

# L5 The Eurocodes

## JRC contribution

### A sustained contribution

#### 1992-2007

JRC/ELSA has been contributing to the development and updating of the Eurocodes, by participating in research projects, by carrying out reference seismic tests, fostering networking and participation of EU Member States research institutions and industry, and by promoting international collaboration.



Examples of reference seismic test performed at ELSA

#### 2005-2008

In 2005 the Directorate General Enterprise and Industry (DG ENTR) of the European Commission committed the JRC to assist in the implementation, harmonisation and further development of the Eurocodes.

#### 2008-2011

From 2008 and within a three-year Memorandum of Understanding with DG ENTR, the JRC will expand the tasks related to implementation and further harmonisation.

Considering further development, efforts will concentrate on the extension of the Eurocodes to additional fields of design, as well as on the incorporation of sustainability and other emerging aspects.

Legislation	JRC activities
1989 Construction Products Directive	
1990 Mandate ENV Eurocodes	
1998 Mandate EN Eurocodes	1992-1998 pre-normative research
2007 Publication of EN Eurocodes	1998-2007 co-normative research
2007 Lead Market Initiative Sustainable Construction	2005-2008 implementation harmonisation further development
2009 Construction Products Regulation 2010 Full Implementation	2008-2011 additional fields of design sustainability other emerging aspects
<b>2015 New generation of Eurocodes</b>	

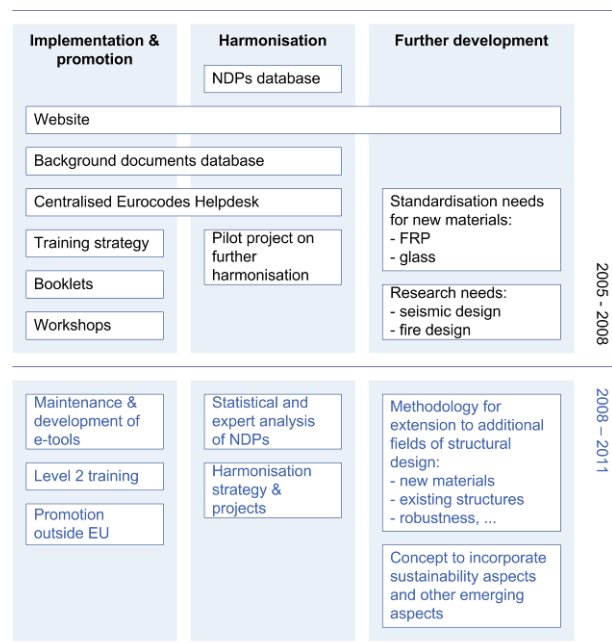
#### JRC activities related to the Eurocodes

The JRC activities develop in close collaboration with all stakeholders, namely CEN/TC250, national standards bodies, national authorities, industry, European technology platforms, international technical and scientific organisations, academia and research institutions.

### Implementation, harmonisation and further development

Within the 2005-2008 Administrative Arrangement, the following objectives were pursued:

- **harmonisation** of European design of constructions and construction products;
- **implementation** of the Eurocodes (training programme);
- international **promotion** of the Eurocodes;
- achieving **increased protection** of constructions against earthquakes and fire;
- fostering **innovation** in construction.



#### JRC support to the implementation, harmonisation and further development of the Eurocodes (2005-2011)

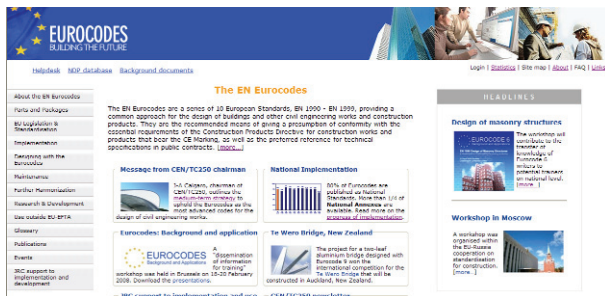
In the framework of the 2008-2011 Memorandum of Understanding with DG ENTR, the JRC is undertaking actions aiming to:

- provide IT support to implementation and monitoring;
- foster dissemination and training on the Eurocodes;
- assist promotion outside EU;
- facilitate further harmonisation;
- define a concept for evolution of the Eurocodes to **additional fields of design**;
- develop a concept for design standards to incorporate **sustainability** and other emerging aspects.

## IT tools

To assist in the implementation and promotion of the Eurocodes, the JRC developed and is maintaining several IT tools.

The purpose of the Eurocodes **website** is to collect and disseminate information which is deemed to facilitate implementation and use of the Eurocodes, to increase awareness internationally and to foster further harmonisation and development.



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

The **background documents database** is a unique source of information on the theoretical justification of the Eurocodes technical rules, on the recommendations for the nationally determined parameters (NDPs) and on the national decisions about the choice of the NDPs.

In addition to being an essential support to the Member States when choosing their NDPs, the background documents are also a necessary tool for the further harmonisation and development of the Eurocodes.

The objective of the **centralised Eurocodes helpdesk** is to provide an informatics platform by which the national standards bodies will submit questions to CEN/TC250 and its Subcommittees and receive the answers.

## Training and promotion

A strategy for training and promotion of the Eurocodes, both within Europe and outside, has been decided with relevant partners. According to this strategy, the JRC organised and contributed to a number of workshops.

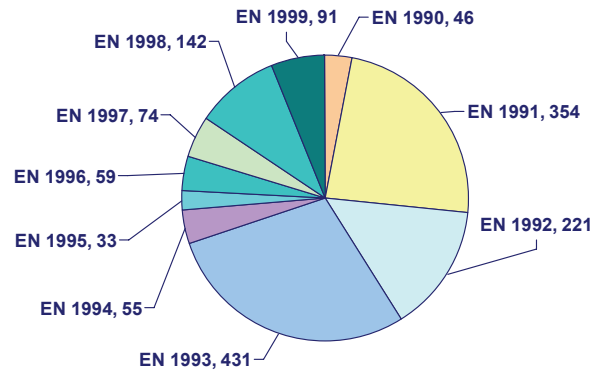


The JRC prepared also a series of booklets and leaflets with the aim to explain the benefits and challenges arising from the use of the Eurocodes.

These publications are free to download from the Eurocodes website, along with plenty other publications on the Eurocodes.

## Further harmonisation

The Eurocodes contain 1506 NDPs. The objective of further harmonisation is to reduce the divergence from the recommended values provided by the Eurocodes.



Distribution of the NDPs among the EN Eurocodes

The NDPs database created by the JRC will ultimately contain the data input by the 27 EU Member States, three EU Candidate Countries and three EFTA Member States implementing the Eurocodes. Furthermore, it will allow the experts involved in harmonisation to perform on-line statistical analyses of the uploaded values.

## Further development



The JRC set-up and coordinated ad-hoc working groups with the objective to identify research needs in the fields of earthquake and structural fire design and also standardisation needs regarding

fibres-reinforced polymer (FRP) composites and glass.

In the mid-term period, the methodology to extend the scope of the Eurocodes to **new materials**, e.g. ultra-high performance concrete, and **new fields of design**, such as existing structures and structural robustness, will be examined.

In view of the future Construction Products Regulation, a suitable concept will be defined for the family of European standards for construction to cover all seven Basic Requirements for construction works.

Besides, the next generation of Eurocodes should incorporate additional demands of modern societies, such as **sustainability**, as portrayed in the requirement for sustainable



use of natural resources of the European regulation for construction products.

## For more information

Eurocodes <http://eurocodes.jrc.ec.europa.eu>  
DG ENTR <http://ec.europa.eu/enterprise/construction>  
JRC <http://ec.europa.eu/dgs/jrc>