



TWINNING PROJECT

ACHIEVING THE HIGHEST SAFETY AND TECHNICAL QUALITY OF CONSTRUCTION

SEMINAR 11 JULY PODGORICA
IMPLEMENTING EUROCODES IN EUROPE

IMPLEMENTATION OF EUROCODES IN FRANCE

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Implementation of Eurocodes in France

Several challenges to face

Regulatory context

Building regulations, Public procurements
Fire and seismic regulations

Building rules (DTU), Civil engineering
rules (BAEL, ...), national standards
Public procurements guidelines (CCTG)

National practices, construction habits
Existing calculation rules, software, ...



Implementation of Eurocodes in France

Key points for the implementation

Regulatory aspects :

Modification of the French regulations on fire
and earthquake resistance aspects

Standards, rules :

National annexes

Operational implementation of Eurocodes
Change of mandatory & contractual rules

National practices :

Guidelines for the users, Training
Accompanying policy, supporting tools



Implementation of Eurocodes in France

Key points for the implementation

Regulators

Regulatory aspects :

Modification of the French regulation on fire and earthquake resistance aspects

Standardizers

Standards, rules :

National annexes
National implementation of Eurocodes
Change of mandatory & contractual rules

Industry

Regulators support

National practices :

Guidance for the users, Training
Accompanying policy, supporting tools



Implementation of Eurocodes in France

Standardization & rules aspects

RELEVANT & EFFICIENT STANDARDIZATION ORGANISATION

Operational elaboration of national annexes
Coordination between the concerned industries
Coordination with the regulators

REPLACEMENT OF BUILDING AND PUBLIC PROCUREMENT RULES

Specific groups under the leadership of the regulators
Technical analysis and benchmark
Decision making



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Standardization & rules aspects

FRENCH STANDARDIZATION COMMITTEES

**BNTEC P06A - General
actions EN 1991**

**BNTRA CF/EC2
Concrete EN 1992**

**BNTEC P21A
Wood EN 1995**

**BNTRA CCNG
Geotechnic EN 1997**

**GCNorBat-DTU (CSTB)
Building rules**

**AFNOR P06E Coordination
EN 1990, 1999, New items**

**BNCM CN2M
Steel, steel & concrete EN
1993, 1994**

**AFNOR – P10B
Masonry EN 1996**

**AFNOR – CN/PS
Seismic EN 1998**

**GEMOTM (regulators)
Public procurement tools**



Implementation of Eurocodes in France

Standardization & rules aspects

POSITIVE KEY POINTS

- implementation of the first ENV series of Eurocodes
- Development of national annexes by the concerned sectors, except for general Eurocodes (EN 1990, 1991, 1998) developed by horizontal committees
- Implementation of the Eurocodes in conformity with the CEN rules even if the regulatory tools were not totally finalized (suppression of references to the existing rules)
- Flexibility - Establishment of a transition period between the French existing rules and the Eurocodes



Implementation of Eurocodes in France

Standardization & rules aspects

POSITIVE KEY POINTS

- French government initiative PLAN EUROPE :
 - improve the consistency between French existing installation standards, product standards and Eurocodes
 - Develop application guidelines (user friendly) : CSTB guides
 - Support French delegations to CEN/TCs
 - Support the involvement of SME
- Training (ex : steel industry – links with the CEN installation standard)
- Editing products with the complete collection of Eurocodes + national annexes



Implementation of Eurocodes in France

Standardization & rules aspects

SENSITIVE ISSUES

- Coordination between sectors and translation issues
- Balanced attendance and relevance of the standardization committees – Difficulties to involve the final users : contractors, engineering services, software editors
- Correspondence Eurocodes / existing rules : French standards and other French public documents including mandatory documents
- Management of the transition period : technical and contractual aspects
- Training and diffusion of Eurocodes as operational tool
- Acknowledgement of Eurocodes vs existing codes in a short term
- Implementation of Eurocodes by SME



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Regulatory aspects

- **Public procurements and building rules**
 - Reference to Eurocodes since April 2010
 - Progress step-by-step with a degree of flexibility
- **Change of the fire resistance of products and structures regulation**
 - New decree in March 2011
 - Reference to Eurocodes instead of ENV
 - Allows the use of existing codes (P92) until March 2014



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Regulatory aspects

- **Change of the earthquake-resistant construction regulation**
 - **New decrees in october 2010**
 - ❑ Prevention of seismic risk
 - ❑ Seismicity map and zones
 - ❑ Rules for certain seismic classified installations (01/2011)
 - **Reference to Eurocodes as mandatory documents**
 - **Allows the joint use of existing codes (PS/92 and MI) and Eurocodes until November 2012**



Implementation of Eurocodes in France

Key points to share

- Eurocodes : 20 years to build, 2/3 years to apply
- Relevant and efficient organization
 - ❑ Relevance and balance of the standardization committees
 - Priority : general, seismic, fire and for the relevant materials according to your building assets and major industries
 - Elaboration of national annexes by engineers and users
 - ❑ Coordination regulators adapting the national rules and standardizers implementing the eurocodes and national annexes
- Accompanying policy
 - ❑ information / communication, training, supporting tools, guidance



Implementation of Eurocodes in France

Thank you for your attention



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