Eurocodes: JRC support to implementation and further development

Michel Geradin, Artur Pinto, Silvia Dimova, Georgios Tzionis

European Laboratory for structural Assessment
Institute for the Protection and Security of the Citizen
JRC, Ispra (VA), Italy
The Eurocodes:
A sustained contribution of ELSA (1992-…)

Development and updating of the Eurocodes

- Joint Research projects
- Reference seismic tests
- Networking research institutions and industry
- International collaboration
Commission Recommendation, 12/2003

Eurocodes: Implementation & Use
- Promotion
- Training
- Harmonization
- Further Development
- Maintenance

2005-2008: Administrative Arrangement DG ENTR – JRC on support to the implementation, harmonization and further development of the Eurocodes

- **JRC/ELSA**
  - Promotion & Training
  - Harmonization
  - Further Development
  - Maintenance

- **CEN/TC250**
  - Maintenance
  - Further Development
  - Promotion & Training
  - Harmonization
The contribution of the JRC (2005 -…)

Implementation, harmonisation and development

- **IT tools**
- Dissemination/Promotion and training strategies, promotion activities
- Further harmonisation strategies, set-up of harmonisation networks
- **Further Development:**
  Set-up and coordination of scientific networks for new materials
- Pre-normative research needs
Development of specific informatics tools (IT tools):

1. Database for the NDPs (NDPs database) (31/03/06)
2. Eurocodes Website (30/11/06)
3. Database for Background Documents
4. Centralized help-desk for maintenance

http://eurocodes.jrc.ec.europa.eu
NDPs Database

Welcome to the database of Nationally Determined Parameters (NDPs) for the European Standards (EN) Eurocodes.

This database facilitates the creation of a database with the Nationally Determined Parameters adopted in EU and EFTA countries implementing the EN Eurocodes. The site was created by DG JRC in the framework of the Administrative Arrangement with CEN/TC 250 in view of implementing the recommendations of the Commission Recommendation of 11 December 2003 on the implementation of structural construction products, namely: notifying the Commission of the structural construction products that have to be specified in the national laws.

The purpose of the database is to constitute the basis for achieving further convergence and consistency in the construction market and for construction works and structural construction.

Access: The site has restricted and controlled access. The access policy operates with five groups:

1. The interested Commission Services (DG T)
2. CEN TC250 Coordination Group and its Chair
3. The interested National Authorities
4. National Standardization Bodies
5. Other EU authorities

The policy agreed to access to the NDPs is:

National Authorities or National Site (open view) or if the view is restricted from the other countries that have NDPs only.

Upload of NDPs: The upload of the corresponding national standards webpage.

Very important: The NDPs database is only for third parties. You are free to use them.

EN Eurocodes NDPs (~1500 clauses with NDPs)
Centralized-Helpdesk and Database for background documents

Submit a question on the Eurocodes

Please click on your country to submit your question on the Eurocodes to your National Standards Body. The National Standards body in your country will take care of the follow-up.

EU Member States | EU Candidate Countries | EFTA Member States | other countries

Add new Document

Title:

Author name:

More Authors:

Type:

EN1990: All parts
  A2: Annex A2: Applications for bridges (Normative)
  A3: Annex A3: Applications for tunnels (Normative)

EN1991: All parts
  1-1: Design of structures subjected to wind loads
  1-2: Exposure to fire

EN1992: All parts
  1-1: General rules and rules for buildings
  1-2: General rules - Structural Fire Design
Further Harmonization and Further Development

Strategies for Further Harmonization (Reduction of NDPs, …)
Set-up and coordination of scientific networks for new materials (FRPs, Glass)
Pre-normative research needs (Earthquake, Fire, …)

Recent investigation and justification of the needs for increased fire protection
(National implementation, further research and standardisation needs)
Paper on Dissemination/Promotion and Training

1. Why?
   • Need for a global view of Promotion and Training issues: Consistency, Help New-Accession-Candidate Countries, Outside of EU, …
   • Agreed work-programme (Resulting from discussion with all Partners)

2. Promotion and Training – Topics
   – Awareness (What, Why, opportunities, challenges, ...)
   – Implementation (Legal and Administrative issues)
   – Training and continuing professional development (Member States, and Commission (for General training/promotion events)
   – Promotion material, tools and events
   – Promotion Agents (who does what and why?)
Dissemination/Promotion Material

In this series:

**Booklets**
- B1: The Eurocodes: Implementation and use
- B2: The role of EN 1990: the key head Eurocode
- B3: The Eurocodes and construction products
- B4: The Eurocodes: Supporting EU policies and increasing competitiveness
- B5: The Eurocodes: Use outside EU
- B6: The Eurocodes and cooperation in the Euro-Mediterranean area

**Leaflets**
- L1: The Eurocodes: What are they?
- L2: The Eurocodes: Getting prepared
- L3: The Eurocodes: Increasing competitiveness
- L4: The Eurocodes: Opportunity to innovate
Dissemination/Promotion and Training events

- **Workshop for New Member, Accession and Candidate Countries (11-2005)**
  - Background Documents
  - Good progress on translations, …Implementation
  - NDPs (Most Recommended Values adopted),
  - Loading: Earthquake, wind; Funding problems, …

- **Workshop for the Euro-Mediterranean Countries (11-2006)**
  - Need for clear statements on cooperation

- **Workshop Eurocodes Background and Applications (2-2008)**
  - Celebrating a Major Achievement (publication of all EN Eurocodes (58 parts))
  - Dissemination of background information on the Eurocodes
  - Looking at the Future!
Workshop Eurocodes - Background and Applications (18-20/2/2008)

Workshop Participants by Country

EN Eurocode subscription
Future Activities: MoU between DG ENTR – JRC, 2008-2011

Standardisation in support of EU policies

European standardisation supports important Community policies such as consumer welfare, environmental protection, trade and the single market. The European Union has, since the mid-1980s, made an increasing use of standards in support of its policies and legislation. European Standards are developed in one of the three European Standards Organisations. The EN Eurocodes have been developed by CEN/TC250, following a mandate of the Commission.

The Eurocodes are a set of European standards, which are intended to be used as reference documents to:

- prove the compliance of building and civil engineering works or parts thereof with Essential Requirements of the Construction Products Directive, and express them in technical terms;
- determine the performance of structural components and kits (information relevant to CE marking);
- define the technical specifications in public contracts according to the Public Procurement Directive. The Eurocodes are relevant to the single market, competitiveness and other policies.

The Council of the European Union in the Conclusions on European standardisation recommends the following actions:

- A more extensive use of European standardisation in European policies and legislation;
- Improving the efficiency, coherence, visibility of European standardisation and its institutional framework;
- Promoting European standardisation in a globalised world.

In this regard, the Action Plan for European Standardisation has been developed by the Commission in conjunction with the European Free Trade Association, the European Standards Organisations and National Standards bodies, the Member States and stakeholders. It outlines the most important actions to be performed, identifies the tasks to be carried out and defines a timeframe. It will serve as a
Current and future needs (1)

- National implementation for most Eurocodes parts is expected in 2010: need of maintenance of the Eurocodes e-tools during the **current key transition phase** of Eurocodes implementation.

  - Maintenance of IT Tolls and Users support
  - Analysis of NDPs
  - Harmonization strategies (priorities, projects, …)
  - Populate Background Documents Database
  - Dissemination/Promotion
Current and future needs (2)

Need to **examine the feasibility** of evolution of the Eurocodes to additional fields of design aiming at:

1. consistent approach to tackle the different dimensions of the sustainable development in construction
2. to cover all six Essential Requirements of CPD
3. to respond to the recent and foreseeable market developments

“Lead market” vision – to provide a new and wider family of standards in a field where no competitor exists so far
Approach:

• Involve all Relevant Partners, Stakeholders and Authorities
  – IPSC and other JRC institutes: Environment and Health
  – DG ENTR and other relevant Commission DGs
  – Member States (ENC, …)
  – CEN/TC250 and other relevant TCs
  – Industry and research organizations (e.g. European Technology Platforms)

• Strategic plan and road-map
Credits

CEN/TC250 for the fruitful cooperation in the implementation, harmonization and further development of the Eurocodes, including organization of the technical sessions in this event; 

ENC Group for the collaboration and support to the JRC activities on the Eurocodes; 

Experts from the European Research Institutions and Industry for the invaluable contribution to the output of the Eurocodes networks on new materials, seismic and fire safety, etc…
From the Ground !!

HOW AND WHERE CAN I DOWNLOAD THE EUROCODES 1-2-3-4-5 TRANSLATED TO SPANISH? KIND REGARDS. From Spain (14/2/2008).

Request for donation: copies of Eurocodes: it is evident that these codes satisfy the technical requirements even of countries outside Europe. I hereby write to humbly request you to kindly assist me by donating to me copies of the Eurocodes, preferably in English, but if this is not possible, then even in Spanish or French. BINDURA, Zimbabwe (30/01/2008)

Unfortunately we shall not be able to benefit form the Conference. South Africa decided last week (8 February) that in due course we shall either adopt or adapt the Eurocodes for our next generation of codes. The conference would therefore have been most useful as I am the chairman of the working group for the Code for Design of Concrete Structures and we are looking very closely to EN 1992-1. South Africa (14/2/2008)
Thank you for your attention!

http://eurocodes.jrc.ec.europa.eu

eurocodes@jrc.it