

INNOVATION AND TECHNOLOGY COMMISSION: EFFORTS IN PROMOTING INTERNATIONALLY ACCEPTED STANDARDS AND CONFORMITY ASSESSMENT SERVICES

Executive Summary

1. The Innovation and Technology Commission (ITC) promotes internationally accepted standards and conformity assessment services to underpin technological development and international trade, and the development of the testing and certification (T&C) industry in Hong Kong under its programme area “Quality Support”. Standards are consensus of doing things, specifications for products, test methods or materials. Conformity assessment involves a set of processes which demonstrate that specific requirements relating to a product, process, system, person or body are fulfilled. The main types of conformity assessment are testing, inspection and certification. A body that performs conformity assessment services is referred to as a conformity assessment body (CAB). In September 2009, the Government set up the Hong Kong Council for Testing and Certification (HKCTC) to advise it on the overall development strategies of the T&C industry.

2. The work of ITC relating to quality support is carried out by the Hong Kong Accreditation Service (HKAS), the Product Standards Information Bureau (PSIB), the Standards and Calibration Laboratory (SCL) and the Secretariat of HKCTC. In 2019-20, the expenditure on the programme area “Quality Support” was \$145.5 million. The Audit Commission (Audit) has recently conducted a review on ITC’s efforts in promoting internationally accepted standards and conformity assessment services.

Hong Kong Accreditation Service

3. *Need to step up efforts to promote accreditation services of HKAS.* HKAS sets a benchmark on the net increase in accredited organisations each year. For three of the five years from 2015-16 to 2019-20, the benchmark set had not been met. As

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at 31 December 2020, for some programmes of the three accreditation schemes of HKAS, the number of organisations accredited was not more than two. Such programmes comprised: (a) 3 (17%) of the 18 programmes under the Hong Kong Laboratory Accreditation Scheme (HOKLAS); (b) 4 (44%) of the 9 programmes under the Hong Kong Certification Body Accreditation Scheme; and (c) 2 (50%) of the 4 programmes under the Hong Kong Inspection Body Accreditation Scheme (paras. 2.6 and 2.8).

4. ***Need to encourage bureaux/departments to use services of HKAS and its accredited organisations.*** According to General Circular No. 16/2016 issued by the Director of Administration in February 2016, government bureaux/departments (B/Ds) were urged to use the accreditation services provided by HKAS and the conformity assessment services provided by organisations accredited by HKAS. Audit noted that in the period from 2016 to January 2021, only two new accreditations were granted to B/Ds. For two B/Ds that terminated their accreditations during the period, HKAS had not recorded the reasons for the terminations and whether follow-up actions had been taken to encourage them to retain the accreditation status (paras. 2.11 and 2.13).

5. ***Reassessments not conducted in a timely manner.*** HKAS conducts reassessments for each accredited organisation regularly to ensure that the standards required for continued accreditation are maintained. Audit reviewed 20 reassessments conducted by HKAS in the period from 2016 to 2019 and noted that 2 (10%) of the 20 reassessments were delayed for 28 days and 37 days respectively. As at 14 October 2020, there were 40 outstanding reassessments with delays, ranging from 7 to 651 days (93 days on average) (paras. 2.18 to 2.20).

6. ***Improper use of HKAS symbols and false claims of accreditation status.*** Every accredited organisation is given a unique accreditation symbol. In November 2020, Audit examined the websites of 15 of the 21 accredited organisations under HOKLAS that terminated the accreditations for all or part of their accredited activities in 2019. Audit noted that: (a) 1 (7%) organisation with the accreditations on all accredited activities terminated still claimed that its laboratories were accredited and displayed HKAS symbol; (b) 1 (7%) organisation with the accreditations on some activities terminated still claimed that its laboratories were accredited for these activities; and (c) 2 (13%) organisations with the accreditations on some of their activities terminated did not include a statement indicating which activities were not accredited, contrary to the requirements of HKAS (paras. 2.23 and 2.25).

Product Standards Information Bureau and Standards and Calibration Laboratory

7. ***Low utilisation of Product Standards Resource Centre (PSRC).*** PSRC maintains a repository of standards and standard-related publications for public reference. Audit reviewed the number of visitors to PSRC in the period from 2015 to 2020 (up to September) and noted that the number of visitors to PSRC decreased by 10 (58.8%) from 17 in 2015 to 7 in 2019. There were only 4 visitors to PSRC in 2020 (up to September) amid the outbreak of coronavirus disease (COVID-19) (paras. 3.4 and 3.5).

8. ***Room for improvement in PSIB's inventory management.*** Audit found room for improvement in inventory management for the standards and publications kept in PSRC: (a) PSIB had not maintained inventory records for some inventory items and had not conducted annual inventory checks, contrary to the Stores and Procurement Regulations (SPRs) of the Government; and (b) PSIB had not devised a mechanism to determine which withdrawn/superseded standards had no reference value and should be disposed of. Some standards kept in PSRC were issued a long time ago and had been withdrawn or superseded by an updated version (para. 3.8).

9. ***Room for improvement in performance reporting in Controlling Officer's Report (COR).*** ITC reports in its CORs the performance of PSIB under four targets and five indicators. Audit found that: (a) there was no evidence showing that the reported performance for "Processing of simple enquiries on product standards" and "Processing of complicated enquiries on product standards" for 2015, 2016 and 2017 was based on proper records of actual performance; (b) while PSIB did not receive any complicated enquiries in 2018 and 2019, ITC reported that it took 8 working days for "Processing of complicated enquiries on product standards"; (c) no performance records were kept to substantiate the actual performance for "Issue of quotations for standards" and "Processing of orders for licensed reproduction of standards" reported for the period from 2015 to 2019; and (d) for sales of standards, some performance information on 2 of the 4 performance indicators, namely "Number of orders placed" for 2015 and 2017 to 2019 and "Revenue generated" for 2015, 2017 and 2018 reported in CORs did not tally with PSIB records (paras. 3.10, 3.11 and 3.13).

10. ***Room for improvement in SCL's inventory management.*** SCL operates ten laboratories with various types of equipment, parts and tools. Audit found room for improvement in its inventory management: (a) in 2012, the Government Logistics

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Department (GLD) recommended ITC to conduct a comprehensive inventory check for all inventory items kept in the Quality Services Division. As at February 2021, the implementation of GLD's recommendation had not been completed; (b) there was no documentary evidence showing that in the period from 2016 to 2020, ITC had conducted annual inventory checks for the inventory items of SCL, contrary to the requirements of SPRs; and (c) of the 40 inventory items examined by Audit, 17 (42.5%) were not labelled with a reference number and it was not possible to match the physical items to the Inventory Sheet and Distribution Records (GF 272s), and 5 (12.5%) had been transferred from one SCL laboratory to another without updating the Inventory Sheet and Distribution Records to reflect the transfers (para. 3.18).

11. ***Equipment not calibrated in a timely manner.*** According to SCL, after being put into service, equipment must be calibrated according to the planned schedule. Every month, SCL staff generate a calibration list for each laboratory from its computer system to identify equipment items that are due for calibration. According to the calibration list, as at 5 January 2021, 1,141 equipment items required regular calibration. Audit noted that: (a) 381 (33.4%) of the 1,141 equipment items had been overdue for calibration, with an average overdue period of 0.9 year (i.e. 331.8 days); and (b) of the 381 items, 127 (33.3%) had been overdue for more than one year, including 25 (6.6%) which had been overdue for more than 3 years. The longest overdue period was 7.3 years. According to ITC, 245 of the 381 items were backup equipment items or out-of-service equipment items (paras. 3.20 to 3.22).

12. ***Need to shorten the time for collecting equipment from customers for calibration.*** The queuing time for calibration is the time between the acceptance of quotation by the customer and the collection of equipment by SCL for calibration. According to SCL, in general, the queuing time shall not be longer than 15 working days. Of the 7,039 equipment items calibrated in the period from 2015 to 2020, 4,162 (59.1%) had queuing time longer than 15 working days, including 892 (12.7%) which had queuing time longer than 90 working days (averaging 166 working days). The longest queuing time was 827 working days (paras. 3.24 and 3.25).

Support for Hong Kong Council for Testing and Certification

13. ***Need to improve attendance of some non-official members.*** The Chairman and members of HKCTC comprise practitioners from the T&C sector, business sector, professional organisations (i.e. non-official members) and representatives of

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public bodies and government departments (i.e. official members). In the period from 2016 to 2020, while the overall attendance rate of council meetings for each year ranged from 75% to 85%, the attendance rate of non-official members was lower (ranging from 67% to 80%). In the period from 2016 to 2019, in each year, a significant percentage (12% to 35%) of the non-official members did not attend any council meetings or only attended one of the three council meetings held. In 3 of the 4 years in the period, less than half (38% to 47%) of the non-official members attended all the three council meetings held (paras. 4.4 to 4.6).

14. ***Need to improve declaration of interests in council meetings.*** HKCTC has adopted the one-tier reporting system (i.e. disclosing potential conflicts of interest when they arise) for declaration of interests by members. Under the exhibition programmes of HKCTC, booths were set up at trade shows to promote Hong Kong's T&C services. The rental and production costs of the booths were paid by HKCTC and eligible accredited CABs were invited to apply to use the booths free of charge to reach out to potential users of their services. Audit noted that in the period from 2016 to 2020, 50% to 71% of the non-official council members were associated with CABs in Hong Kong. These CABs were potential participants of the exhibition programmes. However, Audit noted that no declarations of interests had been made by the members concerned when the work plans for the exhibition programmes were discussed and endorsed in council meetings. In the period from 2016-17 to 2019-20, 11% to 50% of the participants of the exhibition programmes were CABs associated with council members (paras. 4.9 to 4.11).

15. ***Need to issue draft minutes of council meetings in a timely manner.*** Audit examined the draft minutes of the 14 council meetings held in the period from 2016 to 2020 and noted that the Secretariat of HKCTC took 43 to 90 days (averaging 66 days) to issue the draft meeting minutes to members (para. 4.14).

16. ***Need to step up efforts to promote the teaching kit launched.*** In June 2016, HKCTC launched a teaching kit for senior secondary chemistry teachers to arouse students' interest in testing and to help apprise students of the value of T&C. A survey conducted in 2017 revealed that of the 75 respondents: (a) 51 (68%) had not heard about the teaching kit; (b) 68 (91%) had never used the teaching kit in class or school activities; and (c) 70 (93%) did not know that the teaching kit was available on the One-stop Portal for Learning and Teaching Resources (paras. 4.19 and 4.21).

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17. *Need to enhance attendance of seminars and workshops.* In the period from 2015 to 2020, HKCTC organised 48 seminars and workshops for T&C practitioners. Audit noted that the percentage of no-shows ranged from 15.7% to 22% and only 8,969 (81.1%) of the 11,053 enrolled participants attended the seminars and workshops (paras. 4.24 and 4.25).

18. *Need to encourage participation in exhibition programmes.* In the period from 2016-17 to 2019-20, HKCTC participated in 10 local trade shows and 8 Mainland and overseas trade shows under its exhibition programmes, with a total cost of \$1.5 million. Audit noted that: (a) in each trade show, while the Secretariat of HKCTC invited over 300 CABs to participate, only a handful (2 to 5) of CABs applied for participation in the trade show; and (b) during the period, only 12 CABs participated in one or more trade shows (paras. 4.28 and 4.29).

Way forward

19. *Need to step up efforts to promote new accreditation services to help fight COVID-19.* Since April 2020, in response to the strong demand for testing services related to COVID-19, HKAS has launched two new accreditation services under HOKLAS, namely medical face mask testing and COVID-19 reverse transcription-polymerase chain reaction (RT-PCR) testing. Audit noted that up to 28 February 2021: (a) only two accreditation applications had been received from CABs for medical face masks, and no accreditation had been granted; and (b) only 5 (22%) of the 23 local COVID-19 RT-PCR testing institutions in the private sector recognised by the Government had obtained HKAS accreditation for COVID-19 RT-PCR testing (paras. 5.5 and 5.6).

20. *Need to devise measures to facilitate further development of the T&C industry.* In March 2010, HKCTC submitted a report to the Chief Executive of the Hong Kong Special Administrative Region and made 26 recommendations to enhance the competitiveness of the T&C industry. In March 2013, HKCTC completed a review of the implementation progress of the recommendations made in 2010. According to the report, all recommendations made in 2010 had been implemented. The 2013 report made further recommendations to support the development of the industry. Since 2013, there have been developments pertinent to the T&C industry. Audit considers that ITC needs to, in collaboration with the Innovation and Technology Bureau and taking on board the observations and recommendations in this Audit Report, continue to engage HKCTC and other stakeholders in the T&C industry

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with a view to devising appropriate measures to facilitate the industry in grasping new opportunities for development (paras. 5.11 and 5.12).

Audit recommendations

21. **Audit recommendations are made in the respective sections of this Audit Report. Only the key ones are highlighted in this Executive Summary. Audit has *recommended* that the Commissioner for Innovation and Technology should:**

HKAS

- (a) **before launching new accreditation programmes, conduct thorough assessments on the market demand (para. 2.15(a));**
- (b) **step up efforts in promoting the three accreditation schemes of HKAS (para. 2.15(b));**
- (c) **step up efforts in promoting to B/Ds the services of HKAS and services of organisations accredited by HKAS (para. 2.15(c));**
- (d) **ensure that the reassessments for accredited organisations are conducted in a timely manner (para. 2.27(a));**
- (e) **ensure proper use of HKAS symbols and proper claims of accreditation status (para. 2.27(b));**

PSIB and SCL

- (f) **review the need for maintaining PSRC (para. 3.15(a));**
- (g) **maintain proper inventory records for all inventory items kept in PSRC and conduct inventory checks according to the requirements of SPRs (para. 3.15(b));**
- (h) **devise an effective mechanism on disposal of outdated standards and publications in PSRC (para. 3.15(c));**

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- (i) **maintain proper performance records on PSIB's sales of standards and ensure that information on performance of PSIB reported in COR is accurate and is substantiated by proper performance records (para. 3.15(d) and (e));**
- (j) **complete the implementation of the recommendation of GLD on inventory management as soon as practicable (para. 3.28(a));**
- (k) **conduct inventory checks on inventory items of SCL according to the requirements stipulated in SPRs and ensure the accuracy of inventory records (para. 3.28(b));**
- (l) **ensure that the equipment of SCL is calibrated in a timely manner (para. 3.28(c));**
- (m) **take necessary actions to address the issue of long queuing time (para. 3.28(d));**

Support for HKCTC

- (n) **encourage and facilitate non-official members' attendance at council meetings (para. 4.16(a));**
- (o) **ensure that potential conflicts of interest of members are declared in council meetings (para. 4.16(b));**
- (p) **ensure that the draft minutes of council meetings are issued to members for comments as soon as possible (para. 4.16(c));**
- (q) **promote the teaching kit on chemical testing to secondary schools (para. 4.30(a));**
- (r) **encourage the enrolled participants to attend the seminars and workshops organised for T&C practitioners (para. 4.30(b));**
- (s) **enhance CABs' interest in the exhibition programmes launched to promote Hong Kong's T&C services and boost their participation (para. 4.30(c));**

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Way forward

- (t) **promote HKAS accreditation services for the testing of medical face masks and COVID-19 (para. 5.8); and**
- (u) **continue to engage HKCTC and other stakeholders in the T&C industry with a view to devising appropriate measures to facilitate the industry in grasping new opportunities for development (para. 5.13).**

Response from the Government

22. The Commissioner for Innovation and Technology agrees with the audit recommendations.