

Study

“Enhancing the involvement of ECCE members in continuing education activities related to the implementation of structural Eurocodes”

FINAL REPORT

(REPORT 2/2012 of SC E&T)

**ECCE Standing Committee on
Education & Training**

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EXECUTIVE SUMMARY

1. EUROCODES: preparation, implementation, revision

European Commission agreed to sponsor the development of a set of European codes of practice for building structures. The purpose of these was to encourage free trade between members states. As a result, activities aimed at preparing codes of practice in various fields started, usually with the involvement of international professional societies.

In 1990 the work on all Eurocodes was transferred for further development, issue and maintenance to the “Comité Européen pour la Normalisation” (CEN), with agreement that the European Free Trade Association (EFTA) secretariat would also support the work. CEN Technical Committee (TC) 250 was therefore set up, and this committee has overseen the development of Eurocodes since 1990.

A subcommittee (SC) of CEN/TC 250 is responsible for each Eurocode. Referring to the domain familiar to the principal author of this report, i.e. geotechnical engineering, the subcommittee for Eurocode 7 is named CEN/TC2 250/SC7. Under the auspices of this subcommittee a project team produced a draft of Eurocode 7 – Part 1, which was ratified as provisional code ENV 1997-1 in 1993. After a period of inquiry held among the CEN member states, several drafts were subsequently produced, leading to a final form approved in 2004, following a formal vote by the member organizations of CEN – the national standards bodies. This form is named: EN 1997-1:2004, Eurocode 7: Geotechnical Design, Part 1: General rules.

Similar routes were followed by the other 9 SCs, however the time when they completed the work differed.

As it is known, the Structural Eurocode programme comprises 10 standards (EN 1990 ... EN 1999), having in total 58 parts (sometimes the figure appears 60, considering actually some sub-parts).

Once the Eurocodes (and parts of Eurocodes) were approved by CEN, they were adopted also as national standards and, if the case, translated. For each part, a National Annex had to be elaborated.

The implementation of Eurocodes started in each country with a “*coexistence period*” with existing national codes. According to the time table established by CEN, on 1st April 2010 the “*coexistence period*” was supposed to end and all existing codes conflicting with the Eurocodes should have been withdrawn. In reality, this term was not respected in most countries.

On 19th May 2012, the European Commission published the mandate M/466 EN with the objective “*to initiate the process for further evaluation of Eurocodes*”.

Complying with the mandate, at the 39th meeting of TC 42 held in 2011, the following calendary was established:

- 2013: launching a 5-year process of revision of Eurocodes;
- 2013-2015: works for a new, revised form of Eurocodes;
- 2015-2017: debate on the revised Eurocodes;
- 2017: final vote on the revised Eurocodes.

Considering the importance of the subject of structural Eurocodes, in its meeting held in Antalya on 28 October 2011, the ECCE Standing Committee on Education & Training included in the activity plan for 2012 the elaboration of a study named “*Enhancing the involvement of ECCE members in continuing education activities related to the implementation of structural Eurocodes*”.

2. Two surveys undertaken by the ECCE Standing Committee on Education and Training

In the first phase of the study, was undertaken a “*Survey on the state-of-the art of implementation of the Eurocodes in the respective country*”.

In the second phase of the study, was undertaken a “*Survey on continuing education activities conducted for the implementation of structural Eurocodes in the respective country*”

Answers were received from 13 ECCE members in the Phase I and from 7 ECCE members in the Phase II. However, one has to take into account that some of the answers received for the Phase I contained pertinent information relevant for the Phase II.

In the Annex I of the report are presented in tabulated form the answers received for both surveys.

In the Annex II are given additional information on entities engaged in the implementation of Eurocodes, other than National Standard organizations.

In the Annex III are given other relevant information pertaining to both surveys.

3. Conclusions of the study

The situation of the implementation of the structural Eurocodes is very diverse across Europe.

While the process of translating parts or sub-parts of Eurocodes is practically completed, the preparation of National Annexes is almost completed in 8 countries, is at half way in 2 countries but just started in 3 countries.

In situation when not all parts of the Eurocodes have already National Annexes prepared and translated, it is anticipated that the process will be completed in most cases in 2012, which means 5 year later than the calendary set up by CEN.

In 7 out of 13 countries, Eurocodes are going to be used in combination with national codes adapted in order not to contradict with Eurocodes and to assist the designers in the use of Eurocodes.

The Eurocodes are already used in the design of structures in 9 countries, while in the other 4 the use is foreseen for 2013.

In almost all cases, entities engaged in the implementation of Eurocodes are the National Standard Organization and the Ministry of Public Works or similar.

Professional associations are in most countries actively involved in continuing education activities related to the implementation of Eurocodes. In one case, Slovenia, the Slovenian Chamber of Engineers (IZS) appears to be, until now, the only organization engaged in such activities.

Short duration seminars, of 1-2 days, represent the common type of training activity. They are organized, as a rule, by universities, but also by professional associations.

A rather rich and diverse literature made of books, guides, collection of design examples etc, is helping in the organisation of continuing education activities. Most ECCE members which participated in the survey evaluated the training activities undertaken so far in the respective country as satisfactory.

The introduction of the Eurocodes produced dramatic changes in the design of structures. ECCE members, having among their constituency a great number of designers, should be more actively engaged in the implementation of Eurocodes, primarily through continuing education activities.

This is the main conclusion of the study undertaken by the ECCE SC on E&T.

Prof. Iacint Manoliu

With contribution from:

Country	ECCE member	Respondent
CY	Cyprus Council of Civil Engineers	Nicos Stylianou
CZ	Czech Chamber of Chartered Engineers and Technicians	Alois Materna
FR	Ingénieur et Scientifiques de France (I.E.S.F.)	Jean-François Coste
HU	Hungarian Chamber of Engineers	Gábor Szöllőssy
IE	Engineers Ireland	John Power
IT	Consiglio Nazionale degli Ingegneri (C.N.I.)	Hansjorg Letzner
LV	Ministry of Environmental protection and Regional Development	Aivars Jurjans
MT	Department of Civil and Structural Engineering, Faculty for the Built Environment, University of Malta	Alex Torpiano
PL	Polish Chamber of Civil Engineers (PCCE)	Zygmunt Meyer
PT	Ordem dos Engenheiros, Portugal	José F G Mendes
RO	Union of Associations of Civil Engineers of Romania (UACER)	Iacint Manoliu
SI	Slovenian Chamber of Engineers	Branko Zadnik
SK	Slovak Chamber of Civil Engineers - SKSI	Vladimír Benko