



IRCC Workshop Malmö 4th June 2014

The present situation in the Netherlands

IJsbrand van Straalen (TNO, the Netherlands)

TNO



Focus of presentation

- › New buildings (existing buildings is different)
- › Verification of requirements related towards
 - › Mechanical resistance and stability
 - › Safety in case of fire
- › Control is done by
 - › Local authorities
 - › Might be done by private organisations in near future



Examples

- › Twente stadion 2011 (1 casualty)





Examples

- › B-Tower Rotterdam 2010





Examples

- › Fire at the detention centre Schiphol-Oost, 2005 (11 casualties)





TNO and Dutch Safety Board

- › TNO has been involved in research into all major incidents in the past decade (Dutch Safety Board, <http://www.onderzoeksraad.nl/en>)





Controls

- › Done by local authorities (building department and fire department)
- › Design documents required:
 - › Drawings and calculations presented in such a way that the whole verification process can be reproduced
- › Stages when documents shall be presented
 - › Submit of permit (outlines)
 - › Before construction (detailed drawings and calculations)
 - › If changes in design are made
- › Role of consultants and project managers is out of the scope of the (public) building regulations; no requirements are stated
- › Dutch Government underline need for improvement of quality of building process – Minister is developing its policy on this item now



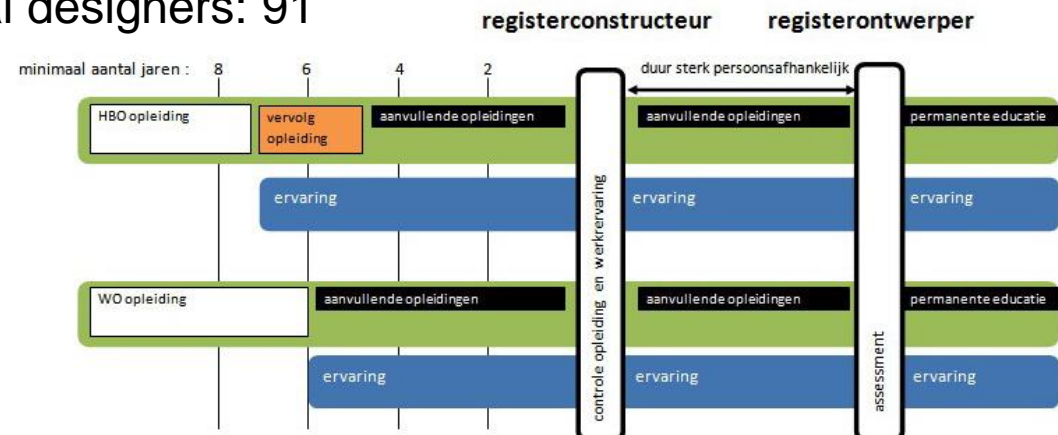
Control

- › Process how to perform controls (by local authorities) is not prescribed
- › TNO has developed a methodology for control of the mechanical resistance and stability in 2010
 - › Risk-based on knowledge and experience of public servant
 - › “Calibrated” by representative group of servants from various cities
 - › Incorporated in the BRIS software tool; see also (in Dutch)
<http://www.bris.nl/producten/bristoets/overzicht.html>
- › No control allowed in case of CE-marking and national marks (Erkende Kwaliteitsverklaring) as described in Dutch Building Decree



Qualification engineer

- › None necessary, only the result (set of drawings and calculations) is considered!
- › Private initiative in case of structural engineer (registration)
 - › Constructeursregister (see <http://www.constructeursregister.nl/>)
 - › # candidates: 436
 - › # registered structural engineers: 439
 - › # registered structural designers: 91





Near future development

- › Dutch Government underline need for improvement of quality of building process – Minister is developing its policy on this item now
- › All parties have to accept their role and have to take their responsibility
 - › As a first step government is preparing an addition of Building Act by introduction of ability of using private control systems
 - › Involved parties within the building chain have to show that they have taken their responsibility
 - › System will have its pro's and contra's, causing various discussions
- › Next step will deal with the importance of the role of the building customer