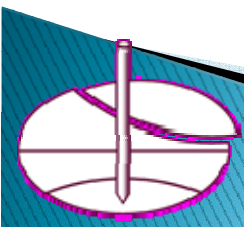


2nd International Workshop on the Evaluation of Eurocode 7
EUcentre, Pavia, Italy, 12-14 April 2010

Impact of Eurocode 7 worldwide (outside EU+EFTA)

Roger Frank
Université Paris-Est, UR Navier (LCPC-ENPC), CERMES
Cité Descartes, Champs-sur-Marne

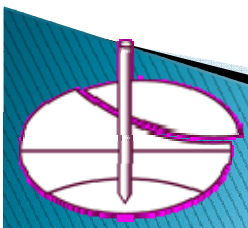




European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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





European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

NATIONAL MEMBERS



AUSTRIA



BELGIUM



BULGARIA



CYPRUS



CZECH REPUBLIC



DENMARK



ESTONIA



FINLAND



FRANCE



GERMANY



GREECE



HUNGARY



ICELAND



IRELAND



ITALY



LATVIA



LITHUANIA



LUXEMBOURG



MALTA



THE NETHERLANDS



NORWAY



POLAND



PORTUGAL



ROMANIA



SLOVAKIA



SLOVENIA



SPAIN



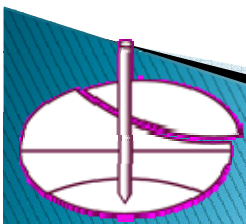
SWEDISH
STANDARDS
INSTITUTE
SWEDEN



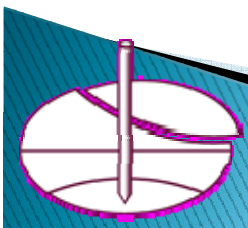
SWITZERLAND



UNITED KINGDOM



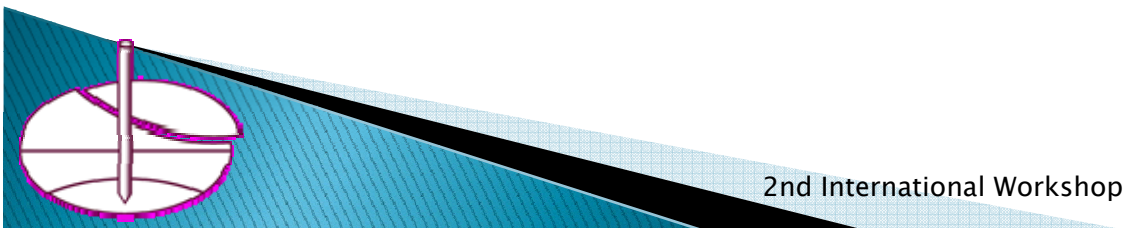
1. Eurocode 7 activities
2. 'All Eurocodes' activities (TC 250+JRC)
3. Present policy of the European Commission
- (4. Adoption of the Eurocodes outside EU by JRC,
Dimova et al., Chisinau, Nov 2009)



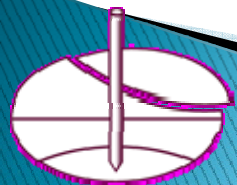
1. Eurocode 7 activities

(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)





TAIPEI
*International Symposium on New Generation Design Codes
for Geotechnical Engineering Practice*
2006 Nov. 2~3

◆ **Scope :**
Communication of design risk within a transparent and rational framework is necessary in view of increasing interest in code harmonization, public involvement in defining acceptable risk levels, and risk-sharing among client, consultant, insurer, and financier. Activities in code harmonization are particularly noteworthy. The status of local design codes in view of globalization and their compatibility in view of evolving design philosophies are issues of major concern that do not admit simple solutions. This conference intends to accelerate research and practice

Keynote lecture:

Orr, T: Development and Implementation of Eurocode 7

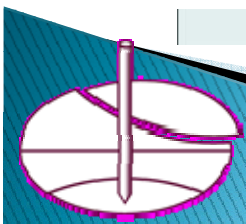
Invited lecture:

Schuppener, B. and Frank, R.:

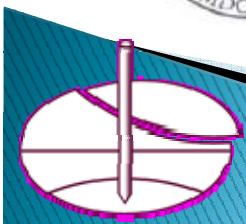
Eurocode 7 for geotechnical design - implementation in the European Member States

Vogt, N. and Schuppener, B.: Implementation of Eurocode 7-1 Geotechnical Design in Germany

Prof. K. N. FROON (Singapore) - Dr. B. Schuppener (Germany)



ISSMGE Touring Lectures
Workshop on Eurocode 7
‘Geotechnical design’
Cavtat – Dubrovnik
17-18 May 2007

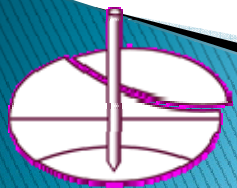


General presentation of EC7; Implementation in France
by Roger Frank (France)

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

*The UK implementation of EC7, and some compari-
sons 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

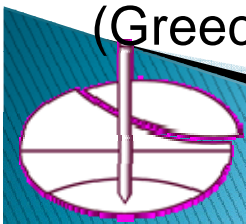
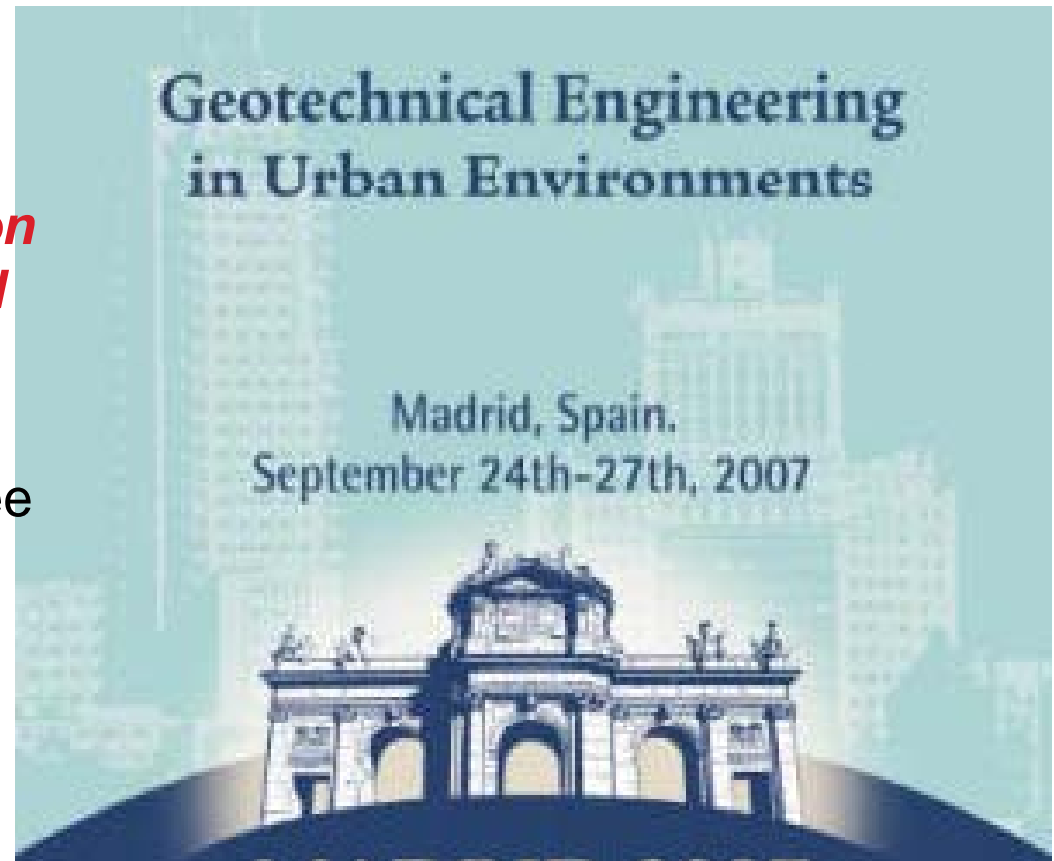
MONDAY, SEPTEMBER 24th

**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



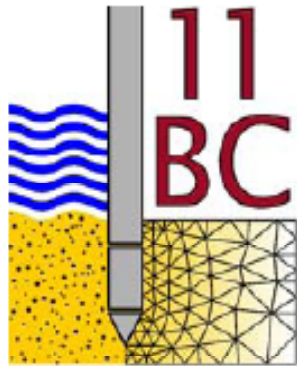
Tongji University

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





11th Baltic Sea Geotechnical Conference

GEOTECHNICS IN MARITIME ENGINEERING

Gdansk, Poland

15-18 September 2008



ISSMGE



PCG



SESSION 8

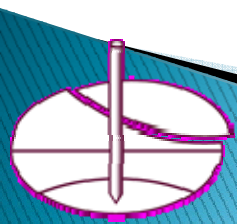
Workshop on standards and recommendations for maritime geotechnical engineering

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

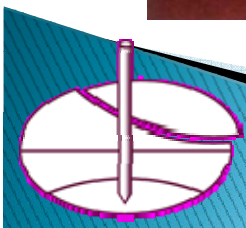
Invited lecture: B. Schuppener (Germany):

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**



2nd International Workshop on Evaluation of Eurocode 7, Pavia, Italy, April 2010

17th International Conference on Soil Mechanics and Geotechnical Engineering Alexandria, Egypt, 5 - 9 October, 2009

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



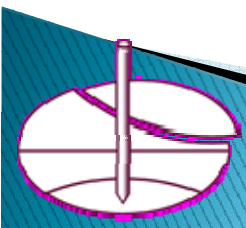
Comments of non-European countries

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:

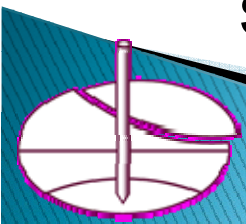
- Most design is currently based on BS
- Discussion to adopt the Eurocodes as a replacement for existing BS

Japan:

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

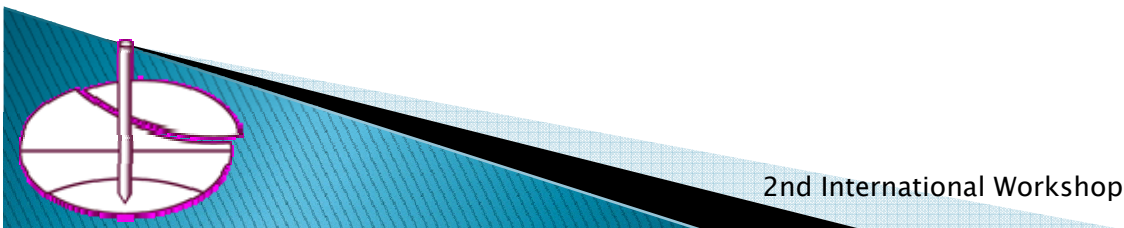
Brazil:

- 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)

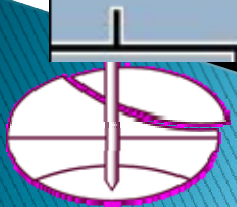
(some slides from Greenley, 2008 and Dimova et al. , 2009)



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



Eurocodes
Building the future in the
Euro-Mediterranean area

Workshop on the Use of the Eurocodes
in the Mediterranean Countries

27-29 November 2006
Palace Grand Hotel
Varese, Italy

Organized by

DG Joint Research Centre, European Commission
DG Enterprise, European Commission
NATO

With the participation of representatives from

CEN, EOTA and French Ministry of Transport,
Equipment, Tourism and Sea

Under the

JRC Enlargement and Integration Action
NATO Security through Science Programme

EUROPEAN COMMISSION
DIRECTORATE-GENERAL
Joint Research Centre

Singapore, Malaysia and Vietnam are adopting Eurocodes.

Singapore have already published 5 Eurocodes in an “SS wrapper”

The image displays five book covers for Singapore Standards (SS EN) based on Eurocodes, published by SPRING Singapore. Each cover includes a 'NOT FOR SALE OUTSIDE SINGAPORE' label in the top right corner.

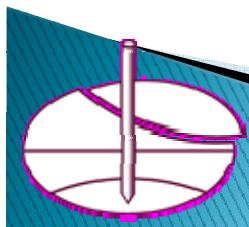
- SS EN 1992-1-2 : 2008**
EN 1992-1-2 : 2004, IDT
(ICS 13.221.50 ; 91.010.30 ; 91.080.40)
- SS EN 1990 : 2008**
EN 1990 : 2002, IDT
(ICS 91.010.30)
- SS EN 1992-1-1 : 2008**
EN 1992-1-1 : 2004, IDT
(ICS 91.010.30 ; 91.080.40)
- SS EN 1991-1-2 : 2008**
EN 1991-1-2 : 2002, IDT
(ICS 13.220.90 ; 91.010.30)
- SS EN 1991-1-1 : 2008**
EN 1991-1-1 : 2002, IDT
(ICS 91.010.30)

The covers also feature the following titles and descriptions:

- Eurocode – Basis of structural design**
This national standard is the identical implementation of EN 1990 : 2002 and is adopted with permission of CEN, Rue de Lassart 65, B-1050 Brussels.
- Eurocode 2 : Design of concrete structures**
Part 1-1 : General rules and rules for buildings
This national standard is the identical implementation of EN 1992-1-1 : 2004 and is adopted with permission of CEN, Rue de Lassart 65, B-1050 Brussels.
- Eurocode 1 : Actions on structures – Part 1-1 : General actions – Densities, self-weight, imposed loads for buildings**
This national standard is the identical implementation of EN 1991-1-1 : 2002 and is adopted with permission of CEN, Rue de Lassart 65, B-1050 Brussels.

Published by:
SPRING Singapore
2 Quik Merah Central
Singapore 10995
SPRING Singapore Website: www.spring.com.sg
Standards Website: www.standards.org.sg

SPRING
singapore
Creating tomorrow



Seminar on
Implementation of Eurocodes

EN 1990: Basis of Structural Design
EN 1991: Actions on Structures
EN 1992: Design of Concrete Structures

Date : 15 July 2008
Time : 9.00am to 5.30pm
Venue : SPRING Singapore Auditorium



Jointly Organised by




A 7-day seminar on
Implementation of Eurocodes

EN 1990: Basis of Structural Design
EN 1991: Actions on Structures
EN 1992: Design of Concrete Structures



Are you ready for Eurocodes implementation in Singapore?

Since the announcement by BCA in Oct 2004 of the plan to implement the Eurocodes in Singapore, SPRING Singapore with support of BCA have commenced the process for the adoption of Eurocodes.

This seminar aims to guide the industry in implementation of the Eurocodes listed above and help facilitate industry's migration to these Eurocodes.

This seminar is organised by SPRING Singapore and BCA in collaboration with BS to help enterprises migrate towards the adoption of Eurocodes in tandem with UK.

The seminar will give participants an overview and implementation details of SS EN 1990, SS EN 1991 and SS EN 1992 including the Draft Singapore National Annexes which are essential to guide the industry on application of the Eurocodes. Local as well as UK experts will provide insights into the standards development and implementation of Eurocodes with seminar participants.

WHO SHOULD ATTEND

- > Professional engineers / architects / qualifications / consultants
- > Clients
- > Contractors
- > Academics
- > Product and material manufacturers
- > Relevant government agencies

PROGRAMME

Welcome Address
SPRING Singapore
Opening Address
Building & Construction Authority

An Overview of the Eurocodes Standards Development and Implementation Experience in the UK
Mr Malcolm Greenly
Technical Programme Manager, the British Standards Institution

Guidance on Implementation of Eurocodes – UK's Experience:
• EN 1990 'Basis of structural design'
• EN 1991 'Actions on structures'
• EN 1992 'Design of concrete structures'

Dr Steve Denton
Director of Bridge and Structural Engineering, Parsons Brinckerhoff Ltd & Visiting Professor, University of Bath

Update on Status of Singapore National Annex (NA) Development to SS EN 1990 & SS EN 1991 and Highlights on Draft Singapore National Annexes
Dr Tan Jeng Hock, Nanyang Technological University & Working Group Convener

Update on Status of Singapore National Annex Development to SS EN 1992 and Highlights on the Draft Singapore National Annex
Dr E C Goy Ong, Singapore Concrete Institute & Working Group Convener

Panel Discussion
Moderators
Dr Tan Guan & Mr Chew Keat Chuan
Technical Committee on Building Structure & Sub-Structure

SEMINAR DETAILS

Date: 15 July 2008
Time: 9am - 5.30pm
Venue: SPRING Singapore Auditorium, 3 Bldg Merak Central Podium Block, Level 4 Singapore 117035
Fee: S\$3.00 (per participant)
(Fee includes GST, Course material, Lunch & refreshments will be provided)

WHAT YOU WILL LEARN

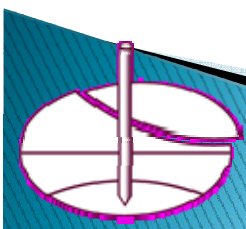
- ✓ Update on the Eurocodes implementation programme in Singapore
- ✓ The Eurocodes experience in UK (benefits and issues, when to implement and considerations, the UK post Eurocodes and draft Euron's perspective)
- ✓ Overall technical view on SS EN 1990, SS EN 1991, SS EN 1992 and guidance on implementation.

ACCREDITATION
BOA-11A - pending
PEB - 7 PDUs

Jointly organised by




Eurocodes Conference in Singapore – July 2008 to launch their National Annexes as DPCs



Activities in Middle East Region

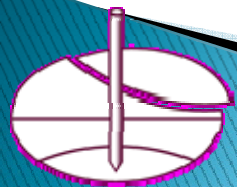
Strong interest in Eurocodes from Oman

Saudi Arabia

Qatar

UAE

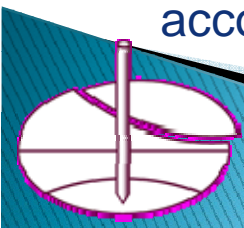
Designs accepted to Eurocodes but more contract based than regulatory



EU-China Conference on Standards and Energy Efficiency in Building (2008)

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.

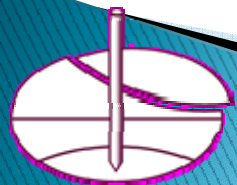


Moscow workshop (2008)

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.



EUROCODES
A tool for building safety and reliability enhancement

Еврокоды
инструмент для повышения безопасности и надежности зданий

EU-Russia cooperation on standardisation for construction

Сотрудничество ЕС-Россия по стандартизации в строительстве

9-10 October 2008
President Hotel, Moscow

9-10 октября 2008
Президент-Отель, Москва

Programme

ПРОГРАММА

Organised by
Russian Federal Agency on Technical Regulation and Metrology

Организована
Федеральным агентством по
техническому регулированию и
метрологии

with the support of
European Commission, CEN and
WASCs

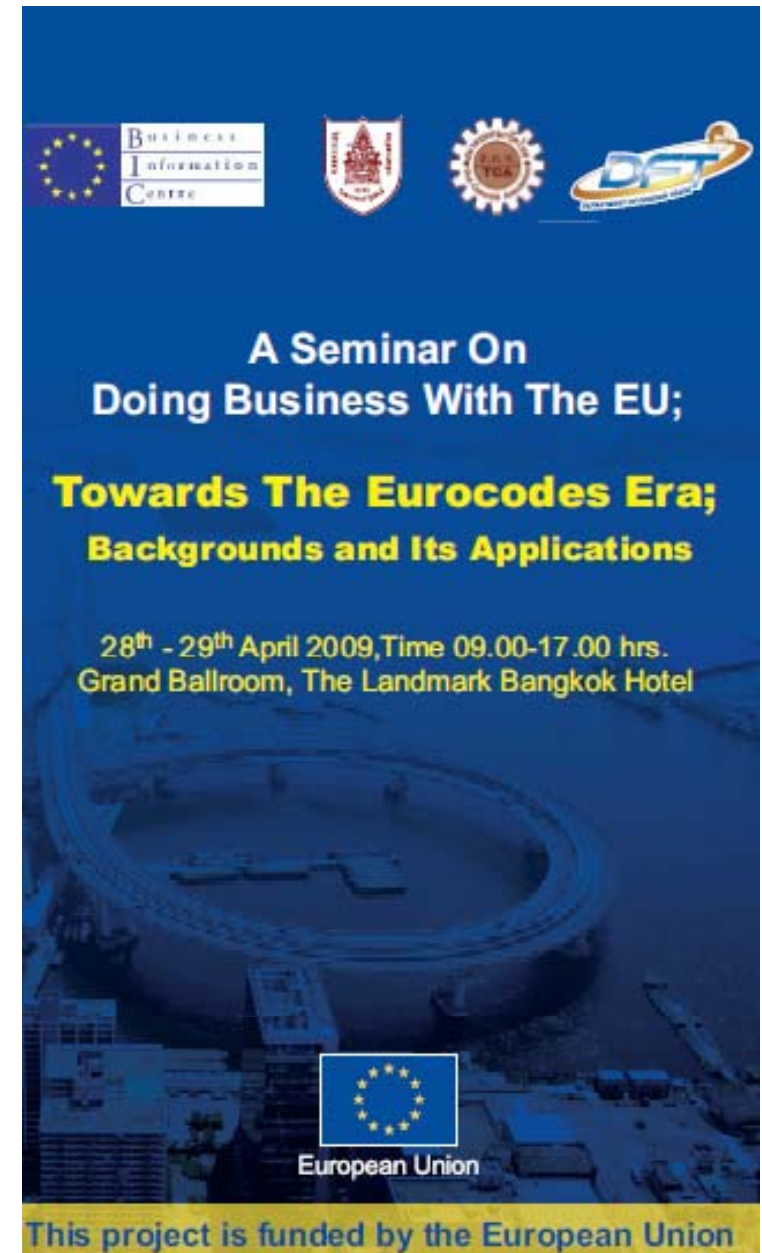
с содействием
Европейской Комиссии, CEN и ВАНКБ



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.



The poster features a dark blue background with a faint aerial view of a large stadium. At the top left is the European Union flag. To its right are logos for the Business Information Centre, the Thai Ministry of Education, and the TGA (Technical Group of Architects). The main title is in white and yellow text. The dates and location are in yellow. At the bottom, there is a small European Union flag and the text 'European Union', followed by a yellow banner with the text 'This project is funded by the European Union'.

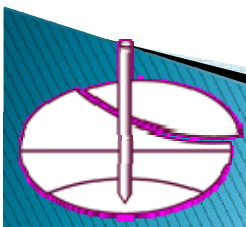
Business Information Centre

A Seminar On
Doing Business With The EU;
**Towards The Eurocodes Era;
Backgrounds and Its Applications**

28th - 29th April 2009, Time 09.00-17.00 hrs.
Grand Ballroom, The Landmark Bangkok Hotel

European Union

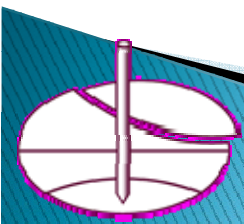
This project is funded by the European Union



Workshop in Skopje (2009)

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.

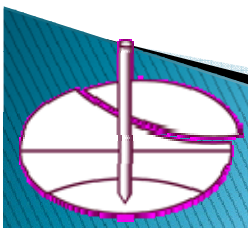


Achieving highest safety and technical quality of Montenegrin construction

TAIEX expert mission (2009)

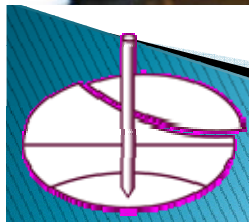
Proposal for IPA 2010 twinning project. Main results to achieve:

- action plan for adoption of the Eurocodes,
- action plan for implementation of the Eurocodes,
- national annex to Eurocode 8 part 1.

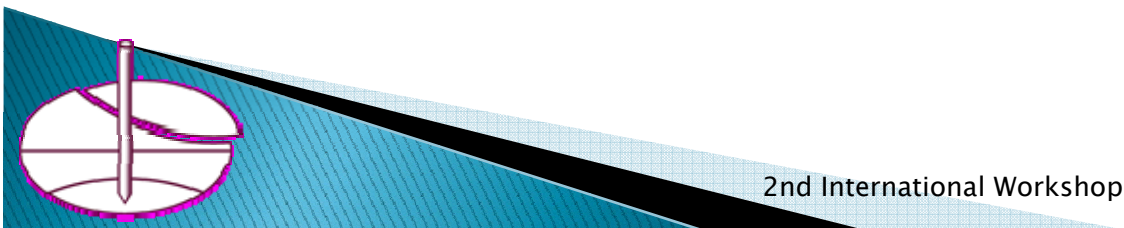


Workshop in Moldova (Chisinau 4-5 November 2009)

Moldova envisages full application of some Eurocodes and harmonisation of its national standards with other Eurocodes.



3. Present policy of the European Commission

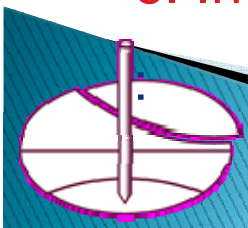
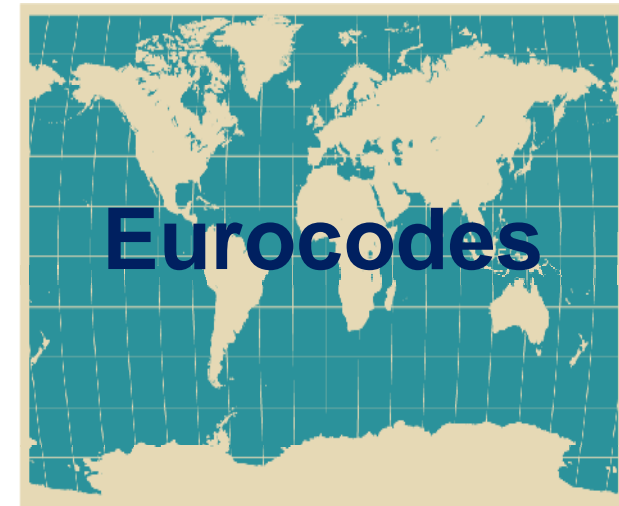


Promotion of Eurocodes in third countries

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.

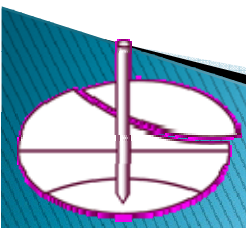


Promotion and training

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

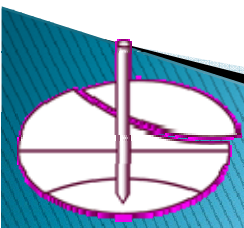
India

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?

Who's who?

Activities per sector

TAIEX Events

Beneficiary Partners

Member State Experts

Legislative Databases

Publications

P2P

ABC Guide to TAIEX

Privacy Statement

What is TAIEX?

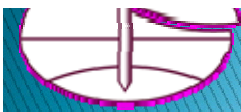
TAIEX is the Technical Assistance and Information Exchange instrument managed by the Directorate-General Enlargement of the European Commission. TAIEX supports partner countries with regard to the approximation, application and enforcement of EU legislation. It is largely demand driven and facilitates 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.

[Expert Missions](#), [Study Visits](#) and [Assessment Missions](#)



TAIEX Beneficiary Partners



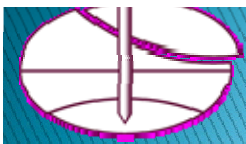
The beneficiaries of TAIEX assistance includes those sectors, both public and private, who have a role to play in the beneficiary countries in the transposition, implementation and enforcement of EU legislation. The main target groups are:

- 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.

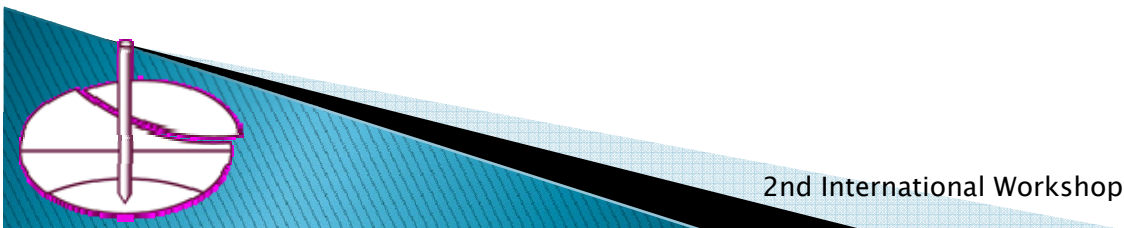
The TAIEX mandate covers the following groups of beneficiary countries:

- 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*

