



Accreditation for Construction Materials Testing and Certification 建築物料測試及認證的認可服務



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- ✚ What is Product Certification?
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What is **TESTING** ??



What is Testing(測試)?

- ✦ According to ISO/IEC 17000:2004 :
“Testing” - determination of **one or more characteristics of an object of conformity assessment** (e.g. heavy metals in toy), according to a **specified technical procedure** (e.g. ISO 8124).
- ✦ For checking compliance of the **characteristics with acceptance criteria** specified in **standards, specifications or regulations**.
- ✦ Testing can be conducted by first, second or third party.

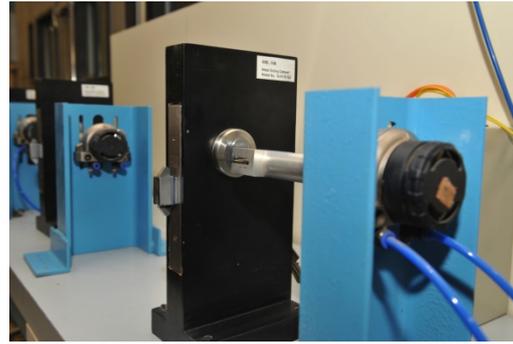
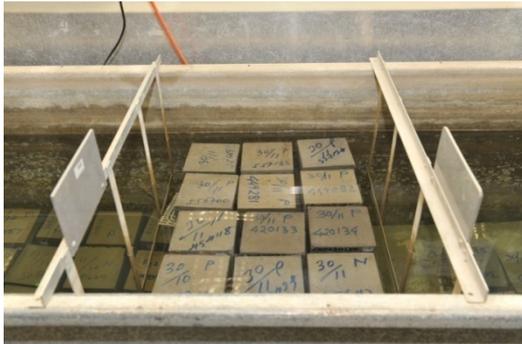


Testing Services accredited by HKAS

- Calibration Services
- Chemical Testing
- Chinese Medicine
- Construction Materials
- Electrical and Electronic Products
- Environmental Testing
- Food
- Forensic Testing
- Medical Testing
- Miscellaneous
- Pharmaceutical Products
- Physical and Mechanical Testing
- Proficiency Testing Providers
- Reference Material Producers
- Testing Required by The China Compulsory Certification System
- Textiles and Garments
- Toys and Children Products

Construction Materials Testing

- Compressive strength test of concrete cubes
- Tensile strength test of reinforcing bars
- Door and door lock test

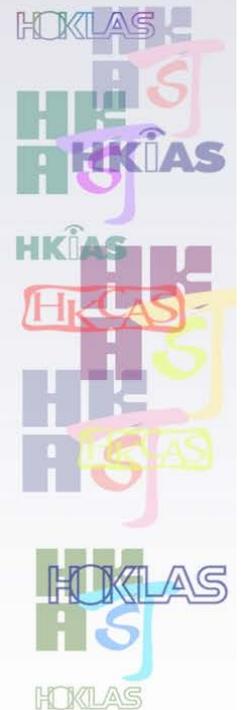


Pros and Cons for Product Testing

- # **Pros:** direct evaluation to the conformity of product(s)
- # **Cons:**
 - results valid for the tested samples only
 - requires representative samples for making inference of the test results to a batch of products
 - usually not involved in the control of the manufacturing processes
 - sometimes, different results may be obtained by using different testing methods (can be avoided if standard methods are used)



What is Product Certification ?

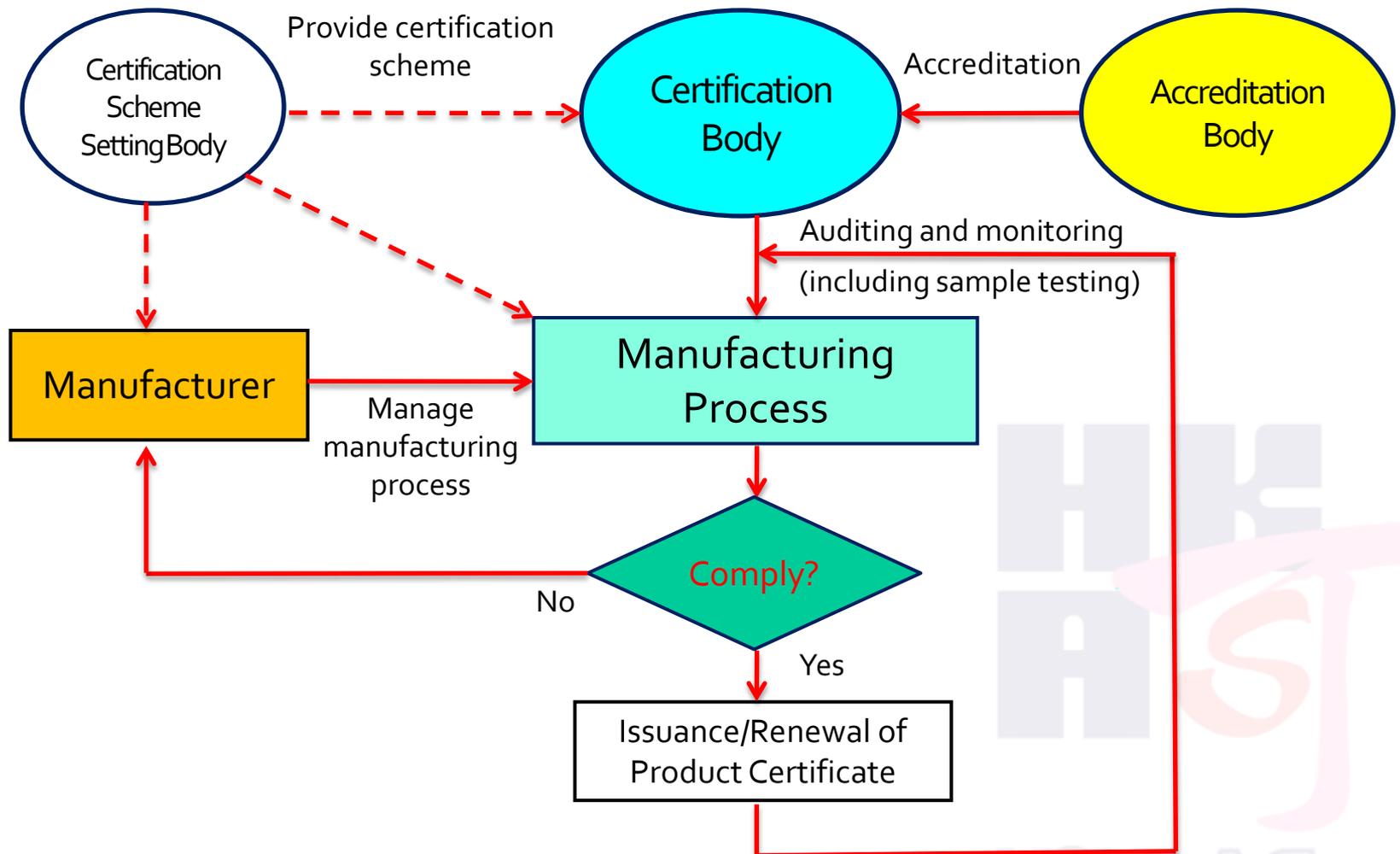


Product Certification

- ✦ A third party certification body issues a certificate to confirm that a product of a given supplier satisfies the requirements of a specified certification scheme.
- ✦ Certified products may bear a certification mark to demonstrate their quality, which can directly link to the conformity of the product with specified requirements.

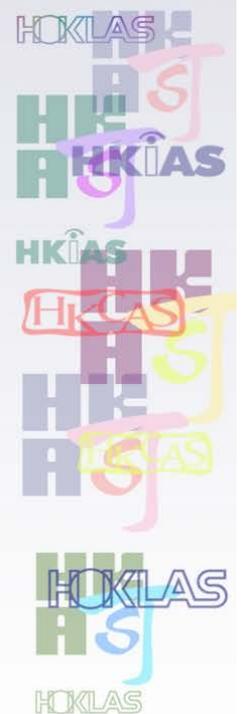


Product Certification – An Upstream Quality Control



Certification Services (Construction Products) Accredited by HKAS

Product	Certification scheme	Number of accredited certification bodies (as of 2016.09.06)
Concrete	QSPSC	3
Tile adhesive	PCCS-TA	4
Cement	PCCS-CP	2
Ceramic tile	PCCS-CT	2
Repair mortar	PCCS-RM	3
Standard sand for cement	QS/SSC	1
Standard sand for sand replacement test	QS/SSR	1
Passive Fire protection products	PCCS-PFPP	2
Aluminum window	PCCS-AW	2
Frictional hinge	PCCS-FH	1
Mesh reinforcement	PCCS-MR	1





Example : Quality Scheme for the Production & Supply of Concrete (QSPSC)

- ✦ System 5 product certification scheme developed by Hong Kong Quality Assurance Agency (HKQAA)
- ✦ **Developed** by representatives of concrete producers, contractors, government bodies, educational institutes and users
- ✦ **Participants shall operate a quality manual with requirements according to ISO 9001**
- ✦ Type tests shall be provided by HKAS accredited laboratories

HOKLAS

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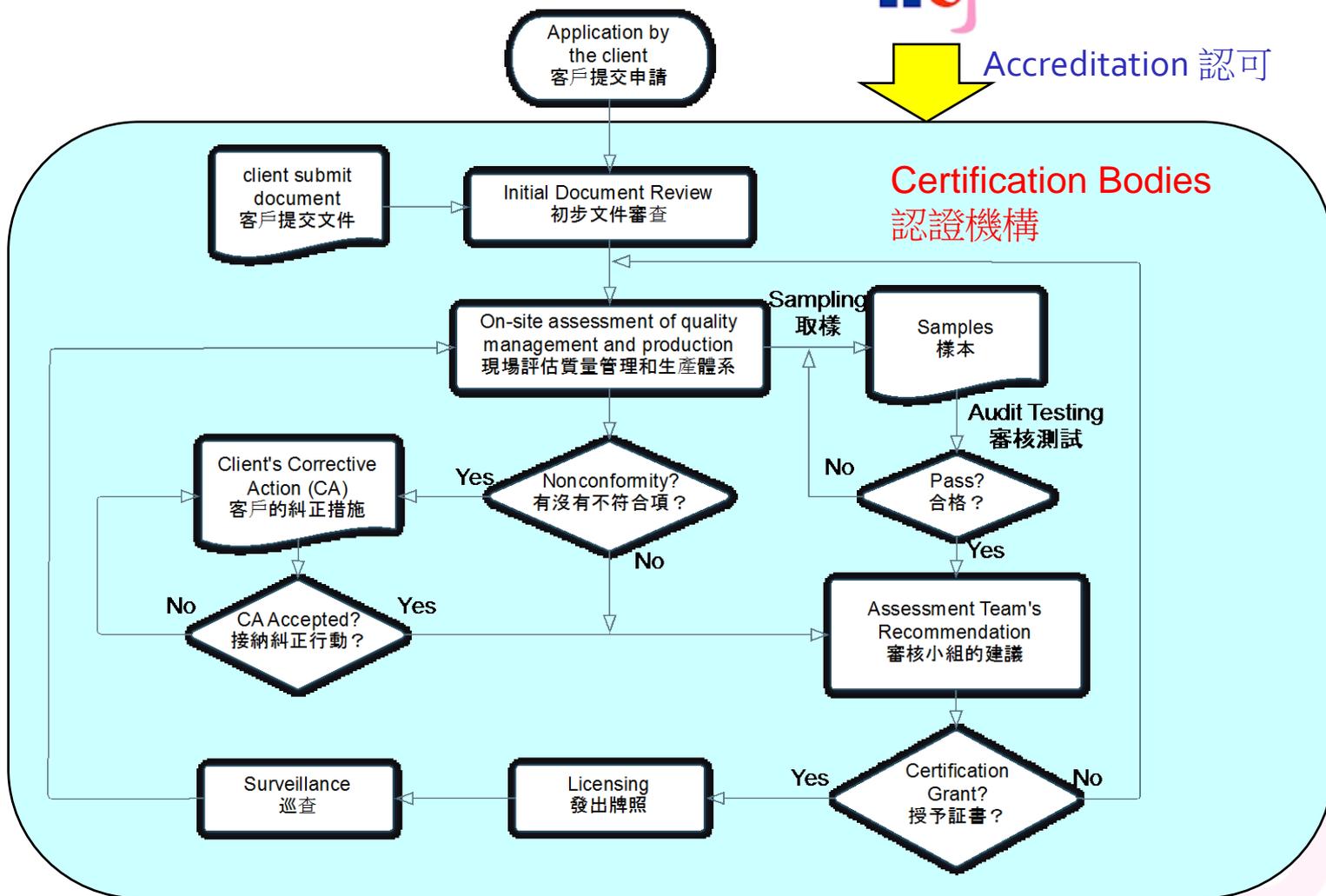




Example Flow of QSPSC



Accreditation 認可



Benefits of Product Certification

- ✦ **Improve acceptance and confidence of customers**
 - With independent 3rd party involvement to assure the products comply with the specified requirements
 - Requirements well defined
 - Products usually carry a certification mark
 - Better traceability of products
- ✦ **Reduce risk of non-compliance / rework**
 - Through rigorous process control and/or surveillance



Benefits of Product Certification

- ✦ **Reduce costs of monitoring**
 - Certification bodies help customers monitor the performance of manufacturers and products
- ✦ **Excessive resources not required**
 - Most manufacturers already obtained ISO 9001 system certification





Introduction to Hong Kong Accreditation Service (HKAS, 香港認可處)





香港認可處 (HKAS)

- HKAS is part of Innovation and Technology Commission of the Hong Kong Special Administration Region (HKSAR) Government.
香港認可處是香港特別行政區政府創新科技署屬下工作組別



- It was set up in 1998 (previously known as HOKLAS since 1985) 於1998年成立(前身是香港實驗所認可計劃HOKLAS執行機關，於1985年成立)
- It is the official accreditation body in Hong Kong 是香港官方認可機構
- It provides independent and impartial accreditation services 提供獨立和公正的認可服務



- 
- ✦ HKAS provides accreditation (認可) services to testing laboratories, certification bodies and inspection bodies under 3 schemes:



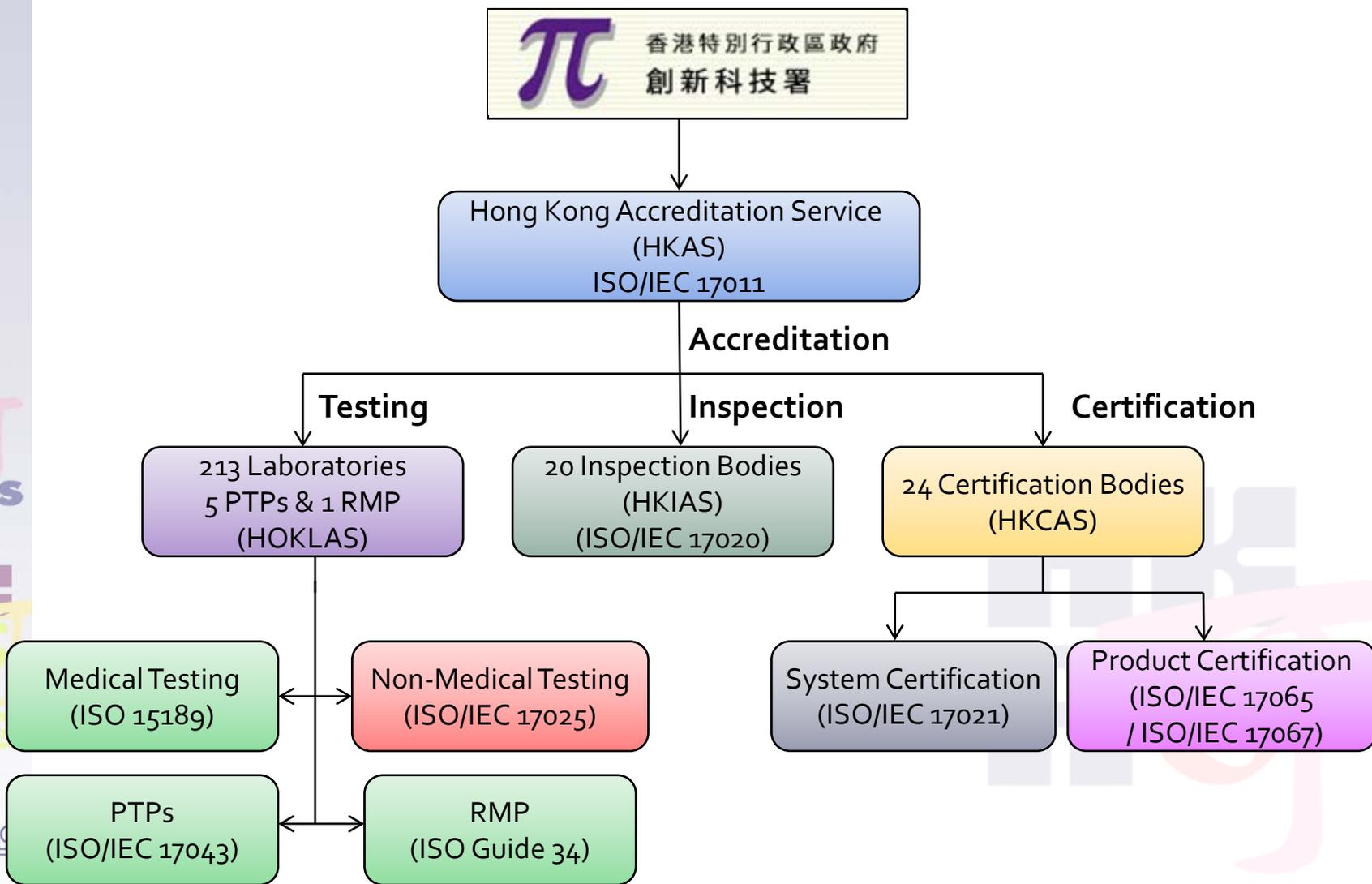
- HOKLAS (香港實驗所認可計劃)
- HKCAS (香港認證機構認可計劃)
- HKIAS (香港檢驗機構認可計劃)

- ✦ Participation in the 3 schemes is voluntary

- ✦ The schemes are operated in accordance with international standards



Schematic Diagram of Accreditation



What is Accreditation (認可)?

- ✦ According to ISO/IEC 17000:2004 Conformity assessment – Vocabulary and general principles:

“**Accreditation**” – **Third party** (i.e. accreditation body) attestation related to a conformity assessment body (i.e. laboratory, inspection body or certification body) conveying formal demonstration of its **competence** to carry out **specific** conformity assessment **tasks** (i.e. testing, certification and inspection)

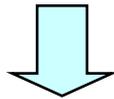


Accreditation Body
- Provides assurance

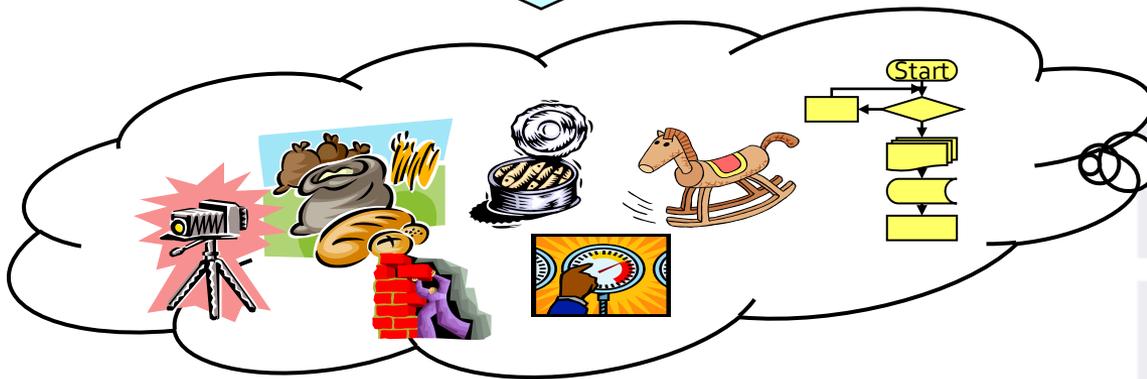


Are they
competent?

Accreditation can help you!



Test, Certification, Inspection

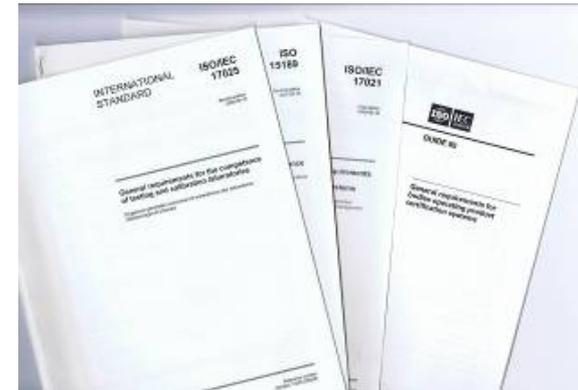


Are they
acceptable?

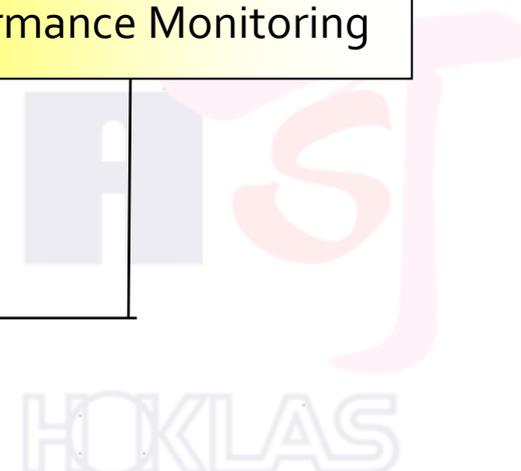
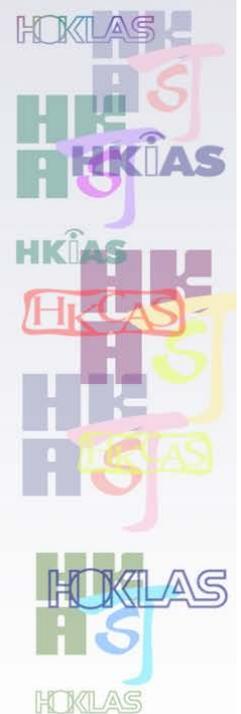
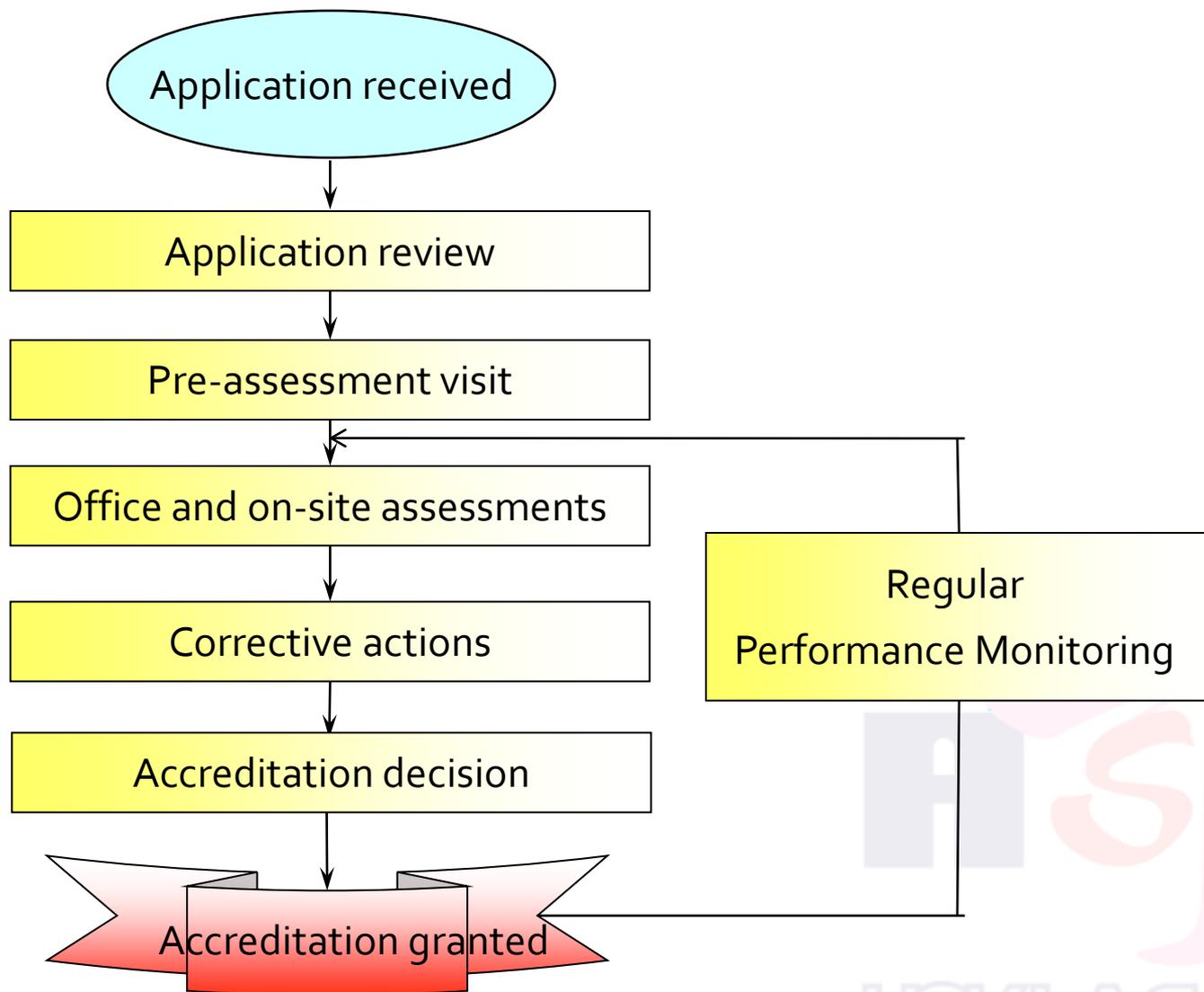


Features of HKAS Accreditation

- ✚ A service provided by Government through ITC
- ✚ Participation is voluntary
- ✚ Based on international standards
- ✚ Rigorous assessment and monitoring
- ✚ International recognition through mutual recognition arrangements
- ✚ Independent and impartial
- ✚ Tailored for local conditions



Accreditation Process Flow Chart





Monitoring of Accredited Organisations

- ✦ Through rigorous reassessments and other monitoring measures
 - Reassessments (複評審)
 - Surveillance (監察)
 - Monitoring of changes
 - Complaints handling (處理投訴)
 - Proficiency Testing (能力驗證) / Inter-laboratory Comparison Study
 - Code of conduct (紀律守則)



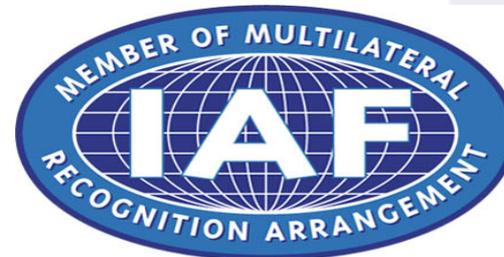
International Recognition





International Recognition

- ✦ HKAS is a signatory to the Mutual Recognition Arrangement (MRA) of International Laboratory Accreditation Cooperation (ILAC, www.ilac.org), and Multilateral Recognition Arrangement (MLA) of International Accreditation Forum (IAF, www.iaf.nu)
- ✦ Accreditation status of specific scope recognised by over 91 accreditation bodies in 85 economies in the world
- ✦ HKAS is well recognised by region/international accreditation community



HKAS (MRA/MLA) partners

NORTH AND SOUTH AMERICA
A2LA (USA)
AIHA-LAP, LLC (USA)
ANSI (USA)
ANSI-ASQ (USA)
ASCLD/LAB (USA)
CALA (Canada)
CGCRE/INMETRO (Brazil)
ECA (Costa Rica)
ema (Mexico)
IAS (USA)
INDECOPI (Peru)
INN (Chile)
L-A-B (USA)
NVLAP (USA)
OAA (Argentina)
OAE (Ecuador)
OGA (Guatemala)
ONA (Paraguay)
ONARC (Cuba)
OUA (Uruguay)
PJLA (USA)
SCC (Canada)

EUROPE	
ACCREDIA (Italy)	INAB (Ireland)
ATS (Serbia)	IPAC (Portugal)
BELAC (Belgium)	NA (Norway)
Bmwfj (Austria)	NAT (Hungary)
CAI (Czech Republic)	OLAS (Luxembourg)
COFRAC (France)	PCA (Poland)
CYS-CYSAB (Cyprus)	RENAR (Romania)
DAkkS (Germany)	RvA (Netherlands)
DANAK (Denmark)	SA (Slovenia)
ENAC (Spain)	SAS (Switzerland)
ESYD (Greece)	SNAS (Slovakia)
FINAS (Finland)	SWEDAC (Sweden)
HAA (Croatia)	TURKAK (Turkey)
IARM (Macedonia)	UKAS (UK)

ASIA PACIFIC
AAC Analitica (Russian Federation)
BLA-DSS (Thailand)
BLQS-DMSc (Thailand)
BoA (Vietnam)
CNAS (China)
DSM (Malaysia)
IAJapan (Japan)
IANZ (New Zealand)
JAB (Japan)
JAS-ANZ (Australasia)
KAB (South Korea)
KAN (Indonesia)
KAS (South Korea)
KOLAS (South Korea)
MASM (Mongolia)
NABCB (India)
NABL (India)
NATA (Australia)
NSC-ONAC (Thailand)
PAO (Philippines)
PNAC (Pakistan)
PNGLAS (Papua New Guinea)
SAC (Singapore)
SLAB (Sri Lanka)
TAF (Chinese Taipei)
VLAC (Japan)

OTHER REGIONS
DAC (United Arab Emirates)
EGAC (Egypt)
ISRAC (Israel)
NCA (Kazakhstan)
SANAS (South Africa)
TUNAC (Tunisia)

Endorsed Reports and Accredited Certificates under HKAS Accreditation Schemes

印有香港認可處認可計劃標誌的報告及認證證書



- 
- ✦ Unless otherwise approved and specified, only results of accredited activities can be shown in endorsed reports and accredited certificates

除非經批准及清楚註明，否則獲認可機構只可就獲得認可資格的活動所得結果發出載香港認可處認可計劃標誌的報告及證証證書。

- 
- ✦ Since the competence of the accredited activities has been assessed, the reliability of results in endorsed reports and certificates can be assured

由於獲認可機構在獲得認可資格的活動上其能力曾經接受嚴謹的評審，載香港認可處認可計劃標誌的報告及證証證書上的結果會更可靠。



Accredited Organisations

(<http://www.hkas.gov.hk>)

- ✦ Up-to-date scope of accreditation of accredited organisations under HOKLAS, HKCAS and HKIAS.
- ✦ Sorted by name, registrations number, test categories, certification services and inspection fields.
- ✦ Lists of accredited organisations currently under voluntary/imposed suspensions and terminations

	HOKLAS	HKCAS	HKIAS
<i>Click the link to download the required information</i>			
Sort by Test Categories / Certification Services / Inspection Fields	Download	Download	Download
Sort by Name of Organisation	Download	Download	Download
Sort by Registration Number	Download	Download	Download
Directory of Accredited Organisations	Download	Download	Download
Current Suspension / Termination List	Download	Download	Download
Archived Suspension / Termination List	Download	Download	Download



To look for accredited certification bodies and more information?

Please visit our website at

www.hkas.gov.hk

The screenshot shows a web browser window displaying the HKAS website. The page header includes the Innovation and Technology Commission logo and the text "Innovation and Technology Commission The Government of the Hong Kong Special Administrative Region". Below this is a navigation bar with "GovHK 香港政府一站通" and "TEXT ONLY 繁體版 简体版". The main content area features the "Hong Kong Accreditation Service" logo and a table of links:

About HKAS	Accredited Organisations	HOKLAS
HKCAS	HKIAS	Obtaining Accreditation
Complaint	Training Courses / Seminars	Becoming an Assessor
Performance Pledge	FAQ / What's New / Contact Us	Publications / Forms

The main content area also contains a large HKAS logo and text describing the service: "Hong Kong Accreditation Service (HKAS) provides accreditation for laboratories, certification bodies and inspection bodies located in Hong Kong, through the Hong Kong Laboratory Accreditation Scheme (HOKLAS), Hong Kong Certification Body Accreditation Scheme (HKCAS) and Hong Kong Inspection Body Accreditation Scheme (HKIAS) respectively. HOKLAS was launched in 1985; HKCAS was launched in 1998 while HKIAS was launched in 1999. HKAS is advised by the Accreditation Advisory Board (AAB) on matters relating to accreditation. Chairman and members of AAB are appointed by the Secretary for Commerce and Economic Development under the delegated authority of the Chief Executive. Working Parties and Task Forces are established under AAB to undertake specific tasks. HKAS Executive is responsible for administering HKAS, including the accreditation schemes undertaken by HKAS. HKAS has also established a cadre of assessors and technical experts for carrying out assessments for each of the accreditation scheme. HKAS is a member of the International Accreditation Forum (IAF), International Laboratory Accreditation Cooperation (ILAC), Pacific Accreditation Cooperation (PAC) and Asia Pacific Laboratory Accreditation Cooperation (APLAC). HKAS is also a signatory to the multilateral mutual recognition arrangements of these cooperations. All together under these arrangements, HKAS has 77 mutual recognition arrangement partners in 62 economies. The principal aims and objectives of HKAS are:

- to upgrade the standard of operation of certification bodies, inspection bodies and laboratories.
- to offer official recognition to competent certification bodies, inspection bodies



Thank you

