requirements

- 5) According to Audit Report Paragraph 2.3, please advise the number of registered manufactured SUA and registered privately-built SUA.

As at 30 June 2024, there were 22,100 registered manufactured SUA and 1,970 registered privately-built SUA.

- 6) According to Audit Report Paragraph 2.4(b), please advise the reason why the requirement for uploading a photograph of the pertinent SUA affixed with the registration label was withdrawn by CAD, including the details of various considerations taken into account.

Since August 2023, CAD had conducted an internal review. From 31 May 2024, CAD withdrew the requirement for uploading a photograph of the SUA affixed with the registration label. The internal review took into account various considerations, including:

(a) the legal aspect: According to section 11(1)(b) of the SUA Order, the SUA label shall be displayed on the external surface of the aircraft and clearly visible. In order to ensure compliance with the above requirement, it is the view of CAD that it will be more effective to check the compliance of affixing the registration labels through other means (e.g. during the audits on advanced operations permission holders and SUA approved training organizations as well as flight demonstrations).

(b) the experience gained regarding the effectiveness in the monitoring of the labelling requirement during SUA operations: As observed by the staff

of CAD responsible for oversight of SUA operations, the labelling requirement has been complied with in general.

(c) the feedback from the public regarding the compliance with the labelling requirement: After the implementation of the labelling requirement for more than two years since the full commencement of the SUA Order in December 2022, the members of the public are increasingly familiar with the labelling requirement as observed by the staff of CAD responsible for oversight of SUA operations.

- 7) According to Audit Report Paragraph 2.5 and 2.6, if a holder of an eSUA account applies for deletion of his account, unless the reason is already known from any prior communication, CAD will contact the account holder by phone or by any other appropriate means to confirm the intention to delete the account. As at 30 June 2024, there were 22 deleted accounts. Please advise:
- (a) The number of accounts deleted by CAD with the reason already known from prior communication to confirm the intention to delete the account;
 - (b) The number of accounts deleted by CAD through contacting the account holder by phone to confirm the intention to delete the account;
 - (c) The number of accounts deleted by CAD through contacting the account holder by other appropriate means to confirm the intention to delete the account, and what are “other appropriate means”?; and
 - (d) When the account holder cannot be contacted, how does CAD handle the registered SUA held under deleted accounts?

As at 30 June 2024, there were 22 deleted accounts, in which 14 deleted accounts were internal simulation or test accounts, while eight deleted accounts were held by the members of the public.

For the eight deleted accounts held by the members of the public, two account holders made telephone calls to CAD to confirm the intention to delete the accounts. The staff of CAD subsequently issued an email message to the account holders to record their intention and notify that their accounts had been deleted.

For the remaining six deleted accounts held by the members of the public, deficiencies were noted in the supporting documents submitted. The staff of CAD issued an email message to the account holders to request for further details before the deadline. Otherwise, their applications would be regarded as “withdrawn”. As the six account holders did not respond by

the deadline, the staff of CAD subsequently issued an email message to the account holders to notify that their accounts had been deleted.

(a) There was not any account deleted with the reason already known from prior communication confirming the intention to delete the account (i.e. before CAD contacted the account holder by phone or by any other appropriate means).

(b) There were two deleted accounts, in which two account holders made telephone calls to CAD to confirm the intention to delete the accounts.

(c) There were six deleted accounts, in which CAD contacted the account holders by other appropriate means to confirm the intention to delete the accounts. Other appropriate means referred to the issue of email messages.

(d) As an eSUA account holder cannot delete its own account, the account holder must contact CAD to confirm the intention, so that the staff of CAD will handle the account as well as the SUA registration / remote pilot registration.

8) According to Audit Report Paragraph 2.9(a) and 2.9(b), for the odd data in the database of eSUA, please advise:

- (a) For the 25 registered SUA recorded with weights not matching SUA models and incorrectly recorded as Category A2 SUA, have such SUA applied to CAD to conduct advanced operations? , 22 had been recorded as 250 grams or below (ranging from 168 to 250 grams) and 3? If so, what are the details?; and
- (b) For the 130 registered SUA with duplicate serial numbers, what are the number of serial numbers, the duplication and the registrants involved?

(a) Of the 6,030 registered SUA examined, 25 (0.4%) registered SUA been incorrectly recorded as Category A2 SUA. According to section 3 of the SUA Order, in respect of a flight at all times, in determining the weight of an SUA, everything installed in, carried by or attached to the SUA is to be taken into account. As such, the weight of an SUA refers to its weight during a flight, rather than the weight recorded in eSUA which is for general reference only. Operations of Category A1 or A2 SUA exceeding operating requirements, or operations of Category B SUA are classified as advanced operations and prior permission from CAD is required. When an applicant submits to CAD an application for advanced operations, the applicant is also required to provide a list of SUA to be deployed, including SUA models and weights. In assessing the application, CAD will review

the list of SUA and request for rectification by the applicant when incorrect information is identified.

(b) Of the 6,030 registered SUA examined, 130 (2.2%) had duplicate serial numbers recorded in eSUA. For 130 SUA with duplicate serial numbers, 42 serial numbers and 129 registrants were involved. Details of 42 serial numbers are as follows:

Serial Number (total 42 serial numbers involved)	Number of Duplication
1-7, 13-15, 18-23, 25, 27-34, 36-39, 42 (total 30 serial numbers involved)	2
8-9, 12, 16, 35 (total 5 serial numbers involved)	3
10, 41 (total 2 serial numbers involved)	4
11 (total 1 serial number involved)	10
17 (total 1 serial number involved)	7
24, 26 (total 2 serial numbers involved)	8
40 (total 1 serial number involved)	14

CAD is now liaising with the concerned registrants to rectify the duplicate serial numbers.

- 9) According to Audit Report Paragraph 2.22 and 2.34, according to the SUA Order, the approved training courses shall consist of theoretical knowledge instruction, theoretical knowledge examination, practical training and practical assessment, and eight SUA approved training organizations are approved to conduct advanced training courses. Please advise:
- (a) The CAD requirements on the number of hours of each of the above training modules; and
 - (b) The number of hours of each of the above training modules provided by the eight approved training organizations, and the fees for the training courses.

(a) The approved training organizations shall provide at least 20 hours of theoretical knowledge instruction, at least one hour of theoretical knowledge examination and at least four hours of practical training.

Although the number of minimum hours required of practical assessment has not been specified by CAD, a training organization must apply to CAD and obtain an approval to conduct practical assessment.

(b) The approved training organizations presently provide 20 – 22 hours of theoretical knowledge instruction, one hour of theoretical knowledge examination and 4 – 12 hours of practical training. For practical assessment, approved training organizations presently arrange for around 30 – 60 minutes for each student. Approved training organizations may offer training courses with different duration, depending on their respective training course structure. The fees for the training courses range from around 3,000 to 11,000 Hong Kong Dollars.

- 10) According to Audit Report Paragraph 2.27(b), for the six applications without supporting documentation for the resumes of the instructors and practical assessors, please advise:
- (a) The details of the follow-up action by CAD on the six applications; and
 - (b) Whether a full investigation on the concerned SUA approved training organizations will be conducted to ascertain if false resumes had been involved. If so, what are the details? If not, why?

CAD has requested the concerned SUA approved training organizations to provide further details, and reviewed the concerned qualifications of instructors and practical assessors again. Nothing suspicious was identified. If CAD finds any qualification suspicious, CAD will request the concerned organization to provide further supporting documentation.

- 11) According to Audit Report Paragraph 2.27(c), please advise the number of questions and the time limit for each question of the theoretical knowledge examination paper of each of the eight approved training organizations.

The theoretical knowledge examination paper of each approved training organization contains 48 questions paper, with 75 seconds as the time limit for each question.

- 12) According to Audit Report Paragraph 2.27(d), for the four applications with inadequacies in reporting procedures and handling of occurrences, please advise the details of the follow-up action by CAD and the sanction against the concerned SUA approved training organizations.

For the four applications with inadequacies in reporting procedures and handling of occurrences, two SUA approved training organizations were

involved. During the subsequent audits or meetings with the SUA approved training organizations, CAD has already requested for rectification by the concerned SUA approved training organizations as a part of the continuous improvement process.

Part 3: Advanced Operations Permission and Insurance Requirements

13) According to Audit Report Paragraph 3.8 and 3.9, for the renewal applications of advanced operations permission, some holders had not been subject to CAD's scheduled oversight audits at least once within the validity period. CAD explained that some cases involved one-off night operations and that other monitoring method was adopted in other cases. Hence, scheduled oversight audits were not applicable. Please advise:

- (a) The criteria for which CAD will determine whether scheduled oversight audits are applicable;
- (b) How will CAD plan to conduct scheduled oversight audits for all advanced operations permission holder?; and
- (c) As CAD explained that the principle of "the advanced operations permission holders will be subject to CAD's scheduled oversight audits at least once within the validity period." is not applicable in some cases, does CAD plan to update the guidelines to specify the applicability? If so, what are the details? If not, why?

(a) The scheduled oversight audits are arranged under a risk-based approach by CAD. If one-off night operations are applied for, the applicant will be required to obtain prior permission from CAD. In submitting an application to CAD, the applicant is required to provide detailed information, including the remote pilot ratings, flight plan, policy of insurance for third-party liability (for bodily injury and/or death), safety risk assessment and risk mitigating measures. Based on the information provided, CAD will assess the application for night operations. Since such one-off night operations do not require renewal, the scheduled oversight audits by CAD do not apply to such one-off application. Generally speaking, scheduled oversight audits are applicable to the permission issued by CAD on a longer-term basis.

(b) At the start of each year, CAD will plan the schedule of the scheduled oversight audits to ensure that all the advanced operations permission holders will continue to comply with the permission conditions. Under a risk-based approach, CAD will schedule and prioritize the scheduled oversight audits to be conducted.

(c) CAD is reviewing internal procedures. In order to ensure that all advanced operations permission holders will receive scheduled oversight audits prior to the permission renewal, the internal procedures will formalize the practice of issuing reminders to advanced operations permission holders before the specified date for submission of renewal applications. The internal procedures will also specify the handling of cases where scheduled oversight audits cannot be conducted (including operational factors (such as unavailability of flight operations or the advanced operations permission holders)).

- 14) According to Audit Report Paragraph 3.12, please advise the reason of the staff of CAD not inspecting the self-assessment records of the advanced operations permission holders.

The scheduled oversight audits by CAD are to ensure that all the advanced operations permission holders will continue to comply with the permission conditions. Since the full commencement of the SUA Order in December 2022, CAD has conducted over 100 scheduled oversight audits. During the scheduled oversight audits, CAD will inspect the self-assessment records of advanced operations permission holders. According to the Audit Report, there was no documentary evidence showing that the staff of CAD had inspected the self-assessment records in six cases. In the meantime, such inspection arrangement was not reflected in the inspection checklist of CAD. As such, CAD has already revised the checklist for scheduled oversight audits to include the inspection of self-assessment records as one of the inspection items with a view to facilitating the inspection of self-assessment records by the staff of CAD.

- 15) According to Audit Report Paragraph 3.15 – 3.17, CAD's guidelines require that the renewal application of an advanced operations permission is to be submitted at least 30 calendar days prior to the expiry of the existing permission. However, in some cases, expired permission was renewed, even though the time interval between expiry dates of previous permission and effective dates of renewed permission was more than 90 days. To avoid the renewal of a long overdue permission, will CAD update the guidelines to specify the maximum time interval between the above expiry dates and effective dates? If so, what are the details? If not, why?

CAD understands that in submitting renewal applications, the advanced operations permission holders may be obliged at times to consider the business needs and commercial decisions. In line with the spirit of partnership, CAD will facilitate and handle the renewal applications even if the applications were not submitted 30 days in advance due to various

reasons (including operational factors (such as unavailability of flight operations or the advanced operations permission holders)).

In addition, CAD will formalize the practice of issuing reminders to advanced operations permission holders before the specified date for submission of renewal applications. And in order to avoid the renewal of a long overdue advanced operations permission, CAD will only accept the expired advanced operations permission to be renewed within six months of its expiry. The request for renewing advanced operations permission expiring for more than six months will not be entertained.

- 16) According to Audit Report Paragraph 3.22 – 3.26, please advise the rollout timeline by the insurance industry of third party insurance products for Category A2 Operations, and the reason of inadequate market readiness after more than two years since the full commencement of the SUA Order.

In March 2023, CAD commissioned an organization to conduct a survey on the public use of SUA in Hong Kong with a view to, among others, collecting public views on different aspects (e.g. feedback on availability of third party insurance products in the market and the acceptable premium levels for such products) for the review on insurance requirements. The survey reflected that the readiness of the SUA operators and the insurance market in offering sufficient choices of third party insurance products for Category A2 Operations had yet to be developed.

CAD understands that generally speaking the insurance industry acknowledges the development potential of SUA. However, since SUA is a relatively new product, more time and information / statistics in relation to the use of SUA in Hong Kong will be required for launching new SUA-related insurance products, determining the premium level and introducing more Category A2 Operations-specific products. Presently, two insurers are offering Category A2 Operations-specific products in Hong Kong.

In consultation with the Transport and Logistics Bureau, CAD will conduct another survey from early 2025 to gauge the market readiness for the implementation of insurance requirements for Category A2 Operations. Throughout the process, CAD will continue its liaison with the insurance industry to share SUA-related information of registered SUA, registered remote pilots, SUA approved training organizations, etc., and monitor the development of the market readiness in conjunction with the insurance industry.

Part 4: Other Related Issues

- 17) According to Audit Report Paragraph 4.7, please advise the reason why it was not practicable for the investigation of the cases of suspected violations to be recorded in writing.

For the cases of suspected violations, during the investigation by CAD, CAD will retain the records of all important information and evidence associated with the case (such as the evidence collection and handling, and the communications with Police on case referral).

In addition, during the investigation, the staff of CAD may conduct internal discussions, but having regard to resources considerations, the staff of CAD are unable to keep written records of all internal discussions. That said, the staff of CAD will report in writing the detailed analysis of the case and summarize the internal discussions as appropriate process to the senior officers, with the report and summary serving as the written records of the investigation.

- 18) According to Audit Report Paragraph 4.16 – 4.18, for publicity campaigns and education targeting visitors, please advise:
- (a) The number, content and type of the effort on publicity campaigns every year;
 - (b) The reach and the expense of the effort on publicity campaigns; and
 - (c) Further plan to enhance the visitors' awareness of the SUA Order in order to avoid violation against the legislation. If so, what are the details? If not, why?

In order to enhance the public awareness of the SUA Order and the safety awareness of SUA operations, since the full commencement of the SUA Order in December 2022, CAD has continued its effort in conducting publicity campaigns targeting at visitors through distributing leaflets (including promotional souvenirs) at the tourists' hotspots (including Hong Kong International Airport, Lo Wu MTR Station, Hong Kong West Kowloon Station, the Peak, Victoria Harbour, Sunny Bay MTR Station, Ocean Park MTR Station and Ngong Ping Cable Car Station). In order to further expand the reach of the publicity campaigns, since October 2024, CAD has conducted online promotion (including both local and mainland websites) to further enhance the public and the visitors' awareness of the SUA Order. Details (up to December 2024) are as follows:

	Arrangement and Reach (if applicable)	Expense (Hong Kong Dollars)
Banners	Displayed at various locations in Hong Kong	151,000 (one-off)
Leaflets (including promotional souvenirs)	Distributed to nearly 4,000 people on 17 occasions	
Online promotion	e-Banner displayed online (Note)	95,000 (Note)

Note: At least 90,000 hit rates according to the contract.



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Ms Shirley CHAN
Secretary for Public Accounts Committee
Legislative Council Complex
1 Legislative Council Road
Central, Hong Kong

10 January 2025

Dear Ms Chan,

Public Accounts Committee
Consideration of the Director of Audit's Report No. 83 Chapter 5
Residential Care Service Voucher Scheme for the Elderly

In response to the enquiries raised in the letter from Public Accounts Committee dated 18 December 2024, please see the information and responses at the appended attachment (both in Chinese and English version).

Yours sincerely,

(Ms YAN Lai-ming)
for Director of Social Welfare

c.c. Secretary for Labour and Welfare (email: slwo@lab.gov.hk)
Secretary for Financial Services and the Treasury (email: sfst@fstb.gov.hk)
Director of Audit (email: ncylam@aud.gov.hk)

Public Accounts Committee
Consideration of the Director of Audit's Report No. 83: Chapter 5
Residential Care Service Voucher Scheme for the Elderly
Response of the Social Welfare Department

Part 1 : Introduction

- (1) **According to paragraph 1.17 of the Report No. 83 of the Director of Audit Report ("Audit Report"), please inform the rank and salary of the 33 staff involved in the administration of Residential Care Service Voucher (RCSV) Scheme for the Elderly.**

In end of March 2024, 33 staff involved in the administration of the RCSV Scheme for the Elderly. Their rank and salary are listed as follows

Rank	Notional Annual Mid-point Salary (\$)	Number of persons
Senior Social Work Officer	1,290,180	1
Social Work Officer	1,038,900	3
Assistant Social Work Officer	688,680	16
Social Work Assistant	429,300	1
Social Security Officer	521,520	1
Social Security Assistant	349,440	3
Executive Officer II	573,540	2
Assistant Clerical Officer	309,780	3
Clerical Assistant	241,980	3

Part 2 : Administration of Residential Care Service Voucher Scheme for the Elderly

- (2) **According to paragraph 2.4 of the Audit Report, during the period from March 2017 to March 2024, 3 110 RCSVs out of the total of 7 110 RCSVs issued were cancelled and the reason for cancellation for 2 258 RCSVs was decease of the elderly persons. Social Welfare Department (SWD) please inform any plans to shorten the waiting time of Care and Attention (C&A) places and Nursing Home places?**

For 2 258 vouchers cancelled due to the decease of the elderly persons as mentioned in the Audit Report, the elderly persons were those using voucher for subsidised residential care service or being issued with voucher and planned to be

admitted to residential care home for the elderly (RCHE) before decease, but not those being waitlisted for subsidised residential care service (RCS) when passed away. In fact, RCSV adopting the principles of “money-following-the-user” and “users pay in accordance with affordability”, the RCSV Scheme provides an additional choice for elderly persons waitlisting for subsidised residential care places to be admitted to the participating Residential Care Homes for the Elderly (RCHEs), i.e. Recognised Service Providers (RSPs), of their choice without having to wait. The RCSV Scheme has all along been receiving positive feedback from elderly users. The number of elderly persons using RCSV increased by more than one-fold from around 2 200 in end October 2021 to some 4 600 in end November 2024.

The Government is making its best endeavour to increase the number of RCS places through the implementation of RCSV and invitation of new contract home, with the aim of providing about 6 200 additional subsidised RCS places by the end of 2027. Besides, in June 2023, the Government enhanced the Incentive Scheme to Encourage Provision of RCHE Premises in New Private Developments which increased the number of eligible RCHEs and their concerned Gross Floor Area(GFA) exempted from payment of land premium in land transactions between developers and the Government, and exempting such GFA from counting in the original total permissible GFA of the site. Furthermore, the Government continued to implement and enhance the Residential Care Services Scheme in Guangdong to provide an additional choice for elderly persons waitlisting for subsidised residential care places through Standardised Care Need Assessment Mechanism for Elderly Services (SCNAMES) to be admitted to the participating RCHEs in Guangdong without having to wait.

- (3) **According to paragraph 2.8 of the Audit Report, does SWD plan to encourage the Voucher holder (VH) to use the voucher as early as possible upon issuing the voucher ? If yes, please elaborate. If not, please give the reasons.**

The Residential Care Service Voucher Office (RCSVO) of the SWD will provide service briefing to each applicant and casework support service to all VHs to assist them in choosing suitable RCHE, so as to encourage the VH to use the voucher as early as possible upon issuance of the voucher. Support would be provided to the elderly persons continuously upon their admission to the RCHEs joining the RCSV scheme. At the same time, SWD should respect the choice of VHs. If the elderly persons are indecisive about the admission to RCHE after the issuance

of vouchers, SWD will render community support services to them according to their needs.

(4) Regarding the 5 704 applications received in 2022-23 and 2023-24 in paragraph 2.10 of the Audit Report, SWD please provide :

(a) For processing of 3 179 completed applications with RCSVs issued, please list out the number of cases according to the time interval between RCSVs application date and RCSVs issuance date (between the same date and 1 week, over 1 week and up to 1 month, over 1 month and up to 3 months, over 3 months and up to 5 months, over 5 months and up to 8 months)

(b) For processing of 2 195 completed applications without issuance of RCSVs, please list out the number of cases according to the time interval between RCSVs application date and RCSVs issuance date (between the same date and 1 week, over 1 week and up to 1 month, over 1 month and up to 3 months, over 3 months and up to 5 months, over 5 months and up to 8 months) ; and

(c) The reason of the 94 rejected applications.

(a) & (b) In general, RCSVO takes around eight weeks to complete the processing of the assessments upon receiving applications, arranging of service briefing till the issuing of the voucher. Upon SWD's review on those applications required longer processing times, the reasons for taking longer processing time were (i) the SCNAMES assessment result of the applicant was not valid (the assessment result is more than 1 year), and thus needed to wait for the re-assessment; (ii) the family members had divergent views on the RSCV application and needed time to reach consensus; (iii) the applicant was put on the small pool of the Central Waiting List (CWL) for other subsidised RCHE place and the applicant/the family members needed time to consider the choice between the options of RSCV and other subsidised RCHE; and (iv) the family members was out of contact despite the caseworker's attempts. While handling the applications, RCSVO staff will keep following up the applicants' condition under whatever circumstances and will issue the voucher at once upon completion of the applications.

Regarding 5 704 applications received in 2022-23 and 2023-24, the processing time distribution is listed on the tables as follows :

3 179 applications completed with RCSVs issued :

Time interval between RCSVs application date and RCSVs issuance date	Number of cases
same date and 1 week	22
over 1 week and up to 1 month	1157
over 1 month and up to 3 months,	1829
over 3 months and up to 5 months,	156
over 5 months and up to 8 months	15

2 195 applications without issuance of RCSVs :

Time interval between RCSVs application date and application completion date	Number of cases
same date and 1 week	263
over 1 week and up to 1 month	911
over 1 month and up to 3 months,	823
over 3 months and up to 5 months,	166
over 5 months and up to 8 months	32

(c) Out of 94 rejected applications, 84 applicants were assessed to be not suitable for C&A Home place. The remaining 10 applicants were not on the CWL for C&A home or Nursing Home.

- (5) **According to paragraph 2.11 of the Audit Report, the SWD was required to contact the responsible workers (RWs) within 7 working days upon completion of service briefings. For the 5 704 applications received in 2022-23 and 2023-24, SWD please inform :**

- (a) The number of cases which had tried to initiate first contact with the RWs within the required 7 working days ; and**
(b) The number of cases which had not tried to initiate first contact with the RWs within the required 7 working days and the reasons.

(a) & (b) After receiving the application forms, RCSVO of SWD will inform the applicants/their family members and the RW by letter or emails to arrange the service briefing on RCSV Scheme. After completion of the service briefing, RCSVO will contact the RW for the SCNAMES assessment result report. If the SCNAMES assessment report is invalid (i.e. over one year), the RW is required

to arrange reassessment for the applicant. Since record of contacts with the RWs within 7 working days upon completion of service briefings were kept in individual applicant's casefile, RCSVO did not compile the related figures. To streamline and speed up the application process for RSCV, with effect from August 2024, the RCSVO can download the applicants' SCNAMES assessment reports directly from the Long Term Care Services Delivery System (LDS) so there is no need to obtain this information from the RWs.

- (6) **According to paragraph 2.13 and 2.14 of the Audit Report, for 228 RCSVs with decisions of the VHs to opt-in or opt-out of the RCSV Scheme recorded, the longest time for recording the decision upon the expiry of the trial period is 9 months and was accepted by the SWD. In view of the above, SWD please inform any plans to specify the timeframe for considering those VHs who had used the RCSVs but had not continued using the RCSVs after the expiry of the trial period and did not reply whether to opt-in the RCSV Scheme as leaving the RCSV Scheme? If yes, please elaborate. If not, how the SWD to ensure that the VHs timely use the RCSVs ?**

Under current mechanism, if VHs did not reply upon the expiry of trial period, no matter whether the VHs had used the RCSVs, the RCSVO would contact the VHs or their family members by all means to confirm their decisions. Regarding the timeframe for considering those VHs who had not continued using the RCSVs upon the expiry of trial period as leaving the Scheme in the RCSV System, SWD agrees to the recommendation of the Audit Report and has formulated the mechanism and measures. If the VH who had used RCSV service during the trial period but was not using the service when the trial period expired while the reply slip has not been received upon the expiry date of trial period, the VH and/or the family member will be notified by a letter, issued within 7 days after the expiry date of trial period that the case will be closed in RCSVO in 3 weeks from the expiry date of the trial period. Apart from the aforementioned enhanced measures, RCSVO will timely issue notifications to follow up and update records in the RCSV System reminding workers of RCSVO to take necessary steps to follow up.

- (7) **According to paragraph 2.14(a), SWD please inform the reasons of 12 VHs whose decisions on whether to opt in or out from RCSV Scheme were not recorded in RCSV System.**

According to record, among the mentioned 12 VHs, 6 VHs had never used the

RCSV service during trial period, 2 VHs had used voucher service but discharged from the RSPs during the trial period and changed to be under the care of domestic helper, and 4 VHs had continued using RCSV service at the same RSPs after the trial period. Regarding the RCSVO staff only marked their follow-up work on the VHs' individual case file without updating the record of VHs' decisions in the RCSV System, the RCSVO has strengthened the supervision through the staff sharing sessions, individual supervision sessions and enhancement of the office managerial support to implement the internal guides on how to handle the expired voucher cases after the trial period.

- (8) **According to paragraph 2.17 & 2.18, please inform why 17 VHs had been discharged from the RSPs for over 3 months but the SWD failed to cancel their RCSVs as at 31 March 2024 according to the guidelines?**

Upon the discharge of the abovementioned 17 VHs from the RSPs, SWD had stopped the corresponding subsidies to the RSPs on the same day. We agree that RCSVO's failing to cancel the invalid RCSVs according to the guidelines may affect the number of available vouchers to be issued. Thus, SWD had adopted the recommendation of the Audit Report and enhanced the guidelines to specify the timeframes clearly, including require staff of RCSVO to send notification SMS/email/letter to VHs, who had not used the vouchers issued after the trial period for 2 consecutive months to remind them that vouchers will become invalid if the vouchers had not been used for 3 consecutive months without special circumstances for consideration. RCSVO staff will cancel the voucher which had not been used for 3 consecutive months within 3 working days. Regarding some special conditions, such as the voucher had not been used for 3 consecutive months and the RCSVO was informed of the decease of that VH, RCSVO staff will confirm the death record of the VH with the Immigration Department before updating the record in RCSV System. The RCSVO had reminded all staff in the regular staff sharing session and set reminder in the RCSV System to cancel the RCSVs timely in the System. Upon future system enhancement, RCSVO will add a function to cancel the invalid vouchers automatically.

- (9) **Regarding the service fees of RSPs from paragraph 2.29 & 2.30 of the Audit Report, please inform :**

- (a) **Since the launch of the RCSV Scheme, the number of discussions of the service fees and fee-charging items between the SWD and RSPs;**
- (b) **The number of times of updating the fee-charging items and the details of**

**the updated amount upon the discussion between the SWD and RSPs;
and**

- (c) As the SWD states that price lists shown in the Elderly Information Website (EIW) are for reference only, please inform the difference between the actual price and the price shown on the Elderly Information Website and the reasons of the difference.**

(a) & (b) The “standard service package” covered by the voucher value includes accommodation within shared rooms; at least 3 meals a day plus snacks; basic and special nursing care; staff on duty 24 hours per day; personal care service; 2 rehabilitative individual or group service sessions per week; regular visits by a registered medical practitioner; social or recreational activities on regular basis; laundry service; social work service and basic medical care services on regular basis (only applicable to VHs of nursing home places). According to the Service Agreement, the voucher value may be revised upwards or downwards from time to time as the SWD may at his absolute discretion determine and announce in writing.

For items outside the scope of the “standard service package” provided upon VHs’ request and choice, the RSPs should follow the Service Agreement to inform Government Representative, VHs and their family members for any change of fees and charges in writing at least 30 days in advance of the effective date of implementation. After receiving the notification of change of fees and charges, the RCSVO will contact the RSP by phone or by email for acknowledgment and examining the price adjustment to assure the right of VHs in choosing their self-pay items. During the scrutiny of fees and charges, the staff of RCSVO will make the price comparison with the previous fee changing application, identify those similar items with a large variation in price level in the RSP or among RSPs, scrutinise the fee changing and liaise with the RSP for adjustment if necessary. If the pricelist includes items of the “standard service package” or consumable items, the RCSVO will request the RSP to remove such charging items.

SWD agrees to the recommendation of Audit Commission that the difference of fees and charges of similar items among RSPs would be recorded for reference. The scrutiny of pricelists of RSPs would be strengthened to ensure the uploaded price lists are accurate and specify the VHs have rights to choose/not choose the self-pay services.

- (c) As mentioned above, for any change of fees and charges, the RSPs should

inform the Government Representative in writing at least 30 days in advance of the effective date of implementation. RCSVO needs time to examine the items concerned, and will request further information regarding the adjusted pricelist items for further examination as needed. Only after that the RCSVO will upload that adjusted pricelist onto the EIW.

(10) **According to paragraph 2.31 of the Audit Report, there are RSPs delayed or failed to reply for voucher value adjustment on 2024. In view of that, please inform / explain :**

- (a) Do the SWD implement any follow-up actions for 11 RSPs which still did not reply in August 2024. If yes, please elaborate. If not, please give the reasons;**
- (b) Any plans to request RSPs to update the bed fees on EIW as required. If yes, please elaborate. If not, please give the reasons; and**
- (c) Why the documentation for scrutinising the update of fees according to the voucher value adjustment by the SWD was not available but 15 RSPs were reimbursed with the voucher services subsidy based on the updated voucher value by the SWD.**

(a) RCSVO had already contacted 11 RSPs which did not reply in August 2024 to confirm their acknowledgement of the voucher value adjustment.

(b) Apart from contacting each RSPs to confirm their acknowledgement of the voucher value adjustment, RCSVO also requested all RSPs to submit the updated pricelist of the new financial year so as to upload onto EIW.

(c) According to the Service Agreement, the voucher value may be revised from time to time by SWD. By the 1st of April in each year, SWD may unify the adjustment of voucher value making reference to the monthly cost of bought placement of EA1 under 'Enhanced Bought Place Scheme' (the cost of bought placement will draw reference to the adjustment of Composite Consumer Price Index). Apart from notifying the VHs by letter, SWD also sends written notification to each RSP. In general, RSPs will adjust the fee of subsidised residential service by following the voucher value adjustment. RSPs are also allowed to adopt flexible measures including maintaining the fee lower than the new voucher value or setting a later date for the fee adjustment. RSPs should state at the reply slip of the notification letter for adopting the flexible measures. The RCSVO will contact those RSPs which have not submitted the reply slip of adjusting the fee arrangement to confirm their

acknowledgement of the relevant voucher value adjustment and will reimburse with the voucher services subsidy based on the adjusted voucher value and effective date by the SWD.

- (11) **According to paragraph 2.36(b) of the Audit Report, please inform is there any VHs choose not to receive add-on services by the contract homes but still have to pay for the relevant services. If yes, please provide the relevant number of cases and the involved amount.**

If the VHs choose to admit to the contract homes which provide add-on services, the relevant contract homes have to introduce the content of the add-on services to the VHs and VHs or their family members who shall sign the agreement on the add-on services. According to SWD record, no VHs disagree to receive the add-on services from the contract homes.

- (12) **According to paragraph 2.39 and 2.40 of the audit report regarding the add-on services fee of contract home, SWD please inform:**

- (a) Is there any plan to strengthen the examination and monitoring of price levels of add-on services among contract homes, to reduce the difference in price among different RSPs; if yes, please elaborate; if not, please state the reason; and**
(b) Is there any plan to impose punishment to those RSPs wrongly charged the add-on services fees; if yes, please elaborate; if not, how does SWD ensure that the RSPs do not overcharging?

(a) Add-on services only applicable to the contract home with approved monthly fee lower than the voucher value, and charging of such services will not exceed the voucher value, so it will not impose extra expenditure from the Government. As add-on service is under the service of RCSV Scheme, RSPs are required to submit related items and their prices to SWD for scrutiny. SWD has already formulated standardised workflow, including comparing the price on similar items of other RSPs to consider whether the price is reasonable and comply with the service scope of RCSV Scheme when examining the pricelist submitted by RSP. RCSVO will discuss with the corresponding RSP and request for rectification of the price when necessary.

(b) SWD already had implemented measures to ensure that RSPs charged the VHs or add-on services in accordance with the add-on service forms. RCSVO would check the provision records of add-on services during service

monitoring visits of RSPs; would advise the concerned RSP to discuss with the affected RCSV user/relative about the compensation proposal if under-provision of add-on services was identified (such as providing compensated service). If the voucher user/relative agreed to the compensation proposal, the RSP shall arrange the compensated services to the voucher user according to the agreed schedule and provide relevant records to RCSVO for checking. If no compensation plan could ultimately be agreed or the provision of compensatory additional services was not feasible due to some reasons (e.g. discharge or death of the voucher user concerned), the RSP shall refund to the Government and/or the voucher user/relative as appropriate. RCSVO had adopted the suggestions from Audit Report to specify in its guidelines the mechanism on scrutiny of add-on service fees and arrangement for handling incorrect fee charged cases as well as enhance scrutiny of RSPs' add-on service fees.

Part 3 : Monitoring of Recognised Service Providers

- (13) **According to paragraph 3.15 to 3.19 of the audit report, SWD please inform:**
- (a) Have monitoring action and punishment been taken to those RSPs had over-charged the consumable items; if yes, please elaborate; if not, please state the reason;**
 - (b) Have monitoring action and punishment been taken to those RSPs charged consumable items from VHs not in price list; if yes, please elaborate; if not, please state the reason; and**
 - (c) Have monitoring action and punishment been taken to those RSPs not providing required quantity of consumables; if yes, please elaborate; if not, please state the reason.**

(a) SWD had taken immediate effect of contacting those RSPs having over-charged the consumable items to refund the over-payment to the VHs or their family members within the deadline set. It was confirmed that those RSPs had completed the refund before the deadline.

To further enhance the monitoring on RSPs' fee-charging, apart from the unannounced monitoring visits and random selection of the VHs for inspection of the fee-charging record and related documents in the RSPs, SWD will also randomly contact the family members of VHs. If irregularities in the fee-charging is found, SWD will request the corresponding RSP to refund the payment to the VHs as appropriate. RCSVO, under the mechanism in place, will issue

advisory notice or sanctions (include suspension of admission of new VH for six months). On the other hand, SWD will through different means such as the annual sharing session and correspondences, etc., to strengthen RSPs' knowledge of the fee-charging related clauses as well as the good practice for improving their service quality.

(b) Regarding the findings from the Audit Report of those RSPs charged consumable items from VHs not in pricelist, upon SWD's investigation and clarification with Audit Commission, the special nutritional drinks of a specified brand which were not included in the pricelist, were in fact prescribed by a medical officer attending the VH. For the case that the monthly fee of diapers exceeding 8 pieces per day, it was consumable item provided by the RSP to the VH requiring high daily consumption in view of the family's difficulty and upon request. Though these types of special or individualised items could not be exhausted in the pricelist, SWD had reminded those RSPs to record clearly the provision reasons, the specific item and fee-charging arrangement.

SWD has stipulated clearly in all the related documents of RCSV about the principles and requirements of all fee-charging items, and required all RSPs to follow strictly the Code of Practice for Residential Care Homes (Elderly Persons) in handling fee-charging matters.

(c) To ensure those eligible VHs for receiving care supplement can obtain the required quantity of diapers, SWD urged RSPs to document the daily usage of diapers for the VH. For individual VHs not required to use the quantity of at least six pieces of diapers with special concerns, RSPs have to record the reasons (such as the case described in Paragraph 3.18 of the Audit Report that the resident was undergoing toileting training so the usage of diapers was decreased). SWD had revised the relevant guidelines on service monitoring visit to ensure the coverage of all service requirement (such as the provision of required quantity of diapers). SWD will also implement proper follow-up action or sanctions if the RSPs failed to provide the relevant documents during the service monitoring visit.

- (14) **According to paragraph 3.22 of the audit report, SWD please inform whether it has taken monitoring action and imposed punishment on the RSPs that they have failed to formulate contingency plans for manpower shortage in accordance with the service agreement; if yes, please elaborate; if not, please state the reason?**

According to the Service Agreement, RSPs shall develop contingency plans to ensure the uninterrupted provision of voucher services during emergency situations (including shortage of manpower, outbreak of an epidemic and fire, etc.) or when there are difficulties for RSPs in providing any of the voucher services. RCSVO will issue advisory notice if RSPs fail to derive contingency plan leading to interruption to provide services to VHs according to the Service Agreement. If the situation continued, RCSVO will impose sanction on the RSPs.

(15) **According to paragraph 3.29 of the audit report regarding the warning letter issued by SWD to the RSPs that is found to have breached the service agreement, SWD please inform:**

- (a) The number of warning letters issued each year and the non-compliance items of the concerned RSPs;**
- (b) From above, the number of RSPs involved in related warning letters;**
- (c) The number of RSPs that have to suspend from admission of VHs due to receiving more than 2 warning letters each year; and**
- (d) From above, the shortest and longest time for the relevant RSPs suspending from admission of VHs.**

(a) to (d) The status of RSP would be temporarily suspended for at least six months if it receives more than two warning letters, or one warning letter with more than two warning items within 12-month period. The RSP's status would be temporarily suspended for at least three years if the operator has been convicted of any offence under the "Residential Care Homes (Elderly Persons) Ordinance" (Cap.459) or any other criminal offence directly related to the operation of that RSP. Upon the expiry of suspension, the status of RSP can only be resumed when it meets the qualification requirement of track record again (i.e. not receiving more than two warning letters or more than two warning items of default in a warning letter within 12-month period and such warning items of default must not be issued within the 6-month period immediately preceding the date of resuming the RSP status, and not being convicted of any offence under the Residential Care Homes (Elderly Persons) Ordinance (Cap.459) or any other criminal offence directly related to the operation of that RSP within three years).

Number of RSPs that were suspended from admission of VHs due to receiving more than two warning letters or more than two warning items issued from the SWD, or being convicted of criminal offence stated above are as follows:

Year	Number of RSPs
2019 - 2020	1
2020 - 2021	0
2021 - 2022	1
2022 - 2023	1
2023 - 2024	5

The time for the RSPs suspending from admission of VHs as provided at above table varied from 6 months to 3 years.

- (16) **According to paragraph 3.33(a) of the audit report, SWD is requested to inform why the non-compliances with service agreement were not identified by RCSV Office officers during a service monitoring visit cum on-site supervisory check, and if any punishment be imposed on the related officers for their negligence; if yes, please elaborate; if not, please state the reason?**

When conducting service monitoring visit, staff of RCSVO of SWD will randomly select a specific number of residents' payment records for checking in accordance with the guideline of SWD. The situation mentioned in paragraph 3.33(a) of the audit report was about an RSP not following the updated pricelist for charging the self-pay items. Prior to the monitoring visit, staff of RCSVO had received the notification from the RSP about the fee adjustment and the updated pricelist, and was in the process of discussion with the RSP on the changes. On the day of service monitoring visit, staff of RCSVO had pointed out the problem immediately and given verbal advice to the RSP when it was found that the fees charged by the RSP from VHs were confusing and the pricelist used were inconsistent and some items were still charged according to the old pricelist.

Regarding to the situation mentioned in the audit report, staff of RCSVO had contacted the RSP and requested them to refund to the VHs or their family members the overcharged fee incurred by the confusion, and the RSP had completed the refund within the deadline set by RCSVO. For the items that RSP charged VHs appeared not found in the pricelist, they were in fact included in the effected and updated version. RCSVO had contacted the family members involved and confirmed that they were aware of the updated pricelist and verified that they had used the concerned items. Staff of RCSVO had reminded the RSP again that they should comply with the Service Agreement on the fee charging arrangement and ensure the records were clear and accurate.

Part 4: Other related matters

(17) According to paragraph 4.4(a) of the audit report regarding the matters of RSPs submitting the reimbursement form, SWD please inform:

(a) Since the launch of Voucher Information System for the Elderly (the system) in July 2023, the number of times the system has automatically sent email reminders to RSPs regarding the submission of the above form;

(b) From above, the number of RSP involved;

(c) The number of times the responsible Assistant Social Work Officers (ASWOs) of RCSV Office have directly followed up with the RSPs on the submission of forms; and

(d) From above, the number of RSPs required directly followed up by ASWOs

(a) Since the launch of the System in July 2023, the System automatically sends email to remind RSPs to submit the above reimbursement form by the first day of the month. If the RSPs fail to comply with the requirement to submit the above form on or before the 10th day of the month, the System will send a reminder to RSPs again by the 11th day of the month. Till present, the System had automatically sent a total of 4 119 email to remind the RSPs regarding the submission of the reimbursement form, including the first reminder email for 3 340 times and the second reminder email for 779 times.

(b) Number of RSPs involved are distributed as follows:

Month/Year	Number of RSPs involved	Number of the first reminder email sent to RSPs	Number of the second reminder email sent to RSPs
August 2023	143	121	77
September 2023	190	197	65
October 2023	192	194	61
November 2023	197	197	43
December 2023	196	199	40
January 2024	194	198	33
February 2024	198	202	37
March 2024	197	200	40
April 2024	196	199	51
May 2024	196	199	36

June 2024	197	200	51
July 2024	197	199	41
August 2024	200	203	33
September 2024	202	204	46
October 2024	203	206	36
November 2024	206	209	47
December 2024	210	213	42

(c) & (d) SWD has not kept relevant records for item (c). At present, each RSP is assigned with one ASWO of RCSVO to be responsible for liaison and coordination, including following up RSP's submission of reimbursement application in the System, checking the accuracy of the VHs and the reimbursement amount, and contacting the responsible staff of RSP when necessary, etc. until the RSP received the reimbursement.

(18) According to paragraph 4.4(b) of the audit report, SWD has provided training to RSPs on the use of the system. In this regard, please inform:

(a) Since the launch of the system in July 2023, the numbers and mode of training provided by SWD;

(b) Number of RSPs participating in the training;

(c) Number of staff of RSPs receiving the training; and

(d) Total hours of the training provided.

(a) & (b) Since the launch of the System in July 2023, SWD has provided 4 times with a total of 13 training sessions, and opened the System for 13 days for trial use by the RSPs. Details are as follows:

	Date	Target	Mode	Number of RSPs participated
1.	29.5.2023 30.5.2023 31.5.2023 1.6.2023 (am and pm, a total of 8 sessions, 3 hours of each session)	Staff of all RSPs	Physical class, staff demonstrated the use of the system and staff of RSPs tried to use the system on the spot	198
2.	16.6.2023 to	Staff of all	The system	Not

	28.6.2023	RSPs	(stimulation system) is opened to staff of RSPs to create user account and try different functions	applicable
3.	11.7.2023 (am and pm) 12.7.2023 (am) (a total of 3 sessions, 3 hours of each session)	Staff of RSPs who had not yet attended the 1 st round training session or who would like to attend training again	Physical class, staff demonstrated the use of the system and staff of RSPs tried to use the system on the spot	58
4.	7.5.2024 (am) 8.5.2024 (am) (a total of 2 sessions, 2 hours of each session)	Staff of all RSPs those providing nursing home place services	Physical class, staff demonstrated the use of the system and staff of RSPs tried to use the system on the spot	29

(c) The total number of staff of RSPs received training is 330.

(d) The total training hours provided is 37 hours.

(19) **According to paragraph 4.9 of the audit report regarding the matters of updating the vacant beds information of RSP, please inform:**

(a) Since the system was launched in July 2023, the number of times that SWD has sent email to remind RSPs to update bed vacancy information in the system;

(b) From above, the number of RSPs that were being reminded;

(c) The number of times that the responsible ASWOs of the RCSV Office has directly followed up with the RSPs on bed vacancy; and

(d) From above, the number of RSPs required direct follow-up by ASWOs.

(a) Since July 2023, the System sent email to RSPs by the 25th of the month to remind them to update bed vacancy information. If the RSPs fail to comply with the requirement to update bed vacancy information in the system on the last day of the month, the System will remind the RSPs through email on the first day of the next month. In order to allow the RSPs to update bed vacancy information as early as possible, RCSVO had advanced the second reminder to the 28th by the

month starting from November 2023. SWD has sent a total of 8 267 emails to remind RSPs to update bed vacancy information, including the first reminder email for 5 326 times and the second reminder email for 2 941 times.

(b) Number of RSPs that have been reminded are as follows:

Month/Year	Number of RSPs involved	Number of the first reminder email sent to RSPs	Number of the second reminder email sent to RSPs
August 2023	184	296	66
September 2023	196	282	78
October 2023	198	293	7
November 2023	200	296	262
December 2023	197	297	194
January 2024	199	303	251
February 2024	198	307	238
March 2024	196	309	219
April 2024	196	308	193
May 2024	197	312	186
June 2024	199	321	164
July 2024	200	323	169
August 2024	201	326	177
September 2024	203	330	162
October 2024	204	331	184
November 2024	210	338	188
December 2024	213	354	203

(c) & (d) During the period from 1.7.2023 to 30.11.2024, the ASWO of RCSVO concerned has contacted 83 RSPs regarding their bed vacancy situation.

Social Welfare Department
10 January 2025



THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學

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6 January 2025

Ms Shirley Chan
Clerk
Public Accounts Committee
Legislative Council Complex
1 Legislative Council Road
Central
Hong Kong

Dear Ms Chan

Public Accounts Committee
Response to the study of the Director of Audit's Report No. 83 Chapter 6 –
The Hong Kong Polytechnic University:
Repair and maintenance of university premises

I refer to your letter dated 17 December 2024 regarding the above subject matter.

Enclosed are the requested information and our response prepared for the review and consideration of the Public Accounts Committee.

Should you have any enquiries, please contact Mr Stephen Wong, Director of Campus Facilities and Sustainability (tel: 2766 7328 and email: stephen-ky.wong@polyu.edu.hk).

Sincerely

Jin-Guang Teng
President

Encl.

c.c. Secretary for Financial Services and the Treasury (sfst@fstb.gov.hk)
Director of Audit (ncylam@aud.gov.hk)

Chapter 6 of the Director of Audit's Report No. 83
“The Hong Kong Polytechnic University:
Repair and Maintenance of University Premises”
Questions and Request for Information

Part 2: Planned Maintenance

- 1) Based on paragraph 2.7 of the Director of Audit's Report No. 83 (“Audit Report”), all 10 escalators on campus experienced incidents during the periods of 2022-2023 and 2023-2024, with an average of 13 incidents per escalator and 65 hours of downtime. In this regard, The Hong Kong Polytechnic University (“PolyU”) is requested to inform:
- (a) Has there been any requirement set for the contractor regarding the monthly service availability rate of the escalators? If so, what are the details? If not, what are the reasons?
 - (b) Have any measures been taken to reduce the incident rate of the escalators and shorten the downtime? If so, what are the details? If not, what are the reasons?

Response to 1(a):

Under the maintenance contracts, contractors are required to ensure that the monthly service availability of all escalators is maintained at no less than 98.5%.

Response to 1(b):

PolyU has implemented several measures to reduce downtime, including conducting in-depth reviews of escalator incidents with the management of contractors, enhancing the procedures for rectifying equipment failure to prevent similar issues from recurring. Additionally, the University will continue to engage independent auditors to conduct annual assessments of the quality of escalator maintenance work.

- 2) Based on paragraph 2.8 of the Audit Report, the Audit Commission reviewed the service availability of lifts for the periods of 2022-2023 and 2023-2024 and found that one contractor failed to meet the service availability requirement for one month, with the lifts they maintained having a monthly service availability rate of 88.4%. However, PolyU did not issue a warning letter to the contractor. In this regard, PolyU is requested to provide:
- (a) The reasons why PolyU did not issue a warning letter; and
 - (b) PolyU's response indicating that enhanced measures have been taken to monitor the service performance of lift contractors. What are the details of these measures?

Response to 2(a):

The issue arose from an oversight by a staff member who had not attended to the detailed report on the performance of that specific lift and thus had not issued a warning letter to the contractor.

Response to 2(b):

To mitigate the potential oversight of staff members when monitoring the service performance of lift contractors, PolyU has implemented additional measures, namely 1) in the evaluation of lift performance reports, incidents and downtime are highlighted for analysis, and the performance of individual lifts is closely monitored to prevent potential issues; and 2) in addition to monthly performance monitoring of lifts by the Section Head, the Campus Facilities and Sustainability Office (CFSO) management will review the relevant reports to ensure the service availability requirements are met.

3) Regarding paragraph 2.14 of the Audit Report concerning PolyU issuing work orders to contractors for repair and maintenance work, among the 903 completed normal work orders, 488 (54%) violated the requirements of PolyU's Operation Manual by commencing work before the normal work order was approved. Among these, 72 (15%) work orders were completed by the time they received approval from the Section Heads. In this regard, PolyU is requested to inform:

- (a) The reasons why the aforementioned work commenced before the normal work order was approved;
- (b) How long does it typically take for work orders to receive approval from the Section Heads;
- (c) Whether there have been instances where work that had commenced was subsequently not approved; if so, what are the details; and
- (d) What specific measures are in place to improve the above situation?

Response to 3(a):

Due to the urgent nature of certain works and the time required for formal documentation, the Project Managers adopted a flexible approach by seeking endorsements through verbal agreements or mobile text messages. This allowed them to proceed with work orders to address service needs while following up on the written documentation.

Response to 3(b):

It typically took about 15 days to obtain formal written approval from Section Heads.

Response to 3(c):

No such case has occurred.

Response to 3(d):

PolyU has updated the Operation Manual to allow written endorsements through mobile text messages or emails for issuing all work orders. All Project Managers have been instructed to strictly adhere to the established procedures for issuing both normal and urgent work orders.

- 4) According to paragraph 2.18 of the Audit Report, PolyU sometimes took a long time to issue certificates of completion. Among the 1,042 work orders, the time taken for issuing certificates of completion ranged from 0 to 652 days (averaging 70 days) from the date of works completion. Please provide the reasons for the delay in issuing certificates of completion and the details of the measures taken to improve this situation.

Response to 4:

Delays in issuing certificates of completion were mainly due to late submissions of required documents by contractors and delays in document processing by the Project Managers.

PolyU has implemented enhanced measures, namely 1) the Project Managers should prepare and regularly update a list of issued work orders, establish key milestones with the contractors, and review the progress of the work monthly; and 2) the Project Managers are required to urge contractors to submit the necessary documents on time and to issue a certificate of completion within 30 working days after confirming the completion of the work.

Part 3: On-request Maintenance and Other Repair and Maintenance Work

- 5) According to paragraph 3.5 of the Audit Report, during the period from 2021-2022 to 2023-2024, 80,997 job orders for on-request corrective maintenance were created and completed. The Project Managers only conducted spot checks for 720 (0.9%) orders, and the percentage of job orders with spot checks conducted decreased from 1.9% in 2021-2022 to 0.7% in 2023-2024. The types of jobs covered in the spot checks also decreased from 9 in 2021-2022 to 1 in 2022-2023. During the period from 2021-2022 to 2023-2024, the results of all spot checks conducted were not documented. In this regard, PolyU is requested to inform:
- (a) The reasons for the decrease in the percentage of random spot checks on job orders for on-request corrective maintenance and the types of job covered in spot checks; and
 - (b) The reasons why the results were not documented, and whether improvement measures will be taken; if so, what are the details; if not, what are the reasons?

Response to 5(a):

The Project Managers exercised their professional assessment to decide if random spot checks upon job completion were necessary, and the percentage of spot checks each year may vary depending on the complexity of the types of jobs at the time.

Response to 5(b):

For jobs that had undergone spot checks, the Project Managers retained the relevant records of the completed inspections. Currently, CFSO is enhancing the maintenance management system to allow the Project Managers to upload details of the spot check records.

- 6) According to paragraph 3.34 of the Audit Report, the consultant received 2,342 requests for preparation of cost estimates. For 50% of these requests, there were delays in the preparation of the estimates. The percentage of requests with delays in the preparation of cost estimates was the highest for urgent requests. Of the 471 urgent requests, there were delays in the preparation of cost estimates for 309 (66%) requests, with an average delay of 16 working days. In this regard, PolyU is requested to inform:
- (a) The reasons for the delays in preparation of cost estimates; and
 - (b) Whether action has been taken to urge the consultant to complete the cost estimation work on time; if so, what are the details; if not, what are the reasons?

Response to 6(a):

The quantity surveying (QS) industry experienced a shortage of professional staff and high staff turnover in the audit period from May 2021 to May 2024, resulting in delays in cost estimate preparation by the QS Consultant.

Response to 6(b):

PolyU issued repeated reminders to the QS Consultant, instructing them to provide cost estimates promptly, and urging their senior management to expedite the estimation process. Due to their continued unsatisfactory performance, a warning letter was issued in August 2023.

- 7) According to paragraphs 3.38, 3.43, 3.44, and 3.49 of the Audit Report, among the 1,954 completed payment applications, 99% were processed with delays, with an average delay of 117 working days. Consultants A and B still had a large number of unprocessed payment applications after the contract expiration. According to the contracts signed between PolyU and the consultants, the consultants are required to submit monthly progress reports to PolyU, which must include a list of tasks not executed on time and suggestions on how to expedite progress. However, after reviewing 36 months of progress report records, the Audit Commission found that there were no records of progress reports being submitted by the consultants for 27 months. In this regard, PolyU is requested to inform:
- (a) Whether an investigation has been conducted into the reasons for the failure to complete payment applications on time; if so, what are the details; if not, what are the reasons?
 - (b) Given that Consultants A and B still had a large number of unprocessed payment applications after the contract expiration, PolyU needed to allocate additional personnel to handle the outstanding payment applications. Has PolyU taken any follow-up or accountability actions against Consultants A and B; if so, what are the details; if not, what are the reasons?

Response to 7(a):

The delays in processing payment applications were due to late document submissions by the Term Contractors and backlogs from the QS Consultants.

Response to 7(b):

PolyU has issued warnings to the QS Consultants and instructed them to finalise the processing of outstanding payment applications within an agreed timeframe. The University is closely monitoring the progress by conducting and documenting weekly review meetings with the Consultants. If the Consultants cannot meet the requirements, the related service fees will not be paid, or a portion of the payment will be withheld as appropriate.

Part 4: Procurement of Services

- 8) According to paragraphs 4.5 to 4.7 and 4.18 of the Audit Report, during the 2019-2020 to 2023-2024 period, out of 60 open tendering exercises for repair and maintenance service contracts, only one tender was received in each of 8 (13%) exercises, and two tenders were received in each of 17 (28%) exercises. The President of PolyU responded by stating that PolyU has been striving to reach out to more potential suppliers through open tendering procedures, posting tender notices on its publicly accessible website, and utilising its e-Tendering system. However, for certain specialised services where market supply is limited, PolyU anticipates lower tender responses. In this regard, PolyU is requested to inform:
- (a) When were the above measures implemented, and what has been their effectiveness?
 - (b) What are the “specialised services where market supply is limited”?
 - (c) Will other methods be considered to contact and invite more potential suppliers to participate in the tendering exercises in order to enhance competition; if so, what are the details; if not, what are the reasons?

Response to 8(a):

PolyU has been adopting an open tender process since 2017, with tender notices posted on its publicly accessible website. Since 2020, an e-tendering system has been gradually adopted for all maintenance service contracts. This approach has increased the transparency of the purchasing and tendering process and allowed PolyU to reach out to more potential suppliers. Since the adoption of the e-tendering system for carrying out open tenders, the number of registered suppliers has increased by over 70%.

Response to 8(b):

“Specialised services where market supply is limited” refers to services that require specialised skills, knowledge, or equipment. These services typically need to be provided by suppliers with specific qualifications and experience, resulting in a relatively small number of suppliers available in the market. Such suppliers include those who can ensure compatibility and warranty continuity, those providing spare parts for the same equipment, system, or software (e.g., maintenance services for gondolas), and those offering maintenance services for specialised equipment (e.g., wastewater treatment facilities).

Response to 8(c):

PolyU aims to encourage more suppliers to participate in tenders through fair and open procedures. In addition to open tenders, the University will continue to explore further ways to connect with and invite more potential suppliers to submit tenders. These efforts include 1) enriching its supplier database through industry communication and market research, and 2) reminding suppliers to check tender notices regularly.

- 9) According to paragraph 4.8 of the Audit Report, in 85% of the tendering exercises, notifications to the unsuccessful tenderers were not issued in a timely manner. Please provide the reasons for this.

Response to 9:

As stated in the tender document, if a tenderer does not receive a notification from the University within the tender validity period, it should be considered that their tender has not been accepted. Therefore, unsuccessful tenderers do not need to wait for individual notifications from the University to learn the outcome of their submissions.

The University is working on enhancing the e-tendering system to enable timely notifications to unsuccessful tenderers in the future.

- 10) According to paragraph 4.21 of the Audit Report, PolyU issues invitations to contractors on relevant lists of contractors approved by the Government to express interest for inclusion in the tenderer lists for repair and maintenance term contracts. The Audit Commission found that during the 4 tendering exercises for repair and maintenance service term contracts conducted from 2019-2020 to 2023-2024, 65% to 84% (averaging 76%) of the invited contractors did not respond or expressed no interest for inclusion in the tenderer list. PolyU had not followed up with the invited contractors with no response or expressing no interest to ascertain why they were not interested in inclusion in the tenderer lists. In this regard, PolyU is requested to inform:

- (a) What are the contract service areas with fewer suppliers participating in the tendering exercises?
- (b) Will PolyU investigate the reasons why invited contractors were not interested in inclusion in the tenderer lists? If so, what are the details; if not, what are the reasons?

Response to 10(a):

The scope of works of the two term contracts concerning the repairs and maintenance of the University premises includes Building Service Works and Builder's Works.

Response to 10(b):

PolyU will approach those contractors who did not respond or expressed no interest in joining the tenderer lists through email or telephone to inquire about their reasons.

Part 5: Campus Restoration and Security Enhancement Work and Other Issues

11) According to paragraph 5.12 of the Audit Report, as of September 2024, access to the campus is restricted to students, staff and authorised persons. Campus users shall authenticate their identities using their access cards or access codes at the turnstiles at major campus access points. In this regard, PolyU is requested to inform:

- (a) How does the current expenditure on campus security measures compare to the situation before the 2019 black clad incident?
- (b) Does the campus currently allow the general public to visit without an appointment? If so, what are the detailed procedures; if not, what are the reasons?

Response to 11(a):

After the black-clad incident, the University enhanced its security measures by increasing the number of security personnel. Prior to the incident, there were 104 security-related staff. There is an increase of 24 personnel to 128 security-related staff. The incremental annual salary expenses are around HK\$5 million.

Response to 11(b):

Staff and students can arrange a QR code for their visitors through the online Visitor Registration System, or register their visitors manually at the Registration Counter for access to the campus.

PolyU currently accommodates approximately 40,000 faculty members and students. Located in the downtown area, the University faces challenges related to limited space and overcrowding. To ensure that teaching and learning, campus life, school operations, and related activities remain unaffected, PolyU must effectively control and manage the flow of people.

12) According to paragraphs 5.30, 5.35, and 5.36 of the Audit Report, the Audit Commission reviewed the training records of CFSO staff involved in repair and maintenance work during the 2019-2020 to 2023-2024 period. It was noted that the percentage of staff not meeting the annual training requirements ranged from 43% (in 2020-2021) to 96% (in 2019-2020). During the same period (from 2019-20 to 2023-24), there were records of 14 accidents related to repair and maintenance of university premises occurred to 3 campus users, 7 contractors and 4 CFSO staff respectively. In this regard, PolyU is requested to inform:

- (a) What measures are in place to ensure the occupational safety and health of staff and contractors?
- (b) How does PolyU assess the relationship between the high proportion of staff not meeting annual training requirements and the occurrence of accidents related to repair and maintenance work?
- (c) Given that PolyU responded by stating that all injuries in the cases were minor, has there been any follow-up on the causes of each related case to prevent similar or more serious accidents? If so, what are the details; if not, what are the reasons?

Response to 12(a):

PolyU has adopted health and safety measures to protect staff and contractors. All CFSO staff are required to attend essential safety training courses every year. In addition, sharing sessions are organised to raise awareness among staff, highlight the potential consequences of accidents and share lessons learnt from incidents. In parallel, CFSO requires the contractors to appoint a Registered Safety Officer and/or Safety Supervisor in accordance with statutory requirements and mandate the submission of a safety plan.

Response to 12(b):

Due to the unique circumstances brought about by the COVID-19 epidemic, it is difficult to assess the correlation between meeting annual training requirements and the occurrence of accidents during this period. The University will continue to implement measures to ensure that CFSO staff involved in repair and maintenance work receive adequate health and safety training and achieve the annual training requirements.

Response to 12(c):

CFSO has communicated with the involved campus users, contractors and CFSO staff to review the causes of each related case. The Health and Safety Office, along with the health and safety officer from CFSO, have also jointly followed up on the related incidents to prevent similar cases from occurring again.

Public Accounts Committee of the Legislative Council
Public Hearings on the Director of Audit's Report No. 83
Tuen Mun - Chek Lap Kok Link (Chapter 7)

Opening Remarks by the Secretary for Transport and Logistics

Chairman and Members:

First of all, I would like to thank the Audit Commission for conducting a comprehensive audit and providing valuable advice on two aspects, namely the implementation and management of the Tuen Mun - Chek Lap Kok Link project by the Highways Department and the traffic management on the relevant road sections by the Transport Department. I would also like to thank the Public Accounts Committee of the Legislative Council for inviting this bureau (Transport and Logistics Bureau) and the two departments (Highways Department and the Transport Department) to attend today's hearing to provide the Committee with further evidence and information.

2. The Transport and Logistics Bureau has always attached importance to the timely delivery of transport infrastructure projects and good traffic management with a view to enhancing road connectivity as well as providing a safe, reliable and efficient traffic and transport system. We accept all the recommendations in the Audit Report and will work with the relevant departments to take timely follow-up actions and make improvements as soon as possible.

3. The Tuen Mun - Chek Lap Kok Link, which provides a dual south-north link for the Hong Kong-Zhuhai-Macao Bridge ("HZMB"), comprises a five-kilometre long Tuen Mun - Chek Lap Kok Tunnel ("TM-CLKT"). The project is large in scale and complex, with a total of eight inter-related works contracts. The accounts of the last two contracts are now at the finalisation stage. We are confident that the actual total expenditure can be maintained at about \$42.2 billion, i.e. about 90% of the total approved project estimate of \$46.708 billion for the project, and that there will not be any cost overrun for the whole project.

4. As regards the progress of works, as stated in the Audit Report, there were delays in individual works contracts due to the reclamation works for the artificial island of the HZMB Hong Kong Port. However, the target of commissioning the Southern Connection in tandem with the HZMB was finally achieved.

5. The Audit Commission has made a number of comments on the management of works contracts and the management, operation and maintenance of the TM-CLKT. Please allow me to give a brief response here.

6. Firstly, in the area of works contract management, the Highways Department will actively follow up the Audit Commission's recommendations on optimising contract management and maintenance arrangements for tunnel equipment. Based on the guidelines issued by the Development Bureau and relevant government departments, as well as the experience gained in implementing works projects, the Highways Department will continue to optimise the procedures for project management in tandem with the application of innovative technologies, with a view to enhancing the cost-effectiveness and efficiency in project delivery. At the same time, the Highways Department will make continued efforts to enhance site safety and strengthen monitoring to safeguard safety of all operations and personnel.

7. In particular, the Audit Report recommended that the Highways Department should take measures to improve the management of interfacing works when implementing works projects involving interfacing works contracts with a view to mitigating the risks arising from interfacing issues as much as possible. I strongly agree. The Highways Department will take on board the Audit Commission's recommendations in implementing future projects and proactively adopt relevant measures to enhance the management of interfacing works.

8. Regarding the management, operation and maintenance of the TM-CLKT, the Transport Department will continuously review and assess the operator's staffing level, and request the operator to adjust its human resources plan in a timely manner to ensure that the staffing at all levels meets the requirements stated in the management, operation and maintenance agreement. At the same time, the Transport Department, in collaboration with the Electrical and Mechanical Services Department, will continuously review and adjust, where necessary, the overall performance assessment criteria and the procedures of compiling quarterly reports of the operator, as well as improve the operation of heavy recovery vehicles in tunnel as mentioned in the report. In addition, the Transport Department will continue to explore the application of new technologies to assist the operator in identifying out-of-gauge vehicles with a view to enhancing safety and efficiency.

9. Regarding the traffic management of the Tuen Mun - Chek Lap Kok Link and the related road sections in Tuen Mun, the Transport Department is actively and continuously reviewing the traffic conditions in the area, and will implement appropriate and effective traffic management measures in a timely manner.

10. I am very grateful to the Director of Audit and his colleagues for conducting an independent and professional value-for-money audit review and making a series of recommendations. The Transport and Logistics Bureau will continue to provide appropriate guidance and supervision to departments at the policy level, and closely monitor the progress and status of the implementation of various improvement measures to ensure that the relevant recommendations are effectively and fully implemented, with a view to further enhancing the traffic management of the Tuen Mun - Chek Lap Kok Link and the quality of contract management in the delivery and management of other future projects.

11. We would be very pleased to respond to Members' questions. Thank you, Chairman.

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The Government of the Hong Kong Special Administrative Region
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8 January 2025

Ms Shirley CHAN
Clerk to Public Accounts Committee
Legislative Council Complex
1 Legislative Council Road
Central, Hong Kong

Dear Ms CHAN,

Public Accounts Committee

Consideration of Chapter 7 of the Director of Audit's Report No. 83

Tuen Mun – Chek Lap Kok Link

Your letter of 24 December 2024 requesting for information on the relevant issues raised at the public hearing has been received. The relevant information is set out at Annex for the members' reference.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Alan Yip".

(Alan YIP)

for Secretary for Transport and Logistics

Encl.

c.c.

Secretary for Development (Email: sdev@devb.gov.hk)

Secretary for Financial Services and the Treasury (Email: sfst@fstb.gov.hk)

Director of Highways (Email: tonyyau@hyd.gov.hk)

Commissioner for Transport (Email: comr@td.gov.hk)

Director of Audit (Email: ncylam@aud.gov.hk)

**Public Accounts Committee
Consideration of Chapter 7 of the Director of Audit's Report No. 83
Tuen Mun – Chek Lap Kok Link**

Part 1: Introduction

(a) According to paragraph 1.6 of the Audit's Report, the Highways Department ("HyD") awarded a consultancy agreement to Consultant X in November 2011 for the design and construction supervision work of the Tuen Mun – Chek Lap Kok Link ("TM-CLKL") project, which involved 8 works contracts (i.e. Contracts A to H). As of August 2024, the consultancy fee paid to Consultant X was \$253.6 million, representing 88.5% of the total approved consultancy fee of \$286.4 million approved by the Finance Committee of the Legislative Council (Legislative Council Paper Nos. PWSC(2011-12)32 and PWSC(2013-14)3 refer). In this connection, would HyD please explain/advise:

- (i) how the consultancy fee was estimated at that time, and the latest consultancy fee paid;***
- (ii) why the actual consultancy fee paid at present is less than the original estimate;***
- (iii) the respective responsibilities of HyD and Consultant X in the tendering exercise for the TM-CLKL project; and***
- (iv) HyD's considerations and approval procedures when Consultant X issued variation orders in respect of the proposed variations in the TM-CLKL project;***

(i)&(ii) The consultancy fee for the TM-CLKL project was estimated mainly on the basis of the scale and complexity of the project, as well as the estimated number of man-months of professional and technical staff required for completing the relevant design and contract administration works. The consultancy fees relating to the design and contract administration of the TM-CLKL project under the funding approved by the Finance Committee of the Legislative Council in 2011 and 2013 were \$61.5 million (in September 2011 prices) and \$90.5 million (in September 2012 prices) respectively. The fees were about \$70.9 million and

\$122 million in money-of-the-day prices, totaling \$193 million¹. As of December 2024, the consultancy fee paid by HyD is \$253.6 million. This amount does not include the management fees and remuneration of the resident site staff, and the fees for the Environmental Project Office and independent environmental checker services. The actual consultancy fee paid for design and contract administration is higher than the original estimate, mainly due to the additional reference design and detailed design arising from the interfacing issues with the reclamation works of the Hong Kong-Zhuhai-Macau Bridge (“HZMB”) Hong Kong Port (“HKP”).

- (iii) In the tendering exercise for the TM-CLKL project, Consultant X was mainly responsible for preparing cost estimates and tender documents (including applicable contract terms, construction specifications, bills of quantities and drawings for the construction works, etc.) for each works contract based on its reference design or detailed design; whereas HyD was mainly responsible for checking the abovementioned work of Consultant X, evaluating the tender submissions, recommending the successful contractors to the Tender Board and awarding the works contracts to the relevant contractors for commencing the construction works.
- (iv) When Consultant X considered that some of the works needed to be varied to suit the actual site conditions, Consultant X had to first estimate the scope and cost of works associated with the proposed variation order. If the estimated cost of the variation order exceeded a certain limit², Consultant X had to obtain prior approval from HyD before issuing the variation order. In vetting and approving the variation orders, the HyD’s approving officers would take into account factors such as the justifications for the proposed variation orders, the impact on the progress of works

¹ The provision is price-adjusted and prorated in accordance with the Legislative Council papers at the time of the relevant funding application. Of the \$286.4 million quoted in the question, \$61.5 million is in 2011 prices and the remaining \$224.9 million is in 2012 prices, including the management fee of the resident site staff and the fees for the Environmental Project Office and independent environmental checker services. It is not directly comparable to the actual consultancy fee paid for design and contract administration.

² In accordance with the contract terms of Consultant X and the then applicable guidelines of the Development Bureau, prior to 21 August 2020, Consultant X was required to obtain prior approval from HyD before issuing variation orders exceeding \$300,000. The relevant limit was subsequently increased to \$800,000 and \$1,000,000 in August 2020 and October 2023 respectively in accordance with the Development Bureau’s guidelines.

and the cost-effectiveness of the proposed variations, etc., and would record and notify Consultant X in writing of the relevant approval results.

(b) With regard to Table 3 in paragraph 1.8 of the Audit's Report, please explain/elaborate:

- (i) what factors were considered in determining the provisions for price fluctuation adjustments and contingencies in public works contracts, and their uses; and**
 - (ii) whether the provisions for price fluctuation adjustments would be used to cover additional expenditure incurred in works projects as a result of variation orders issued by consultant or claims by contractors when the project costs and contingencies were insufficient; if so, whether the authority considered this practice appropriate; if not, what measures were in place to optimise the project cost estimate and strengthen cost control;**
- (i) In taking forward the public works projects, HyD would first carry out investigation studies and design for the projects, prepare bills of quantities for the construction works based on the design and estimate the cost of works at the then prevailing prices. At the same time, HyD would also include reasonable contingencies to cover expenses that could not be foreseen at the time of tendering (in the case of the TM-CLKL project, this would include additional expenses arising from the interfacing issues with the reclamation works of HZMB HKP and the outbreak of pandemics, contractual claims, etc.). Apart from this, HyD would project the annual costs of the works during the contract period based on the estimated implementation programme of the works contracts, and include provisions for price adjustments in the contract sum based on the Government Economist's forecasts on the trend rate of change in the prices of public sector building and construction output for the contract period. This arrangement would help eliminate uncertainties arising from fluctuations in construction price and avoid unnecessary risk premiums being reflected in the contractors' tender prices.
- (ii) The provisions of price adjustments in the works contracts for the TM-CLKL project were basically used to cover additional contractual expenditure arising from price increases in labour and materials. However, as other expenditure under the contracts

(e.g. additional expenditure arising from the interfacing issues with the reclamation works of HZMB HKP and the contractors' claims) exceeded expectation and the contingency provisions in the contracts were insufficient, HyD used the surplus in the provisions for price adjustments to cover the additional arising from unforeseen circumstances under the works contracts.

(c) According to paragraph 1.9(d) of the Audit's Report, HyD estimated that the increase in total expenditures of Contracts A to H (net of the inflation costs absorbed in variations) was about \$7,387.3 million, or about 22.6% of the total original contract sum of \$32,691.3 million. However, with such substantial increase, the project cost is still within the total approved project estimate of \$46,708 million for the TM-CLKL project. Please explain:

- (i) whether the above situation reflected inaccurate estimation of the project cost of the TM-CLKL project at that time; if so, how the Government's current practice of adopting parallel tendering in seeking funding approval for works projects can help estimate the project costs more accurately;***
 - (ii) apart from parallel tendering, whether other measures (such as the use of technology) have been adopted to achieve more accurate estimation of project costs; and***
 - (iii) how it ensures that the consultants engaged could be effective in assessing the project costs so that public money would be properly used;***
- (i) The estimate of the Government in seeking funding approval from the Finance Committee of the Legislative Council for the construction works of the TM-CLKL project in 2013 was prepared by HyD and the professional staff of Consultant X in accordance with the established mechanism, objective data and professional analyses. Besides, HyD had set up a designated committee in accordance with the guidelines to monitor and review the estimate of the TM-CLKL project. Due to unforeseen factors encountered in the course of implementing the project, the actual expenditure varied from the estimate.

The Government issued internal guidelines in September 2020 which stipulate that, unless exempted by the relevant approving authority, the Government must adopt parallel tendering arrangement for the procurement of all works contracts and

works-related consultancy services funded by the Capital Works Reserve Fund, i.e. to commence the works tender invitation or consultant selection exercises prior to or in parallel to securing funding. The works or consultancy will only commence after funding is obtained from the Legislative Council. At present, one of the main objectives of adopting parallel tendering arrangement is to reflect the returned tender prices as far as practicable in the approved project estimates so as to enhance their accuracy.

- (ii) HyD now requires public works projects to make extensive use of Building Information Modeling (“BIM”) technology from the early planning and design stages of the projects, and to make use of relevant software to assist in the preparation of bills of quantities for works contracts to enhance the accuracy of quantity surveying. In addition, HyD is exploring the use of new technologies for site investigation, such as geophysical survey technology, to better capture the geological conditions and estimate the associated project costs.
- (iii) According to the guidelines in the Project Administration Handbook for Civil Engineering Works³, the consultants are required to assign professionals from another independent team within the firm to conduct reviews on the cost-significant items in the bills of quantities prepared by the consultants. The consultants are also required to make reference to the contract price databases of the Development Bureau and HyD to enhance the accuracy of their cost estimates. Meanwhile, HyD will also conduct spot-checking on those cost-significant items as appropriate. In addition, HyD will conduct quarterly assessments on the consultants’ work, including their performance in cost estimate and preparation of tender documents, the results of which will affect the consultants’ chances of winning future tenders for the government consultancy agreements.

³ Paragraph 3.12(c) in Chapter 6 of the Project Administration Handbook for Civil Engineering Works refers.

Part 2: Administration of Contracts A and B

- (d) According to Note 12 in paragraph 2.2 of the Audit's Report, for the 27 days of delay without extensions of time granted by HyD, liquidated damages of \$95.8 million in total were imposed and deducted from the payment to Contractor A. Please explain how the above damages were calculated;***

In preparing the contract terms for Contract A, Consultant X had specified the latest completion dates for different stages and parts of the relevant works and assessed the potential loss to the Government in the event that the contractor failed to complete the relevant stage or part of the works as scheduled, including additional costs for works supervision, additional sum payable in respect of further price increase, and delay in receiving the return on invested capital, etc., in accordance with the guidelines in the Environment, Transport and Works Bureau Technical Circular (Works) ("ETWB TC(W)") No. 4/2003⁴. The amount of such loss was calculated on a daily basis and specified in the contract as liquidated damages.

According to Consultant X's assessment, after taking into account the extensions of time granted for different stages and parts of the works, Contractor A was still liable for delays in certain stages and parts of the works under Contract A and was required to pay liquidated damages of \$95.8 million in total.

- (e) According to paragraphs 2.3 and 2.4 of the Audit's Report, there were contractual disputes between HyD and Contractor A, mainly involving claims arising from delays caused by the reclamation works of HKP and the fresh watermain diversion works. Subsequently, the Government made an additional payment to Contractor A under the dispute resolution mechanism specified in the contract. Whether the aforesaid incident reflected that Consultant X had made an incorrect estimation of Contractor A's claims; and the roles and responsibilities of Consultant X under the resolution mechanism;***

The contractual disputes between HyD and Contractor A mainly involve interfacing issues with the reclamation contract for HKP and the claims related to the fresh watermain diversion works, and so on. When handling Contractor A's claims, Consultant X made an

⁴ ETWB TC(W) No. 4/2003 can be downloaded from the following website:
<https://www.devb.gov.hk/filemanager/technicalcirculars/en/upload/110/1/C-2003-04-0-1.pdf>

assessment of costs which the consultant considered reasonable based on the information submitted by the contractor at that time and other site records. If the contractor was not satisfied with the consultant's final assessment, the contractor might lodge a dispute with the Government in accordance with the contractual mechanism. In the course of dispute resolution, the contractor submitted additional information to the Government in support of its claims. HyD also engaged an independent expert to vet the information submitted by the contractor and sought legal advice on the justifications for the disputed issues, the possible arbitration or litigation risks, and the estimated legal costs, etc., and recommended to the approving authority the most advantageous option for the Government. Based on the additional information submitted by the contractor to the Government, the independent expert's opinion in vetting the information and the above considerations, the Government's additional payment to Contractor A under the dispute resolution mechanism specified in the contract did not reflect that Consultant X had not reasonably assessed Contractor A's claims.

Under the resolution mechanism, the consultant would provide the Government with factual records of the issues in dispute to assist the Government's expert and legal team in understanding the details of various issues in dispute.

- (f) According to paragraph 2.5 of the Audit's Report, the works under Contract B were substantially completed in June 2020. However, as of August 2024, the account of Contract B has not been finalised. Would HyD please explain/advise the reasons for the account not yet being finalised more than four years after the completion of the works; when the finalisation of the account is expected to be completed and the estimated final contract sum;***

The account of Contract B has not been finalised more than four years after the completion of the works mainly because the sealing-off works for the tunnel emergency access hatches carried out by Contractor B were just completed in September 2024, and Contractor B is now proceeding with the remaining handover procedures, including updating the operation and maintenance manuals for the service gallery, etc. Based on the current progress, Consultant X is expected to issue the Certificate of Completion for Maintenance Works to Contractor B and complete the contract finalisation in the first half of

2025. The final contract sum for Contract B is expected to be similar to the current latest contract expenditure (i.e. \$21.37 billion).

(g) Regarding the incident of lateral movements of seawall of HKP mentioned in paragraph 2.7(b) and Note 19 of the Audit's Report, please explain:

- (i) the cause of the incident and whether such situation was usual;***
- (ii) why the Government did not take substantive follow-up action until 2016 when it had already noticed the larger-than-expected movement of seawall in 2014; and what the responsibilities of the consultant and contractor concerned were in the incident;***
- (iii) whether there was adequate communication regarding the handover issues between the works of Contracts A and B and the HKP reclamation works beforehand; whether Consultant X had given any advice in this regard, and why Consultant X failed to make an early assessment of the possible conditions of the seawall; and***
- (iv) given that the construction periods of Contracts A and B were affected by the delay in the reclamation works of HKP and the incident of the seawall movement, what lesson the Government has learned in the management of public works contracts;***

- (i) To minimise the environmental impacts of reclamation, HyD, along with the consultant for the reclamation works of HZMB HKP⁵ (hereinafter referred to as “the Reclamation Consultant”), decided to adopt the non-dredging method for seawall construction, which was the first of its kind in Hong Kong. Instead of dredging the seabed prior to the construction of the seawall, this method involved the construction of a number of stone columns in the silt layer to enhance its strength and accelerate consolidation, and driving a series of interlocking steel cells into the seabed through the silt layer and securing them to the more stable alluvial layer below to form the seawall around the artificial island. For the main reclamation works, band drains had been inserted into the silt layer and surcharge materials had been deposited on the newly reclaimed land as a pre-compression load to accelerate the consolidation and settlement of the silt layer. Compared with the conventional construction method, the adoption of this method could avoid dredging and dumping of

⁵ The consultant for the reclamation works of the artificial island of HZMB HKP is a separate consultancy firm which is not Consultant X under the TM-CLKL project.

large amount of silt, minimise backfilling materials, and reduce marine traffic and the amount of suspended solid in the sea during construction. Overall, the non-dredging reclamation method could greatly minimise the environmental impacts of the project and is more in line with the principle of sustainable development.

In designing the non-dredging reclamation, the Reclamation Consultant had taken into account and anticipated the settlement and lateral movement of the reclaimed land during the course of the works, and the ensuing lateral movement of the top of the steel cells forming the seawall during construction. In addition, HyD appointed an independent overseas expert in 2010 (i.e. before the tendering of the reclamation contract) to review the design of the Reclamation Consultant, and the works commenced only after the expert had confirmed that the relevant design was appropriate.

- (ii) In October 2014, the seawall of the artificial island of HZMB HKP experienced a larger-than-expected lateral movement. HyD had immediately collaborated with the Reclamation Consultant and contractors to investigate the cause of the incident, strengthen the monitoring of the seawall movement and review the seawall design to ensure the structural safety of the reclamation site and seawall.

Meanwhile, HyD had immediately worked with Consultant X to review the impact of the relatively large movement of seawall on the TM-CLKL project, and had taken follow-up actions as soon as practicable, including –

- (1) For Contract A: Due to the delay in the reclamation works, Contractor A only started to enter and take over the site in phases from July 2015 to July 2016. Consultant X issued several variation orders from July to November 2015, instructing Contractor A to install additional monitoring equipment and carry out ground investigation to verify the actual conditions of the reclamation site and underground soil layers at that time, and to provide the necessary information to enable Contractor A to review the design of the foundation of viaduct and structure; and
- (2) For Contract B: After coordinating with the Reclamation Consultant and contractors, HyD and Consultant X arranged Contractor B to carry out drilling at the seawall locations of

the artificial island in early 2015 to ascertain the actual conditions of the stone columns at that time. Based on the drilling results, two overseas experts pointed out that there was no feasible way for the tunnel boring machine to safely pass through the original alignment under the seawall, and recommended to lower the tunnel alignment by 10 metres to ensure construction safety. Consultant X issued the relevant variation order in September 2015, instructing Contractor B to lower the alignment of the sub-sea tunnel.

- (iii) Consultant X had considered the design and interfacing issues with the reclamation works in the context of the reference design for Contract A and Contract B. Since the non-dredged seawall construction method was the first of its kind in Hong Kong and neither the Reclamation Consultant nor the overseas experts engaged by HyD could envisage the larger-than-expected lateral movement of the top of seawall at that time, Consultant X proceeded with the reference design for Contract A and Contract B on the basis that there would be no significant seawall movement.
- (iv) The HZMB HKP and TM-CLKL projects were complex and large-scale infrastructure projects for which the respective critical works had to be completed within a tight timeframe in order to meet the commissioning target of HZMB. For similar projects in the future, HyD will strive to minimise the interfaces between works contracts as far as practicable, including exploring the possibility of using the same contractor to carry out the design and construction of the reclamation and subsequent works, etc., so as to minimise interfacing issues between contracts. In addition, HyD will also adopt the “New Engineering Contract” approach through the contract terms of mutual trust and collaboration, as well as the mechanisms such as early warning and compensation events, etc., specified in the contract, thereby fostering the building of a mutual cooperation and trust partnering relationship between the contracting parties. With the risk jointly managed by the contracting parties, the project management performance and its cost-effectiveness will be enhanced as a result.

(h) According to paragraphs 2.12(a) and (b) of the Audit's Report, before tendering of Contract A, based on the as-built records, HyD estimated that the length of the watermain to be diverted was about 270 meters. However, after commencement of Contract A, taking into account the actual site conditions, the actual length of the watermain to be diverted was measured to be about 422 meters, which is 56% longer than the estimated length. Please explain why the estimated length in Contract A was solely based on the as-built records without conducting detailed site investigation at the planning stage;

In recommending the need for excavation of trench pits, the engineering consultant would take into account the as-built records provided by the utility undertaking, the adequacy of underground space in the vicinity of construction locations, the impact on the traffic due to excavation of trench pits, as well as the cost-effectiveness of excavating trench pits, etc. Generally speaking, at the reference design stage, the engineering consultant would only recommend the excavation of trench pits at some critical locations to ascertain the feasibility of the construction works and to ensure that there would be sufficient space to carry out the necessary construction works (e.g. trench pits to be excavated at locations where the underground space is very confined to ensure that there would be sufficient space to construct foundations or to divert the existing pipelines).

Since the watermain in question was located at Cheung Tung Road on Lantau Island and the underground space in the vicinity of the construction locations was relatively sufficient according to the as-built records provided by the utility undertaking, Consultant X considered that the watermain would not affect the feasibility of the construction works under Contract A and did not excavate trench pits at the reference design stage.

With the advancement of technology, HyD is exploring more extensive use of non-excavation techniques (e.g. ground-penetrating radar, etc.) in future projects to assist in confirming the actual location of underground pipelines and the length of pipelines that need to be diverted.

(i) According to paragraph 2.14 of the Audit's Report, the above watermain diversion works were carried out between April 2015 and March 2017, but the relevant variation order (hereinafter referred to as "Variation Order A") was only issued in July 2018 retrospectively after completion of the works. HyD advised that it had been preparing Variation Order A with Consultant X since 2015. In this regard, please explain:

- (i) why Variation Order A could only be issued more than 3 years after the commencement of the works;***
- (ii) whether it was a common practice to carry out construction works before the issuance of a variation order; whether this involved negligence of duty on the part of staff or Consultant X; if so, what follow-up actions have been taken; and***
- (iii) given that the total amount involved in Variation Order A is \$9.4 million, whether HyD had established any mechanisms or procedures to allow contractor to commence works before the formal issuance of a variation order under special circumstances; if so, what the details were; if not, whether the Transport and Logistics Bureau considered the case of Variation Order A acceptable.***

(i) HyD, Consultant X and representatives of Contractor A discussed the arrangements for and details of the relevant watermain diversion works in a number of works progress meetings since 2014, and written meeting minutes were formally issued after each meeting. All parties involved in the meetings at that time, including HyD, the resident site staff and the contractor, agreed that the diversion works needed to be carried out first due to the tight construction programme, and thus all stakeholders were fully aware of the variation and the progress of the relevant works. As some details of the watermain diversion works, including suspension of water supply and temporary water supply arrangements required for the connection of the watermain, had to be adjusted according to the actual situation, HyD and Consultant X thus arranged to issue the written variation order after the completion of the entire watermain diversion works so as to reflect all the variations involved in the process.

(ii) It was not a common practice to carry out the works before the issuance of variation orders. HyD and Consultant X arranged to issue the written variation order after the completion of the entire watermain diversion works to reflect all variations involved in the

process. HyD acknowledged that this practice was unsatisfactory and has reminded HyD's consultants and staff again that the contractual terms for the issuance of variation orders in writing and the relevant guidelines in the Project Administration Handbook for Civil Engineering Works must be strictly adhered to⁶.

- (iii) HyD did not establish any mechanism or procedure that allowed contractors to commence works before the issuance of formal variation orders under special circumstances. The Transport and Logistics Bureau and HyD considered the practice of commencing works before the issuance of formal variation orders unsatisfactory. HyD has reminded its consultants and staff again to strictly comply with the contractual terms relating to the issuance of variation orders in writing and the relevant guidelines in the Project Administration Handbook for Civil Engineering Works.

- (j) According to paragraph 2.17 of the Audit's Report, during the design stage, Contractor A contended that when circulating various design submissions to Consultant X and relevant stakeholders for comments, such submitted designs were approved by Consultant X beyond the prescribed timeframes due to the later-than-expected responses from some stakeholders. Contractor A therefore submitted a claim for additional design fees. Would HyD please advise whether Consultant X had played a coordinating role during the consultation process; how much time the relevant stakeholders were given to respond and whether the time was sufficient; and what measures will be taken in the future to ensure that consultants and the relevant stakeholders will respond to contractors on matters relating to the design of the project in a timely manner;***

When vetting Contractor A's designs, Consultant X needed to ensure that the design complied with the basic technical requirements of Contract A. At the same time, Consultant X also needed to take into account the comments of relevant stakeholders (including other government departments and utility undertaking, etc.) on the design. Given the numerous design items involved in the project, some of the more complex designs might need to be adjusted several times in response to stakeholders' comments before a proposal acceptable to all

⁶ Paragraph 13.2 of Chapter 7 of the Project Administration Handbook for Civil Engineering Works refers.

stakeholders could be formulated, resulting in a longer overall preparation time than that expected by Contractor A. For some of the more complex design, Consultant X convened design review meetings with the contractor and relevant stakeholders to enhance the efficiency of the approval process.

Contract A did not specify the response time by which the relevant stakeholders should respond to Contractor A. However, based on the Project Design Plan drawn up by Contractor A to cope with the tight construction programme, Contractor A anticipated that the relevant stakeholders could respond to the first circulation of the design documents within three weeks and the re-circulation of the revised design documents within two weeks. It was difficult to generalise the review time required by the relevant stakeholders as it depended not only on the complexity of the design but also on other factors (including the quality of the design submitted and other workload of the relevant stakeholders). Since Contract A was a “design and build” contract, the contractor had to bear reasonable risks associated with the approval of the design.

To enhance the efficiency of design submission and approval in future, HyD is exploring the enhancement of the existing electronic platform to allow contractors, consultants and stakeholders to submit and respond to design documents through electronic means so as to minimise the time required for circulation of documents. At the same time, the electronic platform will provide notification to alert the relevant stakeholders on a regular basis to address outstanding design responses and to notify HyD and consultants for early intervention in complex cases.

- (k) According to paragraphs 2.25 and 2.26 of the Audits’ Report, Contractor B was required to carry out reclamation works in Tuen Mun under Contract B. After carrying out further pre-construction ground investigation, Contractor B estimated that the required quantity of rock fill material was about 850,000 cubic meters (“m³”), which is about 90% higher than the quantity of 441,400 m³ specified in Contract B. Due to the substantial increase in quantity of rock fill material, Contractor B had to procure the supplementary rock fill material from non-local market, resulting in an increase in cost by more than two times from \$160/m³ to \$456/m³. Contractor B submitted a claim for additional payment attributable to the substantial increase in quantity of rock fill material. Consultant X***

certified a sum of \$115.8 million for the claim. Please explain/advise:

- (i) why there was such a serious miscalculation in the quantity of rock fill material, and whether this involves professional negligence;*
 - (ii) what measures will be taken in future to ensure more accurate estimation of materials required for the works;*
 - (iii) according to Note 30, HyD gave a “poor” performance rating in cost estimates and quality of tender documents/drawings aspect in Consultant X’s quarterly performance assessment report from October to December 2013. Given that the quantity of rock fill material specified in Contract B was estimated by Consultant X, would HyD please advise, apart from reflecting Consultant X’s dereliction of duty in the performance appraisal report, whether there is any penalty mechanism in the consultancy agreement, e.g. deduction of consultancy fees due to poor performance, etc., and if so, what the details are; if not, how the performance of the consultant could be monitored;*
 - (iv) the procurement/tendering procedures for sourcing supplementary rock fill material at that time; what HyD considered in accepting such a high supplementary procurement price;*
 - (v) whether the authority will consider establishing a mechanism for submission to the Legislative Council for approval of additional project expenditures arising from cost-significant variation orders and fluctuation of material prices; and*
 - (vi) the mechanisms and processes of monitoring reclamation works by the works departments;*
- (i) During the design stage, Consultant X had carried out ground investigation in accordance with the guidelines in the Port Works Design Manual, but the geological data obtained might not fully reflect the geological conditions of the whole site. Consultant X also specified in the contract documents of Contract B that Contractor B was required to carry out more closely spaced ground investigation after the commencement of the contract so as to verify the depth of excavation as well as the quantity of rock fill materials required for the construction of the seawall. As Consultant X had already carried out a certain amount of ground investigation in accordance with the guidelines in the Port Works Design Manual during the detailed design stage and assessed the quantity of rock fill material according to the investigation results,*

HyD considered that Consultant X's recommendations at that time did not involve professional negligence.

- (ii) HyD has reminded its staff and consultants to carry out more ground investigation when taking forward projects involving reclamation, especially in areas with more geological variations, so as to estimate the quantity of fill material required for reclamation as accurately as possible. Furthermore, HyD will also explore the use of geophysical surveys and sonar scanning techniques with a view to capturing geological and seabed information more cost-effectively.
- (iii) Notwithstanding that Consultant X had carried out ground investigation according to the guidelines in the Port Works Design Manual and required Contractor B to carry out more closely spaced ground investigation in Contract B to confirm the excavation depth of the seawall and the quantity of fill material required, HyD considered that Consultant X could have exercised better professional judgment in arranging for more ground investigation at an earlier stage so as to assess the quantity of rock fill material more accurately. In view of the above considerations, HyD gave a "poor" performance rating to Consultant X in cost estimates and quality of tender documents/drawings aspect in its performance report for that quarter. The relevant assessment results would have a bearing on Consultant X's chances of winning tenders for government consultancy agreements within the three years following the issuance of the relevant assessment report. Apart from reflecting Consultant X's performance in the performance assessment report, the consultancy agreement does not include other penalty mechanism such as deduction of consultancy fees for poor performance.
- (iv) Between late 2013 and 2014, local rock fill supply was limited to several works projects (including the Guangzhou-Shenzhen-Hong Kong Express Rail Link and South Island Line projects, etc.), while at the same time a number of reclamation projects (including HZMB HKP, HZMB Hong Kong Link Road and the TM-CLKL project) were underway. Overall speaking, there was a shortage of local rock fill supply at that time. Therefore, Contractor B needed to procure additional rock fill material (about 400,000 m³) from the Mainland. Due to the significant increase in transportation distance and time, the transportation cost for

procuring rock fill from the Mainland had also increased significantly for which Contractor B submitted a claim. Consultant X assessed the additional cost of procuring the rock fill based on the prevailing market conditions and the contractor's quotation, and consulted HyD in accordance with the requirements of the contract. HyD considered Consultant X's assessment of the relevant claim reasonable.

- (v) The additional cost relating to the procurement of rock fill was incurred as a result of contractual claims, and the total cost of the project did not exceed the approved project estimate. Under the current mechanism, HyD will manage various works contracts in accordance with the Project Administration Handbook for Civil Engineering works and other applicable guidelines after the public works projects have obtained funding approval from the Finance Committee of the Legislative Council. Relevant clauses and mechanisms are already included in standard engineering contracts to handle claims that may arise from substantial increases in quantity of works.
- (vi) The monitoring of the reclamation works in the TM-CLKL project was based on the following mechanisms and processes:
 - (1) Before commencing reclamation works, Contractor B was required to submit information on the proposed suppliers and specifications of the rock fill material for Consultant X's review. Upon Consultant X's preliminary approval, Consultant X would visit the quarry concerned together with the contractor to inspect and check the rock fill material to ensure its compliance with the contract requirements. During transportation of the rock fill material, Consultant X and Contractor B would use the global positioning system to monitor the transportation time and route of the barges.
 - (2) When the rock fill material was delivered to the reclamation site, Consultant X would board the barge to re-inspect the rock fill material before unloading and collect samples of the rock fill material according to the contract requirements for testing⁷ at the Public Works Laboratories to ensure that the rock fill material delivered to the reclamation site would comply with the contract requirements. Consultant X

⁷ A sample for every 5,000 m³ of rock fill materials should be collected.

would also monitor the whole unloading process and conduct joint surveys with Contractor B to confirm the quantity of rock fill material used in the works. The relevant survey records would be signed by both Consultant X and Contractor B and submitted to HyD for record.

- (l) According to paragraphs 2.27 to 2.29 of the Audit's Report, when the tender documents were circulated to the New Territories Regional Office of HyD, which was responsible for the maintenance of civil works of the Tuen Mun-Chek Lap Kok Tunnel ("TM-CLKT"), in August 2012, the office did not provide comment on the thermal barrier in tunnel. It was only after Contract B commenced that the office expressed concerns about the spray type thermal barrier specified in Contract B. In the end, Consultant X issued two variation orders under Contract B at a total additional cost of \$328.7 million to change the thermal barrier from spray type to board type. Please explain/describe why the office did not express its concerns early to allow timely consideration of the matter; whether there was any internal communication problem; whether the additional costs incurred included the removal of the spray type thermal barrier, and the cost of the removal works;***

When reviewing Contract B's tender documents in 2012, the New Territories Regional Office of HyD did not provide comment at that time, taking into account the fact that both the spray type and board type thermal barriers were both acceptable designs, and that spray type thermal barrier had been applied in the Mainland and overseas.

Subsequently, in 2014, fire accident occasioned in some road tunnels in the Mainland where spray type thermal barriers were used. The subsequent repair work involved the removal of coating, inspection of the structure and re-application of the spray type thermal barriers, which were more complicated than expected and required a long period of time which affected the tunnel operation, thus resulting in a higher repair cost. In contrast, the repairing of board type thermal barriers is quicker and has less impact on tunnel operation and other electrical and mechanical equipment. With reference to the experience of the relevant cases and taking into account that TM-CLKT was an extremely important strategic road, the New Territories Regional Office of HyD expressed concerns about the use of spray type thermal barrier in the tunnel in late 2015. Consultant X subsequently recommended that the thermal barrier in the tunnel should be changed

to board type to make the long-term inspection, maintenance and repair work more efficient and cost-effective.

After obtaining approval from HyD, Consultant X issued the relevant variation order in November 2016. At that time, Contractor B had not yet procured or installed the spray type thermal barriers and therefore the relevant variation order did not result in any additional unnecessary work.

(m) According to paragraphs 2.36 to 2.40 of the Audit's Report, Contractor B proposed to construct a service gallery underneath the entire length of the tunnel carriageway and provide 45 emergency access hatches along the tunnel carriageway as supplementary evacuation/rescue routes. The above facilities were new designs and being used for the first time in a tunnel in Hong Kong. After the commissioning of TM-CLKT in December 2020, the emergency access hatches continued to malfunction (e.g. accidental opening of access hatch covers) despite rectification works were carried out by Contractor B. In October 2023, the relevant parties decided to seal off all emergency access hatches and the works were subsequently completed in September 2024. In this connection, please explain/advise:

- (i) why Contractor B offered a lump sum saving of \$12 million to attract the Government to adopt its proposed new facility;***
 - (ii) given that the emergency access hatches were new designs, whether HyD had conducted any feasibility study before accepting Contractor B's proposal; if so, please provide details;***
 - (iii) whether any investigation into the incidents was conducted; if so, what the investigation results were; apart from the costs incurred for the defect rectification works in respect of the incidents, whether Contractor B was liable for any other responsibilities; and***
 - (iv) the Government previously strengthened the monitoring system for the emergency access hatches at a cost of \$8.8 million. Whether HyD would consider the loss outweighed the gain; whether the cost should be borne by Contractor B; and what lesson HyD has learned from the incidents;***
- (i) TM-CLKT is the first sub-sea tunnel in Hong Kong constructed using tunnel boring machine method. Compared with the conventional rectangular immersed tube construction method, the***

circular tunnel constructed using tunnel boring machine provides additional space underneath the carriageway. Contractor B therefore proposed in the detailed design stage to provide a service gallery underneath the carriageway to make better use of the space at the bottom part of the tunnel and reduce the need for closure of the carriageway for routine inspections and maintenance, and also offered a lump sum saving of \$12 million to the Government for the relevant proposal. As a result of the proposal, some of the electrical and mechanical equipment originally planned to be placed inside the tunnel would be placed in the service gallery underneath the carriageway instead. As the change might slightly increase the cost of subsequent electrical and mechanical works contracts to be tendered (e.g. installation of additional airlocks, fans, firefighting equipment and intercoms, etc.), Consultant X had reviewed and confirmed that the aforementioned cost savings would be sufficient to offset the costs that the Government would incur for installing additional equipment in the subsequent electrical and mechanical works contract. Taking into account the above considerations, the Government adopted the new facility proposed by the contractor.

- (ii) The entire proposal for the service gallery (including the emergency access hatches and covers) was put forward by Contractor B at the detailed design stage and relevant government departments (including the Fire Services Department and the Electrical and Mechanical Services Department, etc.) were consulted to ensure that the proposal complied with the relevant statutory requirements and technical standards. Although this was the first time in Hong Kong that emergency access hatches and covers were provided on carriageway, similar design had been used in pedestrian walkways, cycle tracks and airports in Germany, Belgium and Spain without adverse incident reports. After reviewing the proposal and considering responses from various government departments, Consultant X decided to approve the detailed design.
- (iii) HyD and Consultant X conducted an investigation after the incidents involving the emergency access hatch covers. The results indicated that although the design of the emergency access hatch covers could withstand vehicle loads, the high density and speed of heavy vehicles travelling on the roads in Hong Kong had resulted in the damage or displacement of the components of the

covers, or even their accidental opening due to negative air pressure.

- (iv) After the incidents of the emergency access hatches, the contractor carried out remedial works to all emergency access hatch covers and borne all the costs of associated works. On the other hand, HyD and Consultant X considered it necessary to improve the monitoring equipment in the tunnel and service gallery so that the staff responsible for tunnel management and operation could remotely monitor the real-time situation of all emergency access hatch covers from the control center for prompt response. After completion of the improvement works, the relevant monitoring equipment effectively assisted the tunnel management and operation, and enabled real-time transmission of the situation of the emergency access hatch covers to the control center. Since the improvement of the above monitoring equipment was to facilitate the tunnel management and operation and not part of the rectification works, the associated costs were borne by HyD.

HyD has learned from the incidents involving the emergency access hatch covers and has stipulated in the latest tunnel design guidelines that entrances and exits to the space above or below the tunnel carriageway should not be located on the carriageway.

- (n) Regarding the various deficiencies in contract management pointed out in the Audit's Report, please advise whether the design, site investigation and advance works of the TM-CLKL project and the subsequent main construction works of the project being undertaken by consultant and different contractors had resulted in a number of technical problems being identified only after commencement of the construction works; if so, what improvement measures will be taken in the future;***

The Audit's Report pointed out that the contractual interfacing issues relating to the TM-CLKL project were mainly caused by the delay in the reclamation works of HZMB HKP and the relatively large lateral movement at the top of the seawall of the artificial island of HKP. They were not directly related to the different stages of the TM-CLKL project being undertaken by consultant and different contractors. However, as mentioned in the response to item (g)(iv) above, in the event of similar projects in the future, HyD will strive to minimise the

interfaces between works contracts as far as practicable, including exploring the possibility of using the same contractor to carry out the design and construction of the reclamation and subsequent works, etc., so as to minimise interfacing issues between contracts. In addition, HyD will also adopt the “New Engineering Contract” approach through the contract terms of mutual trust and collaboration, as well as the mechanisms such as early warning and compensation events, etc. specified in the contract, thereby fostering the building of a mutual cooperation and trust partnering relationship between the contracting parties. With the risk jointly managed by the contracting parties, the project management performance and its cost-effectiveness will be enhanced as a result.

Part 3: Other Contract Management Issues

- (o) According to paragraphs 3.2 and 3.3 of the Audit’s Report, the works under Contract C involving the toll plaza and associated works for the Northern Connection of TM-CLKL commenced in July 2014 for completion in September 2019 (see Table 2 in paragraph 1.7 of the Audit’s Report), with the final contract sum nearing \$3.1 billion. However, the 2019 Policy Address announced the initiative of waiving the tolls for TM-CLKT, which rendered the toll plaza and associated facilities of the tunnel immediately obsolete. Please advise the amount involved in the relevant part of the works; and***

Following the announcement of waiving the tolls for TM-CLKT in the 2019 Policy Address, the toll plaza and associated facilities became obsolete. The total amount involved in the relevant part of the works is about \$78.95 million, of which about \$40.7 million is the cost of demolition works.

Part 4: Operation and Traffic Management

- (p) According to paragraph 4.2 of the Audit’s Report, in September 2020, the Transport Department (“TD”) awarded the first Management, Operation and Maintenance agreement for TM-CLKT to Operator A at a fixed lump sum management fee of \$298.6 million for four years from 27 December 2020 to 26 December 2024. A new agreement was awarded to the current operator in September 2024 at a fixed lump sum management fee of \$5.536 million for six years. In other words, the average annual management fee has been***

increased by 24% from \$74.65 million in the previous agreement to \$92.27 million in the new agreement. Would TD please advise the reason for the above increase; whether TD thinks it is reasonable; whether the current operator secured the new agreement by bidding with the lowest bid; if not, what are the criteria for evaluating the tenders.

The tendering exercise for the Agreements for Management, Operation and Maintenance (“the Agreements”) for government tunnels was conducted in accordance with the Stores and Procurement Regulations, by way of open tendering and on the principle of “open and fair competition”, and in compliance with the tendering procedures and assessment criteria.

Regarding the new Agreement of TM-CLKT, TD stipulated in the relevant tender documents that the assessment would be divided into two parts, namely technical assessment and price assessment, which would account for 70% and 30% of the total score respectively. The tender assessment panel (comprising staff members from TD and the Electrical and Mechanical Services Department) assessed the technical proposals submitted by the tenderers in accordance with the prescribed selection criteria and marking scheme, including the tenderers’ capability in the management, operation and maintenance of the relevant traffic and transport facilities, etc.; and assessed the price proposals by the tenderers which had passed the technical assessment. The tender assessment panel, after taking into account the total scores obtained by the tenders in both the technical and price assessments, recommended to the Central Tender Board the adoption of the tender with the highest total score.

The new six-year Agreement of TM-CLKT commenced on 27 December 2024, and the average annual management fee of the new Agreement has increased by approximately 24% as compared with the average annual management fee of the first four-year contract awarded in 2020. It is estimated that the increase in the management fee for the new Agreement has already reflected factors such as rising operating costs and cumulative inflation in the past few years. Coupled with the continuous increase in traffic volume of TM-CLKT in response to the development of HZMB, the Hong Kong International Airport and Tung Chung New Town, TD has increased under the new Agreement 10 staff in total (representing an increase of 7% as compared with that in the first Agreement) to carry out the duties of traffic control staff and maintenance staff at the tunnel entrances and

exits to ensure the safe operation and operational efficiency of the tunnel. In addition, as the maintenance period of some tunnel facilities and equipment has expired, the tunnel operator needs to repair or replace the relevant facilities and equipment during the contract period of the new Agreement of TM-CLKT, resulting in a corresponding increase in related maintenance expenses.

Taking into account the above reasons, TD considers that the increase in management fee of the new Agreement for TM-CLKT is reasonable. The operator of the new Agreement for TM-CLKT was the tenderer with the highest total score among the tenderers and its bid price was the second lowest. TD awarded the new Agreement of TM-CLKT after the Central Tender Board had approved the assessment results.

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(Email : hhchan@legco.gov.hk)

8 January 2025

Ms Shirley CHAN
Clerk to Public Accounts Committee
Legislative Council
Legislative Council Complex
1 Legislative Council Road
Central, Hong Kong

Dear Ms Chan,

Public Accounts Committee
Consideration of Chapter 7 of the Director of Audit's Report No. 83
Tuen Mun - Chek Lap Kok Link

We refer to your letter dated 24 December 2024 to the Development Bureau (DEVB) and the Financial Services and the Treasury Bureau, requesting for additional information regarding Chapter 1.8 Table 3 of the Audit Report. In consultation with DEVB, our consolidated reply is as follows:

Generally speaking, the cost of a public works contract mainly comprises the construction cost of works items, provision for contingency and provision for price adjustment. Provision for contingency caters for additional costs arising from unforeseen circumstances (costs of variation orders such as those incurred by worse-than-expected ground conditions, additional works to meet local concerns, etc.). As each project has its own uniqueness and faces different risks, the project team will determine the required amount of contingency for individual contract accordingly. The provision for price adjustment is to cope with fluctuations in the cost of labour and materials during the contract period, which helps eliminate uncertainties arising from fluctuations in construction price, so as to lower the risk cost in contractors' bids. The project team will also estimate the project cost for each year within the construction period, and work out the provision for price adjustment required for the contract based

on the Government Economist's forecasts on the trend rate of change in prices of public sector building and construction output for the relevant contract period. The actual expenditure on price adjustment for each year will depend on the actual annual contract payments during the construction period, and will be adjusted with reference to the index figures of the costs of labour and materials provided by the Census and Statistics Department every month.

As mentioned above, in the course of implementing public works projects, unforeseen circumstances may arise within the scope of the project, and any additional costs so incurred is generally met by project contingency and savings in construction costs. Only when there is a surplus in the provision for price adjustment, and it is not possible to deploy other resources within the works project, can Controlling Officers use such surplus in the provision for price adjustment to cover such additional costs.

The Government has been committed to optimising the cost estimation of projects and enhancing cost control measures. The Government has adopted parallel tendering since September 2020, meaning that the Government will first commence tendering exercise for a works project in order to reflect the returned tender price in its funding application, thereby providing the Legislative Council with a more accurate construction cost estimate which will reduce the risk of cost overrun. The Project Strategy and Governance Office of DEVB also examines major variation orders issued in the course of construction to ensure cost-effectiveness.

Yours sincerely,



(Kimmey HO)
for Secretary for Financial Services
and the Treasury

- c.c. Secretary for Development (Email: sdev@devb.gov.hk)
Secretary for Transport and Logistics (Email: stlooffice@tlb.gov.hk)
Director of Highways (Email: tonyyau@hyd.gov.hk)
Commissioner for Transport (Email: comr@td.gov.hk)
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財經事務及庫務局



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(Email : hhchan@legco.gov.hk)

22 January 2025

Ms Shirley CHAN
Clerk to Public Accounts Committee
Legislative Council
Legislative Council Complex
1 Legislative Council Road
Central, Hong Kong

Dear Ms Chan,

Public Accounts Committee
Consideration of Chapter 7 of the Director of Audit's Report No. 83
Tuen Mun - Chek Lap Kok Link

We refer to your letter dated 14 January 2025. Our reply is as follows –

During the implementation of public works projects, unforeseen circumstances may arise within the scope of the project leading to additional costs. These costs are usually covered by project contingency and savings in construction costs. The provision for price adjustment is to cope with fluctuations in labour and materials costs throughout the contract period. This mechanism helps mitigate uncertainties related to construction price, thereby reducing the risk premium in contractors' bids. Only when there is a surplus in the provision for price adjustment provision, and that it is not possible to deploy other resources within the works project, can Controlling Officers use the surplus in the provision for price adjustment to cover such additional costs.

Under the existing mechanism, Controlling Officers can deploy resources to cope with unforeseen circumstances in implementing works projects, subject to the approved project estimates and in compliance with the above conditions. For cost control and monitoring purposes, Controlling Officers must ensure proper use of funds

under their control, having regard to economy, efficiency and effectiveness in the delivery of public service and the use of the public funds. We consider the current arrangement to be reasonable.

The Project Strategy and Governance Office (PSGO) of the Development Bureau (DEVB) has implemented various measures to strengthen cost monitoring of public works projects. PSGO tracks, conducts regular reviews and follow up on the projects at every stage, from their inception, detailed design, funding application to completion. Meanwhile, the Government has also adopted parallel tendering since September 2020, meaning that the Government would conduct tendering exercise for a works project in order to reflect the returned tender price in its funding application to the Legislative Council (LegCo), thereby providing LegCo with a more accurate construction cost estimate which would reduce the risk of cost overrun.

Together with DEVB, we would continue to review and enhance the control and monitoring of costs for public works projects.

Yours sincerely,



(Kimmey HO)
for Secretary for Financial Services
and the Treasury

- c.c. Secretary for Development (Email: sdev@devb.gov.hk)
Secretary for Transport and Logistics (Email: stlooffice@tlb.gov.hk)
Director of Highways (Email: tonyyau@hyd.gov.hk)
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Transport and Logistics Bureau
Government Secretariat

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(Email: hhchan@legco.gov.hk)

7 February 2025

Ms Shirley CHAN
Clerk to Public Accounts Committee
Legislative Council Complex
1 Legislative Council Road
Central, Hong Kong

Dear Ms CHAN,

Public Accounts Committee

Consideration of Chapter 7 of the Director of Audit's Report No. 83

Tuen Mun – Chek Lap Kok Link

Your letter of 14 January 2025 requesting for information on the relevant issues raised at the public hearing has been received. The relevant information is set out at Annex for Members' reference.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Alan Yip".

(Alan YIP)

for Secretary for Transport and Logistics

Encl.

c.c.

Secretary for Development (Email: sdev@devb.gov.hk)

Secretary for Financial Services and the Treasury (Email: sfst@fstb.gov.hk)

Director of Highways (Email: tonyyau@hyd.gov.hk)

Commissioner for Transport (Email: comr@td.gov.hk)

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**Public Accounts Committee
Consideration of Chapter 7 of the Director of Audit's Report No. 83
Tuen Mun – Chek Lap Kok Link**

Part 1: Introduction

- (a) According to the reply from the Secretary for Transport and Logistics dated 8 January 2025 and the consolidated reply from the Secretary for Financial Services and the Treasury and the Secretary for Development on the same day, if the contingency in a public works contract is insufficient to cover the additional costs arising from unforeseen circumstances, the Controlling Officer may use the surplus in the provision for price fluctuation adjustment to cover such additional costs if it is not possible to deploy other resources. In this connection, please advise/provide:***
- (i) whether the Administration considers the above arrangement a good practice in terms of cost control; whether there are measures to strengthen the monitoring of expenditure in public works projects; and***
 - (ii) in respect of Table 3 in paragraph 1.8 of the Audit Report, which contracts did not have sufficient contingencies to cover the additional costs arising from unforeseen circumstances and had to utilise the provision for price fluctuation adjustment; please provide the details (including the items and amount of additional costs involved);***
- (i) During the implementation of public works projects, unforeseen circumstances may arise within the scope of the project leading to additional costs. These costs are usually covered by project contingency and savings in construction costs. Generally speaking, the provision for price adjustment is to cope with fluctuations in labour and materials costs throughout the contract period. This mechanism helps mitigate uncertainties related to construction price fluctuation, thereby reducing the risk premium in contractors' bids. Only when there is a surplus in the provision for price fluctuation adjustment, and that it is not possible to deploy other resources within the works projects, can the Highways Department ("HyD") use the surplus in the provision for contract price fluctuation adjustment to cover the additional costs arising from unforeseen circumstances.***

Under the existing mechanism, HyD can deploy resources to cope with unforeseen circumstances in implementing works projects, as long as it does not exceed the approved project estimates and in compliance with the abovementioned conditions. For cost control or monitoring purposes, HyD must ensure proper use of funds under its control, having regard to economic benefits, efficiency and effectiveness in the delivery of public service and the use of the public funds. We consider the current arrangement reasonable.

The Government has been committed to strengthening cost control measures. In June 2016, the Development Bureau (“DEVB”) established the Project Cost Management Office (“PCMO”) to implement cost management initiatives and to roll out measures which were conducive to the delivery of public works projects in a timely and cost-effective manner. In April 2019, DEVB further upgraded and renamed PCMO as the Project Strategy and Governance Office (“PSGO”) for implementing strategic measures and strengthening capabilities in cost surveillance and project governance. PSGO adopts a holistic approach to enhance cost management and improve the performance of public works projects. According to the prevailing guidelines, before authorising the issuance of a variation order of an estimated value exceeding \$1.4 million during the construction period, works departments are required to consult PSGO to ensure the cost effectiveness of the relevant variation order.

PSGO will conduct project vetting process starting from inception stage with regular reviews and follow-up actions to track project development from the detailed design stage to the funding application stage. PSGO will also make use of the Project Surveillance System to continuously monitor the progress and expenditure of the project, and to provide early warning signals such that the senior management can intervene early as necessary until the completion of the project.

- (ii) As of August 2024, details of the provision for price fluctuation adjustment and contingency (in money-of-the-day prices) for Contracts A to H are as follows:

Contract	Provision for price fluctuation adjustment in the contract (I) (\$ million)	Usage of provision for price fluctuation adjustment (II) (\$ million)	Unused provision for price fluctuation adjustment (III) = (I)-(II) (\$ million)	Contingency in the contract (IV) (\$ million)	Amount of additional costs arising from unforeseen circumstances (V) (\$ million)	Need of using the remaining provision for price fluctuation adjustment (Yes/ No) (VI) (Note 1) (\$ million)	Major items involved in the additional costs (VII)
A	1,535.2	853.8	681.4	375.0	1,672.4	Yes	Claims, variation orders and settlement of contractual disputes
B	5,079.0	1,259.1	3,819.9	1,314.0	8,348.8	Yes	Claims and variation orders
C	445.0	199.5	245.5	220.0	509.1	Yes	Claims and variation orders
D	148.0	34.7	113.3	202.0	374.5	Yes	Claims and variation orders
E (Note 2)	-	-	-	21.6	21.5	No	Claims and variation orders
F	0.2	0.7	(0.5) (Note 3)	0.9	1.9	No	Claims and variation orders
G	3.1	1.2	2.0	3.4	3.4	No	Variation orders
H	4.7	0.9	3.7	6.2	16.3	Yes	Variation orders

Note 1: If the amount of (V) was greater than that of (IV) and there was unused provision for price adjustment and that it was not possible to deploy other resources within the project, it would be necessary to use the remaining provision for contract price fluctuation adjustment to cover the additional costs arising from unforeseen circumstances.

Note 2: Contract E was an electrical and mechanical engineering works contract. The relevant contract conditions did not include provision for price fluctuation adjustment.

Note 3: As the actual price adjustment in Contract F was higher than the provision for price fluctuation adjustment in the contract by about \$0.5 million, it was necessary to deploy other resources within the works project to cover the increase in provision for price fluctuation adjustment.

Part 2: Administration of Contracts A and B

(b) According to the reply from the Secretary for Transport and Logistics dated 8 January 2025, regarding the serious inaccuracy in estimating the quantity of rock fill required for the reclamation works in Tuen Mun under Contract B, HyD advised that Consultant X had carried out the ground investigation in accordance with the guidelines in the Port Works Design Manual and assessed the quantity of rock fill based on the findings of the investigation. Therefore, HyD considered that the recommendations made by Consultant X at that time did not involve any professional negligence, but considered that Consultant X should have exercised better professional judgment and rated Consultant X's performance in cost estimates and quality of tender documents/drawings as "poor" in the quarterly assessment report of 2013. The result of the assessment will affect Consultant X's chance of winning tenders for government consultancy agreements within the three years following the issuance of the relevant assessment report. In this connection, please advise:

- (i) whether Consultant X's estimation of the quantity of rock fill had been checked by HyD again before tendering, and what the procedures were;***
- (ii) whether Consultant X participated in the tendering of government consultancy agreements within the three years following the issuance of the relevant assessment report; if so, what the situation of winning tenders was; and***
- (iii) whether the Administration will consider including penalties in consultancy agreements, such as deduction of consultancy fees for poor performance; if not, what measures are in place to make consultants bear the responsibility for poor performance;***

- (i)** HyD had checked the tender documents (including the drawings and bills of quantities) in accordance with the Project Administration Handbook for Civil Engineering Works before tendering. Based on the ground investigation information at the design stage and the depth of seawall excavation recommended by Consultant X, HyD's pre-tender checking concluded that there were no irregularity in the relevant drawings and bills of quantities. After the commencement of the contract, Contractor B carried out additional ground investigation as required under the contract. Consultant X subsequently worked out the depth of seawall excavation based on the latest ground investigation information and the actual quantity of rock fill required was higher than the

estimate made before tendering. The above situation was not due to any omission in checking the tender documents.

- (ii) Consultancy agreements for public works projects mainly adopt a “two-envelope” tender evaluation approach whereby tenderers are required to submit a technical proposal and a fee proposal at the same time. In assessing technical proposals, works departments will examine the consultants’ job experience, understanding of the projects, proposed manpower inputs, and past performance (including performance reports), etc. In the subsequent assessment of fee proposals, works departments will use the pre-tender estimate of the consultancy fee as the basis to examine whether the consultants’ tender prices are reasonable and whether they are commensurate with the proposed manpower inputs. Works departments will calculate a combined score based on the weighting stipulated in the tender documents. Normally, the tenderer with the highest combined score will be awarded the consultancy.

Consultant X’s performance in the area of cost estimates and quality of tender documents/drawings was rated as “poor” in the quarterly performance assessment report from October to December 2013. Consultant X had participated in tenders for government consultancy agreements within three years of the issuance of the relevant assessment report, and was also awarded tenders during the period. Consultant X’s past performance had been reflected in the combined score in the relevant tender assessment.

- (iii) Apart from reflecting the consultant’s performance in the performance assessment report, if a report or document submitted by the consultant fails to meet the requirements of the consultancy agreement, the consultant will not be paid for that part of the consultancy fee until the relevant report or document is accepted by HyD.

It is not appropriate to introduce penalties in consultancy agreements for public works projects so as to deduct the consultancy fee in the event of the unsatisfactory performance. It is because the amount of deduction involved cannot simply be linked to the performance of consultants but should be commensurate with the actual loss incurred by the Government; exercising such penalties may give rise to disputes and jeopardise

the effective implementation of the consultancy agreements. Moreover, the penalty may increase the risk premium in the consultants' tender price, thereby further increasing the overall project cost. It would therefore be more appropriate for the Government to claim compensation from the consultants in accordance with the legal mechanism when the consultants are found to be professionally negligent in performing their services resulting in loss to the Government. The relevant mechanism has been clearly stipulated in the existing consultancy agreements for public works projects.

- (c) The Secretary for Transport and Logistics in her letter of reply dated 8 January 2025 advised that the Administration considered it unsatisfactory to commence the watermain diversion works before the issuance of a formal variation order. Please advise whether HyD had taken any follow-up actions other than reminding its engineering consultants and staff again; the above reply also mentioned that prior to 21 August 2020, issuing variation orders exceeding \$300,000 required prior approval from the relevant works departments. The relevant limit was subsequently increased to \$800,000 and \$1,000,000 in August 2020 and October 2023 respectively in accordance with the guidelines issued by DEVB. Please advise the reasons behind the above adjustment, and whether variation orders not requiring prior approval should still be reported to the relevant works departments before issuance;***

Under the original mechanism, the engineering consultants can issue variation orders of \$300,000 or below without any prior notice to the relevant works departments. However, the engineering consultants are required to submit a copy of each variation order issued by them to the works departments and report all variation orders issued in their monthly progress reports. Works departments will follow up with the engineering consultants immediately if they have any queries.

DEVB reviews the management system of public works consultants from time to time. In the 2020 review, DEVB found that the threshold for authorising consultants to issue variation orders had not been updated in accordance with the trend movements of tender prices for various types of works since its formulation in 1990s. Hence, the threshold was adjusted upward from the then \$300,000 to \$800,000 after taking into account factors such as the increase of the Building Works Tender Price Index compiled by the Architectural Services

Department, the Civil Engineering Works Index compiled by the Civil Engineering and Development Department, and the Construction Cost Index compiled by HyD over the same period. This will help streamline the management process and reduce the time required for administrative vetting and approval, such that necessary variation to and adjustment of works can be timely implemented, thereby speeding up the delivery of the projects and realising the Government's objective of enhancing speed and efficiency. The abovementioned limit was updated to \$1 million in 2023 in a subsequent review.

To better monitor variation orders issued by public works consultants, DEVB issued guidelines to works departments in 2024 requiring them to conduct random checks on not less than 5% of the variations orders that do not require prior approval by works departments in every six months during the construction period to ensure that the justifications for issuing the variation orders are adequate and the associated cost estimates are reasonable.

Apart from reminding engineering consultants and staff, HyD has made more extensive use of the "New Engineering Contract" ("NEC") in public works contracts in accordance with the guidelines issued by DEVB. NEC introduces an early warning mechanism to encourage the client's representatives and contractors to identify and raise potential risks that may affect the project at an early stage, and to jointly negotiate and formulate the optimal solution for the smooth implementation of the project according to the prescribed framework and timeframes in the contract in the event of construction difficulties and problems.

- (d) According to paragraphs 2.18 and 2.19 of the Audit Report, after the commencement of Contract A, Contractor A found that the actual rockhead levels at various piling works locations were deeper than the envisaged levels in the Geotechnical Baseline Report. Between February 2014 and July 2015, Contractor A submitted 31 claims for additional payments in connection with the deviation in sub-surface conditions for piling works. Consultant X certified an additional payment of \$52.2 million to Contractor A for these claims. Paragraphs 2.23(d)(ii) and 2.24 of the Audit Report mentioned that HyD has agreed to explore new technologies and digital tools for conducting more thorough ground investigations in implementing works contracts involving piling works. In this connection, would HyD please advise the relevant details and progress;***

HyD will proactively utilise geophysical survey techniques when taking forward the existing and future works projects. The techniques can detect changes or anomalies in the geological conditions between drill holes, thus helping project teams to better understand the geological conditions and carry out design work.

- (e) According to paragraph 2.33 of the Audit Report, on 28 June and 29 July 2021, significant flooding incidents occurred at the southern portal of the Tuen Mun-Chek Lap Kok Tunnel (“TM-CLKT”), which caused disruption to tunnel traffic for about 3 hours and about 1 hour respectively. Paragraphs 2.42(b)(iii) and 2.43 of the Audit Report mentioned that HyD has agreed to continue to enhance the design of the road drainage system in response to climate change in implementing tunnel works projects. In this connection, would HyD please advise the relevant details and progress;***

HyD issued new design guidelines in 2023 which stipulate that the drainage system of tunnels must have additional capacity to cope with severe rainstorms due to extreme weather conditions and projected climate change by the end of 21st century. HyD staff and consultants are required to follow the relevant guidelines in designing the tunnel drainage systems when taking forward existing and future projects.

Part 3: Other Contract Management Issues

- (f) Regarding the works on slope and retaining wall mentioned in paragraphs 3.4 and 3.5 of the Audit Report, please explain/advise:***
- (i) why the actual ground conditions were so different from those envisaged at the design stage, and whether there are any new measures or techniques at present that can increase the accuracy of the estimates; and***
 - (ii) why the actual time and cost implications of the variation order issued for replacing the existing fill below the base of the retaining wall with concrete (i.e. an extension of time of 273 days and additional payment for prolongation cost of \$31.5 million) turned out to be more than the estimated potential delay and prolongation cost (i.e. potential delay of 3.5 months and prolongation cost of about \$13.6 million). In paragraphs 3.18(a)(ii) and 3.19 of the Audit Report, HyD agreed that in implementing works projects involving construction of slope***

and retaining wall, HyD would closely monitor the progress of varied works to minimise the time and cost implications. In this connection, what follow-up measures HyD has taken;

- (i) Due to the inherent complexity and variability of the geology, the actual conditions encountered in construction stage might differ significantly from the ground conditions anticipated in the design stage. Regarding the slope works mentioned in paragraph 3.4(a) of the Audit Report, Consultant X had made reference to the past ground investigation information and carried out ground investigation in accordance with the relevant guidelines on ground investigation in the area of the proposed slope. As regards the retaining wall works mentioned in paragraphs 3.4(b) and 3.5 of the Audit Report, since Lung Mun Road adjacent to the retaining wall was a single-lane one-way carriageway, it was not feasible to close the road section to carry out ground investigation at the proposed retaining wall location during the design stage. In view of this, Consultant X had made reference to the drillhole data in the vicinity of about 15 meters away during the design stage. The subsequent discovery of soil joints, lateral joints, longitudinal joints and soft soil layers during the construction of slope and retaining wall was unforeseeable. As mentioned in the reply in item (d) above, HyD will proactively utilise the geophysical survey techniques to enhance the accuracy of the ground investigation when taking forward existing and future projects.
- (ii) The longer-than-expected delay caused by the relevant variation order was due to the fact that the contractor had to take a longer time to deal with a group of telecommunication ducts during the construction of the retaining wall. Consultant X and the contractor had consulted the relevant telecommunication company on the group of telecommunication ducts prior to the issuance of the variation order. At that time, the telecommunication company was of the view that the section of ducts could be diverted to make room for the construction of the retaining wall. Subsequently, based on the site inspection, the telecommunication company pointed out that it would take more than two years to divert the section of ducts away from the retaining wall works area. In order to avoid further delay in the works, the contractor had to provide additional temporary protection and supports so as to support and avoid damage to the telecommunication ducts. This, coupled with the need to

accommodate the relevant ducts and work in a more confined environment, had significantly affected the efficiency of the contractor's work and excavation. In addition, the extended construction period due to the above reasons straddled the rainy season which further affected the works in view of inclement weather. As a result, the extension of time was increased from the original 3.5 months to 273 days, and an additional payment for prolongation cost of \$31.5 million was made. Throughout the construction process, HyD and Consultant X had closely monitored the progress of the varied works to minimise the time and cost implications.

(g) According to paragraphs 3.7 and 3.8 of the Audit Report, after completion of Contract C in September 2019, dislocation of covers of several sewerage manholes and cut-off drains occurred between May 2021 and February 2023. Eventually, Consultant X issued 3 variation orders (valued at a total additional cost of \$3 million) to carry out the modification works to prevent dislocation of manhole and drain covers. Would HyD please advise what lessons have been learned from the above incidents;

Consultant X had investigated and analysed the incidents of dislocation of covers of manhole and cut-off drains mentioned in the Audit Report, and pointed out that the abovementioned incidents were caused by the manhole covers being driven over by more frequent, high-speed and heavy vehicles than expected.

In the light of the experience gained, HyD will explore the possibility of further upgrading the manhole covers for road sections where frequent, high-speed and heavy vehicles are expected to be present from the original E600 class¹ (with a capacity of 60 tonnes) to F900 class (with a capacity of 90 tonnes), which is generally applicable to airport runways and is equipped with screws for tightening so as to prevent the covers from dislocation.

In addition, HyD updated the standard drawings applicable to transverse drains in July 2023 which include the use of thickened drain covers and the provision of more screw tightening to prevent the covers from dislocation.

¹ Class E600 manhole covers are generally suitable for use at bus terminals and pier driveways.

- (h) Referring to paragraphs 3.10 and 3.11 of the Audit Report, would HyD please explain why, apart from changing the type of thermal barrier in TM-CLKT (see paragraphs 2.27 to 2.29 of the Audit Report), the New Territories Regional Office of HyD had only provided its comments on the change to a design for easier manual dismantling after the final design of the Vitreous Enamel panel walls had been approved, so as to facilitate the maintenance work in the future. Such change involved the issuance of a variation order at a cost of \$5.5 million. In this connection, whether HyD agreed that unnecessary additional cost could be avoided if the staff concerned could have provided comments before the engineering design was finalised; if so, what measures could be taken by the Administration to ensure that similar situation will not recur in the works department?***

Consultant X circulated the tender documents for Contract B and Contract D in 2012 and 2016 respectively. At that time, there was no guideline specifying the type of thermal barrier and that tunnel fittings should be dismantled manually as far as practicable to facilitate inspection and maintenance in the long run. Subsequently, after the commencement of the relevant works contract, the New Territories Regional Office proposed the use of board type thermal barrier and the split of Vitreous Enamel panel into 2 rows to enhance the cost-effectiveness of the maintenance work and to avoid the closure of part of the tunnel tubes due to the need for the works so as to minimise the impact on the traffic. The above variation did not result in any additional unnecessary works and therefore no additional expenditure was incurred. HyD issued new design guidelines in 2023 requiring the use of board type thermal barrier in general and that tunnel fitting should be dismantled manually as far as practicable, to enable more efficient and cost-effective inspection, maintenance and repair works in the long run.

- (i) Regarding the omissions and discrepancies of information in the tender documents for Contract D mentioned in paragraph 3.13 of the Audit Report, please explain:***
- (i) for the vehicular access to be constructed under Contract D, why HyD did not specify the concrete paving, drainage and the associated emergency vehicular access signage for the vehicular access in the contract drawings (including the scope of the contract), resulting in the need to issue a variation order at a***

cost of \$5.5 million, and whether this involved negligence of Consultant X or the relevant staff of HyD;

- (ii) regarding the 10 instructions issued for clarifying the details of the works (involving a total additional cost of \$92.6 million) in respect of the discrepancies amongst contract documents under Contract D (such as drawings and Particular Specifications), whether Consultant X was liable for the above events as Consultant X was responsible for the preparation of the tender documents (including the construction specifications and plans, etc.); and*
- (iii) what measures/auditing mechanism are in place to assist staff in vetting the tender documents; how such measures can effectively ensure that the information in the tender documents is complete, accurate and consistent;*

- (i) Consultant X and HyD had checked the tender documents in accordance with the requirements of the relevant guidelines before tendering Contract D, which involved more than 6 000 pages of documents and 1 800 drawings. It was an isolated omission that the drawings of Contract D did not specify the need for the concrete paving, drainage and the associated emergency vehicular access signage for the vehicular access. The relevant variation order subsequently issued was valued at \$5.5 million, representing about 0.2% of the original contract sum of \$2.59 billion, and did not involve any additional unnecessary works. HyD considered that the overall performance of Consultant X in preparing the tender documents was not unacceptable.
- (ii) Of the 10 instructions issued, 7 of them involved clarification of construction details due to the need to tie in with the latest situation of other “design and build” contracts or updated guidelines on design standards, and the amount involved was about \$91.9 million (about 3.55% of the original contract sum of \$2.59 billion). The above 7 instructions were not due to Consultant X’s omission in preparing the tender documents.

The remaining 3 instructions involved isolated omission in the preparation of the tender documents by Consultant X and amounted to about \$0.7 million (about 0.03% of the original contract sum of \$2.59 billion).

The costs involved in the above 10 instructions were in fact incurred by additional work and did not result in any additional

unnecessary works, and hence no additional expenditure was incurred. HyD will holistically review the performance of Consultant X and reflect it in its final performance assessment report as appropriate.

- (iii) HyD updated its internal guidelines in 2018 to explicitly require staff to scrutinise the tender documents submitted by the engineering consultants, which include spot checking of tender documents, bills of quantities and drawings. HyD and its consultants have also made extensive use of Building Information Modeling (“BIM”) technology in the production of drawings to ensure that the details of sections/elevations/layout plans/reinforcement in all drawings are compatible with each other and to minimise human errors.

(j) According to paragraph 3.16 of the Audit Report, Consultant X issued two variation orders at the cost of \$3.9 million and \$2.6 million for the introduction of BIM and the Smart Fire System Mobile Application respectively to enhance the operational efficiency and fire safety of Tuen Mun – Chek Lap Kok Link (“TM-CLKL”). Would HyD please explain/advise:

- (i) why the decision to adopt the above technologies was made after the commencement of the works;***
- (ii) paragraph 3.19(e) of the Audit Report mentioned that the Director of Highways would keep under review the adoption of new technologies. In this connection, what the benefits of the above two technologies were; and***
- (iii) whether it will be more proactive in incorporating new technologies into the tender documents when preparing future projects;***

- (i) As the BIM technology and the Smart Fire System Mobile Application were not widely adopted in the market when the relevant contracts were tendered in 2017, Consultant X did not make the adoption of the relevant technologies a requirement for the contractor in the tender document. In response to the new guidelines issued in 2019, HyD was required to conduct road safety audits for newly constructed roads. As some of the road works had not yet been completed at that time, the project team proposed to use the BIM technology to produce drive-through simulation videos so that the road safety auditor could make

recommendations on traffic signs and road markings, etc. based on the simulation videos at an early stage to facilitate early follow-up actions. At the same time, the relevant videos would also help provide clear driving information to the public before the commissioning of TM-CLKL, so as to facilitate drivers to familiarise themselves with the route and enhance safety. On the other hand, the Smart Fire System Mobile Application could automatically notify the frontline tunnel staff of the location of the fire signal through the mobile application when the tunnel fire service installations detected the high temperature warning or fire signal, thus enhancing the speed of response. By allowing the tunnel staff to follow up on the high temperature warning signal immediately, it could help reduce the need for operation of fire engine/ambulance due to false fire alarms so as to better utilise rescue resources.

- (ii) The drive-through simulation videos produced using the BIM technology had assisted road safety auditor in completing relevant audits and provided clear driving information to the public for the convenience of motorists and enhancement of safety. The videos have been uploaded onto the website of the Transport Department (“TD”) for public viewing and accumulated over 150 000 views so far, while the Smart Fire System Mobile Application was launched upon the commissioning of TM-CLKT.
- (iii) HyD will proactively incorporate suitable new technologies into the tender documents when planning future projects.

(k) With regard to the two fatal accidents at the construction sites of Contracts A and B mentioned in paragraph 3.23 of the Audit Report, please explain/advise:

- (i) why the summonses against Contractor B and its sub-contractor in respect of the fatal accidents were dismissed after trial;***
- (ii) in respect of the above two fatal accidents, Contractor A and its sub-contractor were convicted and fined, and the performance assessment reports of Contractors A and B were given “very poor” and “poor” ratings respectively by HyD. Apart from that, whether HyD had imposed other penalties on the two contractors, such as suspending them from tendering; if so,***

what the details were (including the suspension period); if not, what the reasons were; and

(iii) according to Note 39 in paragraph 3.2 of the Audit Report, Contractor A and Contractor D were the same company. Why Contractor A could still be awarded Contract D in 2018 when it was given a “very poor” performance rating by HyD in 2016 due to the aforesaid fatal site accident; whether HyD had taken into account Contractor A’s past performance in assessing Contract D’s tender documents, and whether there was any violation of the assessment mechanism;

(i) The court dismissed the relevant prosecution after trial, having regard to the relevant circumstances of the case.

(ii) In taking forward public works projects, HyD will monitor and follow up site safety matters in accordance with the Construction Site Safety Manual (“CSSM”) and the relevant technical circulars and guidelines. In case of poor safety performance of a contractor or even a fatal accident, HyD will handle the matter in accordance with the Contractor Management Handbook and relevant technical circulars, such as suspending the contractor from tendering. Following Contractor A’s fatal industrial accident, a “very poor” performance rating was reflected in the site safety aspect in its performance report. Its overall performance was also rated as “adverse”. In view of the improvement in Contractor A’s performance (including site safety aspect) in the following quarter and the overall performance was rated as “not adverse”, it was not required to disqualify Contractor A from tendering under the mechanism.

(iii) In general, tender evaluation of public works contracts comprises two parts. First, tenderers’ technical competence and past performance (including performance reports) are assessed, followed by considering their tender prices. After summation of the technical and price scores, the tender with the highest overall score will be recommended for acceptance. To protect the public interest, the financial capability of the tenderer with the highest overall score and the reasonableness of its bid will also be assessed by the works departments, so as to ensure that the successful tenderer is fully capable of completing the works in accordance with the terms of the contract. For tenders with unreasonably low prices, even if they obtain the highest overall scores, they will not be recommended for acceptance.

In assessing the tenders for Contract D, HyD had evaluated the technical competence and past performance of the tenderers and their submitted tender prices in accordance with the above evaluation mechanism. Contractor A's performance in site safety of public works projects in the past three years (including the "very poor" performance rating given by HyD in 2016) had also been reflected in the overall scores in the relevant tender assessment. Apart from Contract D, Contractor A was also awarded other public works contracts during the three-year period.

(l) According to paragraph 3.24 of the Audit Report, from the contract commencement dates of the respective contracts to August 2024, 173 non-fatal reportable accidents happened at the construction sites of Contracts A to F and H. According to CSSM, contractors are required to timely report the reportable accidents and submit the related reports to Consultant X. Please explain/advise:

- (i) why Consultant X had not compiled the relevant management information on accidents reported by contractors; whether HyD had provided guidelines to Consultant X on the keeping of such management information; if not, how HyD could accurately capture the information on the reportable site accidents to ensure effective monitoring of site safety;***
- (ii) according to CSSM, contractors are required to submit a preliminary accident report ("PAR") within 24 hours, but there were 2 and 7 cases of late submission of PAR by Contractors A and B respectively, with delays ranging from 8 to 98 days. Would HyD please explain why such a situation occurred and that it only became aware of the situation upon the Audit Commission's enquiry; and whether penalties had been imposed on the two contractors in this regard;***
- (iii) apart from contravening the requirements of CSSM, whether the aforesaid delay in reporting site accidents by the contractors also contravened the regulation on reporting work injuries under the Employees' Compensation Ordinance (Cap. 282); if so, why HyD allowed such a situation to occur; whether there was a delay in the reporting of fatal site accidents mentioned in paragraph 3.23 of the Audit Report; whether the requirements in CSSM were in full compliance with the relevant legislation in Hong Kong; and***

(iv) apart from the follow-up actions mentioned in paragraph 3.30 of the Audit Report, what measures HyD has put in place to enhance site safety (e.g. mechanism of removal from the list), strengthen the monitoring of the contractors' performance in site safety, and ensure that contractors comply with the relevant requirements for timely reporting of construction site accidents;

(i) Consultant X had kept information on each of the accident and had issued letters to the contractors concerned for follow-up and written records on the 9 late reporting cases. However, Consultant X needed to take time to check the information and verify whether the contractors had reported the accidents on time in accordance with the CSSM. Nevertheless, Consultant X and HyD could have better compiled the management information to facilitate easy access to the management information at any time. To improve the above situation, HyD will develop standardised computer reports and provide guidelines to require consultants managing works contracts to prepare relevant accident management information, including the time sequence of the contractors' reporting of accidents and records of whether the contractors have delayed the reporting of accidents, etc., to facilitate the management of and access to the relevant records at any time.

CSSM provides guidelines on the handling of late reporting of accidents by contractors. According to the latest guidelines, if HyD/consultants are aware of any accidental omission/late reporting by the contractors, they must request the contractors to provide information and accident report forms within 3 months for inclusion of the accidents in the statistics, or to provide sufficient evidence to prove that the cases concerned are not "reportable" accidents and should be withdrawn. Otherwise, HyD will take the initiative to include the accident cases in the statistics and assess the performance of the contractors in accordance with the relevant technical circulars².

(ii) According to CSSM, the contractor is required to immediately notify the consultant verbally of a fatal or serious injury accident and must submit a PAR to the consultant within 24 hours. In addition, the contractor is required to submit to the consultant a

² If the contractor is late in reporting accidents for more than 3 months, item 3.6 "site accident record" of the contractor's quarterly performance assessment report shall be rated as "very poor".

specified Injury Report Form within 7 days of the occurrence of a “reportable” accident (i.e. an accident resulting in incapacity for more than 3 days).

As mentioned in the reply to item (l)(i) above, the consultant had issued letters to the contractors concerned regarding the 9 late reporting cases. According to the contractors’ replies, the late reporting of accidents was mainly due to the failure of some injured workers or their employers to report the work injuries to the contractors in a timely manner, and the time taken by the contractors to verify whether the incidents were substantiated (in particular the relatively minor/non-symptomatic ones) or whether they were “reportable” accidents.

In the event of deliberate delay in reporting accidents by the contractor, the consultant will reflect it in the relevant sub-item in the contractor’s quarterly performance assessment.

- (iii) Under subsection (1A) of section 15 of the Employees’ Compensation Ordinance, notice of any accident which results in the total or partial incapacity of the employee for a period exceeding 3 days immediately following the accident shall be given to the Commissioner for Labour by the employer not later than 14 days after the accident in the prescribed form, if the accident results in the total or partial incapacity of the employee. In addition, subsection (1B) of section 15 also provides that if the happening of such accident was not brought to the notice of the employer or did not otherwise come to his knowledge within such periods of 14 days referred to in subsection (1A) then such notice shall be given not later than 14 days after the happening of the accident was first brought to the notice of the employer or otherwise came to his knowledge³. According to the records, regarding the 9 site accidents mentioned in the Audit Report which were not reported to the consultant in a timely manner, the timing of the contractors’ reporting of the accidents to the Labour Department was in compliance with the requirements of subsection (1A) of section 15 or subsection (1B) of section 15 of the Employees’ Compensation Ordinance mentioned above. Among these 9 site accidents, 8 cases were minor or non-symptomatic accidents involving slip, finger bruise, foot injury,

³ Under section 15(6) of the Employees’ Compensation Ordinance, an employer who, without reasonable excuse, fails to give the notice required under subsection (1A) or (1B) commits an offence.

waist sprain, etc. The remaining case involved fall of construction materials from a worktable causing injury to a worker.

Contractor A and Contractor B have duly reported the fatal site accidents mentioned in paragraph 3.23 of the Audit Report in accordance with the requirements set out in CSSM.

The requirements set out in CSSM were in compliance with the relevant legislation in Hong Kong.

- (iv) HyD will actively make use of the Smart Site Safety System to monitor the site conditions in real time to enhance management efficiency and help the project teams keep track of the construction situation so as to identify potential risks and minimise accidents at an early stage.

According to the Technical Circular (Works) No. 5/2023 issued by DEVB in July 2023, if a contractor on the approved list is involved in a serious incident, the contractor's tender eligibility in the relevant category of public works may be suspended with immediate effect. The regulatory action of tender suspension is not only applicable to future tenders, but also to works contracts that the contractor has tendered but not yet awarded.

- (m) Paragraph 3.27 of the Audit Report mentioned that in 16 out of 83 months (i.e. the contract period of Contract B), the conditions for triggering the site safety monitoring procedure were met and reports should be submitted by the Contractor B outlining the problem areas in relation to site safety, actions taken/to be taken to improve the safety performance and ways to monitor the site safety improvement measures. However, Contractor B did not submit the required reports for 3 out of the 16 months. In the event that Contractor B failed to submit the reports, how HyD monitored/evaluated the site safety improvement measures implemented by Contractor B;***

The two-month moving average of the accident rate ("2MMA") and three-month moving average of the accident rate ("3MMA") are a warning mechanism, the main purpose of which is to require the contractors to conduct immediate reviews and take effective measures when the accident rate is on an upward trend, with a view to

improving safety performance in the short term so as to bring down the accident rate.

The reason for the non-reporting of these three months was that it took time for the contractor to investigate and confirm some of the “reportable” accidents. After the workers had reported or the contractor had completed their investigations, the accident statistics for certain months in the past had to be adjusted upward, resulting in the accident rate exceeding the limit. As the site environment had changed at that time and the 2MMA and 3MMA figures at that time were already below the maximum limits stipulated in the works contract, the contractor did not submit the supplementary reports.

Notwithstanding the above, HyD and Consultant X still held safety review meetings with Contractor A and Contractor B respectively in June 2020 to review in detail all the “reportable” accidents and summarised the safety measures that needed to be improved and documented them in the safety review report for record purpose.

Part 4: Operation and Traffic Management

- (n) According to paragraph 4.5 of the Audit Report, the actual number of designated ranks of staff employed by TM-CLKT Operator A was less than that specified in the Management, Operation and Maintenance (“MOM”) agreement, with a monthly staff shortfall ranging from 8 to 30 staff, representing 6% to 21% of the manning level of 140 staff. However, paragraph 4.7 of the Audit Report mentioned that TD found in a review in February 2024 that the traffic volume and associated operation and maintenance needs had increased. Therefore, the manning level in the new MOM agreement commenced in December 2024 would increase from 140 to 150. In this connection, please explain/advise:***
- (i) why Operator A was granted a new service agreement even though it failed to meet the staffing requirements in the last agreement; whether Operator A’s tender price was the lowest; whether TD had taken into account the performance of Operator A in the last agreement when evaluating the tender proposals; and***
 - (ii) what measures are in place to assist and ensure that Operator A can meet the requirements of the agreement and recruit sufficient staff;***

- (i) The tendering exercise for the Agreements for Management, Operation and Maintenance (“the Agreements”) for government tunnels was conducted in accordance with the Stores and Procurement Regulations of the Government, by way of open tendering and on the principle of “open and fair competition”, and in compliance with the tendering procedures and assessment criteria.

Regarding the new Agreement of TM-CLKT, TD stipulated in the relevant tender documents that the tender assessment would be divided into two parts, namely technical assessment and price assessment, which would account for 70% and 30% of the total score respectively. The tender assessment panel, comprising staff members from TD and the Electrical and Mechanical Services Department (“EMSD”), assessed the technical proposals submitted by the tenderers in accordance with the prescribed selection criteria and marking scheme, including the tenderers’ capability in the management, operation and maintenance of the relevant traffic and transport facilities, as well as their past performance in managing, operating, and maintaining government tunnels; and assessed the price proposals by the tenderers which had passed the technical assessment. The tender assessment panel, after taking into account the total scores obtained by the tenders in both the technical and price assessments, recommended to the Central Tender Board the adoption of the tender with the highest total score.

Operator A was the tenderer with the highest total score among the tenderers and its bid was the second lowest. TD awarded the new Agreement to Operator A after the Central Tender Board had approved the assessment results.

- (ii) TD has always been concerned about the manning level of the operator and has required the operator to take improvement measures to attract new entrants and retain existing staff at the same time. In fact, the shortage of operation and maintenance staff has improved significantly from its peak. The operator and TD have implemented various improvement measures to address the staff shortage.

To ensure manpower stability, the operator has organised a number of in-house training courses to enhance the capabilities

of serving operators to take up suitable positions. In addition, the operator has co-organised a training course (Certificate in Basic Knowledge for Tunnel Traffic Supervisors) with the Hong Kong Institute of Vocational Education in August 2024 to recruit traffic officer trainees through the “Employment First, Training Later” scheme under the Employees Retraining Board (“ERB”). Upon completion of the course, students can be transferred to become traffic officers and officially join the tunnel management industry. The operator has liaised with the ERB on the feasibility of organising the next training course as soon as possible in 2025.

The operator will also continue to conduct staff recruitment publicity through various channels, including posting recruitment advertisements and participating in open recruitment events organised by the Labour Department or major recruitment media to attract newcomers to join the tunnel industry. In addition, the operator will redeploy staff on leave to fill vacancies in designated ranks.

On the other hand, TD has appropriately allowed the operator to employ some applicants who have not yet had one year’s experience in traffic control or public transport facility management to take up the post of assistant traffic officer, and provides training for these staff. Upon completion of the training and passing the examination, they can become traffic officers. TD has also given approval for the operator to suitably employ applicants who do not hold a driving licence as traffic officers, starting from the effective date of the new agreement, and assign the applicants to positions which do not involve driving (such as at the lobby of the Administration Building), in order to attract new recruits to the tunnel management industry and enhance the supply of manpower resources and recruitment efficiency.

In the long run, TD will consider making good use of technology to reduce the manpower requirement, such as studying the installation of sensors on roadside and tunnel equipment to detect out-of-gauge vehicles and the condition of tunnel equipment, thereby reducing frequency of manual inspection and patrol. We will liaise with relevant technology companies and consider conducting trials of such technology in the tunnel environment.

Both the operator and TD have taken a number of improvement measures to address the manpower shortage situation. The operator has identified/recruited sufficient staff when the new Agreement commences. Apart from urging the operator to improve the working environment and remuneration, TD will continue to supervise the operator to continuously review their human resource plans and work with them to discuss coping strategies, making timely adjustments and taking appropriate measures in light of the actual circumstances to maintain the stability of its workforce and attract newcomers to join the tunnel management industry, thereby complying with the agreed staffing levels for various types of employees as stipulated in the Agreement.

(o) Regarding the 7 issues that arose during recovery operations conducted by the heavy recovery vehicles used in TM-CLKT between May 2021 and May 2024, as mentioned in paragraphs 4.15 and 4.16 of the Audit Report, please explain/advise:

- (i) what the underlying causes of the issues were identified by TD, in conjunction with EMSD and the manufacturer of the heavy recovery vehicles, in September 2024; why these causes were only identified after three years of experiencing similar issues; what improvement measures have been taken; what is the additional expenditure involved in these measures, and which party is responsible for paying it; and whether the relevant issues been resolved now?***
- (ii) whether the same model of heavy recovery vehicles is used in other tunnels; if so, whether similar issues have occurred during recovery operations?***
- (iii) whether appropriate specifications and requirements have been established for the procurement of heavy recovery vehicles for tunnels in accordance with the design and conditions of different tunnels, and whether field tests have been carried out;***

- (i) TM-CLKT, with a total length of approximately 5 kilometres and a depth of about 60 metres below sea level, is currently the longest and deepest road tunnel in Hong Kong. The depth and gradient of the tunnel would affect the stability of a vehicle's center of gravity, especially when an accident occurs on a steeper section in the tunnel, where the vehicle's center of gravity may***

become unstable due to the changes in gravitational force, which may result in the lifting up of front wheels.

In addition, the weight of a towed vehicle is also a significant factor contributing to the lifting of the front wheels. If the weight of a towed vehicle exceeds the design load capacity of the recovery vehicle, it will cause the center of gravity of the recovery vehicle to shift, which would further increase the risk of losing stability.

The design characteristics of TM-CLKT and the uncertainty of the load on the towed vehicles are the main reasons of the operational issues with the heavy recovery vehicles. In view of the geographical limitations of the tunnel, TD, EMSD and the tunnel operator need to work towards a suitable solution.

EMSD had assigned engineers to conduct professional and technical assessments to verify the performance of the recovery vehicle. The operator had also conducted rounds of on-site demonstrations to simulate the operation of heavy recovery vehicles under different conditions, including the stability, traction and safety of the recovery vehicle. The entire process involved coordination among various parties and it took time to determine the causes of the problem and improvement solutions.

TD and EMSD are considering enhancing the axle load capacity of heavy recovery vehicles and converting the vehicle type concerned from heavy goods vehicles to special purpose vehicles. Subject to the advice/approval from HyD and EMSD, TD expects that the modification works can be completed within 2025. As heavy recovery vehicles are government vehicles, the relevant expenses involved in improving their load-bearing capacity will be borne by the Government. However, since the details of the modification work are yet to be finalised, information on the related expenses is not available at this stage.

In addition, EMSD has set up a hotline for operators to contact EMSD when they encounter such situations, so that EMSD can provide technical assistance, analyse and investigate the incident as soon as possible. Upon receipt of a report, EMSD would send its staff to the scene to understand and analyse the situation.

- (ii) Currently, heavy recovery vehicles of the same type are also used in other government tunnels. Records show that no similar problems have occurred in these heavy recovery vehicles during vehicle recovery operations.
- (iii) The procurement of heavy recovery vehicles is based on operational requirements. Tenders are scrutinised by the Government Logistics Department to ensure that the procurement procedures are in line with the Government's material supply and procurement requirements. The procurement is conducted through open tender. The lifting appliances and lifting gears on each heavy recovery vehicle are inspected, examined and tested by registered professional engineers, and certification documents are issued in accordance with the Factories and Industrial Undertakings (Lifting Appliances and Lifting Gear) Regulations (Cap. 59J).

Before the delivery of the heavy recovery vehicles, TD and EMSD will conduct testing and inspection of the vehicles and make appropriate adjustments to the vehicles if necessary (e.g. adjusting the center of gravity of the recovery vehicle) to ensure that the vehicle specifications comply with the tender requirements, operational needs and relevant safety requirements.

In planning and procuring heavy recovery vehicles in future, TD and EMSD will place more emphasis on the formulation of technical specifications and requirements that better suit the actual environment.

- (p) ***According to paragraph 4.17 of the Audit Report, although the Government has provided the operator of TM-CLKT with over-height vehicle detectors to detect over-height vehicles, no other equipment or technology had been provided to detect other out-of-gauge vehicles (e.g. over-length). In paragraph 4.21(f) of the Audit Report, TD stated that it would explore additional measures to help the operator of TM-CLKT identify out-of-gauge vehicles passing through the tunnel. Please provide an update on the progress; and***

To assist the operator of TM-CLKT in identifying out-of-gauge vehicles, TD and EMSD have approached the relevant technology

companies and their preliminary view is that it is generally feasible to install additional detectors for over-height, over-width, and over-length vehicles on the existing infrastructure, although further studies on the detection of overweight vehicles are needed.

TD and EMSD will thoroughly consider the feasibility of using the relevant identification technology in the tunnel environment and conduct appropriate testing with a view to enhancing the safety and operational efficiency of the tunnel.

(q) According to paragraph 4.25 of the Audit Report, TD stated at the Tuen Mun District Council meeting in September 2020 that the commissioning of TM-CLKL would not have a significant impact on traffic in Tuen Mun. According to the research by Consultant X, the congestion on the busier major road sections in Tuen Mun would remain manageable until 2026. However, paragraph 4.26 of the Audit Report points out that after the Northern Connection of TM-CLKL was commissioned in December 2020, the traffic survey conducted by Consultant X under the project in 2021 showed that traffic flows at the relevant major road sections in Tuen Mun including Wong Chu Road has increased. Furthermore, the traffic volume/capacity ratio of Wong Chu Road had exceeded 1.0 (i.e. indicating the onset of traffic congestion) since 2022 and increased to 1.17 in 2023. In this connection, please explain/advise:

- (i) based on the current traffic congestion situation in Tuen Mun, whether TD considers that the assessment by Consultant X at that time (i.e. the traffic congestion concerned can still be at a manageable level in 2026) is inaccurate? If yes, whether TD has conducted further studies or investigations on the traffic congestion situation in Tuen Mun; if so, what the results are; and**
- (ii) what measures are taken to improve traffic congestion in Tuen Mun; whether such measures are effective; what the current traffic volume/capacity ratio of Wong Chu Road is.**

In 2020, Consultant X conducted an assessment on the traffic condition of busier major roads in Tuen Mun and anticipated that the traffic condition would still be manageable till 2026, and TD agreed with the assessment at that time. Since then, TD had been monitoring the traffic situation in Tuen Mun and observed that Tuen

Mun Road (Town Centre Section) and Wong Chu Road were congested during peak hours on weekdays. According to TD's observation, the traffic volume/capacity ratio⁴ of Wong Chu Road in 2023 is 1.17, and the overall traffic situation in Tuen Mun is still at a manageable level. The traffic data for 2024 are still being compiled.

In order to maintain the road traffic condition in Tuen Mun at a manageable level, TD has formulated corresponding short-term traffic management measures, including arranging for the widening of junction on Ming Kum Road and Lung Mun Road, so as to enable vehicles to smoothly travel between Tuen Mun Road (Fu Tei Section) and TM-CLKT using the route along Tsing Tin Road, Ming Kum Road, Tsing Wun Road and Lung Mun Road, thereby diverting traffic away from Tuen Mun Road (Town Centre Section) and Wong Chu Road.

The Government has been taking forward a group of major transport infrastructure projects to connect the Northwest New Territories with Lantau and the urban areas, including Route 11 (section between Yuen Long and North Lantau), Tuen Mun Bypass, Tsing Yi – Lantau Link and Widening of Yuen Long Highway (section between Lam Tei and Tong Yan San Tsuen) to meet the transport and logistics demand arising from the progressive development of the Northwest New Territories.

In addition, before the commissioning of the Tuen Mun Bypass, the Government plans to take forward the extension works to major roads in Tuen Mun, including the proposed Lung Fu Road Slip Roads and Hoi Wing Road Slip Road to enhance the capacity of the road network in the district.

Apart from this, TD, in conjunction with HyD, is studying different options to improve congested road sections in the district, including adjustment of road markings of Wong Chu Road to rationalise the traffic in the vicinity of Wong Chu Road slip roads, and taking forward the next phase of the junction improvement works, so as to allow vehicles travelling between Tuen Mun Road and TM-CLKT to

⁴ The traffic volume/capacity ratio ("v/c") is an indicator of traffic condition of a road:

- (1) a v/c ratio equal to or less than 1.0 means that a road has sufficient capacity to cope with the anticipated volume of vehicular traffic; while a v/c ratio above 1.0 indicates the onset of traffic congestion;
- (2) a v/c ratio between 1.0 and 1.2 indicates a manageable degree of congestion; and
- (3) a v/c ratio above 1.2 indicates more serious congestion with traffic speeds deteriorating progressively with further increase in traffic.

travel along Tsing Tin Road, Ming Kum Road, Tsing Wun Road and Lung Mun Road more smoothly. When formulating traffic plans, TD will take into account the future development of the area as a whole, including the implementation of various infrastructure projects and the impact on major roads in Tuen Mun after the implementation of time-varying tolls at the Tai Lam Tunnel.

TD expects that the above infrastructure projects and traffic measures will improve the current traffic congestion on Tuen Mun Road (Town Centre Section) and Wong Chu Road during peak hours.

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23 January 2025

Ms Shirley CHAN
Clerk to Public Accounts Committee
Legislative Council
Legislative Council Complex
1 Legislative Council Road
Central, Hong Kong

Dear Ms Chan,

**Public Accounts Committee
Consideration of Chapter 7 of the Director of Audit's Report No. 83
Tuen Mun - Chek Lap Kok Link**

Thank you for your letter dated 14 January 2025, our reply is as follows:

During the implementation of public works projects, unforeseen circumstances may arise within the scope of the project (such as unexpected geological conditions, additional works to address local concerns etc.), these additional costs so incurred are usually covered by project contingency and savings in construction costs. Only when there is a surplus in the provision for price adjustment provision, and it is not possible to deploy other resources within the works project, can Controlling Officers use the surplus in the provision for price adjustment to cover such additional costs.

Under the existing mechanism, Controlling Officers can deploy resources to cope with unforeseen circumstances in implementing works projects, subject to the approved project estimates and in compliance with the above conditions. For cost

control and monitoring purposes, Controlling Officers must ensure proper use of funds under their control, having regard to economy, efficiency and effectiveness in the delivery of public service and the use of the public funds. We consider the current arrangement to be reasonable.

In terms of strengthening the cost monitoring of public works projects, the DEVB established the Project Cost Management Office (PCMO) in June 2016 and upgraded it to become the Project Strategy and Governance Office (PSGO) in 2019 to implement various measures in strengthening cost surveillance to enhance infrastructure projects performance. PSGO will track the development of projects from their inception to completion, including detailed design and funding application stages, by starting the project vetting process from the outset and conducting regular reviews and follow-up actions. Since 2018, public works have deployed the Project Surveillance System (PSS) to monitor the performance of projects on a continuous basis and provide predictive analyses for forecasting the costs and time performances of on-going projects. At the same time, the Government has adopted parallel tendering since September 2020, meaning that the Government will first commence tendering exercise for a works project in order to reflect the returned tender price in its funding application, thereby providing the Legislative Council with a more accurate construction cost estimate which will reduce the risk of cost overrun.

In parallel, to strengthen cost control during the construction period, PSGO (and formerly PCMO) has since 2017 played an independent third party role to examine major variations of public works contracts involving HK\$1.4 million or above. The project team is provide explanation for the major variations and analyze their implications on the works contract, including construction costs, construction period, operating expenses etc. PSGO will review the variations based on their cost-effectiveness and provide independent advice to the Controlling Officers after such review. Controlling Officers will then decide whether to issue the variation orders by taking into account PSGO's views and the funding availability.

Yours sincerely,



(Frankie FUNG)
for Secretary for Development

cc Secretary for Financial Services and the Treasury (Email: sfst@fstb.gov.hk)
Secretary for Transport and Logistics (Email: stlooffice@tlb.gov.hk)
Director of Highways (Email: tonyyau@hyd.gov.hk)
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By email

9 January 2025

Clerk to Public Accoutns Committee
Legislative Council Complex
1 Legislative Council Road
Central, Hong Kong
(Attn: Ms Shirley Chan)

Dear Ms Chan,

Public Accounts Committee
Consideration of Chapter 8 of the Director of Audit's Report No. 83
Youth Development Fund

I refer to your letter dated 18 December 2024 to the Secretary for Home and Youth Affairs on the captioned subject. Our reply is enclosed at Annex for consideration by the Public Accounts Committee.

Yours sincerely,

A handwritten signature in black ink, appearing to be "Tori Chan".

(Miss Tori Chan)

for Secretary for Home and Youth Affairs

Encl.

c.c. Secretary for Financial Services and the Treasury
Director of Audit

**Chapter 8 of the Report No. 83 of the Director of Audit
Youth Development Fund**

Questions Raised and Information Requested

Part 1: Introduction

- 1) **According to paragraph 1.9 of the Report No. 83 of the Director of Audit (the Audit Report), as at 30 June 2024, the total approved commitment of the Youth Development Fund (YDF) was \$900 million, but the amounts approved under various schemes totalled only \$244.6 million. Please advise of:**
- (a) the mechanism for allocating the total approved commitment of \$900 million to the various schemes set out in Table 1 of paragraph 1.9 and the amount of allocation for each scheme; and**
 - (b) the percentages of the amount approved for each scheme against the total amount of allocation.**

The Youth Development Fund (YDF) was set up in 2016 and with the aim of supporting youth entrepreneurship and youth development activities through collaboration with non-governmental organisations (NGOs). Over the years, the YDF has been providing financial resources to support various youth development initiatives. As at 30 June 2024, the YDF had a total approved commitment of \$900 million, while the amount of funding approved under various schemes was \$244.6 million.

The Home and Youth Affairs Bureau (HYAB) has already earmarked most of the remaining funding under YDF for new rounds of various youth development schemes / activities in the next few years, covering the Funding Scheme for Youth Entrepreneurship in the Guangdong-Hong Kong-Macao Greater Bay Area (the Entrepreneurship Scheme), the Funding Scheme for Experiential Programmes at Innovation and Entrepreneurial Bases (the Experiential Scheme), the Alliance of Hong Kong Youth Innovation and Entrepreneurial Bases in the Greater Bay Area (the Alliance), the Funding Scheme for Youth Adventure Training Activities (FSYATA) and the Funding Scheme for Youth Positive Thinking Activities (FSYPTA), etc. For example, the HYAB has just announced the programmes under the new round of the Entrepreneurship Scheme and Experiential Scheme in December 2024 and the new allocation of funding is about \$170.7 million. Besides, a new round of FSYATA has been launched in December 2024 and is now accepting applications from eligible NGOs.

To facilitate the Youth Development Commission (YDC) in monitoring the utilisation of YDF, the HYAB regularly reports to YDC the implementation progress of various youth development schemes / activities, the allocation arrangement and financial position of YDF.

Part 2: Entrepreneurial Funding Schemes Providing Start-up Capital Support

2) According to paragraph 2.4 of the Audit Report, under the Entrepreneurship Matching Fund (EMF) or the Funding Scheme for Youth Entrepreneurship in the Guangdong-Hong Kong-Macao Greater Bay Area (Entrepreneurship Scheme), non-governmental organisations (NGOs) applying to become an operator are required to provide a proposal detailing the objectives of the project and expected outcomes, selection and assessment process for young entrepreneurship applicants (YEAs), number of expected YEAs selected and corresponding budget and milestone achievements, etc. Please advise:

(a) in tabulated form, of the amounts of start-up capital support and the actual implementation figures (if any) of the 16 NGO operators under the Entrepreneurship Scheme;

The amounts of start-up capital support and the actual implementation figures of the 16 NGO operators are as follows –

Name of NGO operators	Approved start-up capital subsidy (\$)	No. of youth start-up teams
The Hong Kong University of Science and Technology	5,760,000	12
Proactive Think Tank Limited	3,840,000	12
Hong Kong Youth Synergy Foundation Ltd.	5,760,000	12
The University of Hong Kong acting through HKU Innovation & Entrepreneurship Hub – iDendron	5,920,000	14
Hong Kong General Chamber of Young Entrepreneurs Limited	5,760,000	12
The Hong Kong Polytechnic University	5,760,000	12
The Education University of Hong Kong	5,760,000	12
Tung Wah Group of Hospitals	5,760,000	18
The Y.Elites Association Limited	5,760,000	12
Hong Kong New Generation Cultural Association Limited	5,760,000	16
Kowloon Federation of Associations	3,840,000	13
Hong Kong United Youth Association Limited	5,760,000	12
The Chinese University of Hong Kong	5,760,000	13

Po Leung Kuk	6,000,000	22
The Society of Rehabilitation and Crime Prevention, Hong Kong	2,400,000	13
The Hong Kong Federation of Youth Groups	5,760,000	12
Total		217

- (b) of the details of as well as the similarities and differences between the selection and assessment processes for YEAs of the 16 NGO operators; and the Bureau's justifications for accepting that different NGO operators may have varied selection and assessment processes for YEAs; and**

According to the guidelines of the Entrepreneurship Scheme, NGO operators must establish a rigorous and fair mechanism for assessing and selecting young entrepreneurship applicants (YEAs). The mechanism should include the establishment of fair and reasonable recruitment procedures and selection criteria and the formation of an assessment panel to conduct selection interviews. Members of the panel should include individuals with relevant industry experience for assessing the business quality of the YEAs. When applying for the Entrepreneurship Scheme, NGO operators are required to provide details on the proposed recruitment procedures and mechanism, the selection criteria for YEAs and the expected number of beneficiaries in their project proposals. The assessment panel established by HYAB and YDC takes into account relevant information as part of the assessment criteria when reviewing the funding applications of NGO operators.

Under the aforementioned principle of fairness and impartiality, the selection and assessment procedures determined by individual NGO operators may vary. For instance, some operators organised entrepreneurship competitions, while others provided entrepreneurship workshops for the YEAs, where mentors would assess and recommend suitable applicants for the next stage of selection. Regarding the selection criteria, operators in general considered factors such as the background and experience of the youth start-up teams, innovative and creative elements of their projects, the business model and its sustainability, financial arrangements and utilisation of funding, social value, etc. Some operators also considered additional factors, such as relevance to the development of the Guangdong-Hong Kong-Macao Greater Bay Area (GBA) and the credit history of the YEAs.

NGO operators successfully applied to join the Entrepreneurship Scheme has adopted various assessment methods to select YEAs, which is conducive to recruiting young entrepreneurs from different backgrounds and industries and at different development stages. In the last round of the Entrepreneurship Scheme, 217 youth start-up teams were recruited and they covered a wide range of businesses, including research and development of innovation and technology projects, retail,

information technology, healthcare, brand design, educational services, etc.

- (c) **whether the Bureau has formulated mechanisms so that it may, based on the actual implementation effectiveness of the Entrepreneurship Scheme, review the funding agreements (e.g. adjusting the maximum funding amounts for NGO operators) or terminate such agreements; if yes, of the details and whether they have been practically implemented; if not, the reasons.**

According to the funding agreements signed between HYAB and NGO operators, the Government has the right to reduce the funding amount under reasonable circumstances, for example, if the activities implemented by the operator deviate from the approved programme proposal, or if the number of recruited youth start-up teams is less than the number originally planned. If the reports submitted by the operator do not comply with the relevant requirements, the Government has the right to terminate the funding agreement.

The HYAB monitors the actual situation and effectiveness of various operators in implementing the Entrepreneurship Scheme through the reports submitted by operators and progress review meetings, etc. If there are any deviations from the funding agreement and the approved programme proposal, the HYAB will follow up with the operator on whether they can provide reasonable explanations and, having regard to the actual circumstances, consider reducing the funding amount.

- 3) **According to paragraph 2.6 of the Audit Report, under EMF, only 9 (27%) NGOs were selected as operators out of 33 applications received; for the first round of the Entrepreneurship Scheme (February 2021 to June 2024), only 16 (48%) NGOs were selected as operators out of 33 applications received; and the explanation given by the Home and Youth Affairs Bureau (HYAB) was that “in view of the substantial amount of funding involved, a rigorous selection process was put in place.” Please advise:**

- (a) **whether the Bureau has set the number of NGOs to be selected as operators (irrespective of the actual number of applications);**
(b) **of the selection criteria and process; and**
(c) **whether the Bureau has provided guidance for prospective NGO applicants to assist them in meeting the eligibility criteria; if yes, of the details; if not, the reasons.**

In launching the Entrepreneurship Scheme, the HYAB provided application guidelines detailing the eligibility and requirements, funding criteria, assessment procedures and standards, etc. Besides, the HYAB conducted briefing sessions and invited interested organisations to attend and put forward their questions. At the time of launching the

Entrepreneurship Scheme, the HYAB did not set a predetermined number of NGO operators to be approved for funding support.

In terms of the assessment process, the secretariat reviews each application received by the application deadline to determine whether they fulfill all the eligibility criteria. The secretariat may also request clarifications from organisations regarding their applications. All applications confirmed to be eligible are submitted to an assessment panel established by HYAB and YDC for consideration. The assessment includes an interview stage. Eligible applicant organisations must attend the interview upon invitation and directly explain their proposed funding programmes to the assessment panel for consideration and review. The panel assesses each application on a merit basis. The assessment criteria include the background and experience of the applicant organisation, target beneficiaries and selection mechanism, programme content, financial arrangement, performance indicators, and other relevant factors.

4) According to paragraph 2.7(c) of the Audit Report, under the Entrepreneurship Scheme, out of 2 805 applications received by the 16 NGO operators, only 217 (8%) YEAs were selected for providing start-up capital subsidy and related services. Please advise of:

- (a) the estimated number of YEAs selected (irrespective of the actual number of applications) as compiled from the proposals of the 16 NGO operators;**
- (b) further to the above, the percentage of the 217 YEAs selected against the estimated number of applicants selected; and**
- (c) the number of unsuccessful YEAs by each NGO operator (listed by the main reasons for unsuccessful application).**

According to the proposals submitted by the 16 NGO operators with approved funding, the total expected number of selected YEAs was 228. The various NGO operators conducted the selection of YEAs based on their proposed assessment procedures, and selected a total of 217 teams in the end, which accounted for 95% of the original estimated number.

The numbers of unsuccessful YEAs rejected by each NGO operators are set out in the table below. The main reasons for unsuccessful application included incomplete application, lack of creative elements in the business plan, relatively low scores in commercial viability and market competitiveness, poor interview performance, withdrawal of selected applicants, etc.

Name of NGO operators	No. of unsuccessful YEAs
The Hong Kong University of Science and Technology	8

Proactive Think Tank Limited	144
Hong Kong Youth Synergy Foundation Ltd.	70
The University of Hong Kong acting through HKU Innovation & Entrepreneurship Hub – iDendron	82
Hong Kong General Chamber of Young Entrepreneurs Limited	236
The Hong Kong Polytechnic University	58
The Education University of Hong Kong	22
Tung Wah Group of Hospitals	116
The Y.Elites Association Limited	219
Hong Kong New Generation Cultural Association Limited	140
Kowloon Federation of Associations	215
Hong Kong United Youth Association Limited	186
The Chinese University of Hong Kong	31
Po Leung Kuk	828
The Society of Rehabilitation and Crime Prevention, Hong Kong	35
The Hong Kong Federation of Youth Groups	198
Total	2 588

5) **According to paragraph 2.8 of the Audit Report, the HYAB has not compiled statistics and reported the acceptance rate of YEAs regularly. Please advise:**

- (a) of the Bureau’s reasons for not compiling and reporting the relevant figures regularly; and**
- (b) whether the Bureau has maintained other data relating to the implementation of the Entrepreneurship Scheme; if yes, of the details; if not, the reasons and how the Bureau monitors the implementation effectiveness of the schemes run by the NGO operators.**

According to the guidelines of the Entrepreneurship Scheme, each programme of the funded NGO operators should generally support no fewer than 10 youth start-up teams. When submitting an application, the operator must specify the number of youth start-up teams they intend to recruit in their proposal. The assessment panel takes into account relevant information as part of the assessment criteria when reviewing the funding application.

The HYAB has maintained key data and information related to the implementation of the Entrepreneurship Scheme, including the status of NGO operators and individual start-up teams in achieving their milestone targets, the number of youth start-up teams settling in the Mainland cities of GBA, feedbacks from youth start-up teams, etc. in order to monitor the effectiveness and performance of the operators.

- 6) **According to paragraph 2.12 of the Audit Report, upon selection of NGO operators by the assessment panel formed under the Action Group on Youth Development Fund and Programmes, the HYAB signed a funding agreement with each of them. Please advise:**
- (a) of the main terms of such funding agreements and any mechanism stipulated therein on monitoring the NGO operators' performance (including break clauses); and**
 - (b) whether the Bureau will, in response to the audit findings of the Audit Commission (the Audit), review the funding agreements to identify room for improvement.**

The funding agreement signed between HYAB and NGO operators contains a complete set of terms and conditions for the approved funding. It clearly outlines the relationship between the Government and the funded operators as well as their respective obligations and legal responsibilities. The main terms of the funding agreement cover the requirements of the Entrepreneurship Scheme, monitoring mechanism (such as the requirement for operators to submit progress reports in accordance with the provisions of the funding agreement, and to assist in arranging monitoring visits and meetings for HYAB and YDC representatives), arrangements for funding disbursement, governing laws, books and records-keeping requirements, procurement rules etc.

If the HYAB is of the view that the funded operator has not performed satisfactorily in implementing the Entrepreneurship Scheme, or if the operator fails to achieve the preset objectives or outcomes of the Entrepreneurship Scheme, or if the operator violates any terms or conditions of the funding agreement, the HYAB may take various follow-up actions against the operator, including terminating the funding agreement, reducing the funding amount, ceasing the disbursement of remaining funds to the operator, temporarily disqualifying the operator from applying for funding from YDF in future, etc.

The HYAB agrees with the audit recommendations, and will take appropriate follow-up actions and improvement measures, which include reviewing and enhancing the relevant funding agreements and guidelines in implementing the new round of the Entrepreneurship Scheme.

- 7) **According to paragraph 2.14(b) of the Audit Report, Audit visited 2 NGO operators' offices (Operator A and Operator B). While both NGO operators indicated that they had adopted a declaration approach to manage conflict of interest, Audit later noted that Operator A had no documentary records showing that its 9 assessment panel members from external parties had made their declarations of conflict of interest. Please advise:**

- (a) of the measures put in place by the Bureau to ensure the proper management of declarations of conflict of interest by NGO operators in the selection of participants; and
- (b) given that in paragraph 3.32 of the Audit Report, Operator D under the Funding Scheme for Experiential Programmes at Innovation and Entrepreneurial Bases in the Gunagdong-Hong Kong-Macao Greater Bay Area (the Experiential Scheme) replied to Audit's enquiry in August 2024 that its assessment panel members were not required to declare conflict of interest, whether the requirements relating to declaration of conflict of interest for various schemes under YDF differ; if yes, of the details.

Currently, for schemes funded under YDF that involve the direct recruitment of service beneficiaries by NGO operators, we generally require the operators to determine the implementation details of the relevant mechanism (e.g. selection method, arrangement for the declaration of conflict of interest, etc.) in accordance with rigorous and fair principles.

According to the guidelines of the Entrepreneurship Scheme, operators must put in place a rigorous and fair mechanism for assessing and selecting YEAs. The mechanism should include the establishment of fair and reasonable recruitment procedures and selection criteria and the formation of an assessment panel to conduct selection interviews and assess the business quality of the YEAs. Under the new round of the Entrepreneurship Scheme, the HYAB will require operators to adopt the best practices in managing conflict of interest in the selection.

- 8) **According to paragraph 2.20 of the Audit Report, NGO operators are required to sign an agreement with each selected YEA, and such agreements must incorporate the “applicable terms and conditions” from the funding agreements between HYAB and NGO operators. However, the HYAB did not specify which terms and conditions were “applicable”. The Audit examined the agreements of the 16 NGO operators signed with selected YEAs and noted inconsistencies in the terms and conditions incorporated. Please advise:**

- (a) of the reasons such “applicable terms and conditions” were not specified; and
- (b) whether clearer guidelines or examples will be given to NGO operators on what constitutes “applicable” terms and conditions; if yes, of the details; if not, the reasons.

According to the guidelines of the Entrepreneurship Scheme, selected youth start-up teams must sign an agreement with the NGO operator in order to receive funding. This agreement must include applicable terms specified in the agreement signed between HYAB and the operator. On the premise of complying with the terms and conditions outlined in the relevant funding agreement, operators may draw up the

content of the agreement to be signed with the youth start-up teams having regard to the characteristics of the entrepreneurial programmes and operation of the operators, etc.

Under the new round of the Entrepreneurship Scheme, the HYAB will provide clearer guidance to NGO operator, such as explaining the applicable terms and conditions at briefing sessions and providing sample agreements for reference, in order to facilitate the drafting of agreements by the operators.

9) According to paragraph 2.28 of the Audit Report, if the scope/scale of the programmes/activities under the entrepreneurial support and incubation services has been reduced against the funding proposals, the subsidy shall be reduced on a proportional basis or to such amount as the Government deems fit. However, there were some programmes/activities with numbers of beneficiaries falling short of the expected numbers, and yet the HYAB made the final payments for the relevant service component without adjustments. Please advise:

- (a) in tabulated form, of the number of programmes to date with numbers of beneficiaries falling short of the expected numbers while final payments were made without adjustments, and the differences between the actual and expected numbers of beneficiaries;**
- (b) given that another explanation provided by HYAB was that “the NGO operators concerned had met the target numbers of types of programmes/activities with the required frequencies”, whether it implies that the NGO operators would be considered to have achieved the target upon meeting any one of the target numbers, be it the number of types of programmes/activities organised or the expected number of beneficiaries; and**
- (c) whether the Bureau has taken measures in requiring NGO operators to promptly rectify the shortfall in case of under-achievements in their programmes and activities; if yes, of the details; if not, the reasons.**

As of today, the final payment procedures have been completed for 8 NGO operators. In respect of entrepreneurial support and incubation services, these 8 operators implemented a total of 113 individual programmes/activities. Among them, the actual number of beneficiaries of 20 programmes/activities fell short of the expected numbers and they involved 4 operators. The details are listed below.

Programme / Activity	Expected no. of beneficiaries	Actual no. of beneficiaries	Difference between actual and expected no. of beneficiaries
1	250	196	-54
2	250	167	-83
3	40 - 60	34	-6

4	40 - 60	31	-9
5	40 - 60	25	-15
6	40 - 60	35	-5
7	53	45	-8
8	36	4	-32
9	36	24	-12
10	72	14	-58
11	36	17	-19
12	48	19	-29
13	48	19	-29
14	48	19	-29
15	48	40	-8
16	80 - 120	49	-31
17	48	38	-10
18	80 - 120	60	-20
19	48	38	-10
20	48	19	-29

The HYAB has been monitoring and following up on the implementation progress of programmes by NGO operators. The shortfall in the expected number of beneficiaries for individual programmes/activities was mainly attributed to the significant impact of the COVID-19 epidemic on the attendance at physical programmes/activities. Although the number of beneficiaries for individual programmes/activities of the aforementioned 4 operators fell short of the expected numbers, all of these 4 operators had their overall actual number of beneficiaries exceeded the overall expected number if we take into account all programmes/activities organised by each of them. Besides, the frequencies of relevant programmes/activities organised achieved the target frequencies required for organising relevant programmes/activities. After considering the above factors, the HYAB did not adjust the final payment for the relevant service component.

Under the new round of the Entrepreneurship Scheme, the HYAB will continue to closely monitor the performance of NGO operators and the achievement of their respective stipulated targets, and remind operators that they must implement the programmes in accordance with the approved proposal. The HYAB will also provide suitable guidance and support to the operators as and when necessary.

- 10) **According to paragraph 2.34(b) of the Audit Report, there were delays in the submission of reports by all 16 NGO operators between February 2021 and June 2024. Among the 158 reports which were due for submission on or before 30 June 2024, 86 (54%) reports were submitted late, ranging from 4 days to 27 months (averaging 6 months). Please advise:**

- (a) **of the reasons for HYAB to allow such delays in the submission of reports by NGO operators;**
- (b) **of any stepped-up efforts by HYAB to ensure timely submission of reports by NGO operators; and**
- (c) **whether track records (including punctuality of submission of reports) of NGO operators are among the considerations for renewal of their contracts; if yes, of the details; if not, the reasons.**

Delay in the submission of reports by NGO operators is undesirable. The HYAB agrees with the audit recommendations and will enhance monitoring of submission of reports by the operators. For operators with overdue reports, the HYAB will take prompt follow-up actions including the issue of written reminders. During the assessment of applications for the Entrepreneurship Scheme, the assessment panel will take into account the past performance of the applicant organisations (including record of late submission of reports, etc.) as part of the assessment criteria.

- 11) According to paragraph 2.42 of the Audit Report, up to June 2024, the HYAB did not maintain and report statistics on the survival rates of start-ups established under EMF or the Entrepreneurship Scheme. Please advise:**

- (a) **of the reasons for not using such survival rates to assess the effectiveness of the Scheme;**
- (b) **while Audit has recommended that the Bureau should set more outcome indicators making reference to market/international practices (e.g. measuring survival rates for start-ups under the Entrepreneurship Scheme) as appropriate, according to paragraph 2.44(b) of the Audit Report, the Bureau had not undertaken to use such survival rates to assess the effectiveness of the Scheme, and only indicated that it would consider compiling more management information; in this regard, of the details of such management information; and**
- (c) **of the Bureau's existing means for assessing the effectiveness of the Entrepreneurship Scheme; whether monitoring visits at start-ups are conducted to learn about their operation; if yes, of the details; if not, the reasons.**

The objective of the Entrepreneurship Scheme is to subsidise NGO operators in implementing youth entrepreneurial programmes and providing start-up capital to young people who are interested in starting their businesses in Hong Kong and the Mainland cities of GBA. At the same time, it enables young people to acquire valuable knowledge and experience during the entrepreneurial and operating process in the course of the funding period. The funded service period of different NGO operators ranges from one to three years.

The HYAB has been following up on the implementation of the programmes through various channels, including interim progress review meetings and sharing sessions with all NGO operators (along with the selected youth start-up teams), monitoring visits, attending activities organised by operators and start-up teams, etc. In respect of monitoring and evaluating the effectiveness and performance of the Entrepreneurship Scheme, the key data and information considered by HYAB include the progress of NGO operators and individual start-up teams in achieving their milestone targets, the number of youth start-up teams settled in the Mainland cities of GBA, feedbacks from youth start-up teams, etc., in order to keep in view the effectiveness and performance of the operators.

Taking the previous round of the Entrepreneurship Scheme as an example, 16 NGO operators provided capital support and entrepreneurial support services to a total of 217 youth start-up teams. Among them, 211 teams (about 97%) successfully completed the funded service period under the Entrepreneurship Scheme and all relevant milestone targets, while the remaining 6 teams withdrew because of having secured funding from new investors or other personal reasons. So far, more than 70 start-up teams have settled in the Mainland cities of GBA.

In accordance with the audit recommendations, the HYAB will continue to keep under review the achievements of the key performance indicators of the Entrepreneurship Scheme, and consider compiling more management information such as the operational data of youth start-up teams during their participation in the Entrepreneurship Scheme and the survival rate of respective start-up teams at the completion of the Scheme. The information will be reported to YDC to facilitate the evaluation of the effectiveness of the Scheme.

Part 3: The Experiential Scheme

- 12) **According to Table 4 in paragraph 3.5 of the Audit Report, the actual number of participants of the Experiential Scheme as at August 2023 was 301, which was only 39% of the target number of participants of 767. Please advise:**
- (a) apart from the epidemic's impact, of the other factors causing the actual number of participants to fall short of the target;**
 - (b) whether the Bureau has reviewed the reasons for the under-achievements of the Scheme; if yes, of the details and whether such under-achievements are related to the failure of the Scheme to meet the actual expectations of young people; and**
 - (c) whether the Bureau has adjusted components of the Scheme having regard to its under-achievements; if yes, of the details; if not, the reasons.**

With the resumption of normal travel in early 2023, the HYAB immediately resumed the programmes for completion by end of August 2023. The NGO operators faced various degrees of challenges in resuming the programmes, including recruitment difficulties at the initial stage of full resumption of normal travel, tight preparation time, manpower shortage of NGO operators, changes in the circumstances of the connection, mode of cooperation with innovation and entrepreneurial bases in the Mainland, etc. Despite all these challenges, the HYAB worked hand in hand with various operators to complete 12 experiential programmes in less than 6 months, which benefitted some 300 youth participants.

According to the questionnaire survey conducted with the concerned participants, most participants agreed that taking part in the experiential programmes helped deepen their understanding of the entrepreneurial environment, policies, and development opportunities in the Mainland cities of GBA. Youth participants considered that their participation in the experiential programmes had increased their knowledge of entrepreneurship-related information in the Mainland, including the entrepreneurial environment and policies, entrepreneurial bases, development opportunities, workplace culture, etc.

After reviewing the implementation and effectiveness of the previous round of the Experiential Scheme, the HYAB introduced several enhancement measures for the new round of the scheme launched in April 2024, such as:

- (i) expanding the scope of the scheme from the Mainland cities of GBA to all provinces and municipalities in the Mainland, so as to encourage young people to explore entrepreneurial opportunities in the enormous Mainland market;
- (ii) expanding the eligibility of youth participants from those aged between 18 and 35 to those aged between 18 and 39, so as to encourage more young people of different backgrounds and ages to participate;
- (iii) relaxing the requirement for the duration of the experiential programmes from 6 to 28 days to 1 to 28 days, thereby facilitating more young people to participate; and
- (iv) increasing the ratio of funded supporting staff from 1:12 to 1:10, so that operators can provide better support for the programmes.

The HYAB will continue to work closely with NGO operators in the implementation and publicity efforts of the Scheme.

13) According to paragraph 3.16(c) of the Audit Report, Operator C only provided 1 roadshow to 4 tertiary institutions each, totalling 4 roadshows, instead of 8 as stated in the funding proposal. Please advise:

- (a) of the reasons for the discrepancy between the actual number of roadshows and the number stated in the funding proposal;**
- (b) whether the grant was disbursed according to the actual number of roadshows; and**
- (c) whether any mechanisms are in place to monitor if programmes under the Scheme are implemented according to their funding proposals; if yes, of the details; if not, the reasons.**

With the resumption of normal travel in early 2023, the HYAB immediately resumed the programmes for completion by end of August 2023. The NGO operators had a relatively tight preparation time for implementing the programmes. According to HYAB's understanding, Operator C applied for roadshow venues from 8 post-secondary institutions, but eventually only 4 institutions were able to arrange venues for Operator C to organise one roadshow each. The approved funding for Operator C did not include the costs for organising roadshows.

According to the funding guidelines for the Experiential Scheme, NGO operators must submit activity reports, auditor reports and financial reports, activity photos, videos and relevant documents, etc. for HYAB's review, so as to ensure that the actual implementation of the Experiential Scheme aligns with the approved programme proposal. In addition, the HYAB randomly selects funded experiential programmes for conducting monitoring visits of the activities held in Hong Kong.

14) According to paragraph 3.29 of the Audit Report, of a total of 45 participants in a programme organised by Operator C, the particulars (including the names) of 5 (11%) participants on the list of programme participants submitted to HYAB by Operator C did not tally with its records. Please advise:

- (a) of the reasons for such discrepancies in records and whether the 5 actual participants have never participated in any programmes organised under the Experiential Scheme by other NGO operators; and**
- (b) whether the Bureau will explore enhancing flexibility of the related mechanism so as to allow, through a specified mechanism, another person to participate in place of an admitted youth applicant; if yes, of the details; if not, the reasons.**

According to HYAB's understanding, Operator C had not properly verified the participant list, resulting in discrepancies in the information

of 5 participants in the list submitted to HYAB against the records of Operator C. After verification, all the 5 actual participants were eligible youths and had never participated in other programmes under the Experiential Scheme.

The Experiential Scheme does not restrict NGO operators from replacing youth participants. According to the funding guidelines for the Experiential Scheme, operators must submit a list of eligible youths participating in the experiential programme at least three days prior to the departure of the experiential tour for HYAB's record and review. If there are any changes in the participants, operators should promptly submit an updated list to HYAB.

- 15) **According to paragraph 3.42 of the Audit Report, while there were delays in submission of completion reports by 8 NGO operators and submission of audited financial statements by 12 NGO operators, the HYAB sent overdue report reminders to only 7 (58%) NGO operators. Furthermore, the reminders were sent 1 to 86 days (averaging 39 days) after the due dates of the reports. Please advise of:**

- (a) the reasons for the Bureau not having sent a reminder to each NGO operator whose report / financial statement was overdue;**
- (b) the reasons for the failure to send timely reminders; and**
- (c) any follow-up actions by the Bureau if an NGO operator, having received a reminder, still fails to submit its report by the deadline.**

Prior to the deadlines of submission, the HYAB had issued an email reminder to all NGO operators that they must submit the activity and summary reports and financial statements before the deadlines specified in the funding agreement. For overdue reports, the HYAB contacted relevant operators via email or phone to follow up and urged them to submit the reports as soon as possible. According to the funding guidelines for the Experiential Scheme, if the funded operators do not submit the reports by the stipulated dates, the HYAB reserves the right to withdraw funding.

Delay in the submission of reports by NGO operators is undesirable. The HYAB agrees with the audit recommendations and will enhance monitoring of submission of reports by the operators. For operators with overdue reports, the HYAB will take prompt follow-up actions including the issue of written reminders. During the assessment of applications for the Experiential Scheme, the assessment panel will take into account the past performance of the applicant organisations (including record of late submission of reports, etc.) as part of the assessment criteria.

Part 4: Other Youth Development Schemes

- 16) According to paragraph 4.6(a) of the Audit Report, as at 30 June 2024, the actual numbers of participants under the Funding Scheme for Youth Adventure Training Activities (FSYATA) ranged from 15% to 55% of the target numbers, with 3 out of 4 NGO operators achieving less than half of the target numbers; while the actual numbers of participants under the Funding Scheme for Youth Positive Thinking Activities (FSYPTA) ranged from 17% to 84%, with 4 out of 7 NGO operators achieving less than half of the target numbers. Please advise:**

- (a) whether the under-achievement in the number of participants will affect the actual amount of funding granted to the operator;**

The FSYPTA subsidises eligible NGOs to organise projects with different themes, to promote young people's physical and mental well-being, nurture positive thinking and values among them, and enable them to become a new generation of youth with a sense of ownership and responsibility, and an aspiration and willingness to contribute to the development of our country and Hong Kong. As for the FSYATA, it subsidises eligible NGOs to provide adventure training activities of quality and scale for young people in a structured manner. Sponsored projects have been rolling out since the summer of 2023 for a period of about two years. Depending on the nature of sponsored projects and activities involved, the number of participants did not necessarily spread evenly throughout the project period. We are confident that the NGO operators would generally achieve their expected number of participants when they complete their projects.

The HYAB had all along been closely monitoring the progress of implementation of the schemes by way of kick-off meetings, regular reports and returns, follow-up meetings with NGO operators, inviting NGO operators to meetings of the Action Group to report progress of their projects, monitoring visits, etc. According to the relevant grant agreements, the actual funding amount under both funding schemes will depend on the actual number of youth beneficiaries. If the total actual number of youth beneficiaries is less than the original number specified in the sponsored project, the funding amount may be reduced proportionally regardless of the actual expenditure. Notwithstanding this, the HYAB would continue to closely monitor the performance of NGO operators and provide due guidance to them as and when necessary.

- (b) whether the Bureau has reviewed if the content of the relevant schemes is consistent with the target participants' expectations; if yes, of the details; if not, the reasons; and**

The HYAB has been collecting feedback on the relevant schemes from youth participants via NGO operators. For instance, we have provided templates of assessment questionnaire and required NGO operators to

arrange an assessment questionnaire for youth participants to complete immediately after the conclusion of the programme to collect their feedback. No less than 70% of responding participants consider themselves having developed a positive outlook on life after joining the sponsored project. Moreover, representatives of HYAB and Action Group members of YDC will from time to time participate in activities of the sponsored projects as observers to review the progress as well as effectiveness of the sponsored projects, and listen to stakeholders' feedback.

- (c) further to the above, whether the Bureau will make appropriate adjustments if the content of the schemes falls short of target participants' expectation; if yes, of the details; if not, the reasons.**

The first round of both schemes have been well received since their launch. Taking into consideration feedback of stakeholders (including youth participants, partnering schools/organisations and Action Group members) on the first round, the HYAB will implement suitable enhancement measures for the schemes as necessary to better address the need of stakeholders.

- 17) According to paragraphs 4.9 and 4.10 of the Audit Report, the HYAB required the NGO operator of the Pilot Scheme on Youth Outdoor Adventure Training Activities to procure external consultancy services to conduct a review on the effectiveness of the scheme. The NGO operator concerned was responsible for conducting the tender exercise, and during the tender evaluation process, it made changes to the tender price of the successful tenderer with no documentation on the reasons for such amendments. According to Note 36 of paragraph 4.10(a) of the Audit Report, the records of the NGO operator concerned showed that no adjustment had been made to the other 3 tenderers' tender prices. Please advise:**

- (a) whether the successful tenderer was the lowest bidder; whether the Bureau has tracked down the reasons for the changes to the tender price of the successful tenderer so as to judge whether the tendering procedure was fair; if yes, of the details; if not, the reasons;**

According to information provided by the concerned NGO operator, after tender closing, it has requested relevant tenderers by emails to clarify their respective quotes (including content and items of service to be covered) in accordance with established procedure. However, actions taken were not documented in relevant minutes. The NGO operator confirmed that the tender assessment panel evaluated quotes based on the clarified information on tender contents as well as tender prices, and the successful tenderer was the lowest bidder.

(b) whether the Bureau has established a review mechanism on NGO operators' compliance with the procurement best practices in the funding guidelines;

There is relevant provision in the funding guidelines on the procurement best practices for compliance by the NGO operator. It is stipulated in the guidelines that written explanation should be provided to the Task Force if the NGO operator fails to comply with the procurement best practices. If the Task Force does not accept its explanation, approved grants may not be disbursed. In addition, upon completion of the sponsored project, the NGO operator was required to submit, among others, completion report, income and expenditure report (verified by independent auditor) and independent auditor's report for the Bureau's consideration. In particular, the auditor's report should state clearly that all expenditure in respect of the Pilot Scheme were made within the scope as approved by the Task Force on Youth Development Fund and Activities, and the use of funds was in compliance with provisions in the "Implementation and Funding Guidelines of the Pilot Scheme on Youth Outdoor Adventure Training Activities 2021-23" issued by the Task Force, and the requirements and directives as may from time to time be prescribed or given by the Government. There were no irregularities reported by the auditor on the relevant income and expenditure report or use of funds in the abovementioned auditor report submitted by the NGO operator.

(c) given that the NGO operator was required to procure external consultancy services to conduct a review on the effectiveness of the scheme to be implemented by such NGO, of the ways to ensure fairness in the tendering procedure and the independency of the consultancy, as well as the reasons for the Bureau not procuring external consultancy services itself; and

According to funding guidelines, apart from evaluation of the effectiveness of the pilot scheme, the third party consultant engaged by the NGO operation was also responsible for reviewing the training programmes based on evidence, collection of data and deriving evaluation criteria on the effectiveness of adventure training programmes, reviewing the pilot scheme and making recommendations to the Task Force/YDC on enhancements as well as full implementation of outdoor adventure training activities. The NGO operator was responsible for taking forward the consultancy study in accordance with the consultancy's proposal and instructions of the Task Force and the Government, as well as supervising the consultancy study with regular progress reports to the Task Force. As the concerned NGO operator is experienced in the implementation of outdoor adventure training activities, it would be more effective for the NGO to engage and supervise the consultancy study, particularly on how to enhance and fully implement the outdoor adventure training activities. Moreover, as mentioned in (b) above, there is relevant provision in the funding guidelines on the procurement best practices for compliance by the

NGO operator, including requesting its procuring officer and officer-in-charge of the project to declare interest so as to avoid any actual or perceived conflict of interest, ensuring the fairness of the tender process as well as independency of the consultant engaged.

- (d) apart from the measures set out in paragraph 4.16(b) of the Audit Report (i.e. incorporating relevant provisions on the procurement best practices in regular reminders for NGO operators' attention and compliance), of any other measures to urge NGO operators to comply with the provisions; whether mandatory requirements will be considered for adoption; if yes, of the details; if not, the reasons.**

Guides to Application of FSYPTA and FSYATA stipulate that the Government and YDC reserve the right to suspend or terminate the funding support for a sponsored project or to terminate the Grant Agreement for an NGO operator's persistent or flagrant failure to carry out the whole or any part of the sponsored project in accordance with the Agreement. When processing future funding applications submitted by the NGO operator (whether under the concerned funding scheme or other schemes), YDC may also take into account its track record with regard to proper implementation of a sponsored project.

ACRONYMS AND ABBREVIATIONS

2MMA	Two-month moving average of the accident rate
3MMA	Three-month moving average of the accident rate
AOP	Advanced Operations permission
ASTRI	Hong Kong Applied Science and Technology Research Institute
ATO	Approved Training Organization
Audit	Audit Commission
B/Ds	Bureaux/departments
BD	Buildings Department
BIM	Building Information Modelling
CAD	Civil Aviation Department
CEDD	Civil Engineering and Development Department
CSSM	Construction Site Safety Manual
DEVB	Development Bureau
DMOs	District Maintenance Offices
EMSD	Electrical and Mechanical Services Department
EPD	Environmental Protection Department
ERB	Employees Retraining Board
eSUA	Electronic Portal for Small Unmanned Aircraft
e-WDLs	Waste disposal licence for e-waste
FC	Finance Committee
FEHD	Food and Environmental Hygiene Department
FSTB	Financial Services and the Treasury Bureau
GDP	Gross domestic product
GLL	Government Land Licence
HD	Housing Department
HKDC	Hong Kong Design Centre

ACRONYMS AND ABBREVIATIONS

HKP	Hong Kong Port
HKUST	Hong Kong University of Science and Technology
HRVs	Heavy recovery vehicles
HYAB	Home and Youth Affairs Bureau
HyD	Highways Department
HZMB	Hong Kong-Zhuhai-Macao Bridge
I&T	Innovation and technology
ITC	Innovation and Technology Commission
ITF	Innovation and Technology Fund
L/E	Lifts and escalators
LandsD	Lands Department
LegCo	Legislative Council
LMIS	Licensing Management Information System
m	Metres
m ³	Cubic metres
MD	Marine Department
MOM	Management, operation and maintenance
NAMI	Nano and Advanced Materials Institute
NEC	New Engineering Contract
NGOs	Non-governmental organizations
NSAs	National Sports Associations
PARs	Preliminary accident reports
PM	Private mooring
PolyU	The Hong Kong Polytechnic University
PSGO	Project Strategy and Governance Office
PSTS	Public Sector Trial Scheme

ACRONYMS AND ABBREVIATIONS

R&D	Research and Development
RCSV Scheme	Residential Care Service Voucher Scheme for the Elderly
REE	Regulated electrical equipment
RSPs	Recognized service providers
S/As	Sheltered anchorages
SF&OC	Sports Federation & Olympic Committee of Hong Kong, China
SLS	Smart Library System
SMEs	Small and medium-sized enterprises
SUA	Small unmanned aircraft
SWD	Social Welfare Department
T/Ss	Typhoon shelters
TD	Transport Department
TLB	Transport and Logistics Bureau
TM-CLKL	Tuen Mun - Chek Lap Kok Link
TM-CLKT	Tuen Mun-Chek Lap Kok Tunnel
v/c	Volume/capacity
WEEE	Waste Electrical and Electronic Equipment
WPRS	Producer Responsibility Scheme on Waste Electrical and Electronic Equipment
WSD	Water Supplies Department
YDC	Youth Development Commission
YDF	Youth Development Fund
YEAs	Young entrepreneurship applicants