CPR – new rules and old targets - raising standards

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Background

- Finland has been a member of the European Union since 1995
- Internal Market is one of the most important goals of the EU
- Construction products create an important part of the Internal Market
- Basic legislative tools of the EU are directives and regulations
- The construction products directive has been adopted in 1988
New approach principle to create Internal Market of the EU

- Delete technical barriers to trade (different national regulations, approvals)
- It was noticed in the 80’s that it was impossible to agree on detailed regulations of products among Member States
- New Approach principle was adopted
  - Authorities of Member States will agree only on Essential Requirements (health and safety aspects of products)
  - Detailed rules have been left to European standardisation organisation e.g. CEN
    - Harmonised product standards
      - Test-, calculation. classification, execution and design standards
    - Usually the harmonised standard offers an accepted means to show a compliance with the Essential Requirements of the directive
CPD is not a pure New Approach directive

- 6 Essential Requirements for construction works
  - Mechanical resistance and stability
  - Safety in case of fire
  - Hygiene, health and the environment
  - Safety in use
  - Protection against noise
  - Energy economy and heat retention
- Own attestation of conformity rules
- Harmonised product standards are mandatory
- If the product does not belong to the scope of the harmonised standard, then manufacturer can apply an European Technical Approval
Internal market for construction products

THE MANAGEMENT OF THE CPD: SHARED RESPONSIBILITY

Public responsibility: policies, regulations

Private responsibility: technical specifications, attestation of conformity, CE-marking

<table>
<thead>
<tr>
<th>EC</th>
<th>Draft Mandates</th>
<th>SCC</th>
<th>Mandates</th>
<th>CEN or EOTA</th>
<th>CE-marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safeguard clause</td>
<td>National regulations</td>
<td>Amendment of nat. regulations</td>
<td>Attestation of conformity</td>
<td>Product is put on the market</td>
<td></td>
</tr>
<tr>
<td>MS</td>
<td>Notification</td>
<td>Market surveillance</td>
<td>NB</td>
<td>MARKET</td>
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Situation now

- 412 harmonised product standards have been adopted and published in the Official Journal of the EU
- Target is about 600
- 1500 supporting standards have been published
- Nearly 3000 European Technical Approvals have been issued
- The construction product directive (CPD) has been revised. It is now the Construction Product Regulation (CPR) 2011/305/EC
- CPR came partly into force 24.4.2011
- Fully into force 1.7.2013
  - Long preparatory period
Why the revision of the CPD?

- Unsatisfactory development of the internal market of construction products
- Many different interpretations
- CE-marking was not mandatory in UK, Ireland, Sweden and Finland
- Technical barriers to trade have remained and new ones have emerged
- Unclear implementation of the CPD in the Member States
- ETA-system has been criticised
- Member States have been unwilling/unable to modify their regulations
Why regulation?

- Applicable as such in every Member State
- Same text is valid in every Member State
- National provisions which are contradicting the CPR cannot be used
- Why to do the same implementation work in every Member State
- To save resources of building authorities
- To avoid different interpretations
- Same timetable
- Regulation is great advantage to industry
- There is still a need for national implementing rules
Principles of the Construction Product Regulation (CPR)

- There is no revolution
- Work e.g standards can be used also under the CPR
- Many principles and elements of the CPD remain
- There are many guidance papers under the CPD. Some rules of guidance papers have been adopted into the CPR.
- From Essential Requirements (ERs) to Basic Requirements for Construction Works (BWRs)
  - 6 ‘old’ ones
  - New: Sustainable use of natural resources
- Nearly same attestation of conformity systems
- Systems of assessment and verification of constancy of performance
- Two routes to CE-marking
- Harmonised product standards and ETAs
- Target: Common European technical language on construction field
Construction Products Regulation
- Basic works requirements

(Interpretative documents and)
National provisions

Mandates and AVCP-decisions

Harmonised product standards (hEN)
Essential characteristics

Request of manufacturer
Relevant AVCP decision

EAD (ETAG can be EAD)

European Technical Assessment (ETA)

Assessment and verification of constancy of performance (AVCP)

CE marking
## Systems of Assessment and Verification of Constancy of Performance

<table>
<thead>
<tr>
<th>Control Means</th>
<th>1+</th>
<th>1</th>
<th>2+</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factory production control</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
</tr>
<tr>
<td>Further testing of samples taken at the factory</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td></td>
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</tr>
<tr>
<td>Determination of the product type on the basis of type testing, type calculation, tabulated values or descriptive documentation</td>
<td>TS</td>
<td>TS</td>
<td>V</td>
<td>L</td>
<td>V</td>
</tr>
<tr>
<td>Initial inspection of the manufacturing plant and FPC</td>
<td>TS</td>
<td>TS</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuous surveillance, assessment and evaluation of FPC</td>
<td>TS</td>
<td>TS</td>
<td>LS</td>
<td></td>
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</tr>
<tr>
<td>Audit-testing of samples taken before placing the product on the market</td>
<td>TS</td>
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**Legends:**
- **V** = manufacturer
- **L** = test laboratory
- **LS** = FPC certification body (FPC certificate)
- **TS** = product certification body (product certificate)
Real implementation of CPD/CPR

- Based on hENs (and ETAs).
- Real scope of CPD/CPR
- No one date of the CPD/CPR
  - Based on coexistence periods on hENs
  - References to hENs and coexistence periods have been published in the Official Journal of the EU
  - DAV : CEN has published hEN
    - Usually 9 months
  - Dapp: beginning of coexistence period: CE marking is possible
    - 12 months or more
  - DoW : end of coexistence period: CE-marking is mandatory
    - Withdrawal of national standards (approvals)

- New co-existence period if hEN has been amended
Principles of the Construction Product Regulation (CPR) (cont)

- Mandatory Declaration of Performance DoP (new)
- If the product is in the scope of hEN
- ETA has been issued for the product
  - List of essential characteristics for declared intended use(s)
  - Performance of each characteristic; Levels, classes or in a description
  - If no regulations in Member State, at least one relevant characteristic has to be declared
- NPD option (no performance declared)
- If there is a declaration of performance
- Mandatory CE-marking
- Manufacturer shall assume responsibility for the conformity of the construction product with such declared performance.
Derogations from drawing up a declaration of performance

Products under hENs

1. Individually manufactured or custom-made in non-series process
   - Installed by manufacturer
2. Manufactured on the construction site
3. Manufactured in a traditional manner or in a manner appropriate to heritage conservation

However, there can be at national or European levels regulations which require a declaration of performance
Principles of the Construction Product Regulation (CPR) (cont)

- Requirements for economic operators (new)
  - Manufacturer article 11
  - Authorised representative article 12
  - Importer (outside EU) article 13
  - Distributor article 14
- Manufacturers shall keep the technical documentation and the declaration of performance for period 10 years after the construction product has been placed on the market.
- Requirements for Market Surveillance
- Product Contact Point for Construction
- Delegated acts and implementing acts (Lisbon Treaty)
Framework of notified bodies

- Product certification, FPC-certification and test laboratories
- Tighter criteria for notified bodies
- Accreditation is required in practice
- Member States have to accept notified bodies
- Member States have to notify these bodies to the Commission and other Member States
- Member States have to monitor notified bodies
- Competence rules in the CPR
- Group of Notified bodies
- Same playing rules
- Sector groups
- Possible position papers
- Over 670 Notified bodies from 29 countries
New ETA

- European Technical Assessment, not European Technical Approval
  - Prestandard
    - Essential characteristics
    - Test, calculation and assessment methods
- Technical Assessment Bodies TABs
- Tighter criteria
- Member States have to accept, notify and monitor TABs.
- One route: European Assessment Document (EAD)
  - EAD is a public document
  - Short timetable to draft EAD
  - ETAGs can be new EADs
Simplified procedures

1. Replace typetesting or type calculation
   a. Without testing or without further testing
   b. Shared ITT
   c. Cascade ITT

2. Micro-enterprises
   a. Only hENs with AVCP 3 and 4
   b. Equivalence of the procedures used in hEN

3. Individually manufactured or custom-made in non-series process
   - Installed by manufacturer
   - CE-marking is possible
2. Safety in case of fire
The construction works must be designed and built in such a way that in the event of an outbreak of fire:
(a) the load-bearing capacity of the construction can be assumed for a specific period of time;
(b) the generation and spread of fire and smoke within the construction works are limited;
(c) the spread of fire to neighbouring construction works is limited;
(d) occupants can leave the construction works or be rescued by other means; (new)
(e) the safety of rescue teams is taken into consideration.
4. Safety and accessibility in use
The construction works must be designed and built in such a way that they do not present unacceptable risks of accidents or damage in service or in operation such as slipping, falling, collision, burns, electrocution, injury from explosion and burglaries. In particular, construction works must be designed and built taking into consideration accessibility and use for disabled persons.
Rules how to regulate at national levels

- The CPR does not create any obligation to draft new regulations e.g. scope of national regulations should be larger
- CPR article 8(6) *The methods used by the Member States in their requirements for construction works, as well as other national rules in relation to the essential characteristics of construction products, shall be in accordance with harmonised standards.*
- Member States cannot demand any other property of the products than mentioned in harmonised European Norms (hENs)
- If there is no hEN, Member States have larger freedom to draft their regulations
- ETAs, problems still remain?
Challenge to national building authorities

- How to amend national building regulations to be based on harmonised product standards and their supporting standards?
- How to organise national influence on European standardisation process?
- National (Finnish) circumstances (climatic/technological) have been taken into account
- Human and financial resources of national standardisation
- Study: *How to improve Finnish standardisation activities on construction field* has been carried out (report is only in Finnish)
National application standards

- National regulators have not resources to amend their regulations in due time
  - CEN has published standards standard by standard, not packages of suitable standards
  - More detailed regulations are needed
- Finnish standardisation bodies have started to draft national applications standards (NAS)
- NAS is based only on hEN
- Content:
  - Characteristics which are required
  - Which requirement levels of characteristics are required
- NAS is a recommendation but a good tool for local building inspectors
Items under development (harmonised product standards) under the CPD

- Construction products in contact with drinking water
- Dangerous substances (emission to indoor air or leaching to ground water or sea. (CEN TC 351)
- One fire test for roofing products
- Coverage of hENs larger (fulfill gaps)
- hENs for structural products and their relationship with the Eurocodes
- Environmental data and assessment (CEN TC 350). This can be under the CPR in the future.
Long term development

- Coverage of harmonised standards will be larger
- Improvement of harmonised standards
- Revised Eurocodes and new parts of Eurocodes
- ”Wherever possible, uniform European methods should be laid down for establishing compliance with the basic works requirements” (recital of the CPR)
Benifits in long term

- Increased completion
- Better or/and cheaper products
- Better use of research work
- R&D results can be used in other countries
- Easier to develop computer programmes
- Better and more detailed technical basis for construction
- Better national regulations
- more similarities between Member States
Useful websites

- CEN:  [www.cen.eu](http://www.cen.eu)
- Nando: New approach notified and designated organisations
- Ministry of the Environment [www.ymparisto.fi](http://www.ymparisto.fi)
- Also pages in English
Questions?

Thank you for attention

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