CONSTRUCTION INDUSTRY COUNCIL
建造業議會

BSI Hong Kong Symposium 2014
The Day After Eurocodes

News on Hong Kong Eurocodes Feasibility Study Report

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7 March 2014

Contents

- Introduction to CIC
- Overview of Standards in Hong Kong
- Study on Construction Standards
- Issues on Construction Standards
- Prepare for Eurocodes
- Transition to Eurocodes

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Vision Statement

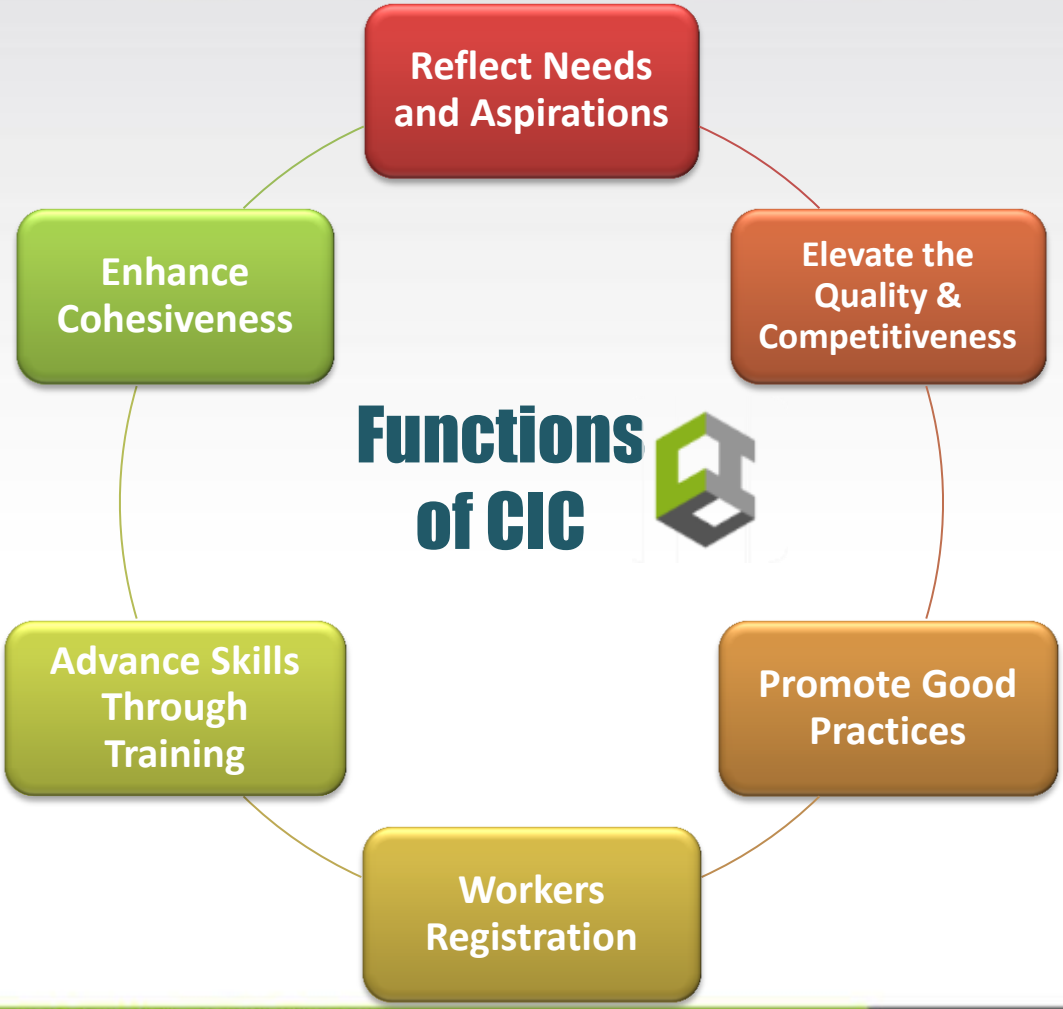
CONSTRUCTION
INDUSTRY COUNCIL
建造業議會

To Drive for Unity and Excellence of the Construction Industry of Hong Kong

Composition and Functions

- The CIC is set up under the Construction Industry Council Ordinance (Cap.587) in which its functions are set out.
- The CIC is also administering the Construction Workers Registration Ordinance (Cap.583)
- The Council is to consist of –
  - a chairman appointed by the Secretary;
  - not more than 3 public officers appointed by the Secretary; and
  - not more than 21 other members appointed by the Secretary (including employers, professionals / consultants, contractors, subcontractors, suppliers, academics/ research institutions, trade unions, etc.)

Composition and Functions (cont.)



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Overview of Construction Standards in Hong Kong

Background

- Owing to historical reasons, structural design standards within HK follow that of the United Kingdom namely “British Standards”.
- The withdrawal of the British Standards for structural design in March 2010 affected the whole construction industry of HK.
- The following presentation will summarise how stakeholders within HK’s construction industry prepared for the change and the workings towards the transformation of British Standards to Eurocodes.

Overview of Construction Standards in Hong Kong (cont.)

- There is no central construction standards body in Hong Kong

- Buildings Department (BD) set out the basic requirements for the design and construction of private building works via the Buildings Ordinance and its regulations.

- BD also published a substantial number of codes of practices and practice notes to provide detailed guidance for complying with statutory requirements.

Overview of Construction Standards in Hong Kong (cont.)

- For infrastructure projects and public building projects, the public sector clients (including the Government Works Departments under Development Bureau, Housing Authority, MTR and Airport Authority) have well-established specifications and design codes.

- The specifications for materials and workmanship have been prepared mainly by making reference to the standards developed by leading standards bodies in particular the British Standards. Most of these specifications also embody modifications to the reference standards to suit local conditions.

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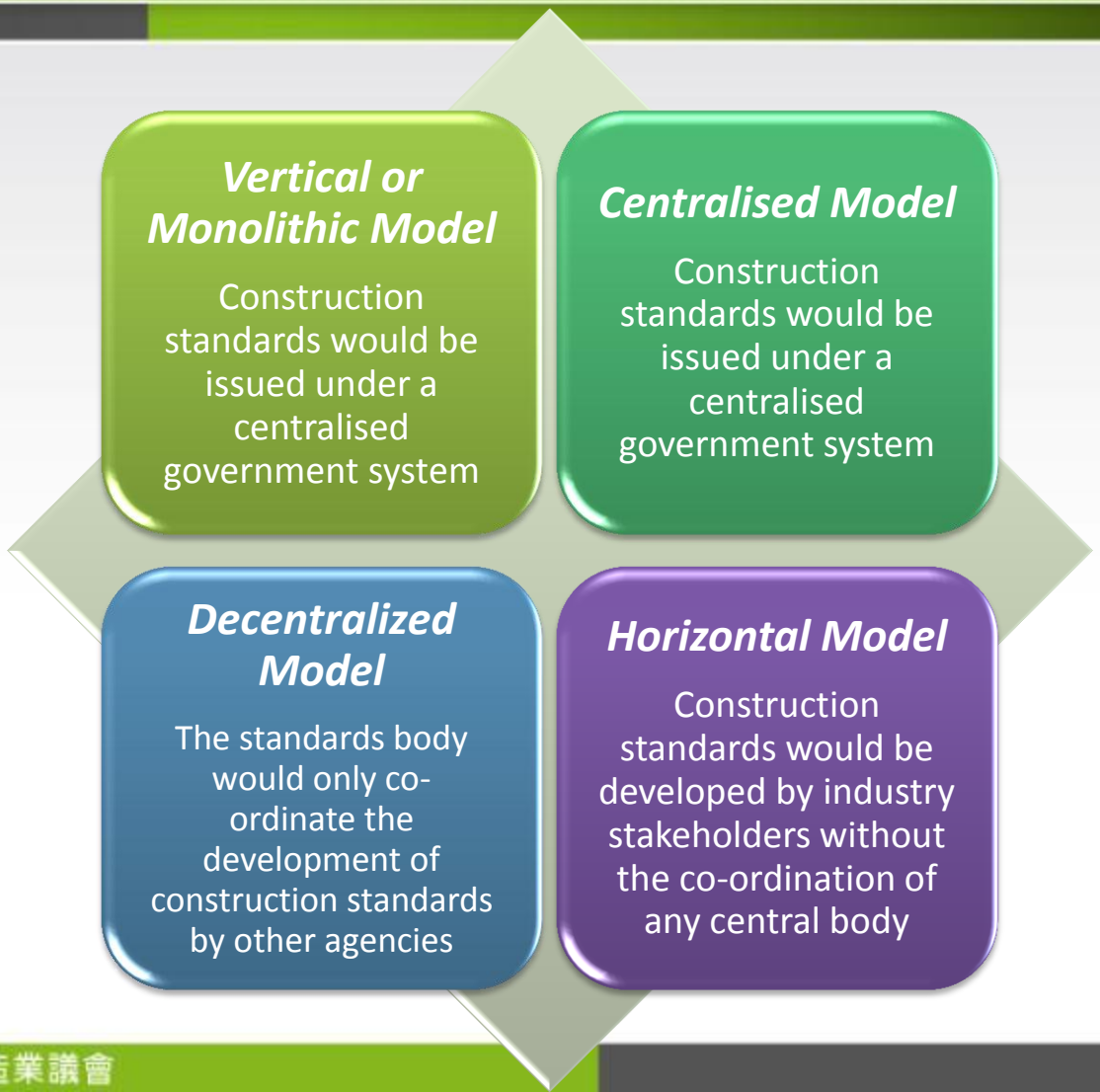
Study on Construction Standards

A Study was commissioned by the then Construction Industry Institute - Hong Kong (CII-HK) on Construction Standards for HK and completed in 2005.

Four models for developing construction standards in Hong Kong.



Study on Construction Standards (cont.)

- The study concluded that either the ***Centralised*** model or the ***Decentralised*** model was capable of being applied locally, with the latter posing less disruption to the standards adopted by individual clients

- The decision was left to the Construction Industry Council after its establishment

Centralised Model

Construction standards would be issued under a centralised government system

Decentralized Model

The standards body would only co-ordinate the development of construction standards by other agencies

Issues on Construction Standards

After the establishment of CIC in 2007, issues to be tackled by the CIC:

- The Need of Establishment of Standards Body

- Withdrawal of British Standards for Structural Design

Issues on Construction Standards (cont.)

- CIC reviewed the previous study and considered that the existing institutional framework for issuing construction standards for the use in private sector and public sector projects was generally adequate for serving the requirement of the local construction industry.
- There was no urgency for establishing a local standards body.
- Instead, CIC assumed a monitoring role on the construction standards in particular the withdrawal of relevant British Standards in March 2010.

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Prepare for Eurocodes

- Two Task Forces set up to identify the issues in relation to the withdrawal of British Standards in March 2010 for structural design:
  - ***Task Force on Construction Standards for Infrastructures***, which reviewed Construction Standards on infrastructures
  - ***Task Force on Construction Standards for Buildings***, which reviewed Construction Standards on buildings.

Prepare for Eurocodes (cont.)

Possible Standards to replace British Standards

Chinese National Standards
(國家標準 or Guobiao)

EUROCODES
BUILDING THE FUTURE

Eurocodes

Prepare for Eurocodes
- Chinese National Standards vs. Eurocodes

- If used in Chinese form, would lead to a gradual shift of design documentation to Chinese.
- Hence affects access to overseas experts.
- If translated to English, a huge exercise.
- Limited project experience indicated current HK practice is more stringent.
- The Eurocodes are widely regarded as the most technically advanced suite of structural design codes available internationally.

Hence, Eurocodes were considered.

Prepare for Eurocodes
- Alternatives in Eurocodes

Option 1
Adopt Eurocodes and develop Hong Kong Annexes

Option 2
Adopt Eurocodes and the UK National Annexes together with Hong Kong guidance documents

Option 2 was adopted

because less documents need to be developed and less effort required in updating

Prepare for Eurocodes
- Infrastructures

Current design standards for public infrastructural works:

- ***Civil engineering structures***: British Standards with amendments to suit local conditions
- ***Geotechnical***: local standards

Prepare for Eurocodes
- Infrastructures (cont.)

For Infrastructures:

- HKSAR Government prime proponent of civil engineering projects
- A fair portion of the remainder being railway project subvented to MTR
- Both the Government and MTR have already planned for the transition of the use of British Standards to Eurocodes

Prepare for Eurocodes
- Buildings

▪***Private Buildings*** – design standards prepared by the BD which are local standards. Hence, not affected by the withdrawal of British Standards.

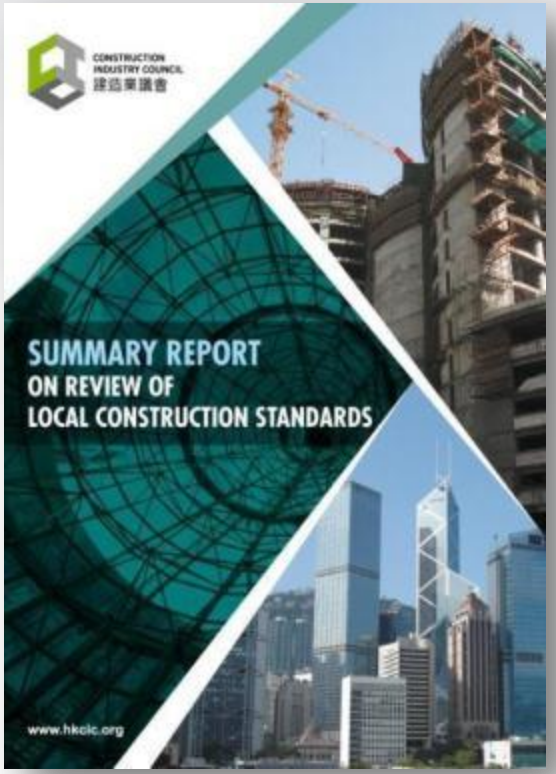
▪***Public Buildings*** – design standards generally followed the local standards prepared by the BD, i.e. no impact

▪BD has kept updating the design codes which have already make reference to the leading design codes adopted by other economies including Eurocodes

Prepare for Eurocodes

CIC published a Study Report in 2010 to summarise the findings and preparatory work for transition from British Standards to Eurocodes.

Accessible at
http://www.hkcic.org/eng/info/publication.aspx



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Transition to Eurocodes

- After the publication of Report in 2010 on the Review of Construction Standards in Hong Kong, the CIC kept monitoring the preparation for the migration of design standards from British Standards to Eurocodes.

- With the collaborative efforts of
  - Industry Stakeholders
  - Development Bureau; and
  - Government Works Department

CIC published an update on the preparation for the migration to Eurocodes in Jun 2012.

Transition to Eurocodes (cont.)

1. Works Departments conducted pilot design projects and studies preparation of design manuals and design guidelines by end 2012.
2. Started adopting Eurocodes after end of 2012 in parallel with existing design standards
3. Adopt Eurocodes after end of 2014

Source: www.scadapro.eu

Transition to Eurocodes
- Issues highlighted in the 2012 Update

- **Availability of Construction Materials**
  - Need to consider any adjustments to material specifications, test methods, test equipment and acceptance criteria may require further study.

- **Testing and Accreditation**
  - May need to re-accredit testing laboratories and equipment for Eurocodes compliance if migration to the corresponding Eurocodes on material specifications and test methods is pursued.

Transition to Eurocodes

In 2013, Government updated its public works design manuals for adopting Eurocodes

- Structures Design Manual for Highways and Railways by **HyD**
- Stormwater Drainage Manual by **DSD**
- Sewerage Manual by **DSD**
- Civil Engineering Design Manual by **WSD**
- Structural Design of Slope Works and Geotechnical Design by **CEDD**

Conclusion

CIC invites stakeholders to give your feedbacks to us on the adoption of Eurocodes to facilitate a smooth transition to Eurocodes.

CIC Website <www.hkcic.org>

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Thank You

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