

Hong Kong Council for Testing and Certification

Report for 2014-15

Foreword

In the fifth year of the Hong Kong Council for Testing and Certification (the Council), I am pleased to see that the testing and certification industry continues to flourish and Hong Kong's trustworthiness continues to be recognised worldwide.

2. In October 2008, the Task Force on Economic Challenges identified testing and certification as one of the six economic areas that demonstrated good potential for further development. Today, Hong Kong's testing and certification sector still enjoys advantages among our competitors but we are facing stiff competition from neighbouring places and other challenges.

3. We cannot be complacent. During the period covered by this report, the Council and the Government implemented different measures to support and further develop the testing and certification sector. For example, new accreditation services were introduced and a certification scheme for Chinese Materia Medica was launched in November 2014. To raise the profile of testing and certification in public, we also arranged talks in schools and universities. For the first time, we also held an exhibition in the Hong Kong Science Museum. Outside Hong Kong, the Council promoted Hong Kong's testing and certification services through media interviews and participation in trade fairs. The new agreement on trade liberalisation entered by the Government with the Ministry of Commerce in December 2014 has accorded national treatment to our companies in Guangdong and further opened testing services under China Compulsory Certification System to Hong Kong testing laboratories.

4. Last but not least, I would like to express my heartfelt gratitude to our Members, Conveners, and members of the Council's Panels for their contribution. I would also like to thank the Innovation and Technology Commission and everyone from the testing and certification sector for their support. It was the collective efforts from each of us that contribute to the progress in 2014-15, and indeed since we formed this Council.



Professor CHING Pak-chung, BBS
Chairman,
Hong Kong Council for Testing and Certification
30 April 2015

CONTENTS

I.	Hong Kong Council for Testing and Certification	1
II.	Industry Profile (2013 figures)	3
III.	Improvements on the General Front	5
IV.	Specific Trades	10
V.	Seeking Wider Recognition of Hong Kong's Assessment Results	14
VI.	Promotion	16
VII.	Support to HKCTC	18
Annexes		
Annex 1	Terms of Reference of Hong Kong Council for Testing and Certification	19
Annex 2	Membership List of Hong Kong Council for Testing and Certification	20
Annex 3	Membership List of —	21
	(a) Panel on Promoting Testing and Certification Services in Chinese Medicines Trade	
	(b) Panel on Promoting Testing and Certification Services in Construction Materials Trade	
	(c) Panel on Promoting Testing and Certification Services in Food Trade	
	(d) Panel on Promoting Testing and Certification Services in Jewellery Trade	
	(e) Panel on Promoting Testing and Certification Services in Environmental Protection Trade	
	(f) Panel on Promoting Testing and Certification Services in Information and Communications Technologies Trade	
Annex 4	Efforts of Hong Kong Council for Testing and Certification to Promote Hong Kong's Testing and Certification Industry	27
Annex 5	Organisation Chart of the Secretariat of the Hong Kong Council for Testing and Certification	30

Abbreviations Used

APLAC	Asia Pacific Laboratory Accreditation Cooperation
CCC	China Compulsory Certification
CEPA	Mainland and Hong Kong Closer Economic Partnership Arrangement
CIC	Construction Industry Council
CMM	Chinese Materia Medica
EnMS	Energy management system
FDA	Food and Drug Administration of the United States of America
GDP	Gross Domestic Product
GHG	Greenhouse gas
HD	Higher Diploma
HKAS	Hong Kong Accreditation Service
HKCTC	Hong Kong Council for Testing and Certification
HKPC	Hong Kong Productivity Council
HKTDC	Hong Kong Trade Development Council
HKTIC	Hong Kong Association for Testing, Inspection and Certification
ICT	Information and Communications Technologies
IEC	International Electrotechnical Commission
ISMS	Information security management system
ISO	International Organization for Standardization
ITC	Innovation and Technology Commission
MLA	Multilateral Recognition Arrangement
MRA	Mutual Recognition Arrangement
OGCIO	The Office of the Government Chief Information Officer
OUHK	The Open University of Hong Kong
PAC	Pacific Accreditation Cooperation
PCCS	Product conformity certification schemes
QF	Qualifications Framework
RPL	Recognition of Prior Learning
SC27	SubCommittee 27
SME	Small and medium enterprises
VTC	Vocational Training Council

I. HONG KONG COUNCIL FOR TESTING AND CERTIFICATION

The Hong Kong Council for Testing and Certification (HKCTC) was established in September 2009 to advise the Government on the overall development strategy for the testing and certification industry. Its terms of reference and current membership list are at *Annex 1* and *Annex 2* Annex 1 & 2 respectively. The Innovation and Technology Commission (ITC) provides secretariat support to HKCTC.

1.2 HKCTC has been working closely with the Government and the testing and certification industry towards developing Hong Kong into a testing and certification hub in the region. In March 2013, after reviewing the progress of the implementation of its three-year industry development plan formulated in 2010, HKCTC submitted a Review Report to the Chief Executive. The recommendations therein were accepted by Government.

1.3 Since then, HKCTC has taken forward the recommendations in the Review Report in collaboration with various stakeholders. This Annual Report presents the 2013 statistics of the industry (latest figures available) and summarises the work of HKCTC, relevant Government bureaux/departments and public organisations in spearheading the development of the industry in the period from April 2014 to March 2015 (Year 2014-15).

OUR VISION

To develop Hong Kong into a testing and certification hub in the region by reinforcing the branding of ‘Tested in Hong Kong, Certified in Hong Kong’.

OUR ROLE

- Act as a focal point of contact among all stakeholders, including the testing and certification industry itself, the related industries, providers of supporting services, etc.
- Assist the industry to explore new business opportunities.
- Coordinate effort by the industry to best dovetail Government policy objectives.
- Promote acceptance of Hong Kong's testing/inspection reports and certificates by overseas/Mainland governments.
- Enhance manpower development and professionalism in the industry.

OUR STRATEGY

Market-oriented dual approach to promote the development of the testing and certification industry –

Making general improvements to the accreditation and factors of production while focusing particular attention on specific trades with good potentials in using testing and certification services.

II. INDUSTRY PROFILE (2013 FIGURES¹)

Number of Establishments

In Hong Kong, according to a survey, there were about 715 establishments engaging in testing, inspection and certification activities in 2013, of which 610 were private independent establishments –

Category	Number
Private independent establishments engaging in testing, inspection and certification activities as their major economic activity	610
Manufacturers and exporters engaging 100 persons or more and with in-house laboratories for testing activities	50
Laboratories in government departments/public organisations (including those in the hospitals of the Hospital Authority and those accredited by Hong Kong Accreditation Service (HKAS) in local universities)	55

Sizes of Establishments

2.2 The vast majority (95%) of the private independent establishments were small and medium enterprises (SMEs) engaging fewer than 50 persons. They accounted for 30% of the total persons engaged and 24% of the total business receipts in the industry. 23 establishments engaging 100 persons or above accounted for the majority of employment and business receipts – 62% of the persons engaged and 70% of the total business receipts in the industry.

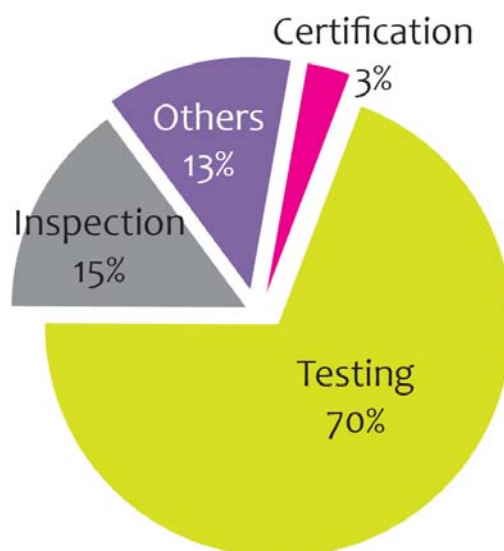
Persons Engaged

2.3 The number of persons engaged in testing, inspection and certification activities was 17 010 in 2013, of which 13 090 persons were engaged by private independent establishments. About 5 890 (45% of 13 090) were professionals and associate professionals whose main duties were to provide testing, inspection and certification services.

¹ Based on a survey conducted by the Census and Statistics Department in Hong Kong.

Business Receipts

2.4 The total business receipts of the private independent establishments in the industry were \$11.8 billion in 2013. The direct economic contribution to Hong Kong's Gross Domestic Product (GDP) was \$6.0 billion. Breakdowns of the business receipts are shown below:



2013

Business receipts by type of service

(Note : Percentages add up to more than 100% due to rounding.)



2013

Further breakdowns of business receipts from testing services

(Note : Percentages add up to lower than 100% due to rounding.)

III. IMPROVEMENTS ON THE GENERAL FRONT

Efforts for improvements on the general front cover two major aspects – accreditation service and factors of production of the testing and certification industry.

Accreditation Service

3.2 The accreditation service provided by ITC's HKAS is the cornerstone of the local testing and certification industry. In Year 2014-15, HKAS has extended its accreditation service to conformity assessment bodies undertaking the following new activities –

- (a) verification of greenhouse gas (GHG) assertions at product level;
- (b) performing testing under the Supplement X to the Mainland and Hong Kong Closer Economic Partnership Arrangement (CEPA);
- (c) operation of Chinese Materia Medica certification scheme; and
- (d) operation of construction product certification schemes on water closet suites and unplasticised polyvinyl chloride (uPVC) pipes and fittings for foul water drainage.

To ensure the high professional standards in delivering accreditation service, HKAS arranged a number of training workshops and courses to its staff in Year 2014-15 to assist them in acquiring the necessary skills particularly regarding the provision of new accreditation services. For example, HKAS officers attended a Asia Pacific Laboratory Accreditation Cooperation (APLAC) workshop for further deliberation on the implementation of the new standard ISO 15189:2012 for accreditation of medical testing laboratories in September 2014; in the area of proficiency testing, HKAS also participated in a workshop jointly organised by APLAC and the national metrology institute of Germany, Physikalisch-Technische Bundesanstalt (PTB), with particular focus on the revision of the ISO Standard for 'Statistical methods for use in proficiency testing by interlaboratory comparison' (ISO 13528) which is expected to be published in 2015.

3.3 HKAS also regularly reviews and updates accreditation criteria documents to assist accredited organisations to operate in accordance with new accreditation and technical standards.

Enhancement to Factors of Production

Manpower

3.4 The two main target groups of HKCTC's effort in the manpower aspect are students and practitioners.

Students

3.5 HKCTC continued to assist the industry to attract talents through raising awareness and enhancing knowledge of the industry among students and young people. In Year 2014-15 –

- (a) with assistance from HKAS and industry practitioners, HKCTC organised seven career talks for the students of the Vocational Training Council (VTC) and local universities, and set up promotional booths on five career days. VTC also organised four career talks and several visits to testing laboratories for its students in higher diploma courses relevant to testing and certification;



Career Talk and Career Booth for students

- (b) HKCTC invited accredited organisations to offer internship places and received more than 200 internship places for Summer 2014. The offers were relayed to VTC and local universities, as well as uploaded to HKCTC's website for students' information. Given the positive response from the industry, HKCTC again invited accredited organisations to provide internship opportunities for Summer 2015;
- (c) two visits to testing laboratories were lined up for teachers of chemistry at secondary schools in coordination with the Education Bureau. To deepen students' understanding of testing and certification, we organised 11 talks for senior students at secondary

schools;

- (d) to raise public awareness (students' awareness in particular) of the industry and its manpower requirements, HKCTC held an exhibition in collaboration with the Hong Kong Science Museum during 6 February to 11 March 2015, reaching out to more than 13,000 visitors. A comic booklet which gives a broad view to the testing and certification industry has also been produced to arouse interest in testing and certification. Printed copies were distributed at the exhibition in the Museum and also sent to secondary schools for wider publicity; and



Exhibition in Hong Kong Science Museum

- (e) HKAS delivered three technical talks to introduce the concepts of accreditation, testing and certification and the career prospects in the industry to students of tertiary education institutions.

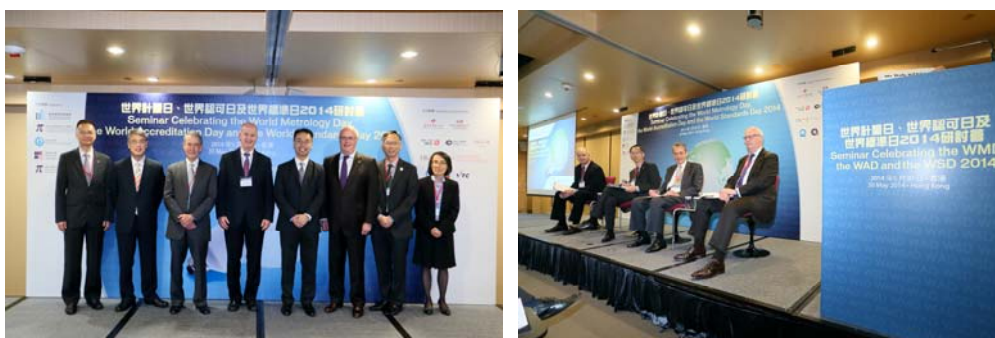
3.6 Local universities train over 10,000 graduates in disciplines relevant to testing and certification every year. The Open University of Hong Kong (OUHK) is very supportive to the testing and certification sector and offers a number of full-time and part-time/ distance learning academic programmes. It launched Hong Kong's first full-time undergraduate programme dedicated to testing and certification in 2013. With support from HKCTC, OUHK also hosted 'The Testing and Certification Conference 2014 – Global Opportunities and Challenges' in November 2014 for practitioners, academics and students. During 2014-15, we are pleased to see that the Education Bureau announced that a testing and certification undergraduate programme was among the self-financing academic programmes which students would be eligible to receive subsidy from the Government's Study Subsidy Scheme for Designated Professions/ Sectors starting from the 2015/16 academic year.

3.7 As for VTC, nine Higher Diploma (HD) programmes in disciplines relevant to testing and certification are offered in Academic Year 2014-15, with a total intake of 620 students. More than 840 students of the HD programmes graduated in Academic Year 2013-14. VTC has also initiated a Pilot Training and Support Scheme for laboratory technicians in which a student in the relevant HD programme will be given an opportunity to learn hands-on in a local testing laboratory in a paid apprenticeship position.

Practitioners

3.8 Efforts made by HKCTC, HKAS and relevant Government departments and public bodies to enhance practitioners' skills and promote further development of professionalism are set out below –

- (a) HKCTC, HKAS, VTC and the Government Laboratory organised more than 60 seminars, workshops, short courses and other training events for practitioners in the testing and certification industry in Year 2014-15. One of the seminars held was to celebrate World Metrology Day, World Accreditation Day and World Standards Day in which several speakers from renowned international organisations shared experiences with an audience of about 300;



Seminars

- (b) The Qualifications Framework (QF) completed the Specification of Competency Standards for Testing, Inspection and Certification Industry in July 2014. The Specification aims to provide a coherent and consistent set of benchmarks for various capabilities that the industry needs in its manpower complement. QF is in the process of appointing an assessment agency of Recognition of Prior Learning (RPL) for the testing and certification industry. Under RPL, an industry practitioner can receive formal recognition for the

knowledge, skills and experience already acquired.

Capital and Technology

3.9 In support to the testing and certification industry, the Hong Kong Productivity Council (HKPC) and the Hong Kong Science Park (Science Park) jointly launched the 'Lab Test One' initiative in 2013. It let private testing laboratories to use laboratory facilities and equipment at HKPC and Science Park for a fee. In Year 2014-15, 'Lab Test One' expanded its coverage to 31 laboratories including ITC's Standards and Calibration Laboratory, and other local non-commercial laboratories in universities, non-government organisations, and a Research and Development Centre set up by the Government. A new 'Lab Test One' website and mobile application will be launched. During Year 2014-15, about 50% of the operation time of HKPC's electromagnetic compatibility anechoic chamber was used by private laboratories. To further promote the service of shared facilities, HKPC and the Science Park jointly organised two seminars cum laboratory visits for the industry.

3.10 Proficiency testing is important to the upholding of technical capability of our laboratories. In Year 2014-15, the Government Laboratory continued to provide support and organised a food proficiency testing on boric acid, and collaborated another proficiency testing programme with APLAC on the determination of calcium and cadmium in drinking water.

Land

3.11 As at the end of 2013 (latest available figure), the area of vacant floor area in private properties that may accommodate testing and certification organisations was about 2.57 million square metres, representing about 6.5% of all relevant stock. The Council has also reflected its views about locating testing laboratories in industrial buildings to ITC.

IV. SPECIFIC TRADES

HKCTC has formed Panels for each of the following trades –

- (a) Chinese medicines;
- (b) construction materials;
- (c) food;
- (d) jewellery;
- (e) environmental protection; and
- (f) information and communications technologies.

The Panels comprise members from the relevant trades, testing and certification industry, academia, relevant Government departments and public bodies. During the year, there were some updates to the membership due to the expiry of the previous term. The membership lists of the Panels are at Annex 3 *Annex 3*.

Chinese Medicines

4.2 HKCTC is in the process of organising the second inter-laboratory comparison exercise on 12 Chinese Materia Medica (CMM)². The exercise is implemented in two phases with six CMM in each phase. Through the exercise, participating testing laboratories are able to assess their own technical competence by comparing testing results with other laboratories. 13 local laboratories participated in the first phase, which was completed in October 2014. 14 local laboratories participated in the second phase, which started in January 2015.

4.3 With the support of the Chinese Medicines Panel, HKPC completed the development of a product certification scheme for CMM based on Hong Kong CMM Standards with funding support from Innovation and Technology Fund in Year 2014-15. The Panel and HKPC are working closely together in promoting the scheme through various channels.

4.4 In January 2015, the Chief Executive announced in his Policy Address that the Government would plan and develop a testing centre for Chinese medicine to be managed by Department of Health. Subsequently, the Chinese Medicines Panel was briefed about this initiative. The Panel

² CMM in the first phase: Astragali Radix, Chuanxiong Rhizoma, Eucommiae Cortex, Gentianae Radix et Rhizoma, Moutan Cortex, and Panacis Quinquifolii Radix; and CMM in the second phase: Paeoniae Alba Radix, Radix Bupleuri, Radix Codonopsis, Salviae Miltiorrhizae Radix, Polygoni Multiflori Radix, and Scutellariae Radix.

will gauge the future development and explore cooperation opportunities.

Construction Materials

4.5 The Hong Kong Housing Authority plays a leading role in taking forward the development of product conformity certification schemes (PCCS). As at March 2015, the Authority required product certification for ten types of construction materials.³ By the end of Year 2014-15, HKAS has accredited 22 certification bodies for product certification of 12 types of construction materials.

4.6 The consultant engaged by the Standing Committee on Concrete Technology, which is an inter-office liaison platform on problems concerning concrete construction in the Government, has recommended to develop PCCS of steel reinforcing bars for use in construction works in Hong Kong. Four PCCS are now being developed to cover different stages of fabrication of steel reinforcing bars. Pursuant to Construction Standard 3-Aggregate for Concrete⁴, which accepts PCCS as an alternative quality assurance mechanism, a PCCS on aggregates for concrete is being developed by the Hong Kong Concrete Institute.

4.7 The Construction Panel and the Construction Industry Council (CIC) will jointly promote and encourage the wider use of PCCS for construction materials. Two new PCCS, i.e., on paint products and steel couplers, have recently been completed by the Hong Kong Association for Testing, Inspection and Certification (HKTIC) and a private testing and certification body respectively. We will assist with promoting the schemes to potential users.

Food

4.8 The Hong Kong Polytechnic University completed the development of a new HACCP⁵-based food hygiene standard certification system aiming at enhancing food safety culture in local catering industry (especially the small and medium enterprises). HKCTC is working with the scheme

³ The ten building products are timber doorsets (fire rated doors), panel wall for partitions, cement products (for architectural uses), tile adhesives, ceramic tiles (floor tiles and wall tiles), repair mortars, aluminum windows, uPVC drainage pipe and fitting, close-coupled water closet suites, as well as fabric/ mesh reinforcement.

⁴ Construction Standard 3-Aggregate for Concrete was developed by the Standing Committee and first published in May 2013. It is applicable to relevant construction works using concrete in Hong Kong.

⁵ HACCP – Hazard Analysis and Critical Control Points

developer and the testing and certification industry to promote this scheme (e.g. a talk was given at the Food Expo held in August 2014, and a seminar was held in April 2014).

4.9 The Food Panel serves as a platform for sharing of information on matters related to food testing and certification among stakeholders. For example, a seminar was held in March 2015 on the latest regulatory requirement for infant formula and young children's food and the updated services provided by the testing and certification industry. The Panel also kept in view of the latest development of the proposed rules under the United States Food and Drug Administration (FDA) Food Safety Modernization Act and will work with HKAS in organising a seminar at an appropriate time to assist stakeholders in understanding the new regulatory requirements for exporting food to the States.

Jewellery

4.10 HKCTC sponsored The Gemmological Association of Hong Kong to develop a consolidated set of standard testing methods for *Fei Cui* (翡翠, or commonly referred to as 'jade'). The project was completed in 2014.

Environmental Protection

4.11 The Environmental Protection Panel has been focusing its efforts on promoting new services for ISO 50001 energy management system (EnMS) certification. A seminar on ISO 50001 EnMS and Certification was successfully held in February 2014, with an attendance of more than 310. A visit to the Science Park for the property management sector was also organised in September 2014, so as to understand more about the Park's experience in ISO 50001 EnMS certification. Starting from January 2014, the Hong Kong Housing Authority has imposed ISO 50001 certification requirements for its contractors under specific lists.

4.12 The Panel has also been promoting the validation and verification of GHG assertions. In mid-2014, the HKAS has introduced accreditation service for the verification of GHG assertions at product level, in accordance to ISO/TS 14067. The Panel has been working closely with HKAS on the promotion of this new accreditation service. HKCTC co-operated with HKAS to organise a seminar on GHG validation and verification in February 2015, with speakers from different sectors discussing the topic with the audience.

4.13 The Panel also paid attention to chemical tests for environmental samples in Hong Kong. A seminar on this topic was held jointly with the Hong Kong Institution of Engineers in March 2015.

Information and Communications Technologies (ICT)

4.14 The ICT Panel has been promoting ISO 27001 information security management system (ISMS) certification services. Since 2013, the Panel has been arranging speakers from the local testing and certification industry and HKAS to introduce the concepts and advantages of ISMS certification at relevant seminars organised by Government departments, professional bodies and trade associations, etc. The Panel has also been approaching targeted organisations in Hong Kong to promote ISO 27001 certification services by offering short briefings to these organisations when opportunity arises.

4.15 Government has been working on promoting information security management system. For example, the Office of the Government Chief Information Officer (OGCIO) hosted the ISO/International Electrotechnical Commission (IEC) Joint Technical Committee 1/SubCommittee 27 (SC 27) Meeting in April 2014. SC 27 creates and manages standards in the area of information security, including ISO 27001 standard. The Panel will continue to work with OGCIO and other relevant Government departments in promoting information security management system certification services.

V. SEEKING WIDER RECOGNITION OF HONG KONG'S ASSESSMENT RESULTS

International Participation

HKAS has been participating actively in the international accreditation community so as to seek wider recognition of Hong Kong's conformity assessment results. HKAS staff attended a number of meetings organised by international and regional accreditation cooperation organisations to exchange views with other accreditation bodies and to fulfill its obligation as members in various committees, work groups and task forces of these organisations. In Year 2014-15, HKAS also contributed a number of articles to newsletters of the international and regional accreditation cooperation bodies.

5.2 Through the multilateral mutual recognition arrangements administered by international and regional accreditation cooperations, endorsed test reports and accredited certificates issued by HKAS' accredited organisations are recognised by over 85 accreditation bodies in more than 65 economies, including Hong Kong's major trading partners. HKAS extended its APLAC Mutual Recognition Arrangement (MRA) to cover accreditation of proficiency testing providers in June 2014, becoming one of the seven inaugural signatories for this newly established MRA. It had also applied to Pacific Accreditation Cooperation (PAC) for an extension of its Multilateral Recognition Arrangement (MLA) to cover greenhouse gas validation and verification. The evaluation of HKAS for this extension was conducted in November 2014 and the final evaluation report will be deliberated in the PAC MLA Committee Meeting to be held in Sri Lanka in June 2015.

5.3 HKAS hosted the APLAC mid-term MRA Council Meeting, Extraordinary Assembly and the APLAC Board of Management Meeting in Hong Kong on 8-10 January 2015. About 50 delegates from more than 30 economies participated in the activities. Chair and President of International Accreditation Forum also visited HKAS in August 2014 and met with leaders from the local testing and certification industry.

5.4 During the year, HKAS also signed a Memorandum of Understanding with the Cooperation Council for the Arab States of the Gulf Accreditation Centre to strengthen cooperation between the two parties in the field of accreditation.

CEPA

5.5 Under CEPA, the Agreement between the Mainland and Hong Kong on Achieving Basic Liberalisation of Trade in Services in Guangdong (the Guangdong Agreement) was signed in December 2014 and is implemented from March 2015. It includes measures allowing testing organisations in Hong Kong to cooperate with designated Mainland organisations to undertake testing of products in the 'audio and visual apparatus' category of the China Compulsory Certification (CCC) System that are designed and prototyped in Hong Kong, as well as processed or manufactured in Guangdong Province. The scope of testing services that can be provided by Hong Kong testing organisations in the area of voluntary certification has been expanded to products manufactured or processed in Hong Kong or Mainland. Moreover, with respect to the mode of commercial presence, the Guangdong Agreement in general offers Hong Kong's testing and certification industry same treatment as the Mainland enterprises in terms of market access requirement in Guangdong Province.

5.6 The Guangdong Agreement, for the first time, allows products under the CCC System which are processed or manufactured in Guangdong to be tested in Hong Kong. Measures in the Agreement further open the Mainland market for the business sector in Hong Kong, and Hong Kong's testing and certification industry will continue to benefit from further liberalisation of the Mainland market.

VI. PROMOTION

HKCTC continued to promote ‘Tested in Hong Kong, Certified in Hong Kong’ to potential service users with the assistance from different parties. In Year 2014-15, HKCTC set up 15 promotion booths in trade fairs in Hong Kong and two promotion booths on Mainland. We are also looking for ways to enrich the content of our exhibition at some trade fairs in Hong Kong and will invite testing and certification bodies to participate.

6.2 During the year, Hong Kong Trade Development Council (HKTDC) has also helped to promote Hong Kong's testing and certification services by displaying promotional materials at 23 trade fairs outside Hong Kong. With assistance from HKAS, HKTDC and HKTIC, HKCTC arranged 10 seminars and a laboratory visit to promote testing and certification services to buyers and manufacturers attending HKTDC's local trade fairs.

6.3 In addition to participation in trade fairs, HKCTC extended the promotion of Hong Kong's testing and certification services to Mainland and Taiwan. The promotional activities included a photo exhibition in Zhaoqing of Guangdong Province, Radio Guangdong Feature Series 《 粵港同心 》 broadcast on Mainland, and Commonwealth Magazine's column 《 天下雜誌專欄 》 published in Taiwan.

6.4 With assistance from HKAS, HKTIC and many veteran practitioners of the industry, HKCTC is compiling the fourth booklet in the series to promote Hong Kong's testing and certification services. This booklet is on the subject of food testing, certification and inspection and will be published in the first half of 2015.

6.5 In November 2014, HKCTC set up a promotion booth in the InnoCarnival of the InnoTech Month held in the Science Park to introduce the testing and certification industry to students and the general public. The booth featured interactive games and displays, attracting around 12,000 visitors. To raise the industry profile, a series of 19 half-page advertorials were arranged in local Chinese and English newspapers in Year 2014-15. Photos of the efforts on promotion of testing and certification services are at

Annex 4

Annex 4.

6.6 During the year, we also confirmed with the International Organization for Standardization (ISO) that the ISO / Technical Committee (TC) 176 (ISO/TC 176) Plenary Meeting would be held in Hong Kong in

November 2015. It will be the first time that Hong Kong hosts this international meeting on quality management and quality assurance. Technical experts from more than 100 economies are expected to attend. ITC is the host of the meeting and HKCTC has pledged its full support. Preparatory work has already begun. The Plenary Meeting will provide a good opportunity for Hong Kong practitioners to learn about latest development of ISO 9001 on Quality Management System Standards, and a good opportunity for Hong Kong to promote our testing and certification industry to an international audience and raising awareness of the industry locally.

VII. SUPPORT TO HKCTC

Secretariat Support

Annex 5

The Secretariat of the Hong Kong Council for Testing and Certification (the Secretariat) serves as the executive arm of HKCTC. Since April 2014, all the 11 civil service establishments of the Secretariat are on a permanent basis set up under ITC. The organisation chart of the Secretariat is set out at **Annex 5**. In Year 2014-15, the Secretariat supported 19 formal meetings of the Council and its Panels.

Resources

7.2 Apart from meeting the staff cost required for the Secretariat, the Government also provided recurrent financial support to HKCTC in the implementation of its initiatives. In Year 2014-15, the expenditure was roughly \$6,135,000 (excluding staff emoluments). About 70% of the expenditure was spent on setting up booths in trade fairs, participating in InnoCarnival 2014 and the exhibition at the Science Museum, placing advertorials on newspapers and other publicities to promote Hong Kong's testing and certification services. The rest of the funds was related to organising seminars on various topics to enhance professional standard in the industry, e.g., use of radio frequency identification technology in testing and certification of construction materials, and GHG validation and verification, as well as other initiatives.

**Terms of Reference of
Hong Kong Council for Testing and Certification**

To advise the Chief Executive on –

- (a) the overall development strategy of the industry;
- (b) new business opportunities worth exploring for the industry, having regard to latest developments in the Mainland and overseas markets; and
- (c) measures needed to raise the professional standing and community awareness of the industry.

**Membership List of
Hong Kong Council for Testing and Certification**

Chairman

Professor CHING Pak-chung

Members

Mr CHAN King-wa, Felix

Dr CHOY Wai-fun, Priscilla

Mr FUNG Lap-chung, Richard

Mr KO Kwok-on, Andy

Professor KWAN Hoi-shan

Mr LAM Chun-hong, Dominic

Dr LAM Po-hing, Michael

Mr LAU Man-wai, Joseph

Ms LAW Sau-mui, Christina

Mr LEE Wai-kwok, Michael

Mrs LEUNG YANG Shih-ti, Marianne

Ir Dr Hon LO Wai-kwok

Ms NARDI Kar-wai, Agnes

Mr NG Ha-wai, Howie

Dr SHUM Wan-lung, Aaron

Mr TING Wai-cheung, Bernie

Professor YAM Wing-wah, Vivian

Mr YEUNG King-chung, Spencer

Executive Director of Hong Kong Productivity Council or representative

Executive Director of Hong Kong Trade Development Council or representative

Executive Director of Vocational Training Council or representative

Director-General of Trade and Industry or representative

Commissioner for Innovation and Technology or representative

Membership List of Panels on Specific Trades

- (a) Panel on Promoting Testing and Certification Services in Chinese Medicines Trade

Convener

Dr LAI Fook-ming, Lawrence

Members

Mr CHAN Yiu-tong, Tony
Professor CHAU Foo-tim
Dr CHOY Wai-fun, Priscilla
Ms CHUAH Ah-poh, Anne
Mr KO Kwok-on, Andy
Professor Kwan Hoi-shan
Mr LAM Chun-hong, Dominic
Mr LAU Man-wai, Joseph
Mr LI Ying-sang, Tommy
Professor LIN Zhi-xiu
Mr TSANG Chiu-hing
Professor TSIM Wah-keung, Karl
Dr Albert WONG
Mr WONG Cho-hang, Stanley
Ms WONG Suet-ying, Alice
Professor ZHAO Zhong-zhen
Secretary-General of Hong Kong Council for Testing and Certification
Representative of Department of Health
Representative of Government Laboratory
Representative of Hospital Authority
Representative of Hong Kong Productivity Council
Representative of Vocational Training Council

(b) Panel on Promoting Testing and Certification Services in Construction Materials Trade

Convener

Mr LEE Shing-see

Members

Mr AU Yeung Chi-king, Artur

Mr CHAN King-wa, Felix

Mr Wilman CHAN

Mr CHOW Ying-shun

Professor CHUNG Kwok-fai

Mr HO Kin-fung, Samson

Mr HUANG Jianmin

Professor KWAN Kwok-hung, Albert

Mr LEE Wai-kwok, Michael

Mr LEUNG Hon-chuen, Willie

Dr LO Yiu, Tommy

Mr PONG Chong, Edward

Mr TAM Tin-fong, Martin

Mr TSIEH Chi-kong, Joseph

Mr WONG Tin-cheung, Conrad

Secretary-General of Hong Kong Council for Testing and Certification

Representative of Development Bureau

Representative of Architectural Services Department

Representative of Buildings Department

Representative of Housing Department

Representative of Hong Kong Productivity Council

Representative of Hong Kong Trade Development Council

Representative of MTR Corporation

Representative of Vocational Training Council

(c) Panel on Promoting Testing and Certification Services in Food Trade

Convener

Mr LEUNG Wing-lup, Gregory

Members

Dr CHOY Wai-fun, Priscilla

Mr CHUNG Hung-hing, Ken

Dr HO Shiu-woon, Allen

Mr KO Kwok-on, Andy

Ms KWAN Ching-yi, Miranda

Professor KWAN Hoi-shan

Mr LAM Chun-hong, Dominic

Dr LAU Lok-ting, Terence

Mr LAU Man-wai, Joseph

Mr LO Tim-lun, Jacky

Professor MA Ching-yung

Mr Bryan PENG

Mr POON Kuen-fai, Richard

Mr WONG Ka-wo, Simon

Professor WONG Wing-tak

Professor WONG Woon-chung, Jonathan

Mr WU Tze-chiu, Edmond

Professor YAM Wing-wah, Vivian (till 27.1.2015)

Secretary-General of Hong Kong Council for Testing and Certification

Representative of Food and Environmental Hygiene Department

Representative of Government Laboratory

Representative of Hong Kong Consumer Council

Representative of Hong Kong Productivity Council

Representative of Hong Kong Trade Development Council

Representative of Vegetable Marketing Organisation

Representative of Vocational Training Council

- (d) Panel on Promoting Testing and Certification Services in Jewellery Trade

Convener

Mr WONG Kam-fai, Alan

Members

Ms CHAN Sin-hung, Catherine
Ms CHAN Wai-ching, Joanne
Mr CHEUNG Tak-hay, Haywood
Mr KO Kwok-on, Andy
Mr LAU Hak-bun, Dennis
Ms LEE Carlon, Stella
Mr LO Yick-sun, Louis
Mr MA Yung-yi, Lawrence
Mr MOK Wai-kei, Dominic
Dr SHUM Wan-lung, Aaron
Mr TSUI Kin-wah, Tommy
Professor YAU Hon-ming, Oliver
Ms YIP Oy-ling, Esther
Secretary-General of Hong Kong Council for Testing and Certification
Representative of Hong Kong Consumer Council
Representative of Hong Kong Productivity Council
Representative of Hong Kong Trade Development Council
Representative of Travel Industry Council of Hong Kong
Representative of Vocational Training Council

- (e) Panel on Promoting Testing and Certification Services in Environmental Protection Trade

Convener

Professor LAM Kwan-sing, Paul

Members

Dr Leonard CHOW
Dr CHOY Wai-fun, Priscilla
Dr CHU Ka-lok, Peter
Mr FUNG Lap-chung, Richard (since 4.6.2014)
Mr FUNG Lim-chee, Richard
Professor FUNG Tung
Ms HO Wai-ping, Linda
Mr KWAN Yuk-choi, James (till 30.4.2014)
Mr LAM Chun-hong, Dominic (till 30.4.2014)
Mr LAU Yan-kin (since 1.5.2014)
Ms Lau Yuk-kuen, Joey (since 1.5.2014)
Mr LEE Wai-kwok, Michael
Professor LEUNG Yiu-cheong, Dennis
Ir Dr Hon LO Wai-kwok
Ms NARDI Kar-wai, Agnes
Ms Jorine TAM
Mr Christopher TUNG
Mr WONG Lok-tak, Luther
Mr WONG Ming-yam
Mr WONG Tin-cheung, Conrad (till 30.4.2014)
Professor YAM Wing-wah, Vivian (till 27.1.2015)
Dr YIP Chung-yin, Daniel
Secretary-General of Hong Kong Council for Testing and Certification
Representative of Electrical & Mechanical Services Department
Representative of Environmental Protection Department
Representative of Consumer Council (till 30.4.2014)
Representative of Hong Kong Productivity Council
Representative of Vocational Training Council

- (f) Panel on Promoting Testing and Certification Services in Information and Communications Technologies Trade

Convener

Mr LEE Wai-kwong, Sunny

Members

Mr CHENG Siu-hong, Raymond

Professor CHEUNG Wai-lok, David

Mr CHIU Chi-yeung, John

Dr IP Ngai-sang, Johnny

Dr KWOK Lam-for

Dr LEUNG Kam-nang, Hareton

Mr MIAO Ching-wei, Peter (since 1.5.2014)

Ms Jorine TAM

Ms Beata TANG

Mr WONG Chi-keung, Reggie

Dr YAU Bun, Oliver

Mr YAU Kwok-keung, Daniel (since 1.5.2014)

Secretary-General of Hong Kong Council for Testing and Certification

Representative of the Office of the Government Chief Information Officer

Representative of Hong Kong Applied Science and Technology

Research Institute Company Limited

Representative of Hong Kong Cyberport Management Company Limited

Representative of Hong Kong Productivity Council

Representative of Vocational Training Council

**Efforts of Hong Kong Council for Testing and Certification to Promote
Hong Kong's Testing and Certification Industry**



InnoCarnival 2014



Trade Fairs in Hong Kong



SmartHK Nanjing



Overseas Trade Fair



Comic Booklet on Testing and Certification

Sponsored Features



Standardization is a process of developing a set of specifications (or standards) for a product, a system or a service. It enhances effective communication and maximizes compatibility. ISO, the International Organization for Standardization, may be the world's largest developer of specifications standards.

ISO 9001:2008, in particular, sets out the criteria for a quality management system that can be used by any organization, large or small, regardless of its field of activity. Also, it is the only standard in the ISO 9000 family that can be used for getting the quality management system certified. By the end of 2013, nearly 1.1 million certificates have so far been issued worldwide on ISO 9001, a 3% growth from 2012.

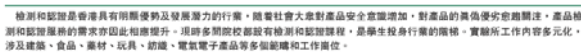
Dr Ir Hon Lo Wai-kwok, Chairman of Governing Council of the Hong Kong Quality Assurance Agency and member of HKCTC, led his team to the first ISO 9001 certification, and describes implementing ISO 9001 as a comprehensive learning process for every level within the company to take part in effective and systematic quality management.

As one of the correspondent members of ISO, Hong Kong has been actively attending ISO technical and policy meetings as observers. The certificates issued by Hong Kong's conformity assessment bodies are also well recognized by more than 70 economies worldwide.

Mr Wong Wang-wah, Executive Administrator of the Hong Kong Accreditation Service, believes the meeting will take Hong Kong's ISO development to a new level and will be beneficial to the local testing and certification industry.



特約專輯



建築及建材檢測認證發展蓬勃 人才需求殷切

學歷高低皆可入職 進修增值做老闆

建築檢測範圍廣泛，涵蓋地質勘察、結構損壞檢測、焊接/鑄造缺陷檢測、樓宇勘察、環境測試及評估以及建材產品認證等範疇。建築測試協會主席兼總務高志誠中執行董事李澤國表示，行業由兩年開始出現人手短缺，成因主要是樓宇供應增加以及基建項目隨經濟興旺而出現大量認證需求和環保建築材料認證等對人才的需求。

李偉雄指出現時建築及建材供應面臨嚴重人才短缺困境，即使從就讀航海和船舶課程的學生畢業後全數入行，人手仍不足夠。他表示，現有很多船舶製造機構由境外人才接納問題，因此工作進度未能完全配合。若航行業有足夠人才，將可加快工作進度，例如輪機工作及柴油淨化器有優化化合物等，提升機宇安全及保障健康。

建築及建材檢測認證的人員門檻不高，學歷達到一定程度的認可入職要求較低。現時，取得中三或中五（或相當中學制中六）程度，可從事測試員工作，而分發實際的測試員不論初中或高中學歷起薪約為 12,000 元。該員可晉升為高級測試員、助理監督、監督等，若要上一層樓，還需必須持續進修，一般在入職後的高級文憑課程、暫可勝助理技術主任或技術主任等。而大學畢業生則可入職

隨著近年驗樓、驗房需求增加，很多專業人才轉做創業，開設建築檢驗機構。李偉傑表示，專業資格如英國屋宇學會的資格，包括結構師級（二等屋）的屋宇資格，可透過本地專業培訓取得，對想創業提供房屋服務的人士說是很大的幫助。


很多人對測試實驗室所感陌生，亦不了解測試項目的類別及標準。總局設在法國巴黎的必經國際檢驗局(Bureau Veritas，簡稱BV)在香港分設的消費品服務事業部副總裁黃志才表示，香港檢測和認證業提供多元化、國際級水平的檢測和認證服務。測試實驗室所遵循的標準及要求等運作，並不神秘。

很多人對測試實驗室所感陌生，亦不了解測試項目的類別及標準。總部設在法國巴黎的必維國際檢驗集團（Bureau Veritas，簡稱BV）在香港分處的消費品服務專業部副總裁馮子科表示，香港檢量和認證服務供多元化，達國際水平的檢量和認證服務。測試實驗室須按程序、標準及要求等運作，並不神秘。

具及化學測試等等。同一區域亦再細分為多個房間，各有負責不同的測試範圍，有些更是為某些測試而特別設計的，例如黑房或設有獨立抽氣櫃等，以應付各式專業測試的不同需

驗所的操作須符合既定程序。以

▲員工將各個紡織品樣本仔細分類的試工序。



利用機器自動化某些物理或機械測試，一方面可提高測試的效率，另一方面亦須派員工下工廠掌握同一動作。在是次參觀的實驗室中，其中一

低價值可磨磨同一或市料渣
干次或萬次，以測試市料的
耐磨程度；另一部用是倒滾
筒，可將市料不停翻動，測
試磨損情況及會否超半粒

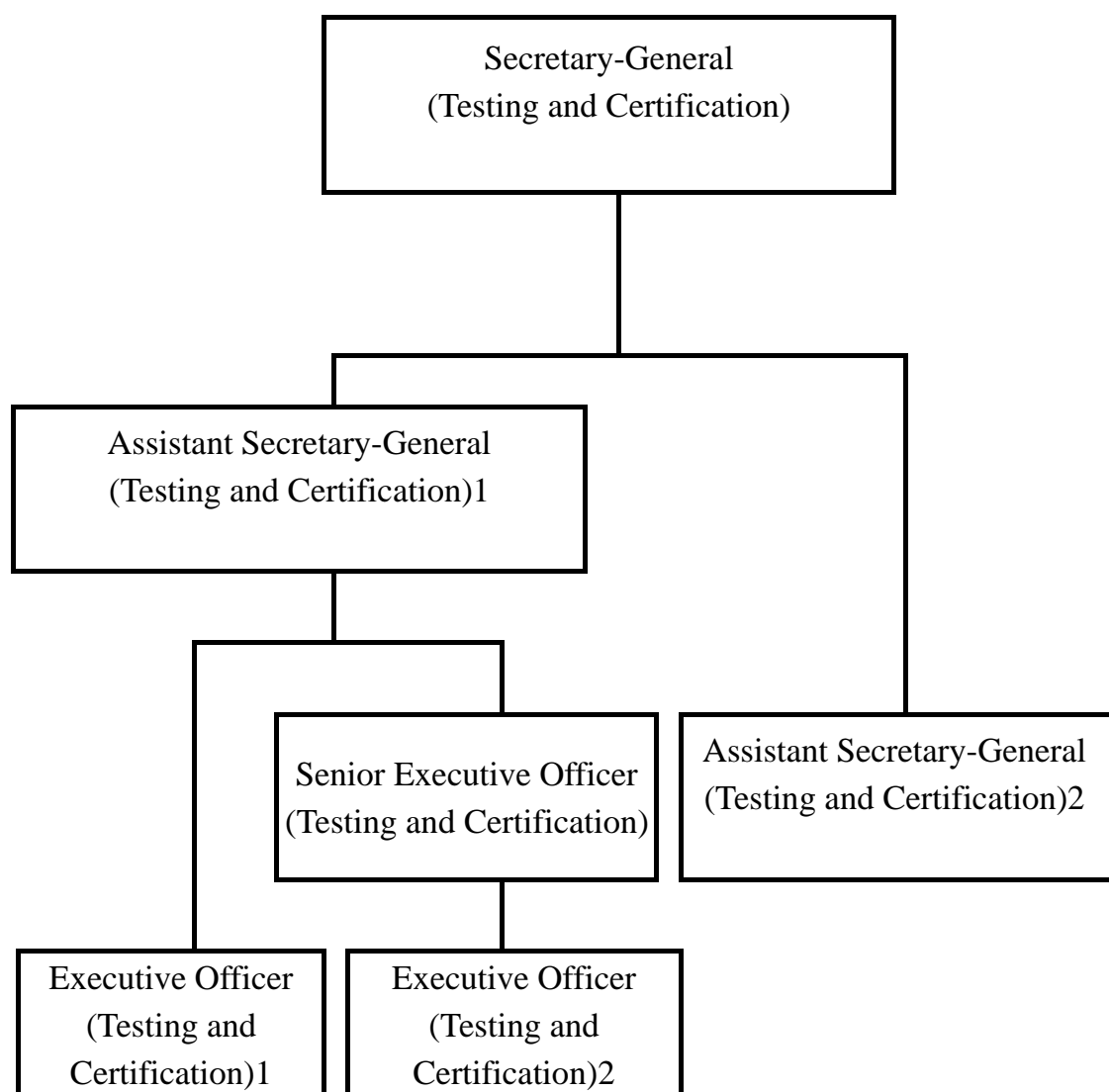
手操作或參與，例如用瓶蓋、推動香港經濟進一步發展。

測試，先以「大面」或「細面」方式將樣本裁切成合適的測試尺寸，再分別對不同實驗劑量測試。測試完成後，經核對無誤。

除了系統化的程序外，實驗所亦按相關的標準及要求進行測試。舉例說，如果客戶的資料將會入口到某地

▲化學實驗室備有良好保護設備，供
軍安全的工作環境。

**Organisation Chart of
the Secretariat of the Hong Kong Council for Testing and Certification
(as at 31 March 2015)**



- In addition, there are five supporting staff providing clerical and secretarial support.