Impact of Eurocode 7 worldwide (outside EU+EFTA)

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In 2010, CEN is composed of the national standard bodies of:

- 31 European countries (i.e. 27 countries of EU, plus 3 countries of EFTA and Croatia)

- 19 countries are affiliates
1. Eurocode 7 activities

2. ‘All Eurocodes’ activities (TC 250+JRC)

3. Present policy of the European Commission

(4. Adoption of the Eurocodes outside EU by JRC, Dimova et al., Chisinau, Nov 2009)
1. Eurocode 7 activities
(most slides from Schuppener, 2009)

lectures at conferences, workshops, courses, promotional seminars, etc.
IWS Kamakura, Japan, 2002
Int. W Fnd Design Codes and SI in view of Int Harmonization and Performance
Honjo, Kusakabe, Matsui & Pokharel (eds)
Keynote lecture:
Orr, T: Development and Implementation of Eurocode 7

Invited lecture:
Schuppener, B. and Frank, R.:
Eurocode 7 for geotechnical design - implementation in the European Member States

Vogt, N. and Schuppener, B.: Implementation of Eurocode 7-1 Geotechnical Design in Germany
ISSMGE Touring Lectures
Workshop on Eurocode 7
‘Geotechnical design’
Cavtat – Dubrovnik
17-18 May 2007
General presentation of EC7; Implementation in France
by Roger Frank (France)

Implementation of EC 7 in the European countries and in Germany
by Bernd Schuppener (Germany)

The UK implementation of EC7, and some comparisons for retaining walls
by Brian Simpson (United Kingdom)

Designing to Eurocode 7 against uplift and heave;
Implementation of EC7 in Ireland
by Trevor Orr (Ireland)
SUNDAY, SEPTEMBER 23rd

*Spirit of Krebs Ovesen Session*

**challenges in geotechnical engineering**

- Danish Geotechnical Society
- ERTC10 - Evaluation Committee for the Application of EC7
- TC23 - Limit State Design in Geotechnical Engineering

MONDAY, SEPTEMBER 24th

**DISCUSSION SESSION 1.1: Implementation of Eurocodes (EC-7 and EC-8) in urban areas**

Chairperson: Dr. B. Schuppener (Germany)
Discussion leader: Dr. T. Orr (Ireland)
Panelists: Prof. C. Bauduin (Belgium), Prof. G. Gazetas (Greece), Prof. M. Maugeri (Italy)
FIRST INTERNATIONAL SYMPOSIUM ON GEOTECHNICAL SAFETY & RISK
October 18-19, 2007
Shanghai, China

Tongji University
Geotechnical Safety Network (GEOSNet)

B. Schuppener: Eurocode 7 and its latest developments
B. Simpson: Approaches to ULS-Design – the Merits of DA 1 in EC 7
SESSION 8
Workshop on standards and recommendations for maritime geotechnical engineering

Chairpersons: V. Ilyichev (Russia), M. Mets (Estonia)

Invited lecture: B. Schuppener (Germany):

European Geotechnical Standards

Panelists: M. G. Zertsalov (Russia), V. Jaaniso (Estonia), Z. Meyer (Poland)
ISSMGE International Seminar on Eurocode 7
30-31 October 2008, Ohrid- FYROMacedonia
Eurocode 7 for geotechnical design
- a model code for non-EU countries?

B. Schuppener, A. J. Bond, P. Day, R. Frank,
T. L. L. Orr, G. Scarpelli, B. Simpson

2nd International Workshop on Evaluation of Eurocode 7, Pavia, Italy, April 2010
Comments of non-European countries

South Africa:
• No geotechnical design code
• 1998 decision for a revision of the loading code
• Implementation of EC 7-1 in parallel with existing design methods for a period of five years

Singapore:
• Uses British Standards
• Reservations about the proliferation of ECs
• indications are that S. will follow the UK’s lead
Comments of non-European countries

Hong Kong:
• Most design is currently based on BS
• Discussion to adopt the Eurocodes as a replacement for existing BS

Japan:
• Geo-code 21 (2004) advocates performance based design
• borrows and adapts concepts of EC 7-1

Brazil:
• Geot. eng. codes still use global factor of safety
• strong motivation for evolving Brazilian codes similar in concept to the Eurocodes.
2. ‘All Eurocodes’ activities (TC 250+JRC)
(some slides from Greenley, 2008 and Dimova et al., 2009)
Some locations where Eurocode promotion has occurred

The E.U./JRC, BSI, and experts have promoted Eurocodes globally through promotional seminars and lectures at conferences.
Eurocodes Promotion in Mediterranean Countries (2006)

CONCLUSIONS

• use the ENP Instrument to support harmonization of standards of the Mediterranean Countries with those of the EU;

• increase share of European knowledge and expertise in standardization with the Mediterranean countries;

• assistance from European Institutions on Training;

Delegates attended from:

- Algeria, Egypt, Jordan, Lebanon, Morocco, Tunisia and Albania
Singapore, Malaysia and Vietnam are adopting Eurocodes.
Singapore have already published 5 Eurocodes in an “SS wrapper”
Eurocodes Conference in Singapore – July 2008 to launch their National Annexes as DPCs
Activities in Middle East Region

Strong interest in Eurocodes from Oman

Saudi Arabia

Qatar

UAE

Designs accepted to Eurocodes but more contract based than regulatory
CONCLUSIONS

• due to their potential to achieve wider objectives (i.e. sustainability and energy efficiency in construction) the Eurocodes are regarded as the most up-to-date and comprehensive International Codes of Practice,

• bi-lateral scientific and technical cooperation on compatibility of design methods could “open the door” to acceptance of design according to the Eurocodes.
Moscow workshop (2008)

Conclusions

• The Eurocodes: a starting point for cooperation/ convergence in standardisation

• Framework for collaborative pre-normative research projects

• Preparation of action plan & involvement of relevant institutions

EU-Russia dialog on construction started on 25 March 2009.
Seminar in Thailand (2009)

Main points:

• the state of the Construction Codes in Thailand and their evolution in the near future,

• research undertaken for the development of the Eurocodes,

• the concepts of the “European standard family” (material standards, testing standards, design rules, site execution standards) and of the Nationally Determined Parameters.
Steps needed to accelerate the adoption of the Eurocodes:

• consolidating the stakeholders,
• more governmental financing
• representation of FYROM in the Standing Committee for Construction,
• cooperation with EU Member States under a Twinning Programme and collaboration agreements with National Standardisation Bodies.
Achieving highest safety and technical quality of Montenegrin construction

TAIEX expert mission (2009)

Proposal for IPA 2010 twinning project. Main results to achieve:

• action plan for adoption of the Eurocodes,
• action plan for implementation of the Eurocodes,
• national annex to Eurocode 8 part 1.
Workshop in Moldova (Chisinau 4-5 November 2009)

Moldova envisages full application of some Eurocodes and harmonisation of its national standards with other Eurocodes.
3. Present policy of the European Commission
Promotion of Eurocodes in third countries
Contract of DG ENTR with BSI (starting October 2009)

Key objective is to define a set of Eurocodes dissemination/information “strategies” for six different countries/regions:

1. Eastern Mediterranean/the Gulf states,
2. South Africa,
3. Western Mediterranean (Francophone),
4. Russia/Ukraine,
5. South East Asia and,
6. India.
Promotion and training

The contract given by the Commission to BSi to develop a strategy for the adoption and use of Eurocodes outside EU, focussing on six target regions runs from Nov 2009 until March 2011.

Phase 1: the development of the strategy and action plans for the six target regions will be completed by April 2010. The target regions are Eastern Med, Western Med, Russia/Ukraine, South Africa, India, SE Asia.

Phase 2 will validate the strategy and action plans, through pilot activities.
SECRETARIAT NOTES OF THE THIRTY-SEVENTH MEETING OF THE CO-ORDINATION GROUP HELD AT JRC ISPRA ON 17th and 18th SEPTEMBER 2009

The SECRETARY reported that BSI has been awarded a contract by the Commission to produce a Strategy for the promotion of Eurocodes in third countries (internationally). The countries which have been selected as target regions are:

- Western Mediterranean (Morocco, Algeria, Tunisia)
- Eastern Mediterranean (including the Gulf States)
- Russia and Ukraine
- South Africa
- India
- South East Asia (Thailand, Vietnam, Malaysia)

It was noted that whilst Ecuador had expressed an interest in holding a Eurocodes conference, South America was not considered as a target area by the Commission.

The SECRETARY added that a prime source of information is from the Coordination Group Members and their experience in promoting Eurocodes through presentations and lectures at conferences and Universities. Members who have had experience with international presentations on Eurocodes were requested to advise the SECRETARY accordingly. Once the strategy has been developed a regional will be chosen as a pilot study to confirm the strategy.
**What is TAIEX?**

TAIEX is the Technical Assistance and Information Exchange instrument managed by the Directorate-General Enlargement of the European Commission. TAIEX supports partner countries with regard to the approximation, application and enforcement of EU legislation. It is largely demand driven and facilitates the delivery of appropriate tailor-made expertise to address issues at short notice.

**What services does TAIEX offer?**

TAIEX main tasks are:

- To provide short term technical assistance and advice on the transposition of EU legislation into the national legislation of beneficiary countries and on the subsequent administration, implementation and enforcement of such legislation.
- To bring ENPI partner countries closer to the European Union, through increased economic integration and a deepening of political cooperation by sharing the experience gained during the enlargement process.
- To provide technical training and peer assistance to partners and stakeholders of the beneficiary countries.
- To be an information broker by gathering and making available information.
- To provide database tools for facilitating and monitoring the approximation progress as well as to identify further technical assistance needs.
- Technical assistance through the TAIEX Instrument comes in many different forms and across a wide range of areas. Partner administrations can benefit from TAIEX’s flexibility to help meet wider training needs in EU legislation by reaching a significant number of officials. At the same time, it is important to retain an awareness of and be responsive to more targeted requests. In this regard, the expert and study visit format, depending entirely on requests received from beneficiary partners, provides a complementary institution building service.
- As with other TAIEX training formats, experts and study visits are designed to provide short term assistance to beneficiary countries on the approximation and implementation of EU legislation. Study visits are visits made by a limited number of officials of the beneficiary countries to Member State administrations. They give an opportunity to the beneficiaries to work alongside Member State officials to discuss legislation, experience first-hand administrative procedures and infrastructure and see examples of best practices.
- Expert missions on the other hand involve usually one or two Member State experts travelling to beneficiary partner countries. They provide an opportunity to discuss draft legislation, present examples of best practices and lend assistance where requested. The preferred format is working sessions involving an exchange of knowledge between the beneficiary countries and the experts.
The beneficiaries of TAIEX assistance includes those sectors, both public and private, who have a role to play in the beneficiary countries in the transposition, implementation and enforcement of EU legislation. The main target groups are:

- Civil servants working in public administrations; at national and sub-national level and in associations of local authorities;
- The Judiciary and Law Enforcement authorities;
- Members of Parliaments and civil servants working in Parliaments and Legislative Councils;
- Professional and commercial associations representing social partners, as well as representatives of trade unions and employers’ associations;
- Interpreters, revisers and translators of legislative texts.

The TAIEX mandate covers the following groups of beneficiary countries:

- Croatia, Turkey, former Yugoslav Republic of Macedonia;
- Albania, Bosnia and Herzegovina, Montenegro, Serbia and Kosovo (as defined in UN Security Council Resolution 1244 of 10 June 1999);
- Turkish Cypriot community in the northern part of Cyprus;
- Algeria, Armenia, Azerbaijan, Belarus, Egypt, Georgia, Israel, Jordan, Lebanon, Libya, Moldova, Morocco, the Palestinian Authority, Syria, Tunisia, Ukraine and Russia.

TAIEX does not provide direct support to private citizens, or to individual companies.
(4. Adoption of the Eurocodes outside EU by JRC, Dimova et al., Chisinau, Nov 2009)
PLEASE FAVOUR THE GROWTH OF THE EUROCODES FAMILY

by Jean-Armand Calgaro

Thank you for your attention!