





Accreditation Services for Greenhouse Gas Validation and Verification



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Hong Kong Accreditation Service
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- Greenhouse Gas (GHG) Validation and Verification (溫室氣體審定和核査)
- Hong Kong Accreditation Service (HKAS) (香港認可處)
- Accreditation Programme of Greenhouse Gas (GHG) Validation and Verification (溫室氣體審定和核査認可計劃)



Greenhouse Gas (GHG) Validation and Verification (溫室氣體審定和核査)





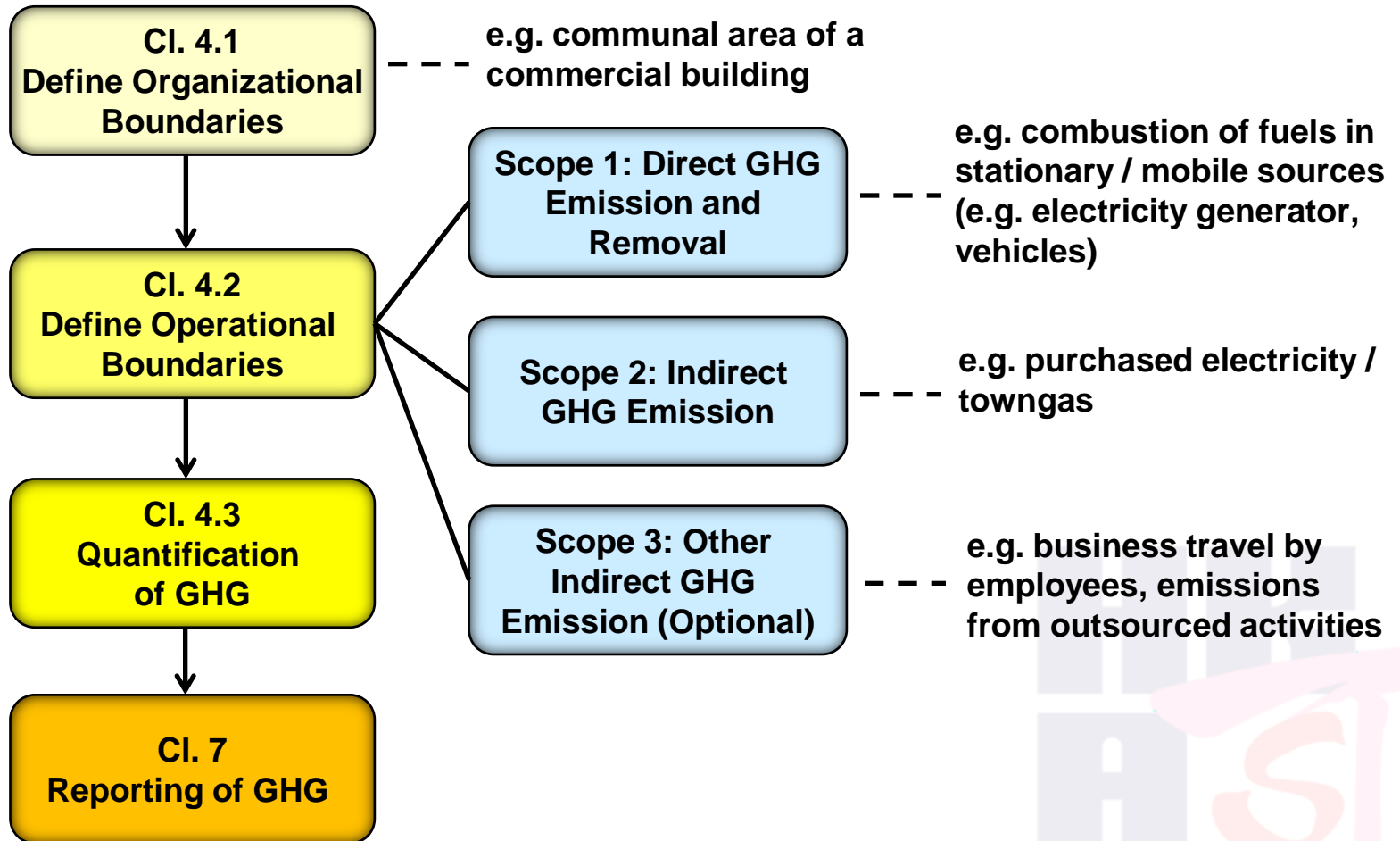
Greenhouse Gas (GHG) Quantification

- International Standards (國際標準)/
Technical Specification (技術規範)
 - ISO 14064-1 – for organisation
 - ISO 14064-2 – for GHG emission reduction
/ removal enhancement project
 - ISO/TS 14067 – for product carbon footprint



ISO 14064-1: 2006

- Published in 2006
- Quantification and reporting of GHG emissions at the organisation level
- Six types of GHGs covered in Kyoto Protocol (international treaty adopted in Dec 97) :
 - Carbon Dioxide (CO₂), Methane (CH₄), Nitrous Oxide (N₂O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), and Sulfur Hexafluoride (SF₆)



**Guidelines to Account for and Report on
Greenhouse Gas Emissions and Removals
for Buildings (Commercial, Residential
or Institutional Purposes) in Hong Kong**

2010 Edition



機電工程署
EMSD



環境保護署
Environmental Protection Department



- Published by EMSD and EPD
- Applicable for buildings (commercial, residential or institutional purposes)

Benefits

- Improve awareness
- Create a baseline
- Identify area of high GHG emissions
- Implement action / project to reduce GHG emissions / enhance GHG removals

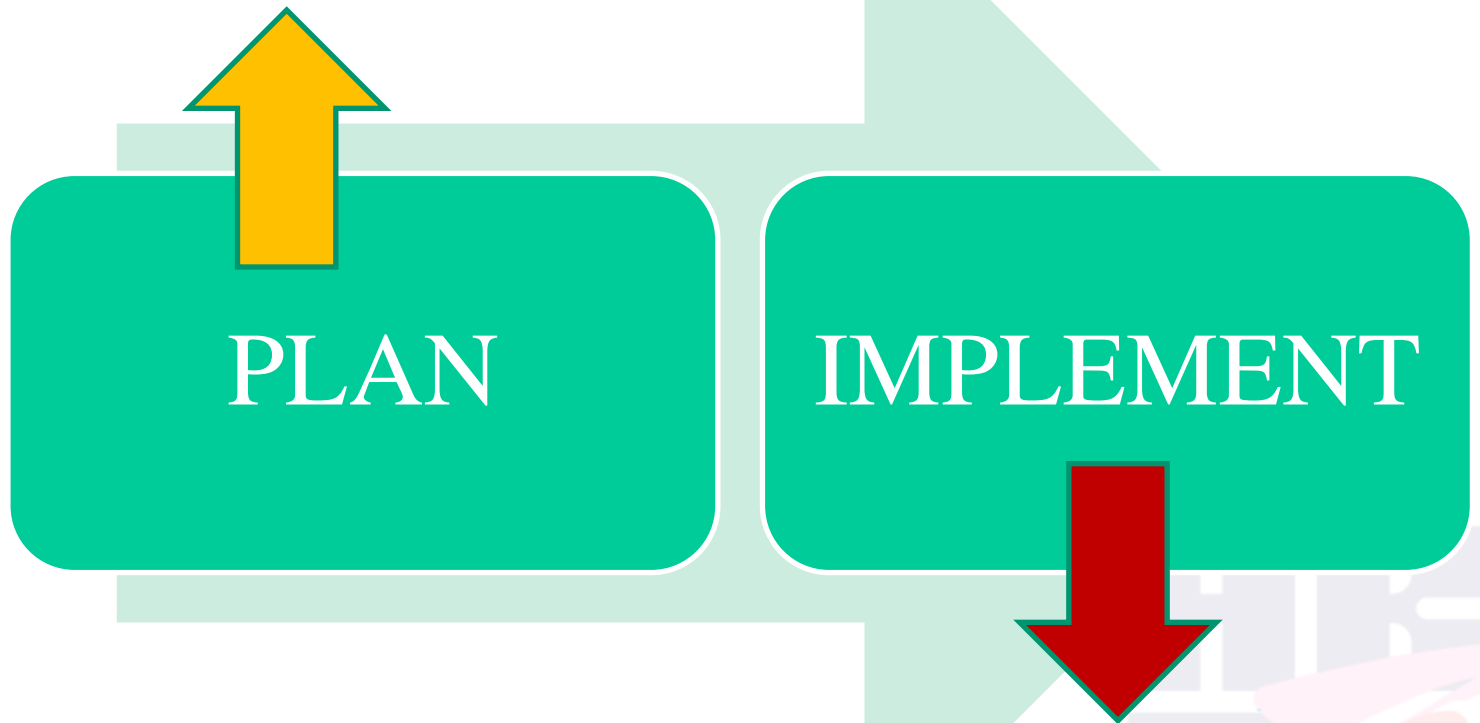




ISO 14064-2: 2006

- Published in 2006
- Quantification, monitoring and reporting of project activities intended to reduce GHG emissions or enhance GHG removals

Project Plan



Project Report

Benefits

- Systematic
- GHG markets: crediting and trade of GHG emission reductions or removal enhancements



ISO/TS 14067: 2013

- Published in 2013
- Quantification of the carbon footprint of a product (CFP) based on life cycle assessment



- Communication of the CFP



CFP
Quantification

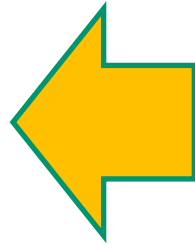
CFP Study
Report

Communication

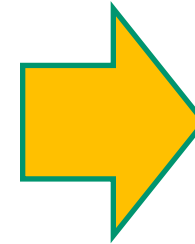
**CFP External
Communication Report**



**CFP
Declaration**



Communication



CFP Label



**CFP Performance
Tracking Report**

Carbon Labelling Scheme

About the Scheme

Overview

Carbon Assessment Method

Certified Carbon Auditor (CCA) and Validation and Verification Body (VVB)

Get Labelled

Training Programme

Download

Useful Links

News & Events

Find Products

Find Certified Carbon

Home > Carbon Labeling Scheme > About the Scheme > Overview

Overview

Climate change has become a global threat with worrying consequences for many countries. Among various economic sectors, the construction industry consumes 40% of materials entering the global economy and generates significant amounts of greenhouse gases (GHG) - the main cause of climate change. The embodied carbon of construction materials used can contribute up to 25% of a building's lifetime carbon footprint. It is thus highly desirable to minimise the GHGs emissions through the prudent selection of low carbon construction products.

Consequently, the Construction Industry Council (CIC) initiates the Carbon Labelling Scheme for Construction Products (the "Scheme") as part of our mission to promote green building practices and sustainable development. The Scheme aims to provide the communication of verifiable and accurate information on the carbon footprint of construction products for client bodies, designers, contractors and end users to select 'low carbon' materials. As a Hong Kong-based voluntary scheme, it intends to encourage the demand for, and supply of, low carbon products, thereby contributing to Hong Kong's



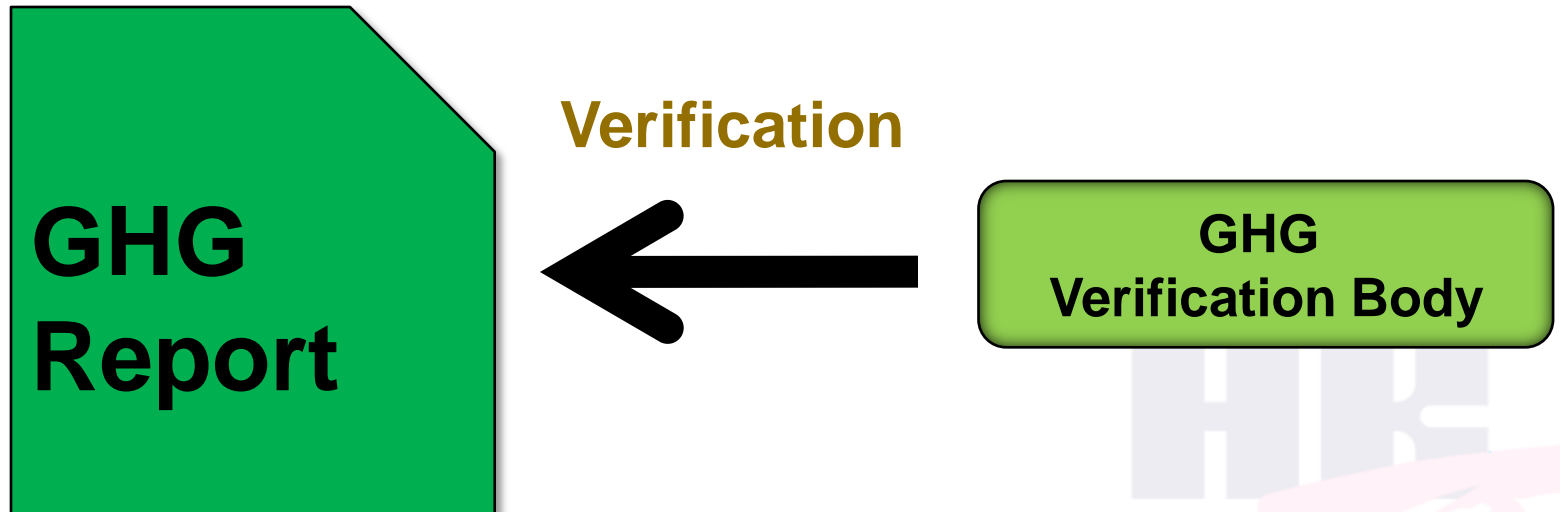


Benefits

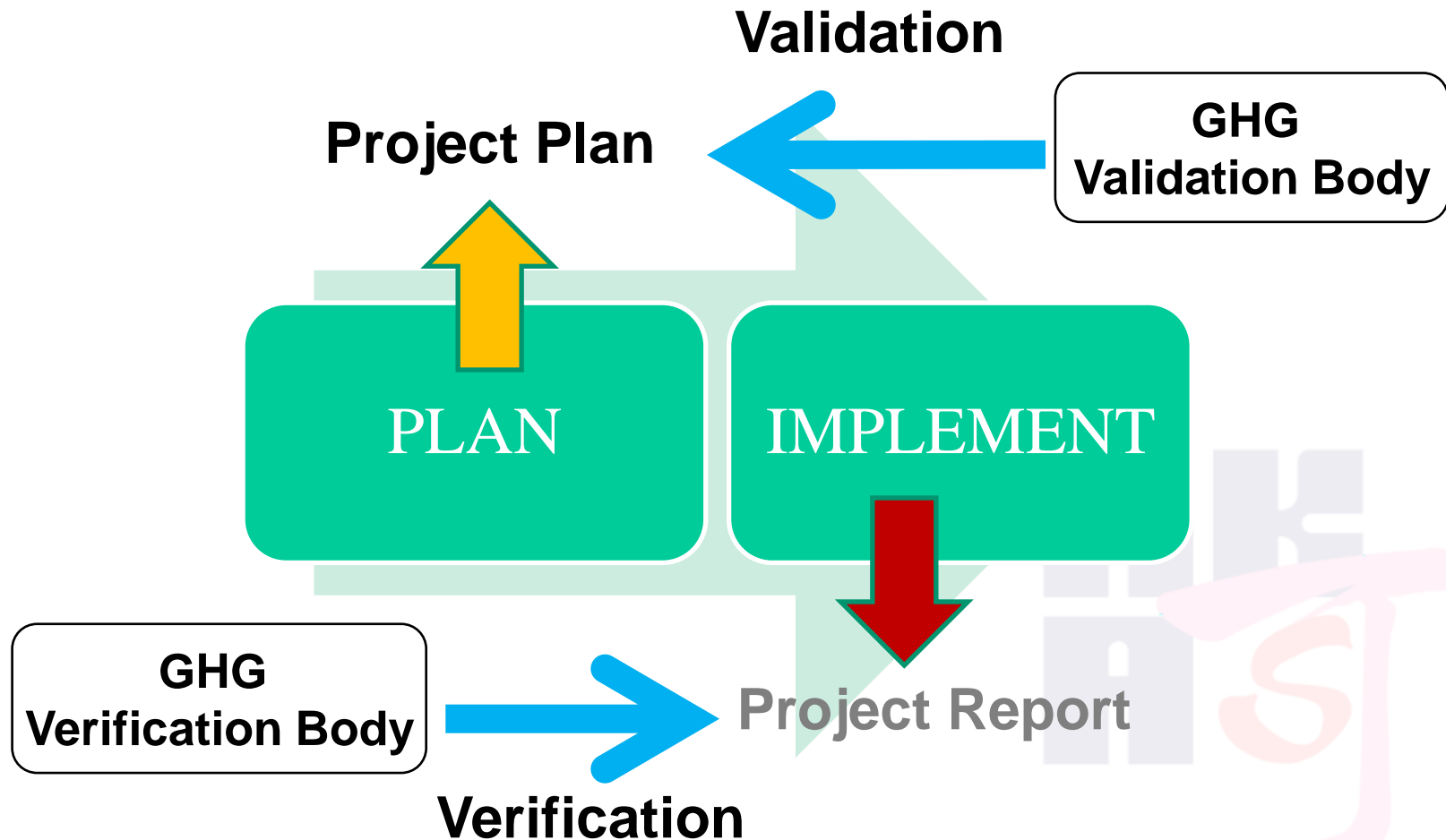
- Facilitate the evaluation of alternative product design, sourcing options, production process, raw material choices, recycling and other end-of-life processes
- Change consumer behaviour

What are GHG Validation and Verification?

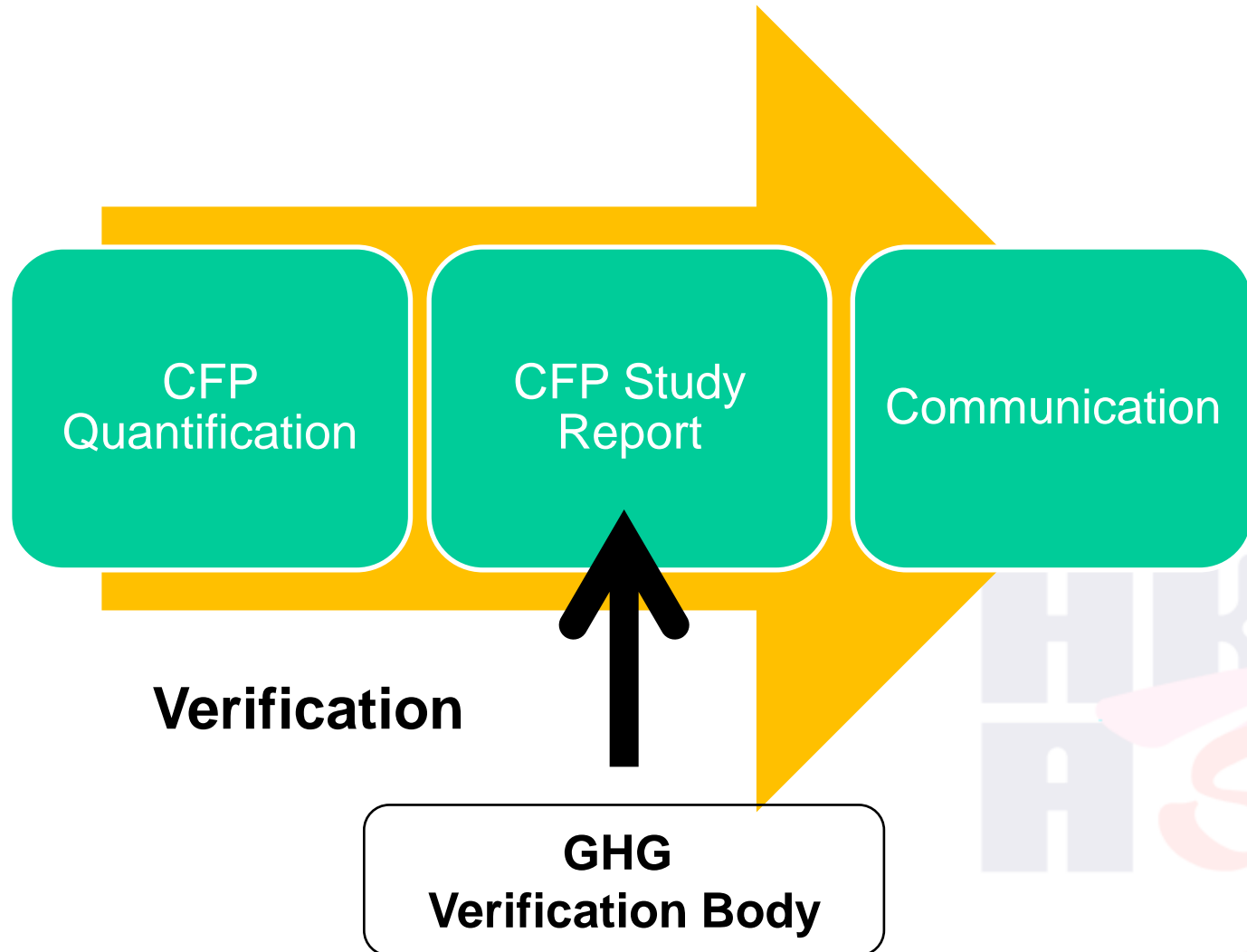
For Organisation



For GHG Project



For Product Carbon Footprint

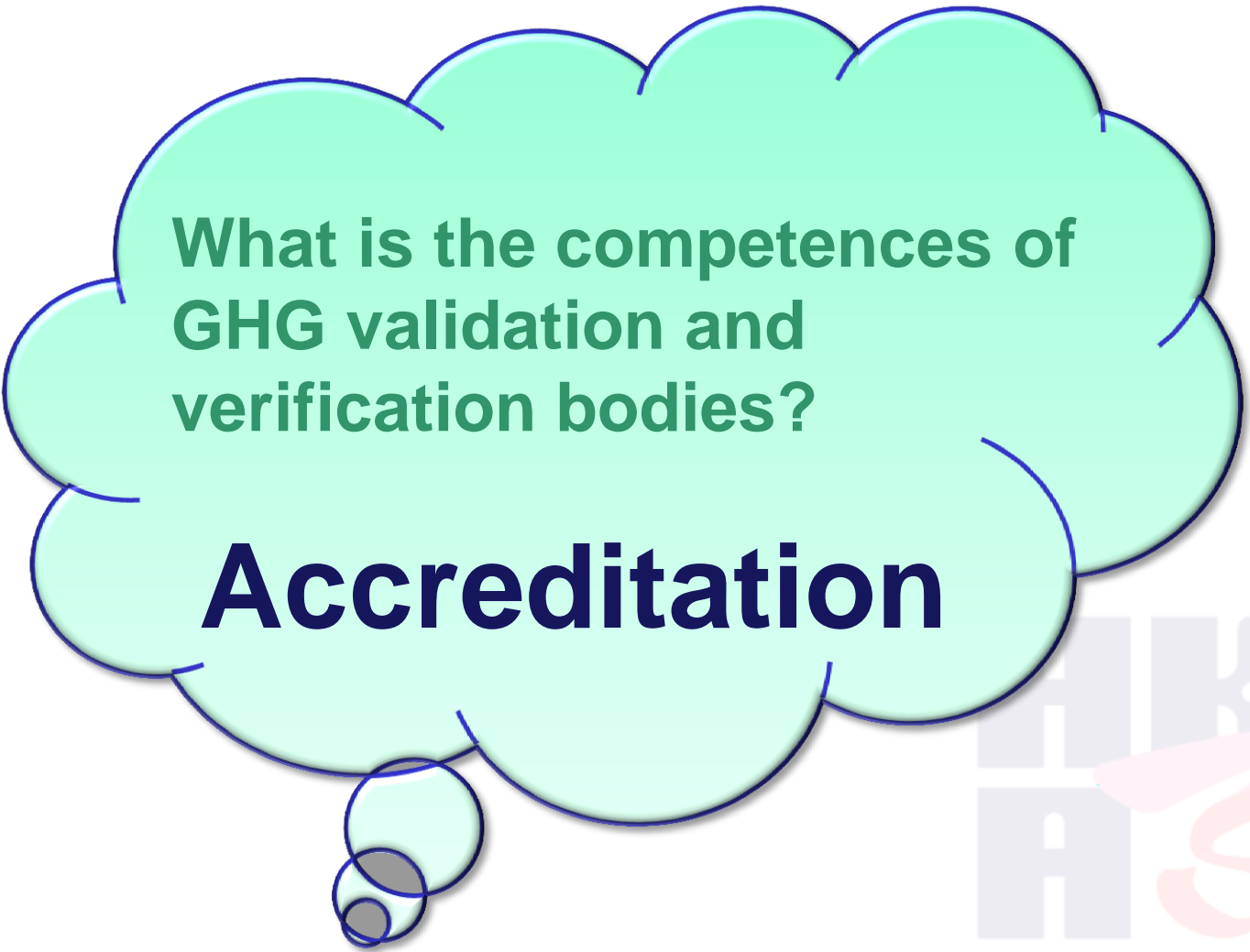


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- International Standards for GHG validation / verification (accreditation criteria)
 - ISO 14064-3 – validation and verification process
 - ISO 14065 – requirements for GHG validation / verification body
 - ISO 14066 – competence requirements for GHG validation / verification team



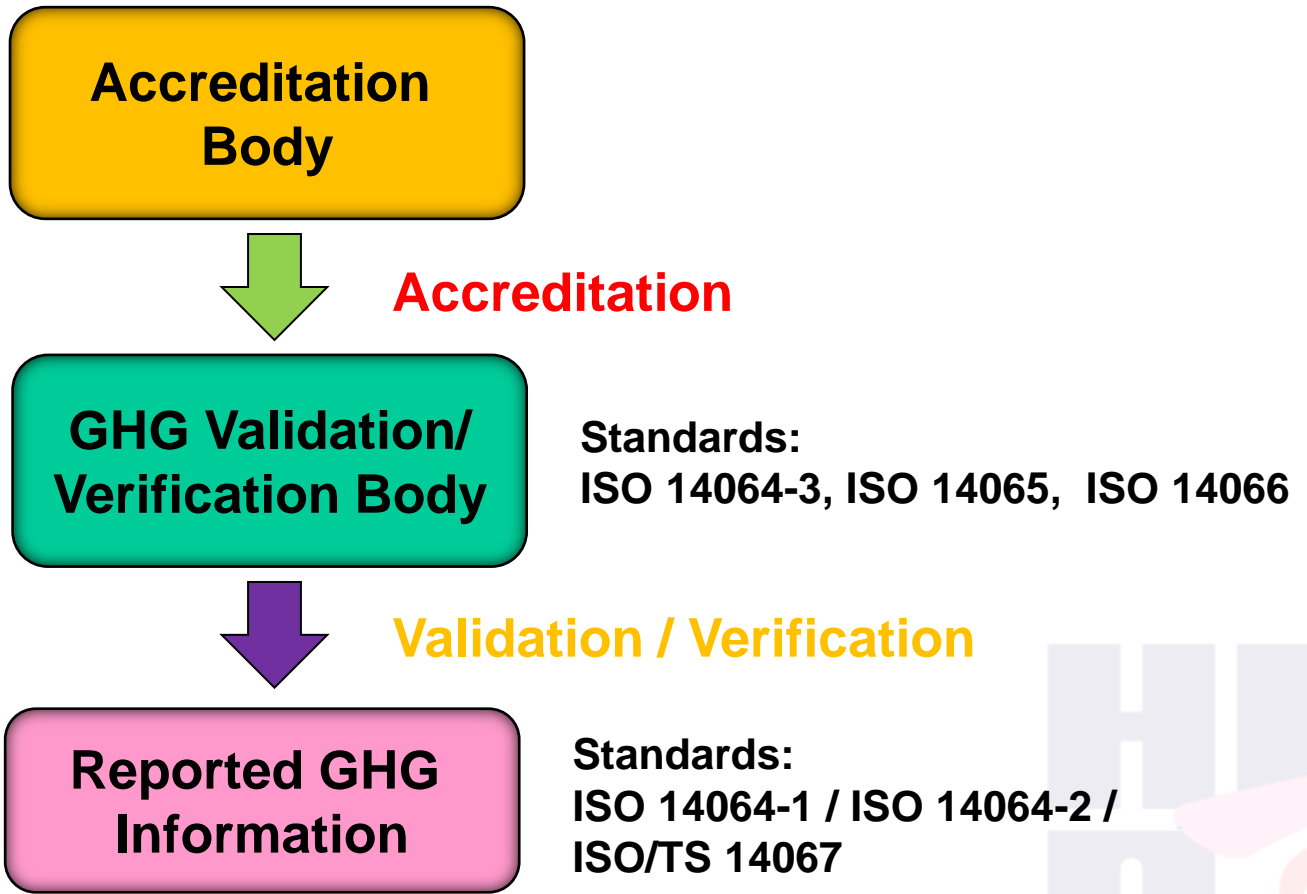
Benefits

- Increase credibility of the reported GHG information
- Provide assurance to intended users of the reported information by responsible party, project proponent, manufacturer, etc...



What is the competences of
GHG validation and
verification bodies?

Accreditation



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graph TD; A[Accreditation Body] -- Accreditation --> B[GHG Validation/ Verification Body]; B -- Validation / Verification --> C[Reported GHG Information];
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**Accreditation
Body**

Accreditation

**GHG Validation/
Verification Body**

Standards:
ISO 14064-3, ISO 14065, ISO 14066

Validation / Verification

**Reported GHG
Information**

Standards:
ISO 14064-1 / ISO 14064-2 /
ISO/TS 14067

Hong Kong Accreditation Service (HKAS)


Hong Kong Accreditation Service 香港認可處 (HKAS)

- HKAS is part of Innovation and Technology Commission of the Hong Kong Special Administrative Region (HKSAR) Government.



香港特別行政區政府
創新科技署

- Established in 1985 (formerly named as HOKLAS), HKAS is the official accreditation body (認可資格頒授機構) in Hong Kong

- 
- Support the Hong Kong testing and certification industry, provide accreditation services under 3 schemes:

➤ HOKLAS (香港實驗所認可計劃)






➤ HKCAS (香港認證機構認可計劃)



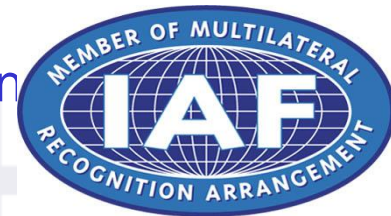
➤ HKIAS (香港檢驗機構認可計劃)



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- Features of HKAS accreditation
 - Voluntary
 - Based on international standards
 - Rigorous assessment and monitoring
 - Independent and impartial
 - International recognition

International Recognition

- HKAS is a signatory to
 - ILAC and APLAC MRA for testing, calibration, inspection, medical laboratory, reference material producers
 - IAF and PAC MLA for quality management system, environmental management system and product certification
- 89 MRA/MLA partners in 71 economies (as at December 2014)



Examples of HKAS MRA/MLA Partners



How to identify accredited GHG validation / verification statement?





Accreditation Programme of Greenhouse Gas (GHG) Validation and Verification (溫室氣體審定和核査認可計劃)

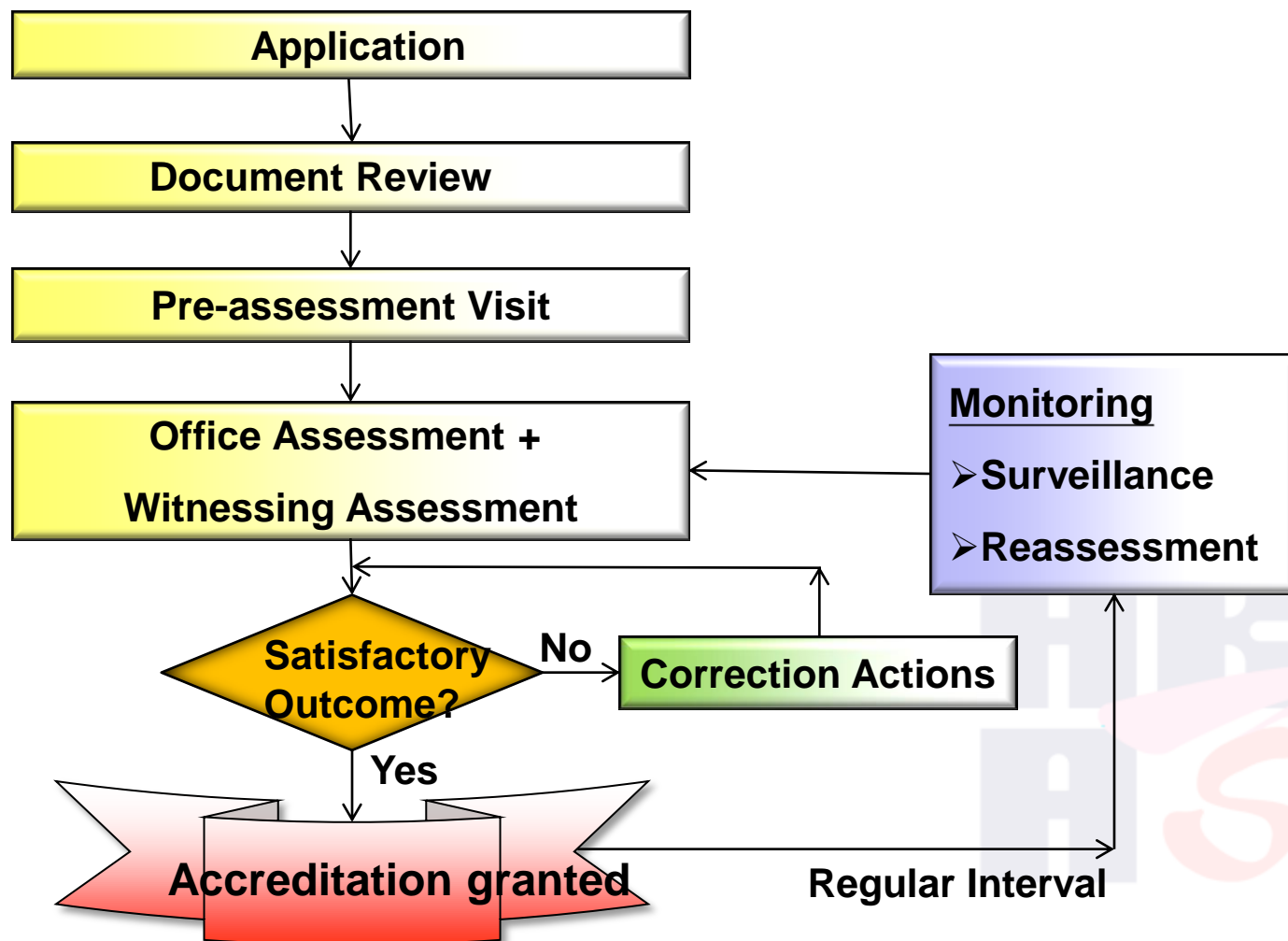
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- ✦ Launched in December 2012
 - ✦ Under Hong Kong Certification Body Accreditation Scheme (HKCAS)
 - ✦ For GHG validation/verification body
 - providing third-party service
 - for validation and/or verification of GHG assertions
 - at organisation / project levels (since December 2012)
 - at product level (extension of service in June 2014)



Accreditation Criteria

- ✦ HKAS 002 – Regulations for HKAS Accreditation
- ✦ HKCAS 020 – Technical Criteria for Accreditation of Greenhouse Gas Validation and Verification Bodies – Parts 1, 2 and 3
 - reproduce requirements and notes of ISO 14065:2013 (for Part 1), ISO 14066:2011 (for Part 2) and ISO 14064-3:2006 (for Part 3) as the main text with relevant HKCAS policies in shaded boxes following the main text
- ✦ HKCAS Supplementary Criteria No. 9 – organisation and project level
- ✦ HKCAS Supplementary Criteria No. 13 – product level
- ✦ Relevant HKAS and HKCAS Supplementary Criteria
- ✦ Relevant IAF and PAC Documents

Accreditation Process





Application for Accreditation

- ✦ Complete and submit the following:
 - HKCAS 005 (application form)
 - HKCAS 021 (assessment/reassessment questionnaire)
 - Documents as required in HKCAS 021
- ✦ Application fee
 - refer to HKCAS 006 (schedule of application fee)
- ✦ HKAS Information Package
 - refer to HKCAS IP003 – GHG V/VBs

For more information on HKAS ...

Please visit HKAS website at <http://www.hkas.gov.hk>

Innovation and Technology Commission
The Government of the Hong Kong Special Administrative Region

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Hong Kong Accreditation Service

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What's New

- [New design of HKAS website has been launched on 11 July 2014](#)
- [Accreditation of Hong Kong testing laboratories under the Supplement X to CEPA](#)
- [Implementation arrangements for ISO/IEC TS 17021-3: 2013 and transition arrangements for ISO/IEC 17065, ISO/IEC 17020 and ISO 15189 are available in the "Archive for What's New".](#)

About Accreditation

[Hong Kong Accreditation Service \(HKAS\)](#) provides accreditation for conformity assessment bodies [located in Hong Kong](#), through the following schemes:

- [Hong Kong Laboratory Accreditation Scheme \(HOKLAS\)](#) - for laboratories, reference material producers and proficiency testing providers
- [Hong Kong Certification Body Accreditation Scheme \(HKCAS\)](#) - for certification

For more information on testing and certification industry ...

Please visit HKCTC website at <http://www.hkctc.gov.hk>

Hong Kong Council for Testing and Certification
The Government of the Hong Kong Special Administrative Region

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Tested in Hong Kong
Certified in Hong Kong

Home

What is New

- **Implementation details of Supplement X to CEPA on testing and certification announced**
The implementation details of the measure on testing and certification under Supplement X to the Mainland and Hong Kong Closer Economic Partnership Arrangement (CEPA) have been announced. ([Details](#))
- **Seminar presentation materials now here**
The presentation materials for the [Seminar on Testing and Certification of Garment, Footwear and Eyewear : from Hong Kong to Emerging Markets](#) are now available. Please click the link to browse.

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Thank You

