



## JRC SCIENCE AND POLICY REPORTS

# Building capacities for elaboration of NDPs and NAs of the Eurocodes in the Balkan region

*JRC Enlargement and  
Integration Action*

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Abstract

The report addresses the activities carried out for the adoption and implementation of the Eurocodes in non-EU countries in the Balkan region within the context of the Enlargement and Integration Action of the JRC.

Within the national framework for implementation of the Eurocodes each country must define National Determined Parameters (NDPs) to be applied in their territory. These parameters are left open for national choice and should cover country differences in geographical, geological and climatic conditions, different design and construction practice, as well as, different safety level requirements. NDPs are required for national implementation of the Eurocodes.

The main objective of the activities presented herein was to focus on further adoption and implementation of the Eurocodes in non-EU countries in the Balkan region. In particular, it serves to assess recent progress, difficulties and needs for the definition of the NDPs and National Annexes since the first workshop held in 2013, and to boost regional collaboration for cross-border harmonization of NDPs.

Generally, it may be concluded that the most non-EU countries in the Balkan region have started with the definition of NDPs. Most countries have adopted the Recommended Values, with the exception for wind, snow, thermal and seismic loads. Financial and political support is needed for developing the National annexes, in particular for the definition of climatic and seismic actions maps.

# Foreword

This report presents the activities carried out within the Workshop “Building capacities for elaboration of NDPs and NAs in the Balkan region” held on 4-5 November, 2014, in Skopje, the former Yugoslav Republic of Macedonia. It was organized by DG Joint Research Centre of the European Commission and hosted by the Standardization Institute of the Republic of Macedonia, ISRM, within the framework of the JRC Enlargement and Integration Action. It builds upon the activities carried out at the Workshop on the Adoption of the Eurocodes in the Balkan region, held on 5-6 December 2013 in Milan and at the JRC, Ispra, Italy, [http://eurocodes.jrc.ec.europa.eu/showpage.php?id=2013\\_12\\_WS\\_Balkan](http://eurocodes.jrc.ec.europa.eu/showpage.php?id=2013_12_WS_Balkan).

All information concerning the Workshop is published at the official web page of the Eurocodes: [http://eurocodes.jrc.ec.europa.eu/showpage.php?id=2014\\_11\\_WS\\_Balkan](http://eurocodes.jrc.ec.europa.eu/showpage.php?id=2014_11_WS_Balkan).

Roberta Apostolska  
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Within the national framework for implementation of the Eurocodes each country must define National Determined Parameters (NDPs) to be applied in their territory. These parameters are left open for national choice and should cover country differences in geographical, geological and climatic conditions, different design and construction practice, as well as, different safety level requirements. NDPs are required for national implementation of the Eurocodes.

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Generally, it may be concluded that most non-EU countries in the Balkan region have started the definition of NDPs. Most countries have adopted the Recommended Values, with the exception for wind, snow, thermal and seismic loads. Financial and political support is needed for developing the National Annexes, in particular for the definition of climatic and seismic actions maps.

*Keywords: Eurocodes, National Annexes, NDPs, Recommended Values, National Standardization Body, elaboration, questionnaire, assessment, Balkan Region*



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The contribution of the CEN/TC250 representatives and of the invited experts from the EU Member States is highly appreciated.





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# 1 Introduction

This report gives an overview of the activities carried out for the adoption and implementation of the Eurocodes in non-EU countries in the Balkan region in the context of the Enlargement and Integration Action of the JRC.

The EN Eurocodes are a series of 10 European Standards, EN 1990 through EN 1999, providing a common and coherent approach to all aspects of structural design of buildings and civil engineering works.

The experience of the European Commission, the Member States and individual experts concerning adoption and implementation of the Eurocodes in the Balkan region shows that these countries have a considerable interest in the Eurocodes. The interest is based on their awareness that the Eurocodes are:

- A complete set of design standards that cover in a comprehensive manner all principle construction materials, all major fields of structural engineering and a wide range of types of structures and products
- Flexible codes, offering the possibility for each country to adapt to local conditions and practices through the so-called Nationally Determined Parameters (NDPs)
- The most advanced and coherent codes of practice
- A comprehensive design tool, which over a mid- to long-term period intends to cover additional fields of design, such as protection of the environment, resources, energy efficiency, safety-and health conditions and security.

The main objective of the activities presented herein was to focus on further adoption and implementation of the Eurocodes in non-EU countries in the Balkan region. In particular, it serves to assess recent progress, difficulties and needs for the definition of the NDPs and National Annexes (NAs) since the first workshop held in 2013, and to boost regional collaboration for cross-border harmonization of NDPs.





## 2 Summary of activities

### 2.1 IDENTIFICATION OF TARGET COUNTRIES IN LINE WITH THE EU ENLARGEMENT AND NEIGHBOURHOOD POLICY

In line with the EU enlargement and neighbourhood policy the following non-EU countries in the Balkan region were identified: Albania, Bosnia and Herzegovina, former Yugoslav Republic of Macedonia, Montenegro, Serbia and Turkey, as well as Moldova, that belongs to the European neighbouring countries of Eastern Europe.

The current membership status of these countries is presented in the Table 2.1 (see [http://ec.europa.eu/enlargement/countries/check-current-status/index\\_en.htm](http://ec.europa.eu/enlargement/countries/check-current-status/index_en.htm)).

Kosovo participated as observer and will be fully included as target country in future activities in 2015 as part of the JRC Enlargement and Integration Action.

**Table 2.1 Membership status of targeted countries**

<b>Country</b>	<b>Membership status</b>
Albania	Candidate country
Bosnia and Herzegovina	Potential candidate
former Yugoslav Republic of Macedonia	Candidate country
Moldova	EU Neighbourhood Policy country
Montenegro	Candidate country
Serbia	Candidate country
Turkey	Candidate country

### 2.2 IDENTIFICATION OF RELEVANT NATIONAL STAKEHOLDERS IN EACH TARGET COUNTRY

In each of the non-EU countries in the Balkan region four different groups of national stakeholders were identified:

- National Standardization Bodies (NSBs)
- Chairmen of Mirror TC250 Committees and members of the working groups for all Eurocodes except EN 1994 and EN 1999.
- Institutions that will stream the determination of NDPs and the elaboration of NAs (Universities, research institutions, etc.)

A non-exhaustive list of the identified national stakeholders is given in Annex A.3 of this report.



### **3 Assessment of the recent progress, difficulties and needs for the definition of NDPs and NAs**

#### **3.1 WORKSHOP ON BUILDING CAPACITIES FOR ELABORATION OF NDPs AND NAs OF THE EUROCODES IN THE BALKAN REGION**

##### **3.1.1 Objectives**

The workshop “Building capacities for elaboration of NDPs and NAs in the Balkan region” focused on further adoption and implementation of the Eurocodes in non-EU countries in the Balkan region. In particular, it serves to assess recent progress, difficulties and needs for the definition of the NDPs and NAs since the first workshop held in 2013, and to boost regional collaboration for cross-border harmonization of NDPs.

The programme of the workshop was composed of three parts:

- Lectures delivered by invited experts from CEN/CENELEC, EU member states and the European Commission and leading experts from SHARE and NATO projects
- National presentations of non-EU countries about progress of elaboration of NDPs and NAs: drivers and barriers
- Round table discussions regarding progress of the elaboration of NDPs and NAs, and needs and obstacles for enhanced regional collaboration – conclusions and recommendations

In particular, the workshop and the round table discussion served the following objectives:

- Assess recent progress, difficulties and needs for the definition of the NDPs and NAs since the first workshop held in Milan & Ispra on 5-6 December 2013
- Boost regional collaboration for cross-border convergence of NDPs, in particular for the harmonization of seismic hazard maps based on the experience of the SHARE and NATO projects
- Facilitate transfer of knowledge from EU MS experts (Croatia, Greece, Bulgaria, Slovenia) to representatives of non-EU countries in the Balkan region in the field of elaboration of NDPs and NAs
- Increase awareness of existing Enlargement funds and instruments which might support further progress in adoption and implementation of the Eurocodes
- Give an overview of state-of-the-art training material, background information and worked examples and raise awareness of the existing Eurocodes web site and benefits emanating from its use
- Improve information flow between National Standardization Bodies and European Commission

### 3.1.2 Participants

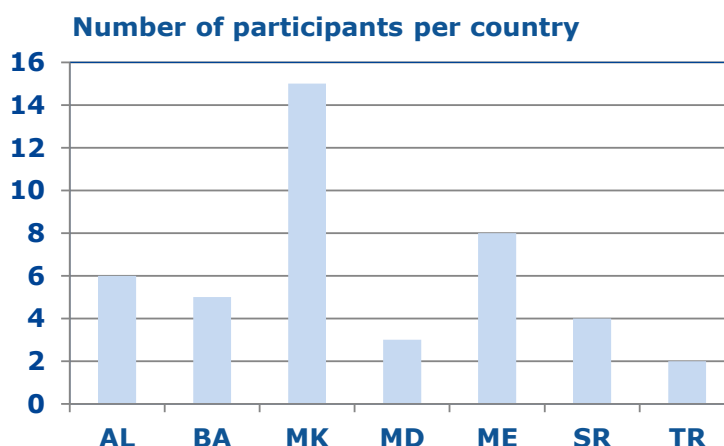
Planning of the workshop started with contacting the representatives of the National Standardization Bodies in each country who participated at the first workshop held on 5-6 December 2013 in Milan and at the JRC, Ispra, Italy. These representatives were contacted via email, the objectives of the workshop were presented to them and they were asked to nominate appropriate persons from their countries to participate to the workshop. The nominated participants mostly came from each of the following groups: members from national standardization bodies, chairmen of the TC250 Committees and members of the working groups of the Eurocodes and universities and research institutions. There were also few cases where participants came from relevant Ministries and practitioners.

The time frame of the overall activities is presented in Table 3.1.

**Table 3.1 Time frame of activities**

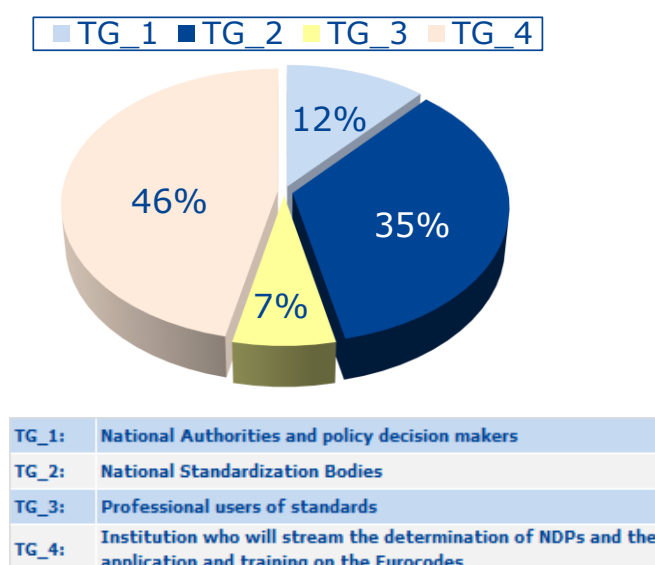
Activity	2014					
	July	August	September	October	November, 4-5	November, 6-30
Identification of relevant national stakeholders						
First contact - invitation letters						
Receiving the lists of nominated participants						
Official invitation letters to the nominated participants and EU experts						
Compilation of the questionnaire and delivering to each country delegation						
Collecting the responses and preparation the summary of the questionnaires						
Collecting the Country reports						
Workshop						
Post event activities (preparation of report, uploading materials to the web site etc.)						

In total, 37 participants from non-EU countries in the Balkan region, (Albania, Bosnia and Herzegovina, former Yugoslav Republic of Macedonia, Moldova, Montenegro, Serbia and Turkey), as well as one observer from Kosovo attended the Workshop. Distribution of the number of participants per non-EU country is given in Fig. 3.1.



**Fig. 3.1 Number of participants per non-EU country in the Balkan region**

The attendance from each group of participants is presented in Fig. 3.2.



**Fig. 3.2 Groups of participants [%]**

Other participants include: five invited experts from CEN/TC250 and EU Member States, two leading experts from SHARE and NATO projects, four staff of the JRC (ELSA Unit) and three guests, visiting UKIM-IZIIS in Skopje, from the Institute of Engineering Mechanics (China Earthquake Administration). The list of invited experts, as well as the list of participants from non-EU countries in the Balkan region, comprising of their affiliations and email addresses, is given in Annex A.2 and Annex A.3, respectively.

The Workshop was held on November 4 and 5, 2014 in Skopje, the former Yugoslav Republic of Macedonia. It included a technical visit to the Institute of Earthquake Engineering and Engineering Seismology, UKIM-IZIIS (Fig. 3.3).



**Fig. 3.3 Visit of the UKIM-IZIIS**

The leaflet of the workshop is given in Annex A.1 of this report.

## **3.2 ASSESSMENT OF THE RECENT PROGRESS, DIFFICULTIES AND NEEDS FOR THE DEFINITION OF NDP<sub>s</sub> AND NA<sub>s</sub> SINCE THE FIRST WORKSHOP IN 2013**

### **3.2.1 Objective and generalized data requirements**

The assessment of the recent progress, difficulties and needs for the definition of the NDPs and NAs since the first workshop was carried out by means of a questionnaire, which was compiled and sent to the members of each country delegation.

The questions in the questionnaire are organized in four groups:

1. The EN part was translated in National language?  
(Yes/No)
2. Definition of NDPs is finished for this EN part?  
(Yes/No)  
If “yes”, please provide the percentage of acceptance of the recommended values  
If “no”, then please assess the progress of definition in percentages, and provide the percentages of acceptance of the recommended values for those NDPs already defined
3. The EN part was published as National standard?  
(Yes/No)  
If “no” please provide envisaged date of publication
4. Additional comments that are not covered in the questionnaire
  - To comment briefly the progress of elaboration of NDPs and NAs: drivers & barriers
  - To assess information flow between NSBs and European Commission
  - Additional comments

The questionnaire sample is given in Annex A.4. The list of countries (national stakeholders) who responded and filled in questionnaires are given in Annex A.5.

### **3.2.2 Data analysis and conclusions**

Analysis of the received data and drawing of conclusions were done for four groups of questions, respectively.

#### **Translation of EN parts in National language**

One of the conclusions drawn from the workshop held in Milan, 2013, was that there was a good progress on Eurocodes translations, especially on EN 1990, EN 1991 and EN 1992 (except in Bosnia and Herzegovina). This process was completed in the former Yugoslav Republic of Macedonia and Moldova (the latter accepted the Romanian translation) and is in a very advanced phase in Serbia (see Fig. 3.4).

Progress of translation of the Eurocodes										
	EN1990	EN1991	EN1992	EN1993	EN1994	EN1995	EN1996	EN1997	EN1998	EN1999
AL	✓	✓	✓	✓	none	none	none	none	✓	none
BA	none	none	none	none	none	none	none	none	start	none
MK <sup>1</sup>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MD	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ME	✓	advance	none	none	none	none	none	none	advance	none
RS	✓	✓	advance	✓	✓	✓	✓	advance	advance	✓
TR	advance	advance	advance	advance	advance	none	none	none	advance	none

Fig. 3.4 Translation of the Eurocodes (data refers to December, 2013)

Monitoring the progress of translation since the last workshop reveals that the process is in a very advanced phase in Albania (more than 60% translated), with an envisaged date for translation of EN1994, EN1997 and EN1999 in 2016. Turkey made good progress with more than 20% of EN parts translated; this process was just initiated in Bosnia and Herzegovina (Fig. 3.5).

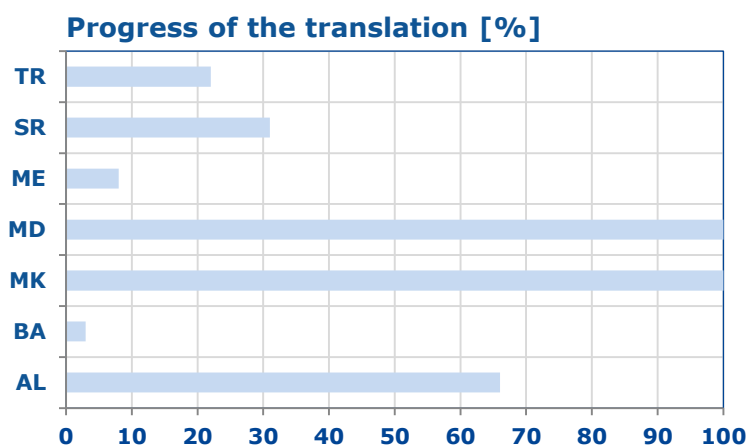


Fig. 3.5 Progress of overall translation of the Eurocodes

### Definition of NDPs and NAs

Another conclusion drawn from the previous workshop (2013) showed that the process of elaboration of NDPs and NAs was in an initial phase in the majority of non-EU countries in the Balkan region. In Bosnia and Herzegovina, Moldova, Turkey and Albania (except EN 1998), the process had not yet started (Fig. 3.6).

Progress of definition of NDPs										
	EN1990	EN1991	EN1992	EN1993	EN1994	EN1995	EN1996	EN1997	EN1998	EN1999
AL	none	none	none	none	none	none	none	none	start	none
BA	none	none	none	none	none	none	none	none	none	none
MK <sup>1</sup>	✓	start	start	start	start	start	advance	start	start	start
MD	none	none	none	none	none	none	none	none	none	none
ME	✓	advance	none	none	none	none	none	none	advance	none
RS	✓	advance	start	✓	✓	start	start	start	advance	advance
TR	none	none	none	none	none	none	none	none	none	none

Fig. 3.6 Progress of definition of the NDPs (data refers to December, 2013)

	EN parts	AL	BA	MK	MD	ME	RS	TR
EN 1990	EN 1990							
	EN 1990 / A1							
EN 1991	EN 1991-1-1							
	EN 1991-1-2							
	EN 1991-1-3							
	EN 1991-1-4							
	EN 1991-1-5							
	EN 1991-1-6							
	EN 1991-1-7							
	EN 1991-2							
EN 1992	EN 1992-1-1							
	EN 1992-1-2							
	EN 1992-2							
	EN 1992-3							
EN 1993	EN 1993-1-1							
	EN 1993-1-2							
	EN 1993-1-3							
	EN 1993-1-4							
	EN 1993-1-5							
	EN 1993-1-6							
	EN 1993-1-7							
	EN 1993-1-8							
	EN 1993-1-9							
	EN 1993-1-10							
	EN 1993-1-11							
	EN 1993-1-12							
	EN 1993-2							
	EN 1993-3-1							
	EN 1993-3-2							
	EN 1993-4-1							
	EN 1993-4-2							
	EN 1993-4-3							
EN 1993-5								
EN 1993-6								
EN 1994	EN 1994-1-1							
	EN 1994-1-2							
	EN 1994-2							
EN 1995	EN 1995-1-1							
	EN 1995-1-2							
	EN 1995-2							
EN 1996	EN 1996-1-1							
	EN 1996-1-2							
	EN 1996-2							
	EN 1996-3							
EN 1997	EN 1997-1							
	EN 1997-2							
EN 1998	EN 1998-1							
	EN 1998-2							
	EN 1998-3							
	EN 1998-4							
	EN 1998-5							
	EN 1998-6							
EN 1999	EN 1999-1-1							
	EN 1999-1-2							
	EN 1999-1-3							
	EN 1999-1-4							
	EN 1999-1-5							
	Published NAs							
	NAs on public enquiry (info update in Country Report)							
	NAs to be published							

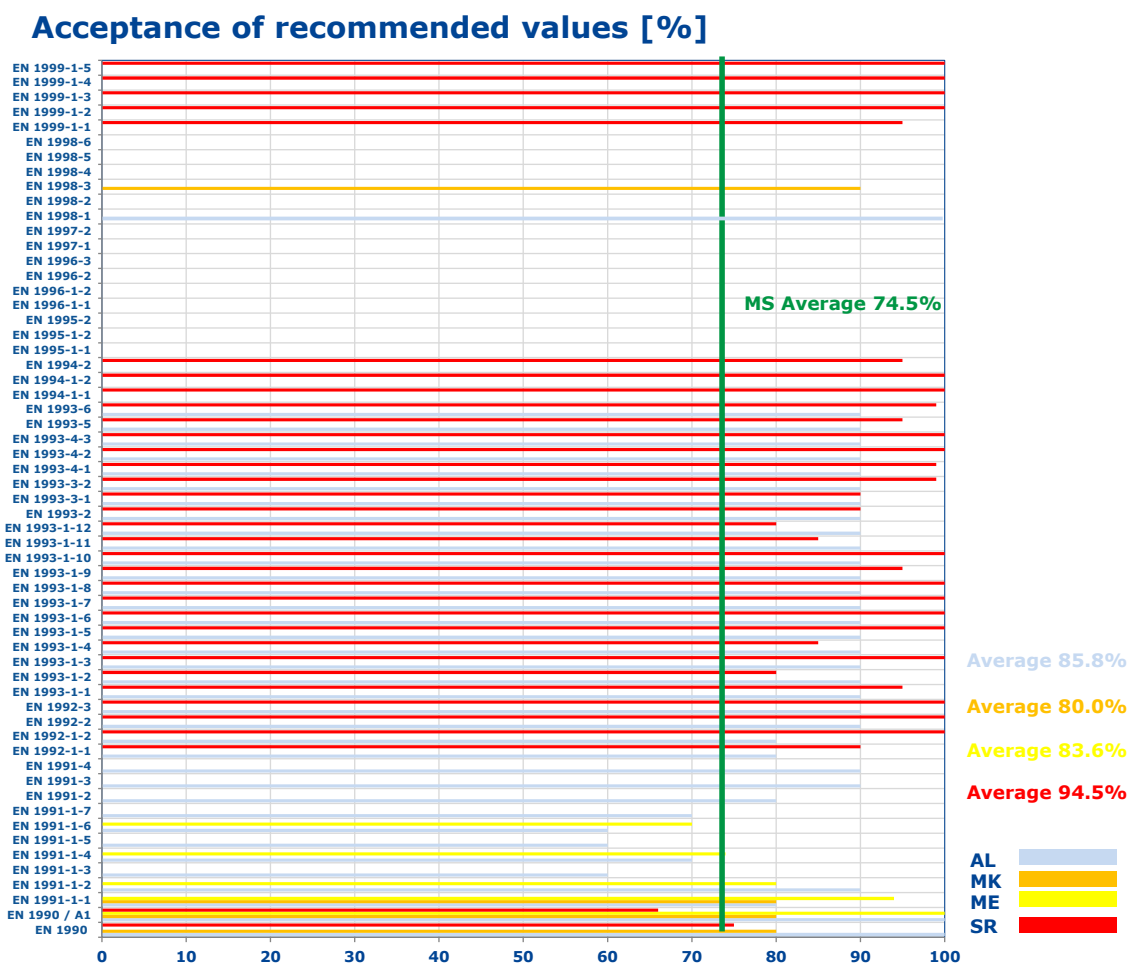
Fig. 3.7 EN parts with elaborated NAs

Some progress of definition of NDPs could be observed based on compiled questionnaires and country report presentations delivered at the workshop in Skopje. Most non-EU



countries in the Balkan region (except Bosnia and Herzegovina and Turkey) started with the definition of NDPs. Albania and Serbia are the most advanced with around 60% of NDPs already defined. The former Yugoslav Republic of Macedonia reported that 71% of NAs are in the phase of public enquiry (Fig. 3.7).

The average percentage of acceptance of the recommended values for NDPs already defined is more than 80% (Fig. 3.8). This percentage is in line with the average of 74.5% acceptance calculated for the EU Member States and based on uploaded 56.3% of NDPs in the JRC Eurocodes NDPs database (data refers to 4 September, 2014).



**Fig. 3.8 Acceptance of recommended values**

Based on the data provided in the questionnaires, Moldova reported progress of definition of NDPs of about 17% among which recommended values are accepted for more than 40%. Serbia is slightly advanced with 28% of NDPs in the process of definition (for those who aren't defined yet) and more than 90% of acceptance of the recommended values.

Bosnia and Herzegovina just started with the definition of the EN1990 NDPs (around 10%). Albania reported some progress in the definition of NDPs for the EN1998-2 and EN 1998-5 (around 50%). The former Republic Yugoslav of Macedonia reported 90% of acceptance of the recommended values for the NDPs which are still in the process of definition.

## Publishing of EN parts as National standards

	EN parts	AL	BA	MK	MD	ME	RS	TR	
EN 1990	EN 1990								
	EN 1990 / A1								
EN 1991	EN 1991-1-1								
	EN 1991-1-2								
	EN 1991-1-3								
	EN 1991-1-4								
	EN 1991-1-5								
	EN 1991-1-6								
	EN 1991-1-7								
EN 1991	EN 1991-2								
	EN 1991-3								
	EN 1991-4								
	EN 1992-1-1								
EN 1992	EN 1992-1-2								
	EN 1992-2								
	EN 1992-3								
EN 1993	EN 1993-1-1								
	EN 1993-1-2								
	EN 1993-1-3								
	EN 1993-1-4								
	EN 1993-1-5								
	EN 1993-1-6								
	EN 1993-1-7								
	EN 1993-1-8								
	EN 1993-1-9								
	EN 1993-1-10								
	EN 1993-1-11								
	EN 1993-1-12								
EN 1993	EN 1993-2								
	EN 1993-3-1								
	EN 1993-3-2								
	EN 1993-4-1								
	EN 1993-4-2								
	EN 1993-4-3								
	EN 1993-5								
	EN 1993-6								
	EN 1994	EN 1994-1-1							
		EN 1994-1-2							
EN 1994-2									
EN 1995	EN 1995-1-1								
	EN 1995-1-2								
	EN 1995-2								
EN 1996	EN 1996-1-1								
	EN 1996-1-2								
	EN 1996-2								
EN 1996	EN 1996-3								
	EN 1997-1								
EN 1997	EN 1997-2								
	EN 1998-1								
EN 1998	EN 1998-2								
	EN 1998-3								
	EN 1998-4								
	EN 1998-5								
	EN 1998-6								
	EN 1999-1-1								
EN 1999	EN 1999-1-2								
	EN 1999-1-3								
	EN 1999-1-4								
	EN 1999-1-5								



Fig. 3.9 Publishing of the EN parts as National standards

Publishing of EN parts as National standards has been completed in Bosnia and Herzegovina, Moldova and Turkey. The process is in an advanced stage in Albania and

Serbia (more than 60% published). 2017 is reported as the deadline for finishing the process in all countries (Fig. 3.9).

**Additional comments**

Additional comments that are not covered by the questionnaire and were provided by the countries are all included in Annex A.5.



## 4 General conclusions and recommendations

The Workshop on Building capacities for elaboration of NDPs and NAs of the Eurocodes in the Balkan Region was held on 4-5 November 2014 in Skopje, the former Yugoslav Republic of Macedonia. It was organized by DG Joint Research Centre of the European Commission and hosted by the Standardization Institute of the Republic of Macedonia, ISRM within the framework of the JRC Enlargement and Integration Action. It builds upon the activities carried out at the Workshop on the Adoption of the Eurocodes in the Balkan region, held on 5-6 December 2013 in Milan and at the JRC, Ispra, Italy,

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The workshop was focused on further adoption and implementation of the Eurocodes in the non-EU countries in the Balkan region. In particular, it serves to assess recent progress, difficulties and needs for the definition of the NDPs and NAs since the first workshop and to boost regional collaboration for cross-border harmonization of NDPs. Thirty seven representatives of the National Standardization Bodies, Academia and Chambers of Engineers from non-EU countries in the Balkan region and one observer from Kosovo participated, as well as seven invited experts from CEN/TC250, EU Member States, SHARE and NATO SfP projects and four staff of the JRC (ELSA Unit). The total number of the participants was 49.

After two-days of presentations and discussions the main results can be summarized as follows:

### 1. State of progress

- Most Standardisation Institutions have adopted the Eurocodes as standards, in parallel with existing national codes that are part of National regulation.
- The advancement in translation is variable although a progress since the first workshop is observed. In several countries parts of the Eurocodes are adopted in English.
- Most non-EU countries in the Balkan region, with the exception of Turkey, have started the definition of NDPs. Most countries have adopted the Recommended Values, with the exception for wind, snow, thermal and seismic loads.
- Financial and political support is needed for developing the National Annexes, in particular for the definition of climatic and seismic actions maps.
- National Authorities are aware on the complexity of the whole process of adoption and implementation of the Eurocodes and its importance. Moldova and Montenegro emphasised the support of their governments in this process. In particular, the Government of Montenegro has a plan for the implementation and adoption of the Eurocodes by the end of 2017, and recognizes it as a crucial activity of strategic importance.
- In most countries practitioners use National standards and Eurocodes in parallel. Eurocodes can be used as long as National regulations are respected.

## **2. Views on the way ahead**

- Most countries consider that the roadmap for implementation of the Eurocodes should include a period of co-existence followed by withdrawal of National Standards and recognition of Eurocodes as norms in the legislative documents.
- Most countries suggested that regional cooperation should be promoted for developing the NDPs and NAs, by setting up itinerant regional conferences/meetings/seminars/workshops/training hosted by each of the countries in the Balkan region.
- Concerning the importance of political support in the process of adoption of the Eurocodes it is recommended to take steps to further increase the awareness of governmental institutions. As a first step, concerned participants may send the conclusions presented herein to the National Authorities.
- It is recommended to intensify the communication between those parties in charge of elaborating the NAs and the National Authorities who are responsible for enforcement of standards and regulations.
- Based on best practice in the EU MS and acknowledging the limited availability of resources, it is recommended that countries should rely on existing experience at national level, on comparative numerical studies and on the JRC Eurocodes NDPs database for the elaboration of the NAs. For example, collecting and sharing design examples or studies comparing the former JUS standards and the Eurocodes would be helpful for the development of NPDs and NAs in the countries with technical tradition related to JUS standards.
- It is proposed to launch a pilot project for the elaboration of climate and seismic maps in one of the countries in the region using the existing financial instruments of the European Commission open to candidate or potential candidate countries, and to apply this “know-how” model to the remaining countries.
- It is proposed to organize regional workshops & training courses (mostly level 3 – focused on comprehensively described design examples) in order to further facilitate the implementation of the Eurocodes.

## References

- Andersson C., Dimova S., Geradin M. Pinto A., Tsionis G. 2008. Eurocodes promotion in third countries. *JRC Scientific and Technical Report, EUR 23562 EN -2008.*
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- Commission Recommendation of 11 December 2003 on the implementation and use of Eurocodes for construction works and structural construction products.
- European Commission – Guidance Paper L (concerning the CPD – 89/106/EEC) Application and Use of Eurocodes (Version 27 November, 2003).
- Gulvanessian H., Pinto A., Dimova S., Tsionis G., Geradin M. 2007. Training and promotion of the Eurocodes. *JRC Scientific and Technical Report, EUR 22857 EN -2007.*
- Workshop on the Adoption of the Eurocodes in the New Member, Acceding and Candidate Countries', JRC, Ispra, November 7-9, 2005, Conclusions and Recommendations.  
[http://ec.europa.eu/enlargement/countries/check-current-status/index\\_en.htm](http://ec.europa.eu/enlargement/countries/check-current-status/index_en.htm))  
<http://eurocodes.jrc.ec.europa.eu/>





## **Appendix A**

**A Workshop: Building capacities for elaboration of NDPs and NAs of the Eurocodes in the Balkan region**



## A.1 LEAFLET OF THE WORKSHOP

**Participants**

Participants from non-EU countries in the Balkan region, (Albania, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia, Moldova, Montenegro, Serbia and Turkey) will attend the Workshop by invitation from the Organizing Committee. Participation of members from national standardization bodies, Chairmen of Mirror TC250 Committees and members of the working groups, members from universities and research institutions is expected. Priority will be given to participants recommended by National Authorities.

Nominated experts from the European Commission, EU Member States, and CEN/TC250 will also participate.

**Event Registration and Submission of Contributions**

Registration of the participants will be done on-site.

The questionnaire aimed to assess recent progress, difficulties and needs for the definition of NDPs and NAS of the Eurocodes in the non-EU Balkan countries since the first workshop held in Milan & Ispra on 5-6 December 2013 should be filled by invited participants and should be submitted by email not later than October 20<sup>th</sup>.

The template for the presentation of the Country report will be provided by the Organizing Committee. Each participant country will be allocated 30 minutes of presentation time.

**Attendance Fees**

There will be no registration fee for the Workshop. The workshop secretariat will provide to participants further information about travel and accommodation arrangements. Participants are responsible for reserving their accommodations.

**Workshop Material**

Relevant Workshop material will be distributed at the Workshop.

**Venue**

Hotel Holiday INN, Str. Filip Vtori Makedonski 5, 1000 Skopje, the former Yugoslav Republic of Macedonia  
tel.: +389 2 329 2929; fax: +389 2 311 5503  
[hiskopje@holiday-inn.com.mk](mailto:hiskopje@holiday-inn.com.mk); [marketing@holiday-inn.com.mk](mailto:marketing@holiday-inn.com.mk)  
[www.holiday-inn.com/skopje](http://www.holiday-inn.com/skopje)

A social dinner will be offered in the evening of 4 November.

**Language**

The Workshop presentations will be in English (no translation will be provided).

**Workshop Organising Committee**

F. Taucer, S. Dimova, R. Apostolska and G. Sachs  
Joint Research Centre, European Commission

**With the Support of**

European Commission - JRC Enlargement and Integration Action  
Standardization Institute of the Republic of Macedonia, ISRM

**Further Information**

European Commission:  
Joint Research Centre (JRC)  
ELSA, IPSC  
TP 480, Via E. Fermi, 2749  
I-21027 Ispra (VA), Italy  
Tel.: +39 0332 783605, Fax: +39 0332 789049  
Email: [roberta.apostolska@jrc.ec.europa.eu](mailto:roberta.apostolska@jrc.ec.europa.eu)

**http://eurocodes.jrc.ec.europa.eu**  
The European Commission website on the Eurocodes

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**BUILDING CAPACITIES FOR ELABORATION OF NDPs AND NAS OF THE EUROCODES IN THE BALKAN REGION**

4-5 November 2014  
Skopje, the former Yugoslav Republic of Macedonia

Organized by  
**EUROPEAN COMMISSION** - DG Joint Research Centre

Hosted by  
Standardization Institute of the Republic of Macedonia

Supported by  
**EUROPEAN COMMISSION**  
JRC Enlargement and Integration Action

European Commission  
Joint Research Centre

## Building capacities for elaboration of NDPs and NAs of the Eurocodes in the Balkan region

Within the national framework for implementation of the Eurocodes each country must define National Determined Parameters (NDPs) to be applied on their territory. These parameters are left open for national choice and should cover country differences in geographical, geological and climatic conditions, different design and construction practice, as well as different safety level requirements. NDPs are required for national implementation of the Eurocodes.

The workshop is aimed at building capacities for elaboration of NDPs and NAs of the Eurocodes in non-EU countries in the Balkan region. It is organized by the JRC and hosted by the Standardization Institute of the Republic of Macedonia, ISRM within the framework of the JRC Enlargement and Integration Action. It builds upon the activities carried out at the Workshop on the Adoption of the Eurocodes in the Balkan region, held on 5-6 December 2013 in Milan and at the JRC, Ispra, Italy, [http://eurocodes.jrc.ec.europa.eu/showpage.php?ID=2013\\_12\\_NIS\\_Balkan](http://eurocodes.jrc.ec.europa.eu/showpage.php?ID=2013_12_NIS_Balkan)

The programme of the workshop is composed of three parts:

- Lectures delivered by invited experts from CEN/CENELEC, EU member states and the European Commission and leading experts from SHARE and NATO projects
- National presentations of non-EU countries about progress of elaboration of NDPs and NAs: drivers and barriers
- Round table discussions regarding progress of the elaboration of NDPs and NAs, and needs and obstacles for enhanced regional collaboration – conclusions and recommendations

## Objectives

The workshop is aimed to further adoption and implementation of the Eurocodes in the non-EU countries in the Balkan region. In particular, it is envisaged that it will serve the following objectives:

- Assess recent progress, difficulties and needs for the definition of the NDPs and NAs since the first workshop held in Milan & Ispra on 5-6 December 2013
- Boost regional collaboration for cross-border convergence of NDPs, in particular for the harmonization of seismic hazard maps based on the experience of the SHARE and NATO projects
- Facilitate transfer of knowledge from EU MS experts (Croatia, Greece, Bulgaria, Slovenia) to representatives of non-EU countries in the Balkan region in the field of elaboration of NDPs and NAs
- Increase awareness of existing Enlargement funds and instruments which might support further progress in adoption and implementation of the Eurocodes
- Give an overview of state-of-the-art training material, background information and worked examples and raise awareness of the existing Eurocodes web site and benefits emanating from its use
- Improve information flow between National Standardization Bodies and European Commission

## Programme

Tuesday, 4 November, 2014

### Morning session

09:00 – 09:30	Registration
09:30 – 10:15	<b>Chairs: F. Taucer, Lj. Davcev and M. Garevski</b> <b>Welcome addresses and introduction</b> National Authority Representative F. Taucer – DG JRC, European Commission Lj. Davcev – Director of ISRM, Skopje M. Garevski – Director of UKIM-IZIIS, Skopje
10:15 – 10:45	<b>CEN/TC 250: Towards the second generation of the Eurocodes</b> N. Malakatas – CEN/TC250/SCI Chairman (on behalf of S.Denton – CEN/TC250 Chairman)
10:45 – 11:15	<b>Coffee break</b>
	<b>Current status in the elaboration of NDPs and NAs of the Eurocodes</b>
	<b>Chairs: V. Rajcic and N. Malakatas</b>
11:15 – 11:45	<b>Country report_Albania</b>
11:45 – 12:15	<b>Country report_Bosnia and Herzegovina</b>
12:15 – 12:45	<b>Country report_the former Yugoslav Republic of Macedonia</b>
12:45 – 14:00	<b>Lunch break</b>

### Afternoon session

	<b>Chairs: Z. Savor and C. Kolev</b>
14:00 – 14:30	<b>Country report_Moldova</b>
14:30 – 15:00	<b>Country report_Montenegro</b>
15:00 – 15:30	<b>Country report_Serbia</b>
15:30 – 16:00	<b>Country report_Turkey</b>
16:00 – 16:30	<b>Coffee break</b>
	<b>Experience in preparing NAs in EU MS</b>
	<b>Chairs: Z. Milutinovic and M. Tomazevic</b>
16:30 – 17:00	<b>EN 1991 – Elaboration of NA</b> Z. Savor – University of Zagreb, Croatia
17:00 – 17:30	<b>EN 1992 – Elaboration of NA</b> N. Malakatas – CEN/TC250/SCI Chairman, Greece
17:30 – 18:00	<b>EN 1993 – Elaboration of NA</b> Z. Savor – University of Zagreb, Croatia
18:00 – 18:30	<b>EN 1995 – Elaboration of NA</b> V. Rajcic – University of Zagreb, Croatia
18:30 – 19:00	<b>Discussion</b>
19:30	<b>Social dinner</b>

## Programme

Wednesday, 5 November, 2014

### Morning session

	<b>Experience in preparing NAs in EU MS (cont.)</b>
9:00 – 9:30	<b>Chairs: F. Taucer and Z. Rakicevic</b> <b>EN 1996 and masonry part of EN1998 – Elaboration of NA</b> M. Tomazevic – ZAG, Ljubljana, Slovenia
9:30 – 10:00	<b>EN 1997 – Elaboration of NA</b> C. Kolev – Sofia University of transport, Bulgaria
10:00 – 10:30	<b>EN 1998 – Elaboration of NA</b> N. Malakatas – CEN/TC250/SCI Chairman, Greece
10:30 – 11:00	<b>Coffee break</b>
	<b>Chairs: S. Dimova and L. Danciu</b>
11:00 – 11:30	<b>Experience of the field of seismic hazard zonation – SHARE project</b> L. Danciu – ETH, Zurich, Switzerland
11:30 – 12:00	<b>Experience of cross-border harmonization of NDPs related to seismic hazard, (NATO SIF Project No. 983054)</b> Z. Milutinovic – UKIM-IZIIS, Skopje, the former Yugoslav Republic of Macedonia
12:00 – 12:30	<b>Existing instruments for funding and technical assistance (TAIEX)</b> <a href="http://vimeo.com/75711885">http://vimeo.com/75711885</a>
12:30 – 13:30	<b>Lunch break</b>

### Afternoon session

	<b>Technical visit to UKIM-IZIIS</b> M. Garevski – Director of UKIM-IZIIS
13:30 – 15:00	<b>Chairs: M. Garevski and G. Necevska-Cvetanovska</b> <b>JRC support to the implementation and use of the Eurocodes</b> S. Dimova – DG JRC, European Commission
15:00 – 15:30	<b>Promotion of use of the Eurocodes in the Balkan region within the frame of JRC ERIA</b> R. Apostoiska – DG, JRC, European Commission
15:30 – 16:00	<b>Coffee break</b>
16:00 – 16:30	<b>Round table discussion – conclusions and recommendations</b>
16:30 – 17:30	<b>Closure</b> F. Taucer, DG JRC, European Commission Lj. Davcev – Director of ISRM M. Garevski – Director of UKIM-IZIIS
17:30 – 17:45	Organizing Committee will provide transportation from the venue to IZIIS and back

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

The European Commission website on the Eurocodes

## A.2 LIST OF INVITED EXPERTS

No	Invited expert	Country	Affiliation
1	Mr Nikos Malakatas	CEN/Greece	Chairman CEN/TC250/SC1/ Ministry of Infrastructure, Transport and Networks, Greece
2	Mr Zlatko Savor	Croatia	Faculty of Civil Engineering, University of Zagreb
3	Ms Vlatka Rajcic	Croatia	Faculty of Civil Engineering, University of Zagreb
4	Mr Miha Tomazevic	Slovenia	Slovenian National Building and Civil Engineering Institute, Ljubljana
5	Mr Chavdar Kolev	Bulgaria	Sofia University of Transport
6	Mr Laurentiu Danciu	Switzerland	Swiss Seismological Service (SED), ETH, Zurich
7	Mr Zoran Milutinovic	the former Yugoslav Republic of Macedonia	Institute of Earthquake Engineering and Engineering Seismology, UKIM- IZIIS, Skopje



### A.3 LIST OF PARTICIPANTS FROM NON-EU COUNTRIES IN THE BALKAN REGION

	Non-EU participant	Country	Affiliation
1	Mr Ilir Qerfozi	<b>Albania</b>	Ministry of Public Works and Transport - Director of Construction Policy & Member of the Board of standardization
2	Mr Rikard Luka	Albania	Faculty of Civil Engineering
3	Mr Fisnik Kadiu	Albania	Polytechnic University of Tirana & Chairman of the TC 250 "Eurocodes" ( <i>national</i> )
4	Mr Markel Baballëku	Albania	Faculty of Civil Engineering
5	Mr Vasil Muka	Albania	Studio "TX-Muka"- Technical Director & Builder Association Member
6	Ms Nihada Kulenovic	<b>Bosnia and Herzegovina</b>	Institute for standardization of Bosnia and Herzegovina- Technical secretary of TC 58
7	Mr Borislav Kraljevic	Bosnia and Herzegovina	Institute for standardization of Bosnia and Herzegovina
8	Mr Bojan Bjelajac	Bosnia and Herzegovina	PROJEKT A.D. Banja Luka
9	Mr Miladin Popovic	Bosnia and Herzegovina	Institut za ispitivanje materijala i konstrukcija B.Luka
10	Mr Ljupco Davcev	<b>the Former Yugoslav Republic of Macedonia</b>	Standardization Institute of the Republic of Macedonia, ISRM - Director
11	Mr Todor Delipetrov	the Former Yugoslav Republic of Macedonia	University Goce Delcev & Chairman of TC 40
12	Mr Vilijam Hristovski	the Former Yugoslav Republic of Macedonia	ISRM-Technical secretary of TC 40
13	Ms Golubka Necevska-Cvetanovska	the Former Yugoslav Republic of Macedonia	UKIM-IZIIS & Chairman of EN 1992
14	Mr Gjorgi Gruevski	the Former Yugoslav Republic of Macedonia	UKIM & Chairman of EN 1995
15	Ms Veronika Sendova	the Former Yugoslav Republic of Macedonia	UKIM-IZIIS & Chairman of EN 1996
16	Mr Vlatko Sesov	the Former Yugoslav Republic of Macedonia	UKIM-IZIIS & Chairman of EN 1997
17	Mr Zoran Rakikevic	the Former Yugoslav Republic of Macedonia	UKIM-IZIIS & Chairman of EN 1998
18	Mr Leko Ristovski	the Former Yugoslav Republic of Macedonia	ISRM-President of the Board
19	Mr Mihail Garevski	the Former Yugoslav Republic of Macedonia	UKIM-IZIIS & Director of IZIIS
20	Mr Goce Dimovski	the Former Yugoslav Republic of Macedonia	Ministry of transport and communication
21	Ms Dragana Cernih	the Former Yugoslav Republic of Macedonia	UKIM-Seismological Observatory
22	Mr Iurii Sokol	<b>Moldova</b>	National Standardization Institute - Director
23	Mr. Gheorghe Croitoru	Moldova	Ministry of Regional Development and Construction
24	Mr. Anatolie Izbinda	Moldova	Research Institute in Building (INCERCOM) -

			Director
25	Mr Miodrag Perovic	<b>Montenegro</b>	Institute for Standardization of Montenegro - Director
26	Mr Perica Turkovic	Montenegro	Institute for Standardization of Montenegro - Deputy Director
27	Ms Ljiljana Soskic	Montenegro	Institute for Standardization of Montenegro/ Technical secretary of TK 002
28	Ms Zeljka Radovanovic	Montenegro	TK 002 EN 1991
29	Mr Dusko Lucic	Montenegro	TK 002 EN 1993
30	Ms Biljana Scepanovic	Montenegro	TK 002 EN 1995
31	Mr Zvonko Tomanovic	Montenegro	TK 002 EN 1997
32	Mr Radisa Knezevic	<b>Serbia</b>	Institute for standardization of Serbia, Department for General Fields of Standardization
33	Mr Dusan Pajovic	Serbia	Institute for standardization of Serbia, Department for General Fields of Standardization
34	Mr Nenad Pecic	Serbia	University of Belgrade, Faculty of Civil Engineering
35	Ms Mirjana Vukicevic	Serbia	Chairman of EN 1997
36	Mr Atila Erenler	<b>Turkey</b>	Ministry of Environment and Urbanism - Deputy General Director
37	Mr Ahmet Yakut	Turkey	Middle East Technical University - Prof., D-r
38	Mr Milot Muxaxheri	<b>Kosovo*</b>	University of Polimi, Italy

\*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.



## A.4 QUESTIONNAIRE SAMPLE

**QUESTIONNAIRE TO ASSESS CURRENT STATUS IN THE ELABORATION OF NDPs AND NAs OF THE EUROCODES IN THE NON-EU COUNTRIES IN THE BALKAN REGION**

*(To be compiled by the National standardisation body or TC 250 Mirror Committee representative)*

**Representative:**

**Affiliation:**

**Position:**

**Email:**

-  
-  
-  
-

EN Eurocode parts	The EN part was translated in National language?	Definition of NDPs is finished for this EN part?				The EN part was published as National standard?	
		(Yes/No)	If "Yes"	If "No"		(Yes/No)	If "No"
			Please provide the % of acceptance of the recommended values	Please assess the progress of definition in %	Please provide the % of acceptance of the recommended values for the defined NDPs		Please provide envisaged date of publishing
<b>EN 1990: Basis of structural design</b>							
EN 1990							
EN 1990 / A1							
<b>EN 1991: ACTION TO STRUCTURES</b>							
EN 1991-1-1							
EN 1991-1-2							
EN 1991-1-3							
EN 1991-1-4							
EN 1991-1-5							
EN 1991-1-6							

EN 1991-1-7							
EN 1991-2							
EN 1991-3							
EN 1991-4							
<b>EN 1992: DESIGN OF CONCRETE STRUCTURES</b>							
EN 1992-1-1							
EN 1992-1-2							
EN 1992-2							
EN 1992-3							
<b>EN 1993: DESIGN OF STEEL STRUCTURES</b>							
EN 1993-1-1							
EN 1993-1-2							
EN 1993-1-3							
EN 1993-1-4							
EN 1993-1-5							
EN 1993-1-6							
EN 1993-1-7							
EN 1993-1-8							
EN 1993-1-9							
EN 1993-1-10							
EN 1993-1-11							
EN 1993-1-12							
EN 1993-2							
EN 1993-3-1							
EN 1993-3-2							
EN 1993-4-1							
EN 1993-4-2							
EN 1993-4-3							
EN 1993-5							
EN 1993-6							
<b>EN 1994: DESIGN OF COMPOSITE STEEL AND CONCRETE STRUCTURES</b>							
EN 1994-1-1							
EN 1994-1-2							

EN 1994-2							
<b>EN 1995: DESIGN OF TIMBER STRUCTURES</b>							
EN 1995-1-1							
EN 1995-1-2							
EN 1995-2							
<b>EN 1996: DESIGN OF MASONRY STRUCTURES</b>							
EN 1996-1-1							
EN 1996-1-2							
EN 1996-2							
EN 1996-3							
<b>EN 1997: GEOTECHNICAL DESIGN</b>							
EN 1997-1							
EN 1997-2							
<b>EN 1998: EARTHQUAKE RESISTANT DESIGN OF STRUCTURES</b>							
EN 1998-1							
EN 1998-2							
EN 1998-3							
EN 1998-4							
EN 1998-5							
EN 1998-6							
<b>EN 1999: DESIGN OF ALUMINIUM STRUCTURES</b>							
EN 1999-1-1							
EN 1999-1-2							
EN 1999-1-3							
EN 1999-1-4							
EN 1999-1-5							

***Please comment briefly the progress of elaboration of NDPs and NAs since the last workshop in Milan (5-6 December , 2013)  
(Drivers & barriers; harmonization (rate of acceptance of recommended values); establishment of regional collaboration (if any), etc.)***

***Please assess information flow between NSBs and European Commission***

1. The link of JRC Eurocode web site is posted on NSBs (Mirror TC Committee) web site	
Yes:	No:
2. How often JRC Eurocode web site is accessed (monthly)	
zero times	
less than 4 times	
more than 4 times	
3. Please give suggestion (s) how to improve the information flow	

***Additional comments that are not covered in the questionnaire***

--

<b><i>Date:</i></b>	
<b><i>Place:</i></b>	

## A.5 LIST OF COUNTRIES AND NATIONAL STAKEHOLDERS THAT RESPOND TO THE QUESTIONNAIRE AND FILLED IN QUESTIONNAIRES

No	Non-EU participant	Country	Affiliation
1	Mr Riza Hasanaj	Albania	General Directorate of Standardization - Director
2	Ms Nihada Kulenovic	Bosnia and Herzegovina	Institute for standardization of Bosnia and Herzegovina - Technical secretary of TC 250 Mirror Committee
3	Mr Vilijam Hristovski	the former Yugoslav Republic of Macedonia	Standardization Institute of the Republic of Macedonia - Technical secretary of TC 250 Mirror Committee
4	Mr Gheorghe Croitoru	Moldova	Ministry of Regional Development and Construction - Head of Technical and Economic Regulation Department
5	Ms Ljiljana Soskic	Montenegro	Institute for Standardization of Montenegro - Technical secretary of TC 250 Mirror Committee
6	Mr Dusan Pajovic	Serbia	Institute for standardization of Serbia, Department for General Fields of Standardization
7	Mr Mustafa Yasar	Turkey	Turkish Standards Institution – Assistant Specialist

**QUESTIONNAIRE TO ASSESS CURRENT STATUS IN THE ELABORATION OF NDPs AND NAs OF THE EUROCODES IN THE NON-EU COUNTRIES IN THE BALKAN REGION**

*(To be compiled by the National standardisation body or TC 250 Mirror Committee representative)*

**Representative:** Riza Hasanaj  
**Affiliation:** General Directorate of Standardization  
**Position:** Director of General Directorate of Standardization  
**Email:** [hasanaj.r@dps.gov.al](mailto:hasanaj.r@dps.gov.al)

EN Eurocode parts	The EN part was translated in National language?	Definition of NDPs is finished for this EN part?				The EN part was published as National standard?
		(Yes/No)	(Yes/No)	If "Yes" Please provide the % of acceptance of the recommended values	If "No" Please assess the progress of definition in % Please provide the % of acceptance of the recommended values for the defined NDPs	
<b>EN 1990: Basis of structural design</b>						
EN 1990	Yes		100%			Yes
EN 1990 / A1	Yes		100%			Yes
<b>EN 1991: ACTION TO STRUCTURES</b>						
EN 1991-1-1	Yes		80%			Yes
EN 1991-1-2	Yes		90%			Yes
EN 1991-1-3	Yes		60%			Yes
EN 1991-1-4	Yes		70%			Yes
EN 1991-1-5	Yes		60%			Yes
EN 1991-1-6	Yes		60%			Yes
EN 1991-1-7	Yes		70%			Yes
EN 1991-2	Yes		80%			Yes

EN 1991-3	Yes		90%			Yes
EN 1991-4	Yes		90%			Yes
<b>EN 1992: DESIGN OF CONCRETE STRUCTURES</b>						
EN 1992-1-1	Yes		80%			Yes
EN 1992-1-2	Yes		80%			Yes
EN 1992-2	Yes		90%			Yes
EN 1992-3	Yes		90%			Yes
<b>EN 1993: DESIGN OF STEEL STRUCTURES</b>						
EN 1993-1-1	Yes		90%			Yes
EN 1993-1-2	Yes		90%			Yes
EN 1993-1-3	Yes		90%			Yes
EN 1993-1-4	Yes		90%			Yes
EN 1993-1-5	Yes		90%			Yes
EN 1993-1-6	Yes		90%			Yes
EN 1993-1-7	Yes		90%			Yes
EN 1993-1-8	Yes		90%			Yes
EN 1993-1-9	Yes		90%			Yes
EN 1993-1-10	Yes		90%			Yes
EN 1993-1-11	Yes		90%			Yes
EN 1993-1-12	Yes		90%			Yes
EN 1993-2	Yes		90%			Yes
EN 1993-3-1	Yes		90%			Yes
EN 1993-3-2	Yes		90%			Yes
EN 1993-4-1	Yes		90%			Yes
EN 1993-4-2	Yes		90%			Yes
EN 1993-4-3	Yes		90%			Yes
EN 1993-5	Yes		90%			Yes
EN 1993-6	Yes		90%			Yes
<b>EN 1994: DESIGN OF COMPOSITE STEEL AND CONCRETE STRUCTURES</b>						
EN 1994-1-1	No		0%			
EN 1994-1-2	No		0%			
EN 1994-2	No		0%			
<b>EN 1995: DESIGN OF TIMBER STRUCTURES</b>						

EN 1995-1-1	No		0%			
EN 1995-1-2	No		0%			
EN 1995-2	No		0%			
<b>EN 1996: DESIGN OF MASONRY STRUCTURES</b>						
EN 1996-1-1	No		0%			
EN 1996-1-2	No		0%			
EN 1996-2	No		0%			
EN 1996-3	No		0%			
<b>EN 1997: GEOTECHNICAL DESIGN</b>						
EN 1997-1	No		0%			
EN 1997-2	No		0%			
<b>EN 1998: EARTHQUAKE RESISTANT DESIGN OF STRUCTURES</b>						
EN 1998-1	Yes	Yes/no aproval	100%			Yes
EN 1998-2	Yes			50%	100%	Yes
EN 1998-3	No		0%			
EN 1998-4	No		0%			
EN 1998-5	Yes		0%	50%	100%	Yes
EN 1998-6	No		0%			
<b>EN 1999: DESIGN OF ALUMINIUM STRUCTURES</b>						
EN 1999-1-1	No		0%			
EN 1999-1-2	No		0%			
EN 1999-1-3	No		0%			
EN 1999-1-4	No		0%			
EN 1999-1-5	No		0%			

***Please comment briefly the progress of elaboration of NDPs and NAs since the last workshop in Milan (5-6 December, 2013)  
(Drivers & barriers; harmonization (rate of acceptance of recommended values); establishment of regional colaboration (if any), etc.)***



The government has not constituted the Eurocode Steering Committee (“Komiteti drejtues i Eurokodeve”) yet, which is to lead the process of adoption of Eurocodes. The technical committee TC/250 of DPS (General Directorate of Standardization of Albania) can not approve the National Annexes and supplementary technical guidelines before approval from Eurocode Steering Committee. Without NDP-s, the Eurocode adoption process has come to standstill.

*The process NDPs elaboration for the Eurocodes, is not translated yet.*

So, for the Eurocode No. EC 4, 7 and 9, is predicted to be involved in the process on 2016, so we can not give % of their performance.

***Please assess information flow between NSBs and European Commission***

1. The link of JRC Eurocode web site is posted on NSBs (Mirror TC Committee) web site

Yes:	<b>No</b>
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2. How often JRC Eurocode web site is accesed (monthly)

zero times	
less than 4 times	<b>+</b>
more than 4 times	

3. Please give suggestion (s) how to improve the information flow

***Additional comments that are not covered in the questionnaire***

Regarding what is said in Milan, we have considered that in the current phase to have as a reference, the coefficients of Eurokodeve and to put a figure in %.

<b><i>Date:</i></b>	<b>20.10.2014</b>
<b><i>Place:</i></b>	<b>Tirana</b>

**QUESTIONNAIRE TO ASSESS CURRENT STATUS IN THE ELABORATION OF NDPs AND NAs OF THE EUROCODES IN THE NON-EU COUNTRIES IN THE BALKAN REGION**

(To be compiled by the National standardisation body or TC 250 Mirror Committee representative)

**Representative:** Nihada Kulenović  
**Affiliation:** BOSNIA AND HEREGOVINA  
**Position:** Secretary of TC 250 Mirror Committee  
**Email:** [nihada.kulenovic@bas.gov.ba](mailto:nihada.kulenovic@bas.gov.ba)

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EN Eurocode parts	The EN part was translated in National language?	Definition of NDPs is finished for this EN part?				The EN part was published as National standard?	
		(Yes/No)	(Yes/No)	If "Yes"	If "No"	(Yes/No)	If "No"
			Please provide the % of acceptance of the recommended values	Please assess the progress of definition in %	Please provide the % of acceptance of the recommended values for the defined NDPs		Please provide envisaged date of publishing
<b>EN 1990: Basis of structural design</b>							
EN 1990	Yes	No		10%		Yes	
EN 1990 / A1	Yes	No		10%		Yes	
<b>EN 1991: ACTION TO STRUCTURES</b>							
EN 1991-1-1	No	No				Yes	
EN 1991-1-2	No	No				Yes	
EN 1991-1-3	No	No				Yes	
EN 1991-1-4	No	No				Yes	
EN 1991-1-5	No	No				Yes	
EN 1991-1-6	No	No				Yes	
EN 1991-1-7	No	No				Yes	

EN 1991-2	No	No				Yes	
EN 1991-3	No	No				Yes	
EN 1991-4	No	No				Yes	
<b>EN 1992: DESIGN OF CONCRETE STRUCTURES</b>							
EN 1992-1-1	No	No				Yes	
EN 1992-1-2	No	No				Yes	
EN 1992-2	No	No				Yes	
EN 1992-3	No	No				Yes	
<b>EN 1993: DESIGN OF STEEL STRUCTURES</b>							
EN 1993-1-1	No	No				Yes	
EN 1993-1-2	No	No				Yes	
EN 1993-1-3	No	No				Yes	
EN 1993-1-4	No	No				Yes	
EN 1993-1-5	No	No				Yes	
EN 1993-1-6	No	No				Yes	
EN 1993-1-7	No	No				Yes	
EN 1993-1-8	No	No				Yes	
EN 1993-1-9	No	No				Yes	
EN 1993-1-10	No	No				Yes	
EN 1993-1-11	No	No				Yes	
EN 1993-1-12	No	No				Yes	
EN 1993-2	No	No				Yes	
EN 1993-3-1	No	No				Yes	
EN 1993-3-2	No	No				Yes	
EN 1993-4-1	No	No				Yes	
EN 1993-4-2	No	No				Yes	
EN 1993-4-3	No	No				Yes	
EN 1993-5	No	No				Yes	
EN 1993-6	No	No				Yes	
<b>EN 1994: DESIGN OF COMPOSITE STEEL AND CONCRETE STRUCTURES</b>							
EN 1994-1-1	No	No				Yes	
EN 1994-1-2	No	No				Yes	
EN 1994-2	No	No				Yes	

<b>EN 1995: DESIGN OF TIMBER STRUCTURES</b>							
EN 1995-1-1	No	No				Yes	
EN 1995-1-2	No	No				Yes	
EN 1995-2	No	No				Yes	
<b>EN 1996: DESIGN OF MASONRY STRUCTURES</b>							
EN 1996-1-1	No	No				Yes	
EN 1996-1-2	No	No				Yes	
EN 1996-2	No	No				Yes	
EN 1996-3	No	No				Yes	
<b>EN 1997: GEOTECHNICAL DESIGN</b>							
EN 1997-1	No	No				Yes	
EN 1997-2	No	No				Yes	
<b>EN 1998: EARTHQUAKE RESISTANT DESIGN OF STRUCTURES</b>							
EN 1998-1	No	No				Yes	
EN 1998-2	No	No				Yes	
EN 1998-3	No	No				Yes	
EN 1998-4	No	No				Yes	
EN 1998-5	No	No				Yes	
EN 1998-6	No	No				Yes	
<b>EN 1999: DESIGN OF ALUMINIUM STRUCTURES</b>							
EN 1999-1-1	No	No				Yes	
EN 1999-1-2	No	No				Yes	
EN 1999-1-3	No	No				Yes	
EN 1999-1-4	No	No				Yes	
EN 1999-1-5	No	No				Yes	

***Please comment briefly the progress of elaboration of NDPs and NAs since the last workshop in Milan (5-6 December , 2013) (Drivers & barriers; harmonization (rate of acceptance of recommended values); establishment of regional collaboration (if any), etc.)***

establishment of a WG, which is responsible to create NA for the EN 1990

***Please assess information flow between NSBs and European Commission***

1. The link of JRC Eurocode web site is posted on NSBs (Mirror TC Committee) web site

Yes:	No: X
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2. How often JRC Eurocode web site is accessed (monthly)

zero times	
less than 4 times	
more than 4 times	X

3. Please give suggestion (s) how to improve the information flow

***Additional comments that are not covered in the questionnaire***

<b>Date:</b>	20.10.2014
<b>Place:</b>	Sarajevo

**QUESTIONNAIRE TO ASSESS CURRENT STATUS IN THE ELABORATION OF NDPs AND NAs OF THE EUROCODES IN THE NON-EU COUNTRIES IN THE BALKAN REGION**

*(To be compiled by the National standardisation body or TC 250 Mirror Committee representative)*

**Representative:**

**THE FORMER YUGOSLAV**

**Affiliation:**

**REPUBLIC OF  
MACEDONIA**

**Position:**

**Email:**

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EN Eurocode parts	The EN part was translated in National language?	Definition of NDPs is finished for this EN part?				The EN part was published as National standard?	
		(Yes/No)	(Yes/No)	If "Yes"	If "No"	(Yes/No)	If "No"
			Please provide the % of acceptance of the recommended values	Please assess the progress of definition in %	Please provide the % of acceptance of the recommended values for the defined NDPs		Please provide envisaged date of publishing
<b>EN 1990: Basis of structural design</b>							
EN 1990	Yes	Yes	around 80 %			Yes	
EN 1990 / A1	Yes	Yes	around 80 %			Yes	
<b>EN 1991: ACTION TO STRUCTURES</b>							
EN 1991-1-1	Yes	Yes	around 80 %			Yes	
EN 1991-1-2	Yes	No			around 90 %	No	april 2015
EN 1991-1-3	Yes	No			around 90 %	No	april 2015
EN 1991-1-4	Yes	No			around 90 %	No	april 2015
EN 1991-1-5	Yes	No			around 90 %	No	april 2015
EN 1991-1-6	Yes	No			around 90 %	No	april 2015
EN 1991-1-7	Yes	No			around 90 %	No	april 2015

EN 1991-2	Yes	No			around 90 %	No	april 2015
EN 1991-3	Yes	No			around 90 %	No	april 2015
EN 1991-4	Yes	No			around 90 %	No	march 2015
<b>EN 1992: DESIGN OF CONCRETE STRUCTURES</b>							
EN 1992-1-1	Yes	No			around 90 %	No	march 2015
EN 1992-1-2	Yes	No			around 90 %	No	march 2015
EN 1992-2	Yes	No			around 90 %	No	march 2015
EN 1992-3	Yes	No			around 90 %	No	march 2015
<b>EN 1993: DESIGN OF STEEL STRUCTURES</b>							
EN 1993-1-1	Yes	No			around 90 %	No	february 2015
EN 1993-1-2	Yes	No			around 90 %	No	february 2015
EN 1993-1-3	Yes	No			around 90 %	No	february 2015
EN 1993-1-4	Yes	No			around 90 %	No	february 2015
EN 1993-1-5	Yes	No			around 90 %	No	february 2015
EN 1993-1-6	Yes	No			around 90 %	No	february 2015
EN 1993-1-7	Yes	No			around 90 %	No	february 2015
EN 1993-1-8	Yes	No			around 90 %	No	february 2015
EN 1993-1-9	Yes	No			around 90 %	No	february 2015
EN 1993-1-10	Yes	No			around 90 %	No	february 2015
EN 1993-1-11	Yes	No			around 90 %	No	february 2015
EN 1993-1-12	Yes	No			around 90 %	No	february 2015
EN 1993-2	Yes	No			around 90 %	No	march 2015
EN 1993-3-1	Yes	No			around 90 %	No	march 2015
EN 1993-3-2	Yes	No			around 90 %	No	march 2015
EN 1993-4-1	Yes	No			around 90 %	No	march 2015
EN 1993-4-2	Yes	No			around 90 %	No	april 2015
EN 1993-4-3	Yes	No			around 90 %	No	april 2015
EN 1993-5	Yes	No			around 90 %	No	april 2015
EN 1993-6	Yes	No			around 90 %	No	april 2015
<b>EN 1994: DESIGN OF COMPOSITE STEEL AND CONCRETE STRUCTURES</b>							
EN 1994-1-1	Yes	No			around 90 %	No	february 2015
EN 1994-1-2	Yes	No			around 90 %	No	february 2015
EN 1994-2	Yes	No			around 90 %	No	april 2015



<b>EN 1995: DESIGN OF TIMBER STRUCTURES</b>							
EN 1995-1-1	Yes	No			around 90 %	No	march 2015
EN 1995-1-2	Yes	No			around 90 %	No	april 2015
EN 1995-2	Yes	No			around 90 %	No	march 2015
<b>EN 1996: DESIGN OF MASONRY STRUCTURES</b>							
EN 1996-1-1	Yes	No			around 90 %	No	may 2015
EN 1996-1-2	Yes	No			around 90 %	No	may 2015
EN 1996-2	Yes	No			around 90 %	No	may 2015
EN 1996-3	Yes	No			around 90 %	No	may 2015
<b>EN 1997: GEOTECHNICAL DESIGN</b>							
EN 1997-1	Yes	No			around 90 %	No	may 2015
EN 1997-2	Yes	No			around 90 %	No	
<b>EN 1998: EARTHQUAKE RESISTANT DESIGN OF STRUCTURES</b>							
EN 1998-1	Yes	No			around 90 %	No	march 2015
EN 1998-2	Yes	No			around 90 %	No	march 2015
EN 1998-3	Yes	Yes	around 90 %			No	
EN 1998-4	Yes	No			around 90 %	No	may 2015
EN 1998-5	Yes	No			around 90 %	No	may 2015
EN 1998-6	Yes	No			around 90 %	No	may 2015
<b>EN 1999: DESIGN OF ALUMINIUM STRUCTURES</b>							
EN 1999-1-1	Yes	No			around 90 %	No	march 2015
EN 1999-1-2	Yes	No			around 90 %	No	may 2015
EN 1999-1-3	Yes	No			around 90 %	No	may 2015
EN 1999-1-4	Yes	No			around 90 %	No	may 2015
EN 1999-1-5	Yes	No			around 90 %	No	may 2015

***Please comment briefly the progress of elaboration of NDPs and NAs since the last workshop in Milan (5-6 December , 2013)  
(Drivers & barriers; harmonization (rate of acceptance of recommended values); establishment of regional collaboration (if any), etc.)***

28 National Annexes are on public enquiry

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***Please assess information flow between NSBs and European Commission***

1. The link of JRC Eurocode web site is posted on NSBs (Mirror TC Committee) web site	
Yes: x	No:
2. How often JRC Eurocode web site is accessed (monthly)	
zero times	
less than 4 times	
more than 4 times	x
3. Please give suggestion (s) how to improve the information flow	

***Additional comments that are not covered in the questionnaire***

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<b>Date:</b>	24.10.2014
<b>Place:</b>	Skopje

**QUESTIONNAIRE TO ASSESS CURRENT STATUS IN THE ELABORATION OF NDPs AND NAs OF THE EUROCODES IN THE NON-EU COUNTRIES IN THE BALKAN REGION**

*(To be compiled by the National standardisation body or TC 250 Mirror Committee representative)*

**Representative:**

**Affiliation: MONTENEGRO**

**Position:**

**Email:**

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EN Eurocode parts	The EN part was translated in National language? (Yes/No)	Definition of NDPs is finished for this EN part?				The EN part was published as National standard?	
		(Yes/No)	If "Yes"	If "No"		(Yes/No)	If "No"
			Please provide the % of acceptance of the recommended values	Please assess the progress of definition in %	Please provide the % of acceptance of the recommended values for the defined NDPs		Please provide envisaged date of publishing
<b>EN 1990: Basis of structural design</b>							
EN 1990	Yes	Yes	100			Yes	
EN 1990 / A1	Yes	Yes	94			Yes	
<b>EN 1991: ACTION TO STRUCTURES</b>							
EN 1991-1-1	Yes	Yes	80			Yes, in English language 2012	December 2014, in Montenegrin language, we expected
EN 1991-1-2	No	No				Yes, in English language 2012	July 2015, in Montenegrin language, we expected

EN 1991-1-3	Yes	Yes	74			Yes, in English language 2012	December 2014, in Montenegrin language, we expected
EN 1991-1-4	No	No				Yes, in English language 2012	July 2015, in Montenegrin language, we expected
EN 1991-1-5	Yes	Yes	70			Yes, in English language 2012	December 2014, in Montenegrin language, we expected
EN 1991-1-6	No	No				Yes, in English language 2012	July 2015, in Montenegrin language, we expected
EN 1991-1-7	No	No				Yes, in English language 2012	July 2015, in Montenegrin language, we expected
EN 1991-2	No	No				Yes, in English language 2012	January 2017, in Montenegrin language, we expected
EN 1991-3	No	No				Yes, in English language 2012	January 2017, in Montenegrin language, we expected
EN 1991-4	No	No				Yes, in English language 2012	January 2017, in Montenegrin language, we expected
<b>EN 1992: DESIGN OF CONCRETE STRUCTURES</b>							
EN 1992-1-1	No	No				No	

EN 1992-1-2	No	No				No	August 2015
EN 1992-2	No	No				No	May 2016
EN 1992-3	No	No				No	January 2017
<b>EN 1993: DESIGN OF STEEL STRUCTURES</b>							
EN 1993-1-1	No	No				No	September 2015
EN 1993-1-2	No	No				No	June 2016
EN 1993-1-3	No	No				No	March 2017
EN 1993-1-4	No	No				No	March 2017
EN 1993-1-5	No	No				No	March 2017
EN 1993-1-6	No	No				No	March 2017
EN 1993-1-7	No	No				No	March 2017
EN 1993-1-8	No	No				No	September 2015
EN 1993-1-9	No	No				No	September 2015
EN 1993-1-10	No	No				No	September 2015
EN 1993-1-11	No	No				No	March 2017
EN 1993-1-12	No	No				No	March 2017
EN 1993-2	No	No				No	jun.16
EN 1993-3-1	No	No				No	October 2017
EN 1993-3-2	No	No				No	October 2017
EN 1993-4-1	No	No				No	October 2017
EN 1993-4-2	No	No				No	October 2017
EN 1993-4-3	No	No				No	October 2017
EN 1993-5	No	No				No	October 2017
EN 1993-6	No	No				No	October 2017
<b>EN 1994: DESIGN OF COMPOSITE STEEL AND CONCRETE STRUCTURES</b>							
EN 1994-1-1	No	No				No	jun.16
EN 1994-1-2	No	No				No	jun.16
EN 1994-2	No	No				No	jun.16
<b>EN 1995: DESIGN OF TIMBER STRUCTURES</b>							
EN 1995-1-1	No	No				No	November 2015
EN 1995-1-2	No	No				No	jun.16
EN 1995-2	No	No				No	jun.16
<b>EN 1996: DESIGN OF MASONRY STRUCTURES</b>							

EN 1996-1-1	No	No				No	November 2014
EN 1996-1-2	No	No				No	August 2015
EN 1996-2	No	No				No	May 2016
EN 1996-3	No	No				No	November 2014
<b>EN 1997: GEOTECHNICAL DESIGN</b>							
EN 1997-1	No	No				No	November 2014
EN 1997-2	No	No				No	August 2015
<b>EN 1998: EARTHQUAKE RESISTANT DESIGN OF STRUCTURES</b>							
EN 1998-1	Yes	No				Yes	
EN 1998-2	No	No				Yes, in English language 2012	April.2016, in Montenegrin language, we expected
EN 1998-3	No	No				Yes, in English language 2012	July 2015, in Montenegrin language, we expected
EN 1998-4	No	No				Yes, in English language 2012	January 2017, in Montenegrin language, we expected
EN 1998-5	No	No				Yes, in English language 2012	January 2017, in Montenegrin language, we expected
EN 1998-6	No	No				Yes, in English language 2012	January 2017, in Montenegrin language, we expected
<b>EN 1999: DESIGN OF ALUMINIUM STRUCTURES</b>							
EN 1999-1-1	No	No				No	December 2017
EN 1999-1-2	No	No				No	December 2017
EN 1999-1-3	No	No				No	December 2017

EN 1999-1-4	No	No				No	December 2017
EN 1999-1-5	No	No				No	December 2017

**Please comment briefly the progress of elaboration of NDPs and NAs since the last workshop in Milan (5-6 December , 2013)  
(Drivers & barriers; harmonization (rate of acceptance of recommended values); establishment of regional collaboration (if any), etc.)**

Following Workshop in Ispra, there was no significant progress. Group dealing with Eurocodes 1 prepared standard text and defined NDPs for EN 1991-1, EN 1991-3 and EN 1991-5. However, these parts of Eurocodes are not technically clear and arranged. ISME shall try to realize final arrangement of these documents up to the end of current year, upon it all, it shall be discussed on TC meeting and forwarded to Public Enquiry and published in Official Gazette.

**Please assess information flow between NSBs and European Commission**

1. The link of JRC Eurocode web site is posted on NSBs (Mirror TC Committee) web site

Yes: x	No:
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2. How often JRC Eurocode web site is accessed (monthly)

zero times	
less than 4 times	x
more than 4 times	

3. Please give suggestion (s) how to improve the information flow

**Additional comments that are not covered in the questionnaire**

<b>Date:</b>	17.10.2014.
<b>Place:</b>	ISME

**QUESTIONNAIRE TO ASSESS CURRENT STATUS IN THE ELABORATION OF NDPs AND NAs OF THE EUROCODES IN THE NON-EU COUNTRIES IN THE BALKAN REGION**

*(To be compiled by the National standardisation body or TC 250 Mirror Committee representative)*

**Representative:** Gheorghe Croitoru  
**Affiliation:** Ministry of Regional Development and Construction, MOLDOVA  
**Position:** Head of Technical and Economic Regulation Department  
**Email:** [gheorghe.croitoru@mdrc.gov.md](mailto:gheorghe.croitoru@mdrc.gov.md)

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EN Eurocode parts	The EN part was translated in National language? (Yes/No)	Definition of NDPs is finished for this EN part?				The EN part was published as National standard?	
		(Yes/No)	If "Yes" Please provide the % of acceptance of the recommended values	If "No" Please assess the progress of definition in % Please provide the % of acceptance of the recommended values for the defined NDPs		(Yes/No)	If "No" Please provide envisaged date of publishing
<b>EN 1990: Basis of structural design</b>							
EN 1990	Yes	No		30%	60%	Yes	
EN 1990 / A1	Yes	No		30%	60%	Yes	
<b>EN 1991: ACTION TO STRUCTURES</b>							
EN 1991-1-1	Yes	No		25%	50%	Yes	
EN 1991-1-2	Yes	No		25%	50%	Yes	
EN 1991-1-3	Yes	No		25%	50%	Yes	
EN 1991-1-4	Yes	No		25%	50%	Yes	
EN 1991-1-5	Yes	No		25%	50%	Yes	
EN 1991-1-6	Yes	No		25%	50%	Yes	
EN 1991-1-7	Yes	No		25%	50%	Yes	
EN 1991-2	Yes	No		25%	50%	Yes	
EN 1991-3	Yes	No		25%	50%	Yes	



EN 1991-4	Yes	No		25%	50%	Yes	
<b>EN 1992: DESIGN OF CONCRETE STRUCTURES</b>							
EN 1992-1-1	Yes	No		30%	65%	Yes	
EN 1992-1-2	Yes	No		30%	65%	Yes	
EN 1992-2	Yes	No		30%	65%	Yes	
EN 1992-3	Yes	No		30%	65%	Yes	
<b>EN 1993: DESIGN OF STEEL STRUCTURES</b>							
EN 1993-1-1	Yes	No		10%	40%	Yes	
EN 1993-1-2	Yes	No		10%	40%	Yes	
EN 1993-1-3	Yes	No		10%	40%	Yes	
EN 1993-1-4	Yes	No		10%	40%	Yes	
EN 1993-1-5	Yes	No		10%	40%	Yes	
EN 1993-1-6	Yes	No		10%	40%	Yes	
EN 1993-1-7	Yes	No		10%	40%	Yes	
EN 1993-1-8	Yes	No		10%	40%	Yes	
EN 1993-1-9	Yes	No		10%	40%	Yes	
EN 1993-1-10	Yes	No		10%	40%	Yes	
EN 1993-1-11	Yes	No		10%	40%	Yes	
EN 1993-1-12	Yes	No		10%	40%	Yes	
EN 1993-2	Yes	No		10%	40%	Yes	
EN 1993-3-1	Yes	No		10%	40%	Yes	
EN 1993-3-2	Yes	No		10%	40%	Yes	
EN 1993-4-1	Yes	No		10%	40%	Yes	
EN 1993-4-2	Yes	No		10%	40%	Yes	
EN 1993-4-3	Yes	No		10%	40%	Yes	
EN 1993-5	Yes	No		10%	40%	Yes	
EN 1993-6	Yes	No		10%	40%	Yes	
<b>EN 1994: DESIGN OF COMPOSITE STEEL AND CONCRETE STRUCTURES</b>							
EN 1994-1-1	Yes	No		15%	40%	Yes	
EN 1994-1-2	Yes	No		15%	40%	Yes	
EN 1994-2	Yes	No		15%	40%	Yes	
<b>EN 1995: DESIGN OF TIMBER STRUCTURES</b>							
EN 1995-1-1	Yes	No		5%	35%	Yes	

EN 1995-1-2	Yes	No		5%	35%	Yes	
EN 1995-2	Yes	No		5%	35%	Yes	
<b>EN 1996: DESIGN OF MASONRY STRUCTURES</b>							
EN 1996-1-1	Yes	No		30%	55%	Yes	
EN 1996-1-2	Yes	No		30%	55%	Yes	
EN 1996-2	Yes	No		30%	55%	Yes	
EN 1996-3	Yes	No		30%	55%	Yes	
<b>EN 1997: GEOTECHNICAL DESIGN</b>							
EN 1997-1	Yes	No		15%	60%	Yes	
EN 1997-2	Yes	No		15%	60%	Yes	
<b>EN 1998: EARTHQUAKE RESISTANT DESIGN OF STRUCTURES</b>							
EN 1998-1	Yes	No		25%	65%	Yes	
EN 1998-2	Yes	No		25%	65%	Yes	
EN 1998-3	Yes	No		25%	65%	Yes	
EN 1998-4	Yes	No		25%	65%	Yes	
EN 1998-5	Yes	No		25%	65%	Yes	
EN 1998-6	Yes	No		25%	65%	Yes	
<b>EN 1999: DESIGN OF ALUMINIUM STRUCTURES</b>							
EN 1999-1-1	Yes	No		5%	35%	Yes	
EN 1999-1-2	Yes	No		5%	35%	Yes	
EN 1999-1-3	Yes	No		5%	35%	Yes	
EN 1999-1-4	Yes	No		5%	35%	Yes	
EN 1999-1-5	Yes	No		5%	35%	Yes	

***Please comment briefly the progress of elaboration of NDPs and NAs since the last workshop in Milan (5-6 December , 2013)  
(Drivers & barriers; harmonization (rate of acceptance of recommended values); establishment of regional collaboration (if any), etc.)***

**Progress of elaboration of NDPs and NAs since the last workshop in Milan (5-6 December, 2013)**

Has been established the theoretical values of the NDPs which will be used in all parts of Eurocodes. Has been established working groups for development of the NDPs for EN 1990, EN 1991, EN 1992.

**Drivers & barriers**

Insufficient financial resources for development of the NA for all Eurocodes. Lack of specialized laboratories for testing of structures (especially concrete) on seismic actions.

**Harmonization (rate of acceptance of recommended values)**

The rate of acceptance of recommended values varies depending on part of the Eurocodes from 50% till 80%.

**Establishment of regional collaboration (if any), etc.)**

For development of NA, has been concluded agreements on collaboration with Romanian experts who has adopted Eurocodes in Romania.

***Please assess information flow between NSBs and European Commission***

1. The link of JRC Eurocode web site is posted on NSBs (Mirror TC Committee) web site

Yes: <b>NO</b>	No:
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2. How often JRC Eurocode web site is accessed (monthly)

zero times	
less than 4 times	<b>X</b>
more than 4 times	

3. Please give suggestion (s) how to improve the information flow

***Additional comments that are not covered in the questionnaire***

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<b>Date:</b>	20 October 2014
<b>Place:</b>	Republic of Moldova, Chisinau

**QUESTIONNAIRE TO ASSESS CURRENT STATUS IN THE ELABORATION OF NDPs AND NAs OF THE EUROCODES IN THE NON-EU COUNTRIES IN THE BALKAN REGION**

*(To be compiled by the National standardization body or TC 250 Mirror Committee representative)*

**Representative:**

**Affiliation: SERBIA**

**Position:**

**Email:**

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-  
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EN Eurocode parts	The EN part was translated in National language? (Yes/No)	Definition of NDPs is finished for this EN part?				The EN part was published as National standard?	
		(Yes/No)	If "Yes" Please provide the % of acceptance of the recommended values	If "No" Please assess the progress of definition in %	If "No" Please provide the % of acceptance of the recommended values for the defined NDPs	(Yes/No)	If "No" Please provide envisaged date of publishing
<b>EN 1990: Basis of structural design</b>							
EN 1990	Yes	Yes	75			Yes	
EN 1990 / A1	Yes	Yes	66			Yes	
<b>EN 1991: ACTION TO STRUCTURES</b>							
EN 1991-1-1	Yes	No		0	/	No	June 2015.
EN 1991-1-2	No	No		0	/	No	June 2015.
EN 1991-1-3	Yes	No		60	90	No	December 2015.
EN 1991-1-4	Yes	No		70	95	No	September 2015.
EN 1991-1-5	Yes	No		20	/	No	December 2015.
EN 1991-1-6	No	No		0	/	No	August 2015.
EN 1991-1-7	No	No		0	/	No	August 2015.
EN 1991-2	No	No		0	/	No	December 2015.
EN 1991-3	No	No		0	/	No	August 2015.

EN 1991-4	No	No		0	/	No	August 2015.
<b>EN 1992: DESIGN OF CONCRETE STRUCTURES</b>							
EN 1992-1-1	Yes	Yes	90			No	December 2015.
EN 1992-1-2	No	Yes	100			No	2014.
EN 1992-2	No	Yes	100			No	2014.
EN 1992-3	No	Yes	100			No	2014.
<b>EN 1993: DESIGN OF STEEL STRUCTURES</b>							
EN 1993-1-1	Yes	Yes	95			Yes	
EN 1993-1-2	No	Yes	80			Yes	
EN 1993-1-3	Yes	Yes	100			Yes	
EN 1993-1-4	No	Yes	85			Yes	
EN 1993-1-5	Yes	Yes	100			Yes	
EN 1993-1-6	No	Yes	100			Yes	
EN 1993-1-7	No	Yes	100			Yes	
EN 1993-1-8	Yes	Yes	100			Yes	
EN 1993-1-9	No	Yes	95			Yes	
EN 1993-1-10	Yes	Yes	100			Yes	
EN 1993-1-11	No	Yes	85			Yes	
EN 1993-1-12	No	Yes	80			Yes	
EN 1993-2	No	Yes	90			Yes	
EN 1993-3-1	No	Yes	90			Yes	
EN 1993-3-2	No	Yes	99			Yes	
EN 1993-4-1	No	Yes	99			Yes	
EN 1993-4-2	No	Yes	100			Yes	
EN 1993-4-3	No	Yes	100			Yes	
EN 1993-5	No	Yes	95			Yes	
EN 1993-6	No	Yes	99			Yes	
<b>EN 1994: DESIGN OF COMPOSITE STEEL AND CONCRETE STRUCTURES</b>							
EN 1994-1-1	Yes	Yes	100			Yes	
EN 1994-1-2	No	Yes	100			Yes	
EN 1994-2	No	Yes	95			No	February 2015.
<b>EN 1995: DESIGN OF TIMBER STRUCTURES</b>							
EN 1995-1-1	Yes	No		80	90	No	December 2014.

EN 1995-1-2	No	No		80	95	No	December 2014.
EN 1995-2	No	No		80	90	No	December 2014.
<b>EN 1996: DESIGN OF MASONRY STRUCTURES</b>							
EN 1996-1-1	Yes	No		80	90	No	July 2015.
EN 1996-1-2	No	No		80	95	No	December 2015.
EN 1996-2	No	No		80	100	No	December 2015.
EN 1996-3	No	No		80	90	No	December 2015.
<b>EN 1997: GEOTECHNICAL DESIGN</b>							
EN 1997-1	Yes	No		0	/	No	December 2015.
EN 1997-2	No	No		0	/	No	December 2015.
<b>EN 1998: EARTHQUAKE RESISTANT DESIGN OF STRUCTURES</b>							
EN 1998-1	Yes	No		10	/	No	December 2015.
EN 1998-2	No	No		0	/	No	December 2015.
EN 1998-3	Yes	No		0	/	No	December 2015.
EN 1998-4	No	No		0	/	No	December 2015.
EN 1998-5	No	No		0	/	No	December 2015.
EN 1998-6	No	No		0	/	No	December 2015.
<b>EN 1999: DESIGN OF ALUMINIUM STRUCTURES</b>							
EN 1999-1-1	No	Yes	95			No	November 2014.
EN 1999-1-2	No	Yes	100			No	November 2014.
EN 1999-1-3	No	Yes	100			No	November 2014.
EN 1999-1-4	No	Yes	100			No	November 2014.
EN 1999-1-5	No	Yes	100			No	November 2014.

***Please comment briefly the progress of elaboration of NDPs and NAs since the last workshop in Milan (5-6 December , 2013)  
(Drivers & barriers; harmonization (rate of acceptance of recommended values); establishment of regional collaboration (if any), etc.)***

Since the last workshop in Milan, our committees for Eurocodes adopted NDPs for Aluminium structures (EN 1999 series), and for concrete structures (EN 1992 series). These NDPs will be published to the end of 2014. Also, NDPs for timber structures and masonry structures are prepared to be adopted soon.

Summary, to the end of this and beginning of next year, 16 NDPs shall be published in Institute for standardization in Serbia, and NDPs for all Eurocodes 0,3, 4, 5, 6 and 9 shall be finished

NDPs for Eurocodes EN 1991-1-3 and EN 1991-4 are adopted, but maps of loads and actions shall be corrected. Work on these corrections is in progress  
Some NDPs for Eurocodes EN 1997 and EN 1999 can't be adopted as recommended values, so there is need for more work to define correct parameters. Experience of Macedonian NSB in adoption of these NDPs will be helpful for determination of parameters

***Please assess information flow between NSBs and European Commission***

1. The link of JRC Eurocode web site is posted on NSBs (Mirror TC Committee) web site

Yes:	No:*
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2. How often JRC Eurocode web site is accessed (monthly)

zero times	
less than 4 times	*
more than 4 times	

3. Please give suggestion (s) how to improve the information flow

***Additional comments that are not covered in the questionnaire***

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<b>Date:</b>	
<b>Place:</b>	

**QUESTIONNAIRE TO ASSESS CURRENT STATUS IN THE ELABORATION OF NDPs AND NAs OF THE EUROCODES IN THE NON-EU COUNTRIES IN THE BALKAN REGION**

*(To be compiled by the National standardisation body or TC 250 Mirror Committee representative)*

**Representative:** Mustafa Yaşar  
**Affiliation:** Turkish Standards Institution **TURKEY**  
**Position:** Assistant Specialist  
**Email:** [mustafayasar@tse.org.tr](mailto:mustafayasar@tse.org.tr)

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EN Eurocode parts	The EN part was translated in National language? (Yes/No)	Definition of NDPs is finished for this EN part?				The EN part was published as National standard?	
		(Yes/No)	If "Yes" Please provide the % of acceptance of the recommended values	If "No" Please assess the progress of definition in %	If "No" Please provide the % of acceptance of the recommended values for the defined NDPs	(Yes/No)	If "No" Please provide envisaged date of publishing
<b>EN 1990: Basis of structural design</b>							
EN 1990	Yes	No		0%	0%	Yes	
EN 1990 / A1	Yes	No		0%	0%	Yes	
<b>EN 1991: ACTION TO STRUCTURES</b>							
EN 1991-1-1	Yes	No		0%	0%	Yes	
EN 1991-1-2	Yes	No		0%	0%	Yes	
EN 1991-1-3	Yes	No		0%	0%	Yes	
EN 1991-1-4	Yes	No		0%	0%	Yes	
EN 1991-1-5	No	No		0%	0%	Yes	
EN 1991-1-6	No	No		0%	0%	Yes	
EN 1991-1-7	No	No		0%	0%	Yes	
EN 1991-2	No	No		0%	0%	Yes	
EN 1991-3	No	No		0%	0%	Yes	



EN 1991-4	No	No		0%	0%	Yes	
<b>EN 1992: DESIGN OF CONCRETE STRUCTURES</b>							
EN 1992-1-1	Yes	No		0%	0%	Yes	
EN 1992-1-2	Yes	No		0%	0%	Yes	
EN 1992-2	No	No		0%	0%	Yes	
EN 1992-3	No	No		0%	0%	Yes	
<b>EN 1993: DESIGN OF STEEL STRUCTURES</b>							
EN 1993-1-1	Yes	No		0%	0%	Yes	
EN 1993-1-2	Yes	No		0%	0%	Yes	
EN 1993-1-3	No	No		0%	0%	Yes	
EN 1993-1-4	No	No		0%	0%	Yes	
EN 1993-1-5	No	No		0%	0%	Yes	
EN 1993-1-6	No	No		0%	0%	Yes	
EN 1993-1-7	No	No		0%	0%	Yes	
EN 1993-1-8	No	No		0%	0%	Yes	
EN 1993-1-9	No	No		0%	0%	Yes	
EN 1993-1-10	No	No		0%	0%	Yes	
EN 1993-1-11	No	No		0%	0%	Yes	
EN 1993-1-12	No	No		0%	0%	Yes	
EN 1993-2	No	No		0%	0%	Yes	
EN 1993-3-1	No	No		0%	0%	Yes	
EN 1993-3-2	No	No		0%	0%	Yes	
EN 1993-4-1	No	No		0%	0%	Yes	
EN 1993-4-2	No	No		0%	0%	Yes	
EN 1993-4-3	No	No		0%	0%	Yes	
EN 1993-5	No	No		0%	0%	Yes	
EN 1993-6	No	No		0%	0%	Yes	
<b>EN 1994: DESIGN OF COMPOSITE STEEL AND CONCRETE STRUCTURES</b>							
EN 1994-1-1	Yes	No		0%	0%	Yes	
EN 1994-1-2	No	No		0%	0%	Yes	
EN 1994-2	No	No		0%	0%	Yes	
<b>EN 1995: DESIGN OF TIMBER STRUCTURES</b>							
EN 1995-1-1	No	No		0%	0%	Yes	

EN 1995-1-2	No	No		0%	0%	Yes	
EN 1995-2	No	No		0%	0%	Yes	
<b>EN 1996: DESIGN OF MASONRY STRUCTURES</b>							
EN 1996-1-1	No	No		0%	0%	Yes	
EN 1996-1-2	No	No		0%	0%	Yes	
EN 1996-2	No	No		0%	0%	Yes	
EN 1996-3	No	No		0%	0%	Yes	
<b>EN 1997: GEOTECHNICAL DESIGN</b>							
EN 1997-1	No	No		0%	0%	Yes	
EN 1997-2	No	No		0%	0%	Yes	
<b>EN 1998: EARTHQUAKE RESISTANT DESIGN OF STRUCTURES</b>							
EN 1998-1	Yes	No		0%	0%	Yes	
EN 1998-2	No	No		0%	0%	Yes	
EN 1998-3	Yes	No		0%	0%	Yes	
EN 1998-4	No	No		0%	0%	Yes	
EN 1998-5	Yes	No		0%	0%	Yes	
EN 1998-6	No	No		0%	0%	Yes	
<b>EN 1999: DESIGN OF ALUMINIUM STRUCTURES</b>							
EN 1999-1-1	No	No		0%	0%	Yes	
EN 1999-1-2	No	No		0%	0%	Yes	
EN 1999-1-3	No	No		0%	0%	Yes	
EN 1999-1-4	No	No		0%	0%	Yes	
EN 1999-1-5	No	No		0%	0%	Yes	

***Please comment briefly the progress of elaboration of NDPs and NAs since the last workshop in Milan (5-6 December , 2013)  
(Drivers & barriers; harmonization (rate of acceptance of recommended values); establishment of regional collaboration (if any), etc.)***

***Please assess information flow between NSBs and European Commission***

1. The link of JRC Eurocode web site is posted on NSBs (Mirror TC Committee) web site

Yes:	No:X
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2. How often JRC Eurocode web site is accessed (monthly)

zero times	
less than 4 times	X
more than 4 times	

3. Please give suggestion (s) how to improve the information flow

***Additional comments that are not covered in the questionnaire***

<b>Date:</b>	15.10.2014
<b>Place:</b>	Turkey

## **A.6 COUNTRY REPORTS**

All Country reports can be found at the official web page of the Eurocodes:

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

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European Commission

EUR 26949 EN – Joint Research Centre – Institute for the Protection and Security of the Citizen

Title: Building capacities for elaboration of NDPs and NAs of the Eurocodes in the Balkan region

Authors: Roberta Apostolska, Fabio Taucer, Silvia Dimova, Artur Pinto

Luxembourg: Publications Office of the European Union

2014 – 62 pp. – 21.0 x 29.7 cm

EUR – Scientific and Technical Research series – ISSN 1831-9424

ISBN 978-92-79-44400-5

doi: 10.2788/607973

## JRC Mission

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Working in close cooperation with policy Directorates-General, the JRC addresses key societal challenges while stimulating innovation through developing new methods, tools and standards, and sharing its know-how with the Member States, the scientific community and international partners.

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doi: 10.2788/607973

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