



European
Commission

Workshop

The way forward for the Eurocodes implementation in the Balkans

10 - 11 October 2018

Tirana, Albania

AGENDA



About the workshop

The interest in the Eurocodes adoption and implementation in the Balkan region is based on the opportunity for an advanced common standardization environment, adaptable to the local requirements of each country (i.e. geographical, geological or climatic conditions) and allowing selection of the level of safety.

The Joint Research Centre (JRC) of the European Commission has offered specialized workshops and provided scientific and technical support to the non-EU Balkan countries for the adoption and implementation of the Eurocodes within the JRC Enlargement and Integration Action in the period 2013–2016. The focus of past activities was to assess the progress and specific needs for the adoption of the Eurocodes and construction related EN standards in the Balkan region.

All countries in the Balkan region reported significant progress in the process of the Eurocodes adoption in 2016 at the workshop in Skopje (Workshop: “Current status of the Eurocodes in the Balkan region”, Skopje, 9 June 2016, http://eurocodes.jrc.ec.europa.eu/showpage.php?id=2016_06_WS_Balkan). At the workshop, it was concluded that most of non-EU countries in the region are going to use the Eurocodes as primary standards. Though most National Standardization Bodies (NSBs) reported that have adopted the Eurocodes as standards, they are used in parallel with existing national codes as none of non-EU Balkan countries have implemented the Eurocodes in the national regulatory framework.

The workshop “The way forward for the Eurocodes implementation in the Balkans” is organized in order to assist non-EU countries in the Balkan region to respond to the challenges and facilitate the process of Eurocodes implementation in the national regulatory framework.

Workshop objectives

The workshop is aimed at further assisting the adoption and implementation of the Eurocodes in the non-EU countries in the Balkan region. The workshop is a two-day training event with a two-fold aim: (a) facilitate the implementation of the Eurocodes in the national regulatory framework in the Balkan region, and (b) present the concept on a Community of Practice related to implementation of Eurocodes in the Balkan region.

The workshop will provide the necessary technical assistance in support of the Eurocodes introduction into the national regulatory environment, which is a basic step in full implementation.

Experts from the EU Member States will share knowledge with the representatives from competent organizations in the non-EU Balkan countries on technical methods and techniques underpinning EU policy implementation. The presentation of selected countries as case studies will support sharing EU Member States experience and serving as best practice examples for non-EU Balkan countries. The event will provide an opportunity to build on the experience, initiatives and difficulties concerning the implementation of the European standards and policies for construction in the Balkan Region.

Participants

Participants from non-EU countries in the Balkan region (Albania, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia, Kosovo¹, Moldova, Montenegro, Serbia and Turkey) will attend the Workshop, present the progress in adoption of the Eurocodes and discuss the way ahead. Participation is on invitation only by the Organizing Committee. Participants are representatives of National Authorities (NAs), National Standardisation Bodies (NSBs), Engineering Chambers, Chairmen of CEN/TC250 Mirroring Committees and members of TC250 mirroring working groups. Further, representatives from institutions that are involved in the determination of the National Annexes and the training on the Eurocodes and provide support for the Eurocodes adoption will also be invited.

Nominated experts from the European Commission, EU Member States, CEN Management Centre and CEN/TC250 ‘Structural Eurocodes’ will participate and give presentations.

¹ This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Venue

Tirana International Hotel & Conference Center, Tirana
Scanderbeg Square no. 8, Tirana, Albania
t. +355 4 223 41 85; f. +355 4 223 25 2; m. +355 68 60 38 980

Workshop Organising Committee

A. Pinto, S. Dimova, A. Athanasopoulou, L. Sousa and V. Ponsin
Joint Research Centre of the European Commission

R. Apostolska

Institute of Earthquake Engineering and Engineering Seismology, UKIM-IZIIS, Skopje, the former Yugoslav Republic of Macedonia

R. Hasanaj

General Directorate of Standardization of Albania

With the support of

European Commission - JRC Enlargement and Integration Action

European Commission – DG GROW

CEN CENELC Management Center

CEN Technical Committee 250 “Structural Eurocodes”

General Directorate of Standardization of Albania

Further information

Joint Research Centre of the European Commission

Directorate for Space, Security and Migration

Safety and Security of Buildings Unit

TP 480, Via E. Fermi, 2749

I-21027 Ispra (VA), Italy

Tel.: +39 0332 783605, Fax: +39 0332 789049

Email: JRC-EUROCODES-ENLARGEMENT@ec.europa.eu

Workshop Programme

Day 1: Wednesday, 10 October 2018

Welcome and introductory presentations.	
09:00 – 09:30	Registration
09:30 – 10:00	<p>Welcome addresses and introduction</p> <p><i>A. Ganesh – CEN CENELEC, Director for Market Perspectives and Innovation</i> <i>R. Hasanaj – General Directorate of Standardization of Albania</i> <i>S. Dimova – DG JRC, European Commission</i></p>
10:00 – 10:30	<p>Towards the Second Generation of the Eurocodes</p> <p><i>P. Formichi – Chairman of CEN/TC250/SC10; University of Pisa</i></p>
EU MS case studies. Good practices and guidance.	
10:30 – 11:00	<p>EU MS Case Study 1: Bulgaria</p> <p><i>I. Dabijeva – Bulgarian Institute for Standardization, Managing Director</i></p>
11:00 – 11:30	Coffee break
11:30 – 12:00	<p>EU MS Case Study 2: Belgium</p> <p><i>P. Spehl – SECO, Senior Civil Engineer; Head of the Belgian Delegation for the Eurocodes</i></p>
12:00 – 12:30	<p>EU MS Case Study 3: Czech Republic</p> <p><i>J. Markova – Czech Technical University in Prague, Klokner Institute, Associate Professor</i></p>
12:30 – 13:00	<p>EU MS Case Study 4: France</p> <p><i>J. A. Calgaro – Immediate Past Chairman of CEN/TC250</i></p>
13:00 – 14:00	Lunch break
14:00 – 14:30	<p>EU MS Case Study 5: Netherlands</p> <p><i>M. Lurvink – Netherlands Standardization Institute, Standardization Consultant</i></p>
14:30 – 15:00	<p>EU MS Case Study 6: Greece</p> <p><i>N. Malakatas – Chairman CEN/TC250/SC1; Chairman of the Greek Eurocodes Mirror Committee</i></p>
15:00 – 15:30	<p>EU MS Case Study 7: Croatia</p> <p><i>V. Gaćeša-Morić – Croatian Standards Institute, Head of the General Standardization Department</i></p>
15:30 – 16:00	Round table discussion
16:00 – 16:30	Coffee break
Eurocodes in the design practice. The Eurocodes international status.	
16:30 – 17:00	<p>Designers' experience in using the Eurocodes</p> <p><i>P. Croce – Convenor of CEN/TC250 HG Bridges; University of Pisa</i></p>
17:00 – 17:30	<p>The European Construction Sector Observatory</p> <p><i>K. Karaki – Pricewaterhouse Coopers, Luxembourg, Public Sector Associate</i></p>
17:30 – 17:50	<p>JRC activities in support to the Eurocodes implementation</p> <p><i>A. Athanasopoulou – DG JRC, European Commission</i></p>
17:50 – 18:00	<p>Closure Day 1</p> <p><i>S. Dimova – DG JRC, European Commission</i></p>

Day 2: Thursday, 11 October 2018

Opportunities in the Balkan region.	
09:30 – 10:00	Opening of JRC Research Infrastructures: Opportunities in the Balkan region <i>F. Taucer - DG JRC, European Commission</i>
Current status of the Eurocodes implementation in the non-EU Balkan region.	
10:00 – 11:00	Country report – Albania <i>R. Luka, Albanian Eurocodes Mirror Committee</i> Country report – Bosnia and Herzegovina <i>S. Dzidic, International BURCH University Sarajevo</i> Country report – the former Yugoslav Republic of Macedonia <i>V. Hristovski, ISRM TC 40 Technical Secretary</i> Country report – Kosovo <i>M. Behluli, Eurocode Technical Committee Kosovo</i>
11:00 – 11:30	Coffee break
11:30 – 12:30	Country report – Moldova <i>I. Socol, Institute for Standardization of Moldova</i> Country report – Montenegro <i>L. Šoškić, Institute for Standardization of Montenegro</i> Country report – Serbia <i>J. Skoković, Institute for Standardization of Serbia</i> Country report – Turkey <i>A. Erenler, Ministry of Environment and Urbanisation</i>
12:30 – 13:00	Presentation of survey on status of Eurocodes implementation in the Balkan region <i>R. Apostolska - Institute of Earthquake Eng. and Eng. Seismology, UKIM-IZIIS; University Ss Cyril and Methodius, UKIM, Professor</i>
13:00 – 14:00	Lunch break
The way forward for the Eurocodes implementation in the Balkan region.	
14:00 – 14:30	View from the European Council of Engineers Chambers <i>D. Šumarac – Executive Board of the European Council of Eng. Chambers, Vice-President; Serbian Chamber of Engineers, President</i>
14:30 – 15:00	Views from the Chamber of certified architects and certified engineers of Republic of Macedonia <i>P. Cvetanovski - Chamber of certified architects and certified engineers of Republic of Macedonia, Head of Civil Eng. Department</i>
15:00 – 15:30	The concept of the Eurocodes Community of Practice in the Balkan region <i>A. Athanasopoulou - DG JRC, European Commission</i>
15:30 – 16:00	Coffee break
16:00 – 16:45	Round table discussion
16:45 – 17:00	Conclusions and closure of the workshop <i>S. Dimova - DG JRC, European Commission</i>

Brief description of presentations

Session 1A: Welcome and Introductory presentations.

Wednesday, 10th October 2018

Chair: **Jean-Armand Calgaro**

Welcome addresses and introduction

Speakers: **Ashok Ganesh**, CEN CENELC, Director for Market Perspectives and Innovation

Riza Hasanaj, General Directorate of Standardization of Albania, General Director

Silvia Dimova, DG JRC, European Commission

Towards the Second Generation of the Eurocodes

Speaker: **Paolo Formichi**, Chairman of CEN/TC250/SC10; University of Pisa

The Eurocodes enable the design of buildings and civil engineering works and comprise 10 Standards in 58 parts. When they were published, prior to 2007, the first generation of EN Eurocodes were the most comprehensive and technically advanced suite of standards for structural and geotechnical design in the world. In May 2010, the European Commission initiated, in cooperation with CEN, the process of further evolution of the Eurocode system, incorporating both new and revised Eurocodes, and leading to the publication of the second generation of EN Eurocodes. The work programme, set up by CEN as a reply to the EC mandate M/515, was then focused on ensuring the standards remain fully up to date through embracing new methods, new materials, and new regulatory and market requirements. Furthermore, the mandate M/515 focuses on further harmonisation and a major effort to improve the ease of use of the suite of standards for practical users.

The presentation focuses on the key aspects of the mandate M/515 and related work being developed by experts under the Commission's mandate, towards the second generation of the Eurocodes, highlighting the benefits in terms of ease-of-use and reduction of Nationally Determined Parameters (NDPs).

Session 1B: Process for the implementation of the Eurocodes in the national regulatory framework: guidance and best practice. Presentation of EU MS Case studies.

Wednesday, 10th October 2018

Chairs: **Ashok Ganesh, Paolo Formichi**

EU MS Case Study 1: Bulgaria

Speaker: **Iren Dabjeva**, Bulgarian Institute for Standardization, Managing Director

European standards for structural design of building and engineering works – Eurocodes are fully implemented in Bulgaria by legal act “Ordinance for structural design of building works through European design system” from 29 December 2011”. The Bulgarian Institute for Standardization (BDS) together with the Ministry of Regional Development and Public Works covers a very long way during over 10 years to implement all parts of Eurocodes system translated in Bulgarian and to develop all National Annexes.

The presentation presents the National technical committee BDS/TC 56 “Design of building structures” which is mirror to CEN/TC 250 and is responsible for the translation of Eurocodes and the elaboration of National Annexes. In the translation process, the most prominent national experts in structural design and building praxis were attracted. BDS undertook many measures to make Eurocodes system accessible for structural designers in Chamber of Engineers in the Investment Design, as well as for students and professors in Universities in Bulgaria.

EU MS Case Study 2: Belgium

Speaker: **Pierre Spehl**, SECO, Senior Civil Engineer; Head of the Belgian Delegation for the Eurocodes

This presentations describes how the National Annexes of Belgium and Luxembourg to the 58 Eurocodes Parts have been drafted and gives examples of their contents.

In Belgium, 58 working groups have produced first drafts which have been translated in Flemish and French languages, submitted to a public enquiry for 6 months, revised to take account of the comments received, and published in December 2011 as NBN standards.

In Luxembourg, the 58 projects based on the Belgian National Annexes have been drafted in French language by only one Working Group of 6 experts, they have been submitted to a public enquiry for 4 months, then revised by the Working Group with the authors of comments, and finally published in December 2011 as ILNAS standards.

In addition, the presentation explains the role of the Eurocodes and their National Annexes, as National standards, within the legal and regulatory systems of both countries and of the European Union.

EU MS Case Study 3: Czech Republic

Speaker: **Jana Markova**, Czech Technical University in Prague, Klokner Institute, Associate Professor

The Eurocodes were fully implemented into the system of the Czech standards for structural design in 2010 and the National Determined Parameters (NDPs) were selected. The status of the Czech National Annexes (NA) is informative, only the NDPs have normative status for the design of structures in the Czech Republic. Several original Czech standards were revised as some technical issues were not fully covered in the Eurocodes, e.g. actions on water construction works, atmospheric icing, actions due to trams and metro onbridges, design of structures on the mining subsidence areas and assessment of existing structures.

Recently several standards for static and dynamic testing of structures have been revised to be harmonised with the methodology given in Eurocodes. The standard for design of plastic structures has been also under development. Standards in the Czech Republic have voluntary status, however in contracts (or when required by responsible authorities) they have commonly the normative status. The Building law No. 183/2006 Sb. is valid for buildings and for its operational applications the Directive 168/2009 where 7 basic requirements for construction works are given. The law No. 13/1997 on road communications is used for highways and roads. The Ministry of Transport is the road administration office for highways, the regional offices for road class I, the municipality for road class II and III, and for local communications, it is a council. The second generation of Eurocodes is expected to be prepared for implementation in the Czech system of standards according to the availability of new Parts of Eurocodes. The National Annexes will be developed for operational application

in the Czech Republic. It is expected that existing softwares for structural design will be updated and new textbooks will be prepared for students in technical schools and universities in the Czech Republic.

EU MS Case Study 4: France

Speaker: **Jean-Armand Calgaro**, Immediate Past Chairman of CEN/TC250

The use of Eurocodes is now generalized in France. The most recent legal European documents were transposed in the national system. The use of Eurocodes is not systematically imposed by the French legal documents, except in the case of fire safety and the safety towards earthquakes. But the Eurocodes are a homogeneous and inseparable set, which entails the obligation to adopt (and to use) globally all of them. The common use by engineers of the Eurocodes asked for a period of adaptation of about 10 years.

In Engineering schools and universities, teaching is based on the Eurocodes, but, unfortunately, this teaching is mainly oriented on the design of individual members and, in some cases, the design of structures like buildings and bridges, more or less sophisticated. Yet there are new types of works, in particular subterranean works, interfering with ground and former foundations of existing structures. And the creativity of certain audacious architects does not simplify the task of the engineers. In their design companies, the young engineers are in charge to solve very complex problems, without, in many cases, the help of a senior Engineer. For that reason, they should have a good competence in several Eurocodes. Consequently, the Eurocodes system should be perfectly homogeneous. The present system is rather homogeneous and we hope that the new generation will have a higher degree of homogeneity, if the volume of Nation annexes can be limited.

EU MS Case Study 5: Netherlands

Speaker: **Mark Lurvink**, Netherlands Standardization Institute, Standardization Consultant

The presentation will discuss the implementation of the EN Eurocodes in the Netherlands and the preparation of the Dutch National Annexes.

EU MS Case Study 6: Greece

Speaker: **Nikolaos Malakatas**, Chairman CEN/TC250/SC1; Chairman of the Greek Eurocodes Mirror Committee

The existing regulatory system in Greece for the application of the EN Eurocodes is presented, as well as the general framework of the implementation of standards, codes of practice and technical specifications in the field of Civil Engineering Technical Works. Challenges and impediments are highlighted and possible actions considered. Reference is also made to the existing situation of NAs and NDPs and on their future evolution. Examples of structures designed according to the Eurocodes are also presented as an encouraging message for the future.

EU MS Case Study 7: Croatia

Speaker: **Vlasta Gacesa Moric**, Croatian Standards Institute, Head of the General Standardization Department

The topic of this presentation is the experience with the adoption and implementation of Eurocodes in the Republic of Croatia. This assignment was given to Croatian technical committee HZN/TO 548, the NMC to CEN/TC 250, and completed with full understanding and financial support by the Ministry of Construction and Physical Planning and the Croatian Chamber of Civil Engineers. All Eurocodes have been adopted and translated into Croatian. The corresponding National Annexes have been developed, published and translated into English. Their implementation is achieved by means of the Technical Regulation for Building Structures. New activities are focused on the active participation of Croatian experts in the development of the new generation of Eurocodes.

Round table discussion

Moderator: **Silvia Dimova**

The session speakers will discuss with the participants the main lessons learnt from the implementation of the Eurocodes in the national regulatory framework of the countries presented as case studies.

Session 1C: Eurocodes in the design practice. The Eurocodes international status.

Wednesday, 10th October 2018

Chair: **Nikolaos Malakatas**

Designers' experience in using the Eurocodes.

Speaker: **Pietro Croce**, Convenor of CEN/TC250 HG Bridges; University of Pisa

In the presentation application of Eurocodes in design practice is illustrated and critically discussed, with special emphasis on bridge design. In the first part, some background information is given about definition of relevant actions, also considering the ones to be taken into account during execution, and the evaluation of relevant influence surfaces is shortly discussed for the most relevant and common cases (open or box cross sections, orthotropic decks) in view of the evaluation of most adverse traffic effects. In the second part some relevant design case is illustrated. Starting from the consideration that designers need to face a very wide variety of practical cases, ranging from the everyday design of common bridges, characterised by short spans and common structural schemes and cover more than 95% of real applications, till to medium and large span bridges, some relevant design case is illustrated. The case studies demonstrate that Eurocodes are suitable to cover all practical needs with different degree of complexity, according the refinement required by the specific assessment. In the worked examples some relevant fatigue assessment is discussed as well. Finally, the application of Eurocodes in case of repair, rehabilitation and seismic upgrading of an existing historical masonry bridge is illustrated, so stressing that Eurocodes are so flexible that they can be applied even in cases not explicitly covered. **The European Construction Sector Observatory**

Speaker: **Karim Karaki**, Pricewaterhouse Coopers, Luxembourg, Public Sector Associate

With the limited prospects of the EU domestic construction market, European companies have increasingly dedicated efforts to identifying and exploiting business opportunities abroad - often with the support of EU or Member States' policies and instruments. However, companies also face numerous challenges, whether relating to financing, local regulatory environment or standards harmonisation. This is reflected in the European Construction Sector Observatory analytical reports, which look into more depth in the internationalisation and competitiveness of the EU and EU Member States' construction sector with a view to facilitate knowledge sharing and accelerating policy learning among policy makers. This presentation will hence look at the drivers and challenges around the internationalisation process of EU construction companies, with a view to provide recommendations about how policy-makers can best facilitate such as process. By doing so, the presentation will notably mention the role of Eurocodes and its impacts on the internationalisation process.

JRC activities in support to the Eurocodes implementation

Speaker: **Adamantia Athanasopoulou**, DG JRC, European Commission

In support of the Eurocodes implementation in the EU and other interested third countries, the Joint Research Centre has organized and provided support to a series of dissemination and training events within the EU but also in third countries. These training events were designed based primarily on the target audience (i.e. national authorities and national standards bodies, academics, industrial organization, engineers and practitioners) and the specific needs of the countries.

Further, the website "Eurocodes: Building the Future" serves as platform for exchange and dissemination of training and promotional material between the Member States. A collection of training and guidance materials on the Eurocodes (books, designer's guides, manuals, etc.) is available at the Eurocodes Publications Database. Such tools facilitate the exchange of knowledge and good practices between the countries while fostering regional collaboration and capacity building and enhancing the connection between science, policy and common practice.

A co-ordinated approach towards the implementation and further promotion of the Eurocodes was deemed necessary, involving all major stakeholders (the Commission, Standardisation and Industrial Organisations, academics, national authorities, etc.) to achieve full implementation of the Eurocodes, supporting risk-reduction in parallel to safe and sustainable growth in the construction sector.

Session 2A: Opportunities in the Balkan region.

Thursday 11th October 2018

Chair: **Adamantia Athanasopoulou**

Opening of JRC Research Infrastructures: Opportunities in the Balkan region.

Speaker: **Fabio Taucer**, DG JRC, European Commission

The JRC hosts 58 physical research infrastructures at Ispra, Karlsruhe, Geel and Petten, of which 40 have the potential of opening to external users. Offering access to visiting researchers is part of JRC's strategy to enhance dissemination of scientific knowledge, boost competitiveness, bridge the gap between research and industry and provide training and capacity building.

In June 2017 the JRC opened at the JRC Science Hub the first calls for open access, addressed to Member States and Candidate countries and countries associated to the EU Research Programme Horizon 2020. Access is offered to public and private institutions, including SMEs, following a peer-review evaluation of proposals, and charges users only the additional costs associated to such access under the condition that the generated data is openly disseminated. At present nine (9) research infrastructures are opening access in the fields of safety and security of buildings, and nanobiotechnologies, both at Ispra, and in the field of nuclear safety and security in Geel and Karlsruhe. Overall 57 eligible proposals have been received from 21 different countries. The first two projects have already started at the research infrastructures in Ispra. During the second half of 2018 four (4) more research infrastructures will offer access in the fields of fuel cells in Petten and molecular ecology at Ispra.

The JRC is planning to issue calls towards the end of 2018 on Training and Capacity Building at JRC research infrastructures covering the travel and accommodation of users from Enlargement and Integration countries. In 2019 the JRC will revise its Framework by waiving the access costs and covering the costs of travel and subsistence of users visiting the JRC from the Spreading Excellence and Widening Participation RTD list of countries.

Session 2B: Current status of the Eurocodes implementation in the non-EU Balkan region.

Thursday 11th October 2018

Chairs: **Fabio Taucer, Pierre Spehl**

Country report - Albania

Presenter: **Rikard Luka**, Albanian Eurocodes Mirror Committee,

Country report – Bosnia and Herzegovina

Presenter: **Sanin Dzidic**, International BURCH University

Country report – the former Yugoslav Republic of Macedonia

Presenter: **Vilijam Hristovski**, ISRM TC 40 Technical Secretary

Country report - Kosovo

Presenter: **Merita Behluli**, Eurocode Technical Committee Kosovo

Country report - Moldova

Presenter: **Iurii Socol**, Institute for Standardization of Moldova

Country report - Montenegro

Presenter: **Ljiljana Soskic**, Institute for Standardization of Montenegro

Country report - Serbia

Presenter: **Jelena Skoković**, Institute for Standardization of Serbia

Country report - Turkey

Presenter: **Atila Erenler**, Ministry of Environment and Urbanism

A presentation on the status of the Eurocodes implementation in the national regulatory system and identification of challenges encountered in this process is expected for each country participating at the workshop. The country report will give answers/views of the invited participants related to the objectives of the workshop. The following issues are expected to be addressed by each country report:

- (i) Structure of the National Mirror Technical Committee for the Eurocodes
- (ii) Overview to the current status of elaboration of the ENs Eurocodes and the National Annexes (NAs)
- (iii) Obstacles and advantages for the implementation of the Eurocodes in the national regulatory framework
- (iv) Implementation (eventually) of the Eurocodes in the current design practice
- (v) Possible topic(s) for joint (regional) cooperation in the process of elaboration, adoption and implementation of the Eurocodes

Presentation of survey on status of Eurocodes implementation in the Balkan region

Speaker: **Roberta Apostolska**, Institute of Earthquake Eng. and Eng. Seismology, UKIM-IZIIS; University Ss Cyril and Methodius, UKIM, Professor

The presentation will report the results from a survey on the recent progress in the adoption and implementation of the Eurocodes in the Balkan non-EU member countries particularly focused on the progress made, challenges encountered for national implementation and identification of good practices. Brief introduction to the activities carried out previously aimed to provide scientific and technical contribution in the context of the JRC support to DG GROW for the promotion of the Eurocodes and to support Accession and Candidate Countries within the JRC Enlargement and Integration Action will be given. For the purpose of this survey the Questionnaire prepared consists of two parts: part A dedicated to the status of elaboration of EN parts, NDPs and NAs in the above countries and part B - implementation of the Eurocodes in the national regulatory framework, drivers and barriers.

Session 2C: The way forward for the Eurocodes implementation in the Balkan region.

Thursday 11th October 2018

Chairs: **Roberta Apostolska, Adamantia Athanasopoulou**

Views from the European Council of Engineers Chambers

Speaker: **Dragoslav Sumarac** Executive Board of the European Council of Eng. Chambers, Vice-President; Serbian Chamber of Engineers, President

The Serbian Chamber of Engineers, in cooperation with the European Council of Engineers Chambers (ECEC), organized several lectures on the application of Eurocodes as part of the Continual Professional Development (CPD) program for its own members. The lecturers were prominent professors and recognized experts from various fields. The topics were aimed at directly presenting and familiarizing engineers with the implementation of eurocodes in real, practical examples. Some of the topics covered are the following:

- Experience of Hungarian engineers in the preparation of Eurocodes.
- Design of concrete road bridges in Slovakia according to Eurocodes.
- ResyLab 2015 sliding symposium.
- EN 1990, Basis of structural design, EN 1991 (Eurocode 1), Actions on structures.
- Design of reinforced concrete structures according to EN 1992-1-1, Eurocode 2
- The cross-section of the balance and the Eurocodes in Serbia from EN 1990 to EN 1999.
- Eurocodes for the calculation of steel structures.

Views from the Chamber of certified architects and certified engineers of Republic of Macedonia

Speaker: **Petar Cvetanovski**, Chamber of certified architects and certified engineers of Republic of Macedonia, Head of Civil Eng. Department

The presentation gives a review of the recent state of the implementation process of Eurocodes in Macedonian technical regulative. Also, Chamber activities in this process and expectations are expressed. A general information about Chamber structure and organization is presented in the beginning. Department of civil engineers is the largest one with about 1000 active members. This presentation discusses the Chamber activities in professional review of Eurocodes translations and organization of seminar for implementations. Some experiences from those activities are expressed. The dilemma "Eurocodes is obligation or need" as technical regulation in non-EU countries is briefly explained. The imperative for adoption and implementation of Eurocodes, as our technical regulative, is emphasized. Also, the related provisions and activities are suggested. The Macedonian Chamber has a very active role in the process of Continued Professional development (CPD) of the engineers in Republic of Macedonia. In that regards, the Chamber has organized, and plans to organize in future, educational seminars across the country in order to support adoption of Eurocodes.

The concept of the Eurocodes Community of Practice in the Balkan region

Speaker: **Adamantia Athanasopoulou**, DG JRC, European Commission

This presentation will present the concept for the establishment of a regional platform to enhance collaboration within the non-EU Balkan countries on the adoption and implementation of the Eurocodes. It will give the opportunity to present to the participants the framework for a Community of Practice (CoP) related to Eurocodes and their implementation in the Balkan region and secure involvement of invited members. The set-up and implementation of the CoP will be scheduled for a second phase, as a follow-up of the workshop.

It is envisaged that the CoP related to Eurocodes and the Balkan region will provide continuous support in future actions related to Eurocodes implementation in the Balkans. The concept is that the CoP will be engaged in activities related to the Eurocodes and the Balkans (i.e. map knowledge and identify gaps, exchange practical examples of structures designed with the Eurocodes, discuss developments related to the Nationally Determined Parameters (NDPs) and National Annexes (NAs) publication, organize visits and other local events, assist with regional training activities). The CoP will also assist in process of the Eurocodes maintenance and updating once they will be adopted. An e-forum (or platform) will foster the dissemination of information and activities related to the CoP and facilitate the collaboration among its member – it is

envisaged that this platform can be hosted at the JRC Eurocodes website. The CoP members will also have plenary meetings, i.e. occasions to meet, exchange ideas and pave the way for future work. JRC would be monitoring and assisting the CoP with its activities.

Round table discussion

Moderator: **Silvia Dimova**

The session speakers will discuss with the participants the challenges and needs in relation to the implementation of the Eurocodes in the regulatory framework, linking to countries examples presented on Day 1 and the current status of implementation as discussed in the country reports.

[**http://eurocodes.jrc.ec.europa.eu**](http://eurocodes.jrc.ec.europa.eu)

The European Commission website on the Eurocodes



The European Commission's science and knowledge service

Joint Research Centre

JRC Mission

As the science and knowledge service of the European Commission, the Joint Research Centre's mission is to support EU policies with independent evidence throughout the whole policy cycle.



EU Science Hub

ec.europa.eu/jrc



@EU_ScienceHub



EU Science Hub - Joint Research Centre



Joint Research Centre



EU Science Hub