

TWINNING INTERIM QUARTERLY REPORT No. 1

EUROPEAN COMMISSION



Project Title: Achieving the highest safety and technical quality of construction

Twinning Project: MN 10 IB FI 01

Project Partners

Implementing Partners Austrian Standards Institute

Association Française de Normalisation

Beneficiary Ministry of Sustainable Development and Tourism

Montenegro

Date: 2012-07-30

BC Project Leader MS Project Leader

BC Project Leader Mr Danilo Gvozdenović MS Project Leader Ms Joanna Gajdek

SECTION 1: Project Data

Twinning Contract No.	MN 10 IB FI 01
Project Title	Achieving the highest safety and technical quality of construction
Twinning Partners (MS)	Austrian Standards Institute (ASI)
	Association Française de normalisation
	(AFNOR)
Twinning Partners (BC)	Ministry of Sustainable Development and
	Tourism, Montenegro
Report Number	Quarterly Report No. 1
Period covered by the report	27 April 2012 – 26 July 2012
Duration of the project	18 Months
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	Austrian Standards Institute
	MS Project Leader
	Mr Danilo Gvozdenović,
	Deputy Minister for Construction
	Ministry of Sustainable Development and
	Tourism
	BC Project Leader

List of abbreviations used in the report:

- AFNOR: Association Française de Normalisation, Twinning Implementing Junior Partner
- ASI: Austrian Standards Institute, Twinning implementing Lead Partner
- BC: Twinning Project Beneficiary Country
- BWR: Basic Works Requirement
- CAB: Conformity Assessment Body
- CCMN: Chamber of Commerce of Montenegro
- CEMN: Chamber of Engineers of Montenegro
- CEN: European Committee for Standardization
- CPD: Construction Products Directive
- CPR: Construction Products Regulations
- EC: European Commission
- EUD: European Union Delegation
- FYR: Former Yugoslav Republics
- GIS: Geographic Information System
- IPA: Instrument for Pre-Accession Assistance
- IQR: Interim Quarterly Report
- ISME: Institute of Standardisation of Montenegro
- JRC: European Commission's Joint Research Centre at Ispra, Italy
- MOU: Memorandum of Understanding
- MS: Twinning Project Member State
- MSDT: Ministry of Sustainable Development and Tourism
- NA: National Annex(es)
- NAD: New Approach Directive(s)
- NB: Notified Body
- NDP: Nationally Determined Parameter(s)
- NSB: National Standards Body/ies
- PL: Project Leader
- PPD: Public Procurement Directives
- RTA: Resident Twinning Adviser
- RTAA: Resident Twinning Adviser Assistant
- RTAIT: RTA's Interpreter/Translator
- SIST: Slovenian Institute for Standardization
- STE: Short Term Expert
- TC: Technical Committee

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2A - BACKGROUND

Policy Developments

Under the 2007 Stabilisation and Association Agreement signed between the EU and Montenegro, the latter has undertaken to implement the *acquis communautaire*. Montenegro has accepted responsibility, inter alia, concerning harmonization of existing legislation in Montenegro with the European Community legislation and its effective implementation. Montenegro will gradually harmonize its existing laws and future legislation with the *acquis communautaire* with adequate implementation and enforcement.

This project, to be implemented with the Ministry of Sustainable Development and Tourism (MSDT), falls under the Single/Internal Market initiative supporting free movement of goods and services.

After gaining independence Montenegro continued to use construction standards based on 'JUS' inherited from the previous joint country.

The Law on Spatial Development and Construction of Structures (Official Gazette of Montenegro no. 51/08 22.08.2008, 40/10 22.07.2010, 34/11 12.07.2011, 40/11 08.08.2011, 47/11 23.09.2011) regulates the system of spatial development of Montenegro, the manner and requirements for construction of structures, as well as other matters of importance for spatial development and construction of structures.

In recent period ISME took over draft versions of EN 1990, Basis of Design, and three parts of EN 1991, Loadings.

The Law refers to the six essential requirements of the Construction Products Directive (CPD). With the repeal of the CPD and introduction of the Construction Products Regulations (CPR) by the European Commission, another requirement for sustainable use of natural resources was added and this is currently missing from the Montenegrin Law. The CPR now refers to basic works requirements (BWR) instead of the CPD's essential requirements to avoid ambiguity with the term in other New Approach Directive(s).

Project Assumptions

The assumptions made in relation to the overall objectives and purpose of the project - the political commitment within the EU and Montenegro towards EU Membership and the commitment towards implementation of *acquis communautaire* for Single Market – remain valid.

It is recognised in the first quarter that the success of the project relies heavily on:

- The availability of local experts who will be drafting the nationally determined parameters, national annexes and other complementary guidance;
- Translation of documents, mostly from other languages into Montenegrin, and the requisite associated funding being available;
- Financing of the standardisation experts to produce the technical documents;

The enthusiasm of the beneficiary and the co-beneficiaries being enthusiastic, co-operative and committed. Financing of local experts was raised at the Kick Off Meeting as well. The above are serious bottlenecks, which need to be addressed as a matter of urgency to ensure there are no delays in the delivery of the project.

Twinning Contract No MN 10 IB FI 01 Interim Quarterly Report No.1 Regarding the assumptions under the mandatory results in respect of the individual components for the reporting period, in our opinion they will be fulfilled within the timetable of the Contract subject to the above caveat.

2B - ACHIEVEMENT OF MANDATORY RESULTS

At the outset, it should be noted that all of the projects benchmarks were written with the expectation of a March 2012 start for the twinning project. As the actual project start date was 27 April 2012, the deadlines for achievement of benchmarks and the timetable have been revised accordingly. (See project schedule in 2D - Timing Delays)

Mandatory Result Component 1

	Intervention logic	Benchmarks
Activities	Component 1	
1.1	Timeline for preparation of national annexes to the different Eurocode parts providing to introduce in the first place the Eurocodes packages relevant to the most wide-spread structures in Montenegro;	Time plan established and available

Comment – Initial round of meetings were held with most stakeholders to identify the most important packages of Eurocodes and this has helped to develop an initial timeline schedule. For the time being package 2/1, dealing with concrete building and civil engineering works, is the most important followed by geotechnics, masonry and other materials.

Since it was not possible to meet all the stakeholders, this timeline will be kept under review and updated regularly.

Progress was made with Institute of Standardisation of Montenegro/Technical Committee 002 granted observer status in CEN Technical Committee.

STE advised Technical Committee 002 to follow the work of all CEN Technical Committee 250 sub-committees except Sub-Committee 9 (aluminium structures).

Completed but also under constant review.

	Intervention logic	Benchmarks
Activities	Component 1	
1.2	Determination of the methods to estimate or suggestion for the most appropriate values, of the nationally determined parameters to all Eurocodes;	Working guideline for establishing of the national values and parameters available

Comment – The first mission under this activity took place from 9 to 13 July 2012 and the Short Term Expert has made some recommendations on Nationally Determined Parameters.

Twinning Contract No MN 10 IB FI 01 Interim Quarterly Report No.1 There was a seminar on 11 July attended by most stakeholders on how the other countries in the EU had implemented the Eurocodes.

Under activities 1.4/1.5, approaches have been made to the Former Yugoslav Republics and Albania for sharing the Nationally Determined Parameter(s), National Annex(es) and translations. The work is on-going.

	Intervention logic	Benchmarks
Activities	Component 1	
1.3	Definition of list of IT equipment (specialised software and computers) to be purchased by the Ministry of Sustainable Development and Tourism for elaboration of the nationally determined parameters to all Eurocodes;	List of IT available

Comment – Visit by Short Term Expert in the week of 19-22 June 2012 highlighted the fact that no specialist software or hardware was required. The author of the project fiche was consulted to better understand this activity. Further enquiries were made to see what methods were employed across Europe to establish NDPs and NAs before considering other options for these funds. The response was that no specialist IT software or hardware was required.

After consultation with MSDT, it was decided to focus on ensuring quality data gathering, monitoring and processing which would support the NAs should be pursued. Thus a number of co-beneficiaries were invited to make a bid from the available €70k. There had been a limited response and it was decided to extend the date for bids to 5 September 2012.

This work is on-going since responses from co-beneficiaries are awaited before a decision is made.

	Intervention logic	Benchmarks
Activities	Component 1	
1.4	Concept for establishing regional networking in translation of the Eurocodes parts;	Regional working group established Concept available

Comment – Ms Joanna Gajdek, Short Term Expert for this activity and MS PL, visited 2-6 July 2012 and met Mr Perovic, head of ISME, to establish co-operation with the Former Yugoslav Republics for translations. A letter has gone out from both Project Leaders to all the Former Yugoslav Republics National Standards Bodies, excluding Slovenia, and Albania.

The Slovenian Institute for Standardisation (SIST) was contacted and a direct link with the Technical Committee in charge of the implementation of the Eurocodes has been established.

Contact is also being made with JRC who co-ordinate Eurocodes research and manage the database of national annexes and NDPs with a view to sharing this information.

The work is on-going.

	Intervention logic	Benchmarks
Activities	Component 1	
1.5	Concept for establishing regional cooperation in preparation of wind, snow, and isotherms maps	Regional working group established Concept available

Comment – Ms Joanna Gajdek, STE for this activity and Twinning Project Member State Project Leader, met Mr Miodrag Perović, head of ISME to utilise the same network as 1.4 for sharing weather and seismic data. These issues will be part of the network established under activity 1.4, see above.

The work is on-going.

	Intervention logic	Benchmarks
Activities	Component 1	
1.6	Roadmap for adaptation of the Montenegrin legislative framework for construction to allow the use of the Eurocodes	Road map available

Comment – Two visits by Short Term Expert resulted in examining legislation for Public Procurement, Law on Spatial Development and possible ways of implementing the Construction Products Regulations. He is examining how standards and Eurocodes are being treated in legislation. He is also reviewing local legislation including laws, regulations and rulebooks to see what improvements, if any, could be made.

The work is on-going with a target completion in autumn 2012.

	Intervention logic	Benchmarks
Activities	Component 1	
1.7	Provision of the IT equipment (specialised software and computers) determined by Activity 1.1 for elaboration of the nationally determined parameters to all Eurocodes	Equipment available

Comment – Progress will be dependent on activity 1.3

2C - ACTIVITIES IN THE REPORTING PERIOD

COMPONENT 0: Project management and report stages

Activity 0.1 - Kick-off meeting

The Twinning Contract was endorsed on 4 April 2012 and the RTA arrived on site on 27 April 2012 to commence work. The RTA Interpreter/Translator and the Assistant were recruited on 9 May 2012 and started work on 28 May and 1 June 2012 respectively.

The project kick-off meeting was held on 8 May 2012 with the aim of providing visibility to the project, publicising its goals and objectives to the relevant public institutions and industry stakeholders. The event was also an opportunity to show support for the EU Membership process of the Republic of Montenegro.

The event was attended by Mr Predrag Sekulić, the Minister for Sustainable Development and Tourism, Mr Nicola Bertolini, Head of Operations Section of the EU Delegation to Montenegro, Mr Ivan Lagator, deputising for Mr Georg A. Wiesner, EU Delegation Attaché, Operations Task Manager (Infrastructure & Transport), Ms Joanna Gajdek, Member State Project Leader from ASI, Mr Danilo Gvozdenović, Beneficiary Country Project Leader from MSDT, Tariq Nawaz, RTA from ASI, Ms Svetlana Vuksanović, RTA Counterpart from MSDT, as well as representatives of all institutions implementing activities of the BC. In addition the other cobeneficiaries, see list of attendees in Annex 2, and media were present.

The speeches from Mr Predrag Sekulić and Mr Nikola Bertolini emphasised the EU's commitment in supporting Montenegro in its accession process from a candidate to a full EU member. Mr Gvozdenovic and Ms Joanna Gajdek who gave a presentation of the project. This was then followed by a question and answer session with the co-beneficiaries who were asking about what support MSDT would provide for their input to the project.

In all, about 30 participants, excluding media, attended the kick-off event. The list of delegates in Annex 2.

The RTA Counterpart, Ms Svetlana Vuksanović, also appeared on prime time TV on 10 May 2012 to explain this project.

COMPONENT 1:

ACTIVITY 1.1 -

71011111111	Activity III		
	Intervention logic	Benchmarks	
Activities	Component 1		
1.1	Timeline for preparation of national annexes to the different Eurocode parts providing to introduce in the first place the Eurocodes packages relevant to the most wide-spread structures in Montenegro;	Time plan established and available	

Key persons and institutions involved

Duration: There were two missions: 28 May to 1 June by Mr Jochen Fornather and 9 to 13 July 2012 by Messrs Jean-Armand Calgaro and Jean-Michel Remy.

Meetings were held with the following organisations:

- 1. Seismological Observatory: Branislav Glavatović, Director;
- 2. Chamber of Engineers: Mr Stjepčević, President and Mr Svetislav Popović, Secretary
- 3. Civil Engineering Faculty, University: Duško Lučić, Željka Radovanović, Biljana Šćepanović, Marina Rakočević, Neboša Đuranovć and Jelena Pejović;
- 4. Architecture Faculty, University: Ilija Lalošević
- 5. Earthquake Engineering, Civil Engineering Faculty: Božidar Pavićevć, Srđan Janković;
- Institute of Standardization of Montenegro: Ljiljana Šoškic (technical secretary),
 Radomir Zejak (Chairperson);
- 7. Hydrological and meteorological Service of Montenegro: Branko Micev;
- 8. Chamber of Economy (Commerce): Boro Rakčević;
- 9. Geological Survey, Mr Branko Žugić.

It should be noted that the RTA team, RTA counterpart and MSDT staff attend all meetings.

Aims and content of mission

This activity focuses on the development of the master plan for the development of the national annexes for the priority packages: concrete and masonry buildings.

Achievements, difficulties and observations

Initially this activity was to identify the key co-beneficiaries, the current knowledge about Eurocodes, weather and seismic data availability and human resources for development of NDPs and National Annexes. From the information gathered during these missions, the Short Term Experts have developed a road map, see Annex 3.

Translations into the national language are a fundamental requirement to make the standards useable. Activity 1.4 is seen as a way to support this in a cost effective manner.

The priority packages identified are concrete buildings, geotechnics, masonry buildings and structures using other materials. For reference, a full list of all the Eurocodes packages agreed at a European level is at Annex 4.

The STEs have made a set of existing documents available, including National Annexes, from Austria, Croatia, Greece and, Italy to assist the co-beneficiaries. Via the regional network being established under activity 1.5, Croatian NAs are being made available. The Slovenian standards body SIST has also offered their documents. The Austrian, Greek, Italian and Slovenian documents will be available in the original language for TK 002 at their next meeting. However, these documents will need to be translated. In addition JRC, who have a database of all the NDPs and NAs, have been contacted with a view to sharing the information.

There are also public procurers, particularly those dealing with infrastructure projects, with whom we were unable to make contact. We need to check their awareness of Eurocodes and their obligations. Since most these projects are caught by Public Procurement Directives

Twinning Contract No MN 10 IB FI 01 Interim Quarterly Report No.1 thresholds, we also needed to know how these projects are being handled in practice. We also need to know the information for the legal roadmap under activity 1.6.

In view of the above, the roadmap will be kept under review as a living document so that needs of the public procurers can be accommodated.

A presentation on the Eurocodes was given to 25 delegates at the Chamber of Economy on 26 June 2012.

Recommendations and suggestions for further action

Meetings with some stakeholders, especially public sector procurers, Ministry of Education for accreditation of university courses teaching and a vocational school for construction need to be held. Realistically these will be in the next quarter and we shall endeavour to accommodate these when Mr Jochen Fornather visits under another activity.

In his next mission Mr Fornather will be meeting with ISME TK 002 to establish subcommittees, Ad Hoc Groups and set their terms of reference to commence their work.

He will also be meeting with staff from the Civil Engineering Faculty to establish the manner, procedure and deadline to introduce Eurocodes in teaching.

Completed - Draft Roadmap at Annex 3, but this will be kept under review in view of the omission of the public sector procurers and other stakeholders.

ACTIVITY 1.2 -

	Intervention logic	Benchmarks
Activities	Component 1	
1.2	Determination of the methods to estimate or suggestion for the most appropriate values, of the nationally determined parameters to all Eurocodes;	Working guideline for establishing of the national values and parameters available

Key persons and institutions involved

This activity involved the first mission by the STE Mr Jochen Fornather. More missions are scheduled by Mr Fornather and other STEs for the second quarter.

Meetings were held with the following organisations in this mission:

- 1. Institute of Standardization of Montenegro: Ljiljana Šoškić (technical secretary),
- 2. Civil Engineering Faculty, University: Nebojša Đuranović, Jelena Pejović,
- Geological Survey: Mr Branko Žugić.

It should be noted that meetings with other co-beneficiaries were held under activity 1.1

Aims and contents of mission

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The aim of this mission is to commence work on the appropriate NDPs for the Eurocodes in the identified priority packages and then roll out across all the important Eurocodes.

Achievements, difficulties and observations

Meetings with the co-beneficiaries have commenced and further exchanges will occur in subsequent missions.

The JRC at Ispra has been approached with a view to getting information from them to assist with the project. Under activity 1.5 approaches have been made to the regional network to obtain comparative data.

The STE has made available technical information from Austria, Croatia, Greece, Italy and Slovenia. All these countries suffer from varying degrees of seismic activity. Translation of these documents will be addressed as soon as possible by activity 1.4.

Technical terminology needs to be established. In this respect, there is an IPA project in Serbia and contact has been made to pick up the benefits under activity 1.4.

Issue of financial support for local experts has been raised a number of times in the project and this will need to be addressed among the beneficiaries.

A half-day seminar to raise the visibility of the project was held on 11 July 2012 on the "Implementation of Eurocodes in Europe" including the development of national annexes. There were 23 delegates and the list is in Annex 2.

Recommendations and suggestions for further action

In future missions sessions will be held with the TK 002 to establish the various Ad Hoc Groups and their terms of reference so that the technical work can commence. In addition, a Task Force Group has been proposed to ensure the legislation is in place to support the practical implementation, assisted by SKE for legal issues. It is recommended that the same Group also takes charge of the implementation of the legal roadmap, provided by STE for legal issues, of activity 1.6.

Progress is being made and delivery of the NDPs is expected in autumn 2012. However, the other work in the roadmap produced in activity 1.1 will run into much later in the project.

ACTIVITY 1.3 -

	Intervention logic	Benchmarks
Activities	Component 1	
1.3	Definition of list of IT equipment (specialised software and computers) to be purchased by the Ministry of Sustainable Development and Tourism for elaboration of the nationally determined parameters to all Eurocodes;	List of IT available

Key persons and institutions involved

This activity involved the mission by the STE Mr Gerald Luza.

Meetings were held with the following organisations:

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- 1. Institute of Standardization of Montenegro: Ljiljana Šoškić (technical secretary),
- 2. Montenegro University Civil Engineering staff: Nebojša Đuranović and Jovo Popović,
- 3. University of Donja Gorica Information Technology Faculty: Biljana Stamatović.

Aims and contents of mission

The aim of this mission was to draw up a list of the specialist IT equipment, software and hardware, to support the development of NDPs for all the Eurocodes. The list would then be subsequently procured under activity 1.7.

Achievements, difficulties and observations

There was no need for any specialist equipment beyond the normal Microsoft Office software. The STE looked into weather data and how it could be used in the NAs.

To ensure this activity has not been wrongly interpreted, the author of the project fiche was approached to clarify the intention. The author had in mind that Geographic Information System would be used for gathering weather and seismic data.

In line with the above mentioned, a letter was sent to co-beneficiaries to submit their bids for necessary specialist equipment, monitoring equipment data logging etc. and deadline for replies has been extended to 5 September 2012.

Hydrological and meteorological service of Montenegro requested funds to provide the weather data which will be discussed by institutions which would use those data.

Recommendations and suggestions for further action

Responses are awaited from the co-beneficiaries to see where else this money could be better utilized before a final decision is made.

ACTIVITY 1.4 -

	Intervention logic	Benchmarks
Activities	Component 1	
1.4	Concept for establishing regional networking in translation of the Eurocodes parts;	Regional working group established Concept available

Key persons and institutions involved

Ms Joanna Gajdek is one of the STEs for this activity and visited 2-6 July.

During her mission, she met:

- 1. Mr Miodrag Perović, Head of ISME
- 2. Mr Danilo Gvozdenović and the beneficiary staff at MSDT

Aims and contents of mission

The aim of this mission is to establish a regional network for translations.

Achievements, difficulties and observations

Ms Joanna Gajdek met Mr Miodrag Perović to establish co-operation with the Former Yugoslav Republics for translations. Serbia has done some work, and possibly other neighbouring countries, where language differences are not significant and could possibly be shared, subject to a suitable MOU being established.

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A letter has gone out from both Project Leaders to all the Former Yugoslav Republics National Standards Bodies, excluding Slovenia, and Albania. The Slovenian Institute for Standardisation (SIST) was contacted and a direct link with the Technical Committee in charge of the implementation of the Eurocodes has been established. SIST promised to share their national annexes to Eurocodes with the Twinning project. However, due to language differences the documents will need translating. We are looking into how this could be financed.

There is an IPA regional project "Quality Infrastructure in the Western Balkans and Turkey" and contact has been made with regards to obtaining technical terminology for use with the development of standards work at ISME. The Ministry of Economy is the representative for Montenegro and we'll establish contact with them.

The work is on-going.

Recommendations and suggestions for further action

Deadline for responses from the regional network is 23rd of July 2012. There were limited responses and there will be a bilateral follow up by the Short Term Expert. Next step will be drafting of MOU setting conditions and modus operandi of such a network, subject to a positive response.

ACTIVITY 1.5 –

	Intervention logic	Benchmarks
Activities	Component 1	
1.5	Concept for establishing regional cooperation in preparation of wind, snow, and isotherms maps	Regional working group established Concept available

Key persons and institutions involved

Ms Gajdek is one of the STEs for this activity and visited 2-6 July.

During her mission she met:

- 3. Mr Miodrag Perović, Head of ISME
- 4. Mr Nebojša Đuranović, Civil Engineering Faculty, Montenegro University
- 5. Mr Branislav Glavatović, Seismic Observatory
- 6. Mr Danilo Gvozdenović and the beneficiary staff at MSDT

Aims and contents of mission

The aim of this mission is to establish regional cooperation in preparation of wind, snow, and isotherms map. We have extended the scope to seismic data since this is also required for NAs.

Achievements, difficulties and observations

This activity is being progressed with the same group as activity 1.4.

See activity 1.4 for progress of this activity.

Recommendations and suggestions for further action

Assuming there are positive responses from the network, an MOU will be drafted setting out co-operation details.

ACTIVITY 1.6 -

	Intervention logic	Benchmarks
Activities	Component 1	
1.6	Roadmap for adaptation of the Montenegrin legislative framework for construction to allow the use of the Eurocodes	Road map available

Key persons and institutions involved

Mr Lentsch, the STE for this activity, visited 11-15 June and 9-13 July. He has met MSDT and ISME staff.

Aims and contents of mission

The aim of this mission is to produce a roadmap to adapt national construction legislation to permit the use of Eurocodes.

Achievements, difficulties and observations

The Law on spatial development and construction of structures and its compliance with the New Construction Products Directive was examined. There is on-going work on drafting the new Spatial Development and construction of structures bill, which regulates this area. For the time being, the working text of the Law is unavailable.

Due to time restrains for preparation, the project was unable to organize meetings with the Ministry of Economy, responsible for implementation of the Law on technical requirements and conformity assessment of construction products, Public procurement directorate and public sector infrastructure bodies.

Mr Lentsch also gave a presentation at the seminar on 11 July on "Better Regulation: Eurocodes and Public Procurement"

The work is on-going and we are confident of completion of the roadmap by autumn 2012, subject to availability of local ministries' staff and (draft) legislation.

Recommendations and suggestions for further action

Meetings should be organized with ministries responsible for legislation which implements New approach directive into national legislation.

There needs to be a meeting with Public Procurement Agency in terms of the technical specifications and public procurement announcements. Also need to meet the major public works organisations responsible for the buildings, roads and rail infrastructure to see how the law is being applied in practice.

Some Rulebooks dealing with construction to be selectively translated before any recommendations can be made.

2D - TIMING DELAYS

Timetable

Component 1 is generally on track despite difficulties in arranging meetings in July. Activities 1.2 and 1.6 are slightly delayed. We expect to regain momentum since most of the same

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Their implementation requires commitment and adequate resources being made available by the beneficiary since this is being flagged up regularly. It would be helpful to have an up to date database of co-beneficiary contacts who can liaise with us in setting up meetings.

The achievement of the benchmarks related to these activities is on target.

Project month	Apr 12	May	2 Jun 12			6 Oct 12		9 Jan 12					17 Sep 13	18 Oct 13
Activities implementation phase (18 months)														
Arrival of RTA - 27 th of April 2012														
Implementation period - 27 th of April 2012 to 26 th October 2013														
RTA & assistants on-site														
Kick-off meeting														
Steering committee meetings														
Reporting				IQR		IQR		IQR		IQR		IQR		IQR
Final meeting														
Monitoring														

Project month	1 May 12	3 Jul 12	4 Aug 12	5 Sep 12	6 Oct 12	7 Nov 12	8 Dec 12	9 Jan 12	Feb	Mar	12 Apr 13	May	14 Jun 13	15 Jul 13	16 Aug 13	Sep	18 Oct 13
Component 1																	
1.1. Timeline for preparation of national annexes to the different Eurocode parts providing to introduce in the first place the Eurocodes packages relevant to the most wide-spread structures in Montenegro;																	
Determination of the methods to estimate or suggestion for the most appropriate values, of the nationally determined parameters to all Eurocodes;																	
Definition of list of IT equipment (specialist software and computers) to be purchased by the Ministry of Sustainable Development and Tourism for elaboration of the nationally determined parameters to all Eurocodes;																	
1.4. Concept for establishing regional networking in translation of the Eurocodes parts;																	
Concept for establishing regional cooperation in preparation of wind, snow, and isotherms maps																	
Roadmap for adaptation of the Montenegrin legislative framework for construction to allow the use of the Eurocodes																	
1.7. Provision of the IT equipment (specialised software and computers) determined by Activity 1.1 for elaboration of the nationally determined parameters to all Eurocodes																	

Component 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	May 12	Jun 12	Jul 12	Aug 12	Sep 12					Feb 12		Apr 13		Jun 13		Aug 13		Oct 13
2.1. Definition of the list for training material for continuous professional development to be prepared/adopted and provision of good practice examples, including: information leaflets on the implementation of the EN Eurocodes, designer handbooks and manuals, guidelines with worked examples (e.g. of common types of buildings and bridges), training and design software																		
2.2 Definition of concept for university programme of studies on the Eurocodes and provision of good practice examples for: lecturers' notes, information leaflets on the implementation of the EN Eurocodes,																		
2.3. Planning of seminar on training the Montenegrin Eurocodes trainers																		
2.4. Elaboration of plan for intensive training of the Montenegrin construction professionals																		

Component 3	1 May 12	2 Jun 12	3 Jul 12	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	18 Oct 13
3.1. Determination of those nationally determined parameters of Eurocode 8 where specific for Montenegro values obligatory have to be introduced, and estimation of these parameters																	
3.2. Incorporation of results from the NATO Science for Peace and Security project "Harmonization of Seismic Hazard Maps for the Western Balkans Countries" for determination of the seismic actions (e.g. seismic map, response spectra, etc.)																	
3.3. Elaboration of the text of the national annex in Montenegrin language																	

Recuperation of delays

There are currently no activities that have been delayed for more than 3 months. But the activity 1.2 and activity 1.6 will be continued in the second project quarter and herewith the delay will extend the accepted period of 3 months.

2E - ASSESSMENT

Overall assessment of progress

The project and its implementation enjoy the full cooperation of both the MS and BC teams and there are no problems.

We are of the opinion that the project is still on track to meet all its projected results and benchmarks within the timetable of the Contract. However, the project has got off to a slow start. This in part was due to the recruitment and taking up post by the RTA support team and RTA settling down in new surroundings. Notwithstanding the delays, activities from the first project component have commenced in this reporting period.

The future activities planned for the second quarter of the project will be designed to be delivered in this period. Modifications were made to the project schedule to take into account the summer shut down.

With the firm commitment and support from the beneficiaries and co-beneficiaries, we are confident of keeping to the revised schedule.

Issues

We have had difficulties in finding the right focal points in co-beneficiaries resulting in some meetings not going ahead. However, we're compiling a database and would urge all co-beneficiaries to update the information whenever there is a change.

Greater visibility is required for this project and MSDT have agreed to host us on their website.

Recommendations

As a management tool to assist with monitoring and planning, it was decided to provide MSDT a short monthly report on the progress and the planned future visits to. A template has also been designed to give advance warning of an STE's visit and what arrangements need to be made in terms of meetings and other resources for a transparent and successful mission. This should improve communication, transparency and aid implementation.

It would be helpful to have an up to date database of co-beneficiary contacts who can liaise with us in setting up meetings.

MSDT has offered to host our project on their website to increase the visibility. We shall use the opportunity to make available important documents and publicise events so that the messages go beyond just the immediate group of co-beneficiaries. We expect to have this operational in the second quarter.

3 Expenditure

The overall amount spent during the first project quarter is around €105k i.e 15% of the budget.

Submitted by:

MS Project Leader BC Project Leader

[Signature] [Signature]

[date] [date]

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Annex 1 - Mission reports for this quarter

Twinning Montenegro MN 10 IB FI 01



"Achieving highest safety and technical quality of construction"

Mission report

Activity (number & title)	
1.1 - Timeline for preparation of national	Name of expert(s)
annexes to the different Eurocode parts	Jochen Fornather
	Location
Date	Podgorica, Montenegro
2012-05-28 until 2012-06-01	

Key persons & institutions involved*

Ministry of Tourism; Ms Vuksanović

Seismological Observatory of Montenegro; Mr Glavatović

Chamber of Engineers: Mr Stijepčević

Faculty of Civil Engineering; Ms Radovanović

Montenegrin Association of Earthquake Engineering, Mr Pavićević

Hydro-meteorological Institute of Montenegro; Mr Micev

Institute of Standardization of Montenegro; Ms Šoškić, Mr Zejak

Chamber of Commerce, Mr Rakčević

Aims and contents of mission*

In this week about 8 meetings were scheduled, where the aim of the project from the view of the project leader and the stakeholders were discussed. Special care was made to get background information of all stakeholders, therefore a questionnaire was prepared, which was used during this meetings.

With this information it was possible for the STE to make a first categorization of the priorities in this project.

Achievements, difficulties and observations

The STE and the stakeholders got a first overview about all tasks and the conclusions which have to be elaborated in the next view months.

The results of the questionnaire showed that following Eurocode parts are most important:

EN 1990, EN 1991-1-1 to EN 1991-1-7, EN 1991-2;

EN 1998-1-1

EN 1992-1-1,

EN 1996-1-1 and EN 1996-3.

The meetings have shown that there exist no maps for snow loads, wind loads, temperature effects and also basic acceleration maps, which can be used as input parameter for Eurocode design.

Therefore a clear definition of the needed information was given by the STE for snow, wind and temperature. For the acceleration maps this shall be done in the next weeks. With this information the stakeholders are asked to give the information about their need to achieve the agreed target.

At university courses on Eurcodes are only given at Masters level; but the used standards are not official versions. The experts received them through their contacts to the university in Belgrade. For introducing Eurocodes also in Bachelors program a change of the accredited program is needed (accreditation is made by the ministry of education).

The Standards Institute of Montenegro has already founded a technical committee for adopting Eurocodes and elaborating National Annexes. For 2012 the adoption of EN 1990, EN 1991 series and EN 1998 series is planned (in English). Contacts to Serbian Standards Institute exist, but there has to be made a contract to exchange Standards in the local language.

The experts from the Chamber of Commerce just noticed the project; but more information is needed for them, so they understand the importance of the project and how they are affected.

The experts from Ministry of Tourism attended every meeting in this week. They recognised the needs of the different stakeholders. They are also aware of making a new law on civil engineering structures and also wants to introduce the Construction Product Directive (now: Regulation) into their legislative. Therefore the STE was asked to give information about the legal system in Austria.

Recommendations and suggestions for further action

For the next weeks a clear time table have to be made by the LTE and the stakeholders. The actions which have been given to them shall be done until the next visit of the STE in July $9^{th} - 13^{th}$.

There have been given actions to

- -) Institute of Standardization: make decision how to adopt Eurocodes; write letters to CEN (for becoming member of CEN TC 250), to Serbian Institute of Standardisation (agreement concerning translation and copyright of Eurocodes), to Austrian Standards (information about National Annexes)
- -) Faculty of Civil Engineering: describe their needs concerning software (for determining the NDPs), handbooks, leaflets, seminars.
- -) <u>Meteorological Institute of Montenegro</u>: describe their needs concerning the needed meteorological data
- -) Seismological Observatory of Montenegro: describe their needs concerning the needed seismological data
- -) Chamber of Commerce: inform their members on the aim of this project
- -) Chamber of Engineers: ask their members about contribution of elaborating National Annexes of Eurocodes (becoming experts in the Institute of Standardisation).

For the next visit of the STE following meetings are planned:

- 1) Meeting concerning Eurocode 8 (establish WG, give information of needs for maps, decision on time schedule for translation of EN 1998-1 and the elaboration of the National Annex)
- 2) Meeting concerning Eurocode 0 and 1 (establish WG, give information of needs for maps, plan time schedule for translation of EN 1990 and EN 1991 parts and the elaboration of the National Annex)
- 3) One day seminar for all the stakeholders of the project, where the STE from Austria and France should give information about Eurocodes, implementation in Member states, reference and influence to product standards and legal aspects.
- 4) Introductory meetings with following stakeholders: contractors, director for railways, director for highways, director of public works for capital investments, expert from ministry of interior (concerning fire issues in the case of emergency), expert from ministry of education (concerning accreditation of program at university), experts from the technical high school of construction works.

Podgorica, 2012-06-0 <i>′</i>
Place, date

Appendices if available

(e.g. brief agenda of mission, including persons met, workshop programme, list of participants, etc.)

Twinning Montenegro MN 10 IB FI 01



"Achieving highest safety and technical quality of construction"

Mission report

Activity (number & title) 1.6 Roadmap for adoption of the Montenegrin legislative framework for construction to allow the use of Eurocodes	Name of expert(s) Dr. Wolfgang Lentsch
Date 2012-06-11/15	Location Podgorica, Montenegro

Key persons & institutions involved*

Mr. Danilo Gvovzdenović, BC PL, Ministry of Sustainable Development and Tourism (MoSDaT)

Ms. Svetlana Vuksanović, BC RTA Counterpart, Ministry of Sustainable Development and Tourism (MoSDaT)

Ms. Tatjana Vujošević, Building engineering officer, Ministry of Sustainable Development and Tourism (MoSDaT)

Aims and contents of mission*

This first mission under activity 1.6. was a fact finding mission to get hold of existing legal instruments and drafts of new legal instruments or amendments to existing legal instruments.

With regard to the implementation of EUROCODES in Montenegro the following existing legal instruments are important:

- 1. Law on Standardization No. 13/2008
- 2. Law on Spatial Development and Construction of Structures No. 51/2008, last amended No. 24/2011
- 3. Law on Public Procurement No. 42/2011
- 4. Law on Technical Requirements for Products and Assessment of Product Conformity against Prescribed Requirements No. 14/2008
- 5. Law on Market Inspection No. 53/2011

There are several amendments to the aforementioned Laws under way and new legal instruments in preparation, the most prominent with possible relation to EUROCODES being:

- 1. Amendment to the Law on Spatial Development and Construction of Structures No. 51/2008, last amended No. 24/2011 this amendment is prepared by the
- 2. New Law on Construction Products responsible is the Ministry of Sustainable Development and Tourism, intention is to implement the EU Construction Products Regulation 2011/305/EU

The BC Ministry of Sustainable Development and Tourism (MoSDaT)will provide the texts of the draft amendment to the Law on Spatial Development and Construction of Structures and of the new Construction Products Law to be translated before and analyzed during mission 2.

Achievements, difficulties and observations

Three meetings with the BC MoSDaT could be organized to get a clearer picture of the existing and proposed legal instruments. However, it has to be observed that communication was not easy at the beginning and the BC MoSDaT did not provide full information from the beginning as a point of departure of discussions but only after several attempts of the undersigned. The "Rule books" for construction enumerated in the project fiche annex are not available at all, the argument for not providing at least one prominent "Rule book" as an example for analysis is that they are very voluminous.

However, through several Internet searches the English texts of the Laws enumerated above – with the exception of the Law on Market Inspection – could be secured, although sometimes in differind versions. A first analysis revealed that they are in general not consistent with the legal philosophy of the EU and in particular with relevant EU regulations such as the "New Legal Framework" ex 2008. They still are not considering the overall EU principle of "free movement of goods" and "freedom to provide services" of the EU internal market and tend for isolated national technical regulations instead for common and harmonized requirements supported by harmonized European standards. This seems to be the case in particular regarding the issuance of building and construction permits where the numerous and very detailed binding regulations of "rule books" for different construction works were taken from ex-Yugoslavian legislation and are still kept instead of moving to European standards and guidelines. The alignment of the legislative framework for products with the EU acquis is still in the early stages. In the construction sector initiatives to implement the CPD 89/106 have been given up in favour of implementing CPR 305/2011, which, however, is not yet in a "first draft" stage. With regard to standardization the legal instruments are generally in line with the main WTO-principles regarding abolishing technical barriers for trade, however there exists a regulation to be particularly noted, namely the conversion of voluntary standards into "mandatory standards" via implementing them as "technical regulations" (see following).

A particular difficulty is that in particular the RTA Counterpart seems to be very enthusiastic about "mandatory standards" and binding "rule books" which reflect the traditional state dominated economy system used in Ex-Yugoslavia and which are still used in Montenegro. It was and probably still is difficult to explain the essence of the principle of the EU legislation regarding "internal market for products and services" and the role of European standards – even harmonized European standards – and EUROCODES in particular in Europe: being non-binding "voluntary" reference documents enabling to comply with harmonized essential or basic product requirements and design and calculation requirements. There was the argument that several European technical experts in their consultations used the term "mandatory documents" in particularly with relation to EUROCODES. Even the new Law on Standardization No. 13/2008 in "Article 16 – Application of standards" stresses that the application of Montenegrin standards shall not be mandatory but allows "when a technical regulation refers to a Montenegrin standard, such standard shall be mandatory and shall be implemented as a technical regulation". The argument of the undersigned was that in such a case which in EU terms is an "Old approach" regulation technique, the standards cease to be a standard but become a technical regulation. In general this, however, is not foreseen for European standards and for EUROCODES in particular and can not be applied by national legislators in the case of "New Approach legislation" and for "harmonized European standards" elaborated under the "New Approach" principle. With regard to EUROCODES the legal nature of them as being non-mandatory reference documents containing "common design and calculation aids" to proof compliance of building and civil engineering works and construction products with relevant basic requirements of the CPD and the new CPR is made quite clear in the Commission homepage dealing with EUROCODES (see in particular http://eurocodes.jrc.ec.europa.eu/home.php).

The "presumption of conformity" under the New Approach regime and the "means to prove compliance of building and civil engineering works" with the requirements of "Mechanical resistance and stability ("Loading")" and "Safety in case of fire" through voluntary application of relevant EUROCODES needs to be broadly explained together with stressing that "European standards" in legal terms never should be "mandatory" but only one of several means – albeit the most important one – to proof conformity to the technical requirements of products and construction works.

The MoSDaT is not at all involved in any way with public procurement for public building and civil engineering works (in general denominated as "construction works"). Even the use of EUROCODES in public tenders is at present not an issue to be promoted by the MoSDaT but is left to the Ministry of Finance and the relevant Agency of Public Tenders under the Ministry of Finance.

The MoSDaT envisages to seperate legal instruments for Construction works on the one hand and Construction products on the other hand in two separate Laws, the first being regulated in the existing Law on Spatial Development and Construction of Structures, the second being regulated in a new Law on Construction Products. Therefore the "Basic requirements" of Annex I of the CPR 2011/305/EU will be inserted in both laws for "construction works" and "construction products" respectively.

There seems to be no clear picture how to deal in future with the numerous and quite voluminous "Rule books" for the different areas of construction, a relic of Ex-Yugoslavia. It is not clear in particular whether there is the intention to keep them as a mandatory instrument which of course would be a "technical barrier" to provide services in Montenegro in the field of "construction works". There seems to be an unclear position how far these "Rule books" should be repealed by EUROCODES, which is the main topic of this project to enable Montenegro to align to the EU legislation in the construction sector.

It had been stressed that activity 1.6. is due to be finished end of November 2012 and a roadmap for enabling the MoSDaT to prepare the Montenegrin legislative framework for the construction sector to allow the use of EUROCODES will be produced in close co-operation with the MoSDaT, being the beneficiary of this project, until end of November 2012.

Recommendations and suggestions for further action

Recommendations:

- The main recommendation is that the co-operation and the information flow from the BC MoSDaT and in particular from the BC RTA Counterpart has to be built up and strengthened.
- 2. The second recommendation is that all technical experts should avoid to use the term "mandatory standard" or even relate to "mandatory application" of EUROCODES but always stress that this is only one means albeit the most important of the designer and constructor and in relation to construction products of the manufacturer and other economic operator to proof the conformity with technical requirements of design, calculation or manufacture I the construction sector.
- 3. A third recommendation is to stress the alignment to existing EUROCODES and harmonized European standards and not to make the "National Annex" of EUROCODES a prime issue. It seems that also the seismic issue could be solved mainly regionally and not for Montenegro in isolation and probably the situation of EUROCODE 8 in Italy and Greece could be studied before embarking on an isolated work in Montenegro.

The next mission under activity 1.6. is due for 9-13.07.2012. Main tasks are:

- 1. to get a clearer picture on the envisaged amendment to the Law on Spatial Development and Construction of Structures the text of the MoSDaT should be translated into English before the mission
- 2. to meet the Ministry of Economy to discuss the status of the Law on Technical Requirements for Products and Assessment of Product Conformity against Prescribed Requirements
- 3. to meet the Ministry of Finance or the Agency on Public Procurement to discuss the Law on Public Procurement and in particular the technical requirements in tenders related to construction works (Articles 50 and 52 of the Law on Public Procurement No. 42/2011).

Vienna, 16.06.2012

Wolffang lenton

Place, date

Appendices if available

(e.g. brief agenda of mission, including persons met, workshop programme, list of participants, etc.)

Twinning Montenegro MN 10 IB FI 01



"Achieving highest safety and technical quality of construction"

Mission report

Activity (number & title) 1.3. definition of the list of IT to be purchased by the Ministry of Sustainable Development and Tourism	Name of expert(s) Dr. Gerald Luza
Date 2012-06-19/22	Location Podgorica, Montenegro

Key persons & institutions involved*

Tatjana Vujušević MSDT, Advisor Svetlana Vuksanović MSDT, Advisor Željka Beljkaš MSDT, Advisor

Nebojša Đuranović UDG, Prof., Chamber of Engineers

Ljiljana Šoškič ISME

Jovo Popović Civil Engineering Faculty, Assistant

Biljana Stamatović UDG, Prof.

Aims and contents of mission*

Definition of list of IT equipment (specialised software and computers) to be purchased by the Ministry of Sustainable Development and Tourism for elaboration of the nationally determined parameters to all Eurocodes.

Achievements, difficulties and observations

NDPs shall be applied in NAs as less as possible. The Eurocodes should be possible to apply without NAs as well. This works mainly for the design codes EC2, EC3, EC4, EC5, EC6 and EC9. For the other codes national determined parameters are in some fields necessary. In the long term of Eurocode development NDPs shall disappear. This means that all NDPs will be collected by JRC and implemented into a future issue of Eurocode without having NAs.

Wind load tables or maps, snow load tables, maximum and minimum temperature tables, acceleration maps and earthquake ground types have to be within national annexes. Wind, snow and temperature data has to be done by meteorologists, earthquake data must come from geodynamic scientists. The probability of exceedance within a specified period can be adapted to ECs using given formulas. Data for ground acceleration due to earthquake

At the moment a list of specific IT-equipment for NDPs does not make sense because there is no specific need to determine special values using extensive calculations.

The money reserved for IT equipment should be retained for contingencies of necessary software or hardware, like for instance support to adoption and implementation of the Eurocode 8, which is of specific importance for Montenegro. For instance the Seismological Institute has some specific needs regarding equipment for data collection, evaluation and processing.

Translations to Croatian language exist and negotiations proceed for using these translations in Montenegro as basis. Because the language is close to the Montenegrin language, work should be done on this base as soon as possible. Negotiations with Croatia about allowance of use are in progress. Universities and chamber wish a list of user-programs for Eurocodes which is not part of the contract. Applying Eurocodes including NDPs by software is of course a topic because software developers have to adopt their programs to the national determined parameters (NDPs). Parallel development of NDPs and handover to software-developers will be necessary.

Recommendations and suggestions for further action

Translation of Eurocodes into national language as soon as possible. Defining a time table (maybe MS-project-type?) of translations of the Eurocodes using an overall-Eurocode-matrix.

EC 0.

EC1-1-(all parts) and EC1-2,

EC2-1-1, EC2-1-2, EC2-2,

EC7-1, EC7-2,

EC8-1, EC8-2, EC8-5

shall be translated preferably.

Proof reading is necessary – several times of different experts.

Templates of all NAs are suggested where all clauses to be adapted are listed including the text from EN to facilitate national decisions on NDPs wherever needed. Parallel the national annexes (NAs) must be developed for EC0, EC1 and EC8 at least.

Podgorica, 2012-06-22 Place, date

Appendices if available

(e.g. brief agenda of mission, including persons met, workshop programme, list of participants, etc.)

Example of guidance-template to determine NDPs for EN 1990

clauses for NDPs		national	complementary
according to EN 1990		decision	demands
- A.1.1(1)	NOTE Guidance may be given in the National annex with regard to the use of Table 2.1 (design working life).	no national definition	demands
- A.1.2.1(1)	NOTE 2 Where modifications of A1.2.1 (2) and A1.2.1 (3) are necessary for geographical reasons, these can be defined in the National annex. A1.2.1 (2) The combinations of actions given in expressions 6.9a to 6.12b should be used when verifying ultimate limit states. A1.2.1 (3) The combinations of actions given in expressions 6.14a to 6.16b should be used when verifying serviceability limit states.	no national definition	
- A.1.2.2 (Table A.1.1)	NOTE The ψ values may be set by the National annex. * For countries not mentioned below, see relevant local conditions.	no national definition	
- A.1.3.1(1) (Tables A.1.2(A) to (C))	(1) The design values of actions for ultimate limit states in the persistent and transient design situations (expressions 6.9a to 6.10b) should be in accordance with Tables A1.2(A) to (C). NOTE The values in Tables A1.2 ((A) to (C)) can be altered e.g. for different reliability levels in the National annex (see Section 2 and Annex B).		
Table A.1.2 (A)	NOTE 1 The γ values may be set by the National annex. The recommended set of values for γ are: $\gamma_{Gj,sup}=1,10$ $\gamma_{Gj,inf}=0,90$ $\gamma_{Q,1}=1,50$ where unfavourable (0 where favourable) $\gamma_{Q,i}=1,50$ where unfavourable (0 where favourable) NOTE 2 In cases where the verification of static equilibrium also involves the resistance of structural members, as an alternative to two separate verifications based on Tables A1.2(A) and A1.2(B), a combined verification, based on Table A1.2(A), may be adopted, if allowed by the National annex, with the following	the recommended values are taken	

Table A.1.2 (B)	set of recommended values. The recommended values may be altered by the National annex. $\gamma_{Gj,sup} = 1,35$ $\gamma_{Gj,inf} = 1,15$ $\gamma_{Q,l} = 1,50 \text{ where unfavourable (0 where favourable)}$ $\gamma_{Q,i} = 1,50 \text{ where unfavourable (0 where favourable)}$ NOTE 1 The choice between 6.10, or 6.10a and 6.10b will be in the National annex. In case of 6.10a and 6.10b, the National annex may in addition modify 6.10a to include permanent actions only. NOTE 2 The γ and γ values may be set by the National annex. The following values for γ and ξ are recommended when using expressions 6.10, or 6.10a and 6.10b. $\gamma_{Gj,sup} = 1,35$ $\gamma_{Gj,inf} = 1,00$ $\gamma_{Q,l} = 1,50 \text{ where unfavourable (0 where favourable)}$ $\gamma_{Q,i} = 1,50 \text{ where unfavourable (0 where favourable)}$	Combinations of actions for persistent or transient design situations are determined using formula (6.10)	
	favourable) $\xi = 0.85$ (so that $\xi \gamma_{Gj,sup} = 0.85 \times 1.35 \approx 1.15$). See also EN 1991 to EN 1999 for ξ values to be used for imposed deformations. NOTE 4 For particular verifications, the values for γ_G and γ_Q may be subdivided into γ_g and γ_q and the model uncertainty factor γ_{Sd} . A value of γ_{Sd} in the range 1.05 to 1.15 can be used in most common cases and can be modified in the National annex		
Table A.1.2 (C)	NOTE The γ values may be set by the National annex. The recommended set of values for γ are : $\gamma_{Gj,sup} = 1,00 \\ \gamma_{Gj,inf} = 1,00 \\ \gamma_{Q,i} = 1,30 \text{ where unfavourable (0 where favourable)} \\ \gamma_{Q,i} = 1,30 \text{ where unfavourable (0 where favourable)}$		
- A.1.3.1(5)	- Approach 1: Applying in separate calculations design values from Table A1.2(C) and Table A1.2(B) to the geotechnical actions as well as the other actions on/from the structure. In common cases, the sizing of foundations is governed by Table A1.2(C) and the structural resistance is governed by Table A1.2(B); NOTE In some cases, application of these tables is more complex, see EN 1997.	will be given in NA of EN 1997- 1	

			,
	 Approach 2: Applying design values from Table A1.2(B) to the geotechnical actions as well as the other actions on/from the structure; Approach 3: Applying design values from Table A1.2(C) to the geotechnical actions and, simultaneously, applying partial factors from Table A1.2(B) to the other actions on/from the structure, NOTE The use of approaches 1, 2 or 3 is chosen in the National annex. 		
- A.1.3.2 (Table A.1.3)	In the case of accidental design situations, the main variable action may be taken with its frequent or, as in seismic combinations of actions, its quasi-permanent values. The choice will be in the National annex, depending on the accidental action under consideration. See also EN 1991-1-2.	definitions of limits for deflections of members of buildings see clause x.xx of this NA	
- A.1.4.2 (2)	(2) The serviceability criteria should be specified for each project and agreed with the client. NOTE The serviceability criteria may be defined in the National annex.	see clause x.yy of this NA	

Twinning Montenegro MN 10 IB FI 01



"Achieving highest safety and technical quality of construction"

Mission report

Name of expert(s) Jochen Fornather
Location Podgorica, Montenegro

Key persons & institutions involved*

Institute of Standardization of Montenegro; Ms Šoškić Faculty of Civil Engineering; Ms Pejović; Mr Đuranović

Institute of Geology; Mr Žuzgić

Aims and contents of mission*

In this week four meetings were scheduled, where the aim of the project and the expertise of the STE concerning implementation of Eurocodes were discussed. There was also scheduled a seminar for giving basic information on Eurocodes and detailed information on the implementation of Eurocodes in Austria, France and UK.

The most important item was to provide a roadmap for implementation of Eurocodes in Montenegro (MNE) taking into account the local context. Special care was made to involve all stakeholders and to detect local key persons to push forward the project.

Achievements, difficulties and observations

Because in this week 3 STE (2 from France, 1 from Austria) were available, the local experts could benefit from the expertise of these two countries, which already have introduced the Eurocodes. It was possible to compare the structure of French and Austrian mirror committees and give a best practicable solution for organizing standardisation of Eurocodes in Montenegro.

A draft of a roadmap for implementation of Eurocodes in Montenegro was proposed by the STE and shared with the local experts to get some feedback. So in final there exists a roadmap as a common basis, how to continue in this project.

To enlarge the contribution of local experts special effort has to be made to find key persons, which are well introduced in civil engineering society in Montenegro and are convinced on the benefit of implementation of Eurocodes. Mr Đuranović, which has 3 functions in building structures society in MNE, can be one of these key persons.

There still exists a strong risk concerning the success of the project because financial resources are missing for working on development of National Annexes and verification of the translation of Eurocodes in Montenegrin language. If a coordination between technical and legal implementation is missing, difficulties for using Eurocodes in practise can arise.

If meetings took place, the STE had the impression that the local experts are motivated and know the importance of the work to be done. The competency and knowledge how to use Eurocodes is already here, because lot of experts worked in the EU and have knowledge about Eurocodes. But the way how to use this competency for elaborating National Annexes is missing (matter of organisation).

The results of the discussed roadmap show that following Eurocode parts shall have highest priority:

EN 1990, Annex A.1, EN 1991-1-3, 1-4, -1-5 EN 1998-1 EN 1992-1-1, EN 1997-1.

The roadmap propose milestones for EN 1990, Annex A.1 and EN 1998-1 in MRElanguage and National Annex: 2013-05 for EN 1990 and 2013-06 for EN 1998-1.

Recommendations and suggestions for further actions

Note: To ensure a good outcome of the STE-mission the actions shall be done one week before the next visit of the STE.

1) Actions of the LTE:

- **1.1)** Organise 1 day meeting of the Technical Committee (established at MNE-standards-organisation) with all stakeholders, with the following topics:
- discuss translation of EN 1990:2003
- distribute work of NDPs for elaborating NA for EN 1990 (building only)
- decide on introducing ad Hoc groups for EN 1998, EN 1991 and EN 1992 and determine the group of experts.
- decide on next meetings for 2012 (proposal: week nr.: 38, 40, 45, 49)
- 1.2) Organise introductory meetings with following stakeholders:
- contractors.
- director for railways, director for highways,
- director of public works for capital investments,
- expert from ministry of interior (concerning fire issues in the case of emergency),
- expert from ministry of education (concerning accreditation of program at university),
- experts from the technical high school of construction works.
- 1.3) Provide official documents of Serbian and/or Croatian version of EN 1990
- **1.4)** Translate the actions described in 2), 3), 4) and 5) and send the information to the involved organisations.
- **1.5)** Organise meeting with Meteorological Institute of Montenegro and Ministry of Sustainable Development to finalize the proposal on the needed meteorological data

2) Actions of MNE-standards-organisation:

- **2.1)** Write letters to
- CEN and secretary of TC 250 (for becoming member of CEN TC 250 as well as SC1, SC2, SC7 and SC8),
- to Serbian and Croatian Institute of Standardisation (agreement concerning translation and copyright of Eurocodes).
- **2.2)** see action 1.1)
- **2.3)** see action 1.3)

3) Faculty of Civil Engineering:

Describe their needs concerning software (for determining the NDPs), handbooks, leaflets, seminars.

4) Chamber of Commerce:

Inform their members on the aim of this project.

5) Chamber of Engineers:

ask their members about contribution of elaborating National Annexes of Eurocodes

(becoming experts in the Institute of Standardisation).

Podgorica, 2012-07-13

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Place, date

Appendices:

Roadmap for Eurocodes, dated 2012-07-13.

Twinning Montenegro MN 10 IB FI 01



"Achieving highest safety and technical quality of construction"

Mission report

Activity (number & title)	
1.1 - Timeline for preparation of national	Name of expert
annexes to the different Eurocode parts	Jean-Armand Calgaro
	Location
Date	Podgorica, Montenegro
2012-07-08 until 2012-07-12	

Key persons & institutions involved*

Institute of Standardization of Montenegro; Ms Šoškić Faculty of Civil Engineering; Mr Pejović; Mr Đuranović

Institute of Geology; Mr Žugić

Aims and contents of mission*

In this week 4 meetings were scheduled, where the aim of the project and the expertise of the STE concerning implementation of Eurocodes were discussed. There was also scheduled a seminar for giving basic information on Eurocodes and detailed information on the implementation of Eurocodes in Austria, France and UK.

The most important item was to provide a roadmap for implementation of Eurocodes in Montenegro taking into account the local context. Special care was made to get involve all stakeholders and to detect local key persons to push forward the project.

Achievements, difficulties and observations

Because in this week 3 STE (2 from France, 1 from Austria) were available, the local experts could benefit from the expertise of these two countries, which have introduced the Eurocodes already. It was possible to compare the structure of French and Austrian mirror committees and give a best practicable solution for organizing standardisation of Eurocodes in Montenegro

A draft of a roadmap for implementation of Eurocodes in Montenegro was proposed by the STE and shared with the local experts to get some feedback. So in final there exists a roadmap as a common basis, how to continue in this project.

To enlarge the contribution of local experts special effort has to be made to find key persons, which are well introduced in civil engineering society in Montenegro and are convinced on the benefit of implementation of Eurocodes.

There still exists a strong risk concerning the success of the project because of lack of financial resources for working on development of National Annexes and verification of the translation of Eurocodes in Montenegrin language. If a coordination between technical and legal implementation is missing, that could lead to difficulties for using Eurocodes in practise.

If meetings took place, the STE had the impression that the local experts are motivated and know the importance of the work to be done. The competency and knowledge how to use Eurocodes is already here, because lot of experts worked in the EU and have knowledge about Eurocodes; but the way how to use this competency for elaborating National Annexes is missing (matter of organisation).

The results of the discussed roadmap show that following Eurocode parts shall have highest priority:

EN 1990, Annex A.1,

EN 1991-1-3, 1-4, -1-5

EN 1998-1-1

EN 1992-1-1,

EN 1997-1.

Recommendations and suggestions for further action

For the next weeks a clear time table have to be made by the LTE and the stakeholders. The actions which have been given to them shall be done until the next visit of the STE in August.

There have been given actions to

- -) Institute of Standardization: make decision how to adopt Eurocodes; write letters to CEN (for becoming member of CEN TC 250), to Serbian Institute of Standardisation (agreement concerning translation and copyright of Eurocodes), to Austrian Standards (information about National Annexes)
- -) Faculty of Civil Engineering: describe their needs concerning software (for determining the NDPs), handbooks, leaflets, seminars.
- <u>-) Meteorological Institute of Montenegro</u>: describe their needs concerning the needed meteorological data
- -) Seismological Observatory of Montenegro: describe their needs concerning the needed seismological data
- -) Chamber of Commerce: inform their members on the aim of this project
- -) Chamber of Engineers: ask their members about contribution of elaborating National Annexes of Eurocodes (becoming experts in the Institute of Standardisation).

For the next visit of the STE following meetings are planned:

- 1) Meeting concerning Eurocode 8 (establish WG, give information of needs for maps, decision on time schedule for translation of EN 1998-1 and the elaboration of the National Annex)
- 2) Meeting concerning Eurocode 0 and 1 (establish WG, give information of needs for maps, plan time schedule for translation of EN 1990 and EN 1991 parts and the elaboration of the National Annex)
- 3) One day seminar for all the stakeholders of the project, where the STE from Austria and France should give information about Eurocodes, implementation in Member states, reference and influence to product standards and legal aspects.
- 4) Introductory meetings with following stakeholders: contractors, director for railways, director for highways, director of public works for capital investments, expert from ministry of interior (concerning fire issues in the case of emergency), expert from ministry of education (concerning accreditation of program at university), experts from the technical high school of construction works.
- . and to push forward the project for new milestone, which should be scheduled in autumn 2012.

Podgorica, 2012-06-01
Place, date

Appendices if available

(e.g. brief agenda of mission, including persons met, workshop programme, list of participants, etc.)

Twinning Montenegro MN 10 IB FI 01



"Achieving highest safety and technical quality of construction"

Mission report

Activity (number & title)	
1.1 - Timeline for preparation of national	Name of expert(s)
annexes to the different Eurocode parts	Jean-Michel REMY
	Location
Date	Podgorica, Montenegro
2012-07-08 until 2012-07-13	

Key persons & institutions involved*

Institute of Standardization of Montenegro; Ms Šoškić Faculty of Civil Engineering; Ms Pejović; Mr Đuranović

Institute of Geology; Mr Žugić

Aims and contents of mission*

In this week 4 meetings were scheduled, where the aim of the project and the expertise of the STE concerning implementation of Eurocodes were discussed. There was also scheduled a seminar for giving basic information on Eurocodes and detailed information on the implementation of Eurocodes in Austria, France and UK.

The most important item was to provide a roadmap for implementation of Eurocodes in Montenegro taking into account the local context. Special care was made to get involve all stakeholders and to detect local key persons to push forward the project.

Achievements, difficulties and observations

Because in this week 3 STE (2 from France, 1 from Austria) were available, the local experts could benefit from the expertise of these two countries, which have introduced the Eurocodes already. It was possible to compare the structure of French and Austrian mirror committees and give a best practicable solution for organizing standardisation of Eurocodes in Montenegro

A draft of a roadmap for implementation of Eurocodes in Montenegro was proposed by the STE and shared with the local experts to get some feedback. So in final there exists a roadmap as a common basis, how to continue in this project.

To enlarge the contribution of local experts special effort has to be made to find key persons, which are well introduced in civil engineering society in Montenegro and are convinced on the benefit of implementation of Eurocodes.

There still exists a strong risk concerning the success of the project because of lack of financial resources for working on development of National Annexes and verification of the translation of Eurocodes in Montenegrin language. If a coordination between technical and legal implementation is missing, that could lead to difficulties for using Eurocodes in practise.

If meetings took place, the STE had the impression that the local experts are motivated and know the importance of the work to be done. The competency and knowledge how to use Eurocodes is already here, because lot of experts worked in the EU and have knowledge about Eurocodes; but the way how to use this competency for elaborating National Annexes is missing (matter of organisation).

The results of the discussed roadmap show that following Eurocode parts shall have highest priority:

EN 1990, Annex A.1,

EN 1991-1-3, 1-4, -1-5

EN 1998-1-1

EN 1992-1-1,

EN 1997-1.

Recommendations and suggestions for further action

For the next weeks a clear time table have to be made by the LTE and the stakeholders. The actions which have been given to them shall be done until the next visit of the STE in August.

There have been given actions to

- -) Institute of Standardization: prepare the meeting of the Montenegrin standardization committee on Eurocodes, make decision how to adopt Eurocodes; write letters to CEN (for becoming member of CEN TC 250), to Serbian Institute of Standardisation (agreement concerning translation and copyright of Eurocodes), to Austrian Standards (information about National Annexes)
- -) Faculty of Civil Engineering: describe their needs concerning software (for determining the NDPs), handbooks, leaflets, seminars.
- -) <u>Meteorological Institute of Montenegro</u>: describe their needs concerning the needed meteorological data
- <u>-) Seismological Observatory of Montenegro</u>: describe their needs concerning the needed seismological data
- -) Chamber of Commerce: inform their members on the aim of this project
- -) Chamber of Engineers: ask their members about contribution of elaborating National Annexes of Eurocodes (becoming experts in the Institute of Standardisation).

For the next visit of the STE following actions should be launched:

- to assist Montenegrin Standardization organization to implement the decided road map for the implementation of Eurocodes, and to set up the ad hoc groups for the prioritized Eurocodes
- to push forward the project for new milestones, which should be scheduled in autumn 2012, according to the road map.
- to have specific meetings on Eurocode 0, 1 and 8 to through the details of the implementation of these Eurocodes, and the elaboration of the national annexes.
- to have Introductory meetings with following stakeholders: contractors, private companies, director for railways, director for highways, director of public works for capital investments, expert from ministry of interior (concerning fire issues in the case of emergency), expert from ministry of education (concerning accreditation of program at university), experts from the technical high school of construction works.

Podgorica, 2012-07-13
Place, date

Appendices if available

(e.g. brief agenda of mission, including persons met, workshop programme, list of participants, etc.)

Twinning Montenegro MN 10 IB FI 01



"Achieving highest safety and technical quality of construction"

Mission report

Activity (number & title) 1.6 Roadmap for adoption of the Montenegrin legislative framework for construction to allow the use of Eurocodes	Name of expert(s) Dr. Wolfgang Lentsch
Date 2012-07-09/13	Location Podgorica, Montenegro

Key persons & institutions involved*

Ms. Tatjana Vujošević, Building engineering officer, Ministry of Sustainable Development and Tourism (MoSDaT), Dept. of Construction Nada Marstijepovic, Ministry of Interior, Dept of Security, Protection and Control Nebojsa Duranovic, University of Montenegro, Faculty of Civil and Structural Engineering

Branco Zugic, Director, Geological survey of Montenegro

Aims and contents of mission

A. Primary aim and content: Public procurement in Building and construction works

This second mission under activity 1.6. was a fact finding mission to get hold of existing legal instruments and drafts of new legal instruments or amendments to existing legal instruments in the field of **public procurement** with relation to building and construction works.

There are two key institutions, the Public Procurement Directorate (PPD) and the State Commission for the Control of Public Procurement Procedures (PPC). Information from Internet can be downloaded from the website of the Public

Procurement Directorate under http://www.din.gov.me/page162435.aspx

However the **secondary legislation** cannot be obtained in English (just the titles of the documents).

The situation with public procurement in general is the following:

I. According to the EU Commission's Montenegro progress report 2011 on Chapter 5 "Public procurement" the situation at present is as follows:

- 1. The general principles of public procurement in the internal market have been partly transposed in the Montenegrin legislation. Now efforts will have to focus on implementation and enforcement.
- 2. Good progress can be reported in the area of public procurement, including the award of public contracts. The new Law on public procurement (Law No. 42/2011 of 15 08 2011, effective from 01 01 2012) was adopted by the parliament in July 2011. While the new law brought progress, full harmonisation with the acquis has not been achieved yet (EU-Directives 2004/17/EC and 2004/18/EC). The related implementing legislation still needs to be finalised. Additional resources will be required to carry out the planned intensive training campaign and to bring the newly established helpdesk at the Public Procurement Directorate fully into operation to support enforcement of the law. Establishment of the new inspection service on public procurement will require appropriate financial resources.
- 3. The 2009 Law on concessions is neither compatible with the relevant EU directive, nor with key provisions of the remedies directive.
- 4. Since the PPC was established it has adopted 1,053 decisions, of which 330 were issued in 2010 and 140 in the first four months of 2011. In 2010, the Administrative Court cancelled the vast majority of the PPC decisions (60 out of 76) challenged in court, which is a cause for particular concern. Half of the Administrative Court's negative rulings were for formal procedural issues and not related to the quality of the procurement procedures. Another statement in this progress report indentifies as the main concerns the (1) "poor contract preparation" and (2) "changes in contract conditions after the contract has been signed" and explains that "the latter is not in line with the acquis and is allowed only in specific circumstances and without changing the essential terms of the contract".

II. Verification of existing practices in public procurement:

- 1. During this mission it was not possible to meet any Ministry or Public Institution to get information on the situation in the practical implementation related to building and construction works tenders or concessions envisaged. The project office could not initiate any contacts in this respect. This has to be done for future missions. However, the Delegation of the EU in Montenegro (Mr. Georg Wiesner) had been contacted in this respect and he will send a contact list of Ministries including contact persons to the MS Project Leader Ms. Gajdek. This should help for getting into touch with the individual "line Ministries" responsible for the different sectors of public procurement related to buildings, roads, bridges or railways to name some of these sectors.
- 2. A comment had been received by the BC Ministry of Sustainable Development and Tourism Department of Construction that this Department is not at all involved in public procurement not even in checking the technical descriptions of tenders elaborated by the Ministry of Finance or subordinated administration. However, the BC PL Mr. Danilo Gvozdenovic, promised to secure contacts to the relevant unit within the Ministry of Sustainable Development and Tourism at a given time (result of meeting in mission1 in June 2012).
- During a seminar which took place during this mission (Wednesday 11 07 2012) a short introduction to this issue had been given. However, since no other line Ministries were present, no reaction came from the audience.

III: Supporting the use of EUROCODES in Public procurement:

1. The new Law 42/2011 on Public Procurement implemented in particular Article 23 of EU-Directive 2004/18/EC regarding "technical specifications" of tenders almost completely. Therefore also the phrase of Article 23 (3) (a) last sentence "Each reference shall be accompanied by the words 'or equivalent'" is now implemented grosso modo. in Article 50, last sentence: "With reference to the requirements of the technical characteristics or specifications established in tender documents, the bidders may offer solutions equivalent to those prescribed by the standards by

providing adequate proof of equivalence.".

- 2. Without having studied tenders yet and also the legal characteristics of "Rule books" it might be possible that already at this stage bidders can use Eurocodes in their bids for design and calculation of the works concerned. It seems to be more difficult to use Eurocodes within bids for products, because the implementation of the CPD 89/106 and the future CPR 2011/305 is missing.
- 3. It is not known to what extent the responsible line Ministries checking the technical specifications in the public procurement tenders or bids are advocating the use of Eurocodes at present, even if they are not yet issued as Montenegrin standards including national Annexes.

B: Seminar on Eurocodes

On Wednesday 11 07 2012 a seminar on Eurocodes was held to inform interested stakeholders on the (1) elaboration of Eurocodes within CEN, (2) implementation and administering of Eurocodes in (a) France and (b) Austria and (3) current results of the use of Eurocodes.

During this seminar also a presentation of the (1) EU-regime "Public procurement and Eurocodes" – in particular "Commission Recommendation 2003/887 on the implementation and use of Eurocodes for construction works and structural construction products" – and (2) relevant clauses in the Montenegrin Law 42/2011 on Public Procurement – which is effective since 01 01 2012 – was given. However, since no line Ministry except the BC Ministry of Sustainable Development and Tourism (co-chair) was represented no reaction was received from the audience.

C: Future work on Eurocodes in the Montenegrin Standardization office (ISME) and legal implications

A draft roadmap for the activities of the Institute for Standardisation of Montenegro (ISME) had been elaborated by the experts under Activity 1.1.

There was also the proposal for a provision foreseen and discussed (chapter 1.2 of the draft roadmap entitled "Installation of Committees for Legal aspects") to establish a task-force or steering group of regulators and main stake holders to oversee the activities regarding translation and elaboration of national Annexes to Eurocodes in order to establish a link between legislation and standardization from the beginning of the activities. During this process probably also the instrument of "national mandating (and financing) of standards" in areas important for Montenegrin national deviations (national Annexes to Eurocodes) could be used and the respective finances for research work could be secured in the annual budgets of the line Ministries. During the seminar and also in individual discussions it became evident that probably an increase of the financial incentives from Montenegrin line Ministries is necessary in particular when important and voluminous deviations and additions to Eurocodes in national Annexes are concerned. Within this project this relates to Eurocode 8 and Eurocode 0 (translation) but also – probably not directly within this project but at least influencing it – to Eurocode 1 and Eurocode 7.

Achievements, difficulties and observations

No meetings with the BC MoSDaT could be organized to get a clearer picture of the existing and proposed legal instruments. This has to be shifted to future missions.

No meetings with the Public Procurement Directorate (PPC) could be organized to get a clearer picture on the proceedings in public procurement related to buildings and construction works after the implementation of the new Law on Public Procurement No. 42/2011 of 15 08 2011, effective from 01 01 2012. This has to be shifted to future missions.

The translation of the new Law on Market Inspection No. 53/2011 of 11 11 2011 into English could not be provided from the responsible Ministry nor provided from the project office (see suggestions for further action).

No relevant "Rule book" in the construction sector could be secured until now. Therefore no analysis could be undertaken. It has to be observed once again that none of the "Rule books" for construction enumerated in the project fiche annex are available to the project.

Through individual discussions and information it became obvious that the private business sector (technical engineering bureaus, architects, planning bureaus) and also the technical university sector is well aware of the importance of a sound and strong link between building and construction works legislation and relevant standards and in particular Eurocodes for construction works and construction products. This should be a guideline for the BC Ministry of SDaT but also other line Ministries (e.g. Ministry of Transport) in their future activities. However, there seem to be at present poor information channels from the Ministries and other public authorities towards the private business (e.g. consulting services and architects) and the universities in particular in this respect. Therefore a task-force or steering group to oversee the standardization activities in the building and construction sector should be established.

Recommendations and suggestions for further action

The next mission under activity 1.6. is due for 10-14.09.2012. Main tasks to be organized by the project office in advance are:

A: Meetings:

- 4. to discuss and get a clearer picture on the envisaged amendment to the Law on Spatial Development and Construction of Structures the existing draft text of the MoSDaT should be translated into English before the mission.
- to meet the Ministry of Economy to discuss the status of the Law on Technical Requirements for Products and Assessment of Product Conformity against Prescribed Requirements after the termination of IPA 2007 project "Development of Quality Infrastructure in Montenegro" (DQIM), EuropeAid/126524/C/SER/ME.
- 6. to meet the Public Procurement Department to discuss the new Law on Public Procurement No. 42/2011 and in particular the practice in defining the "technical characteristics (specifications) in tenders related to building and construction works (Articles 50 and 52 of the Law on Public Procurement No. 42/2011).
- 7. to meet the responsible unit of the BC MoSDaT to discuss the new Law on Public Procurement No. 42/2011 and in particular the practice in defining the "technical characteristics (specifications) in tenders related to building and construction works (Articles 50 and 52 of the Law on Public Procurement No. 42/2011).
- 8. to meet a line Ministry (e.g. Ministry of Transport responsible for roads, rail, shipping) to discuss the new Law on Public Procurement No. 42/2011 and in particular the practice in defining the "technical characteristics (specifications) in tenders related to building and construction works (Articles 50 and 52 of the Law on Public Procurement No. 42/2011).

B: Documents to be received in English:

- Draft text of the MoSDaT to the Law on Spatial Development and Construction of Structures
- 2. First draft or outline of the MoSDaT for the new Law on Construction Products to implement the CPR 2001/305 in Montenegro
- 3. Law on Market Inspection No. 53/2011 of 11 11 2011
- 4. Draft amendment of the Law on Technical Requirements for Products and Assessment of Product Conformity against Prescribed Requirements after the termination of IPA 2007 project "Development of Quality Infrastructure in Montenegro" (DQIM) (from Ministry of Economy)

C: Documents to be received in Montenegrin, in English only the table of contents and probably the main chapter and Article headlines:

- 1. 3 Rule books on building and construction works the following proposed from the list in the annex of the project fiche:
 - a) From MNE:
 - Rule Book on manner of developing and content of technical documentation (»Official Gazette of the Republic of Montenegro«, No.22/2002)
 - b) From former SFRY implemented into MNE legislation:
 - Rule Book on technical regulations for load construction facilities (»Official Gazette of the Socialist Federal Republic of Yugoslavia«, No.26/88)
 - Rule Book on technical regulations for construction of buildings in seismic areas (»Official Gazette of the Socialist Federal Republic of Yugoslavia«, No.31/81, 49/82, 29/83, 21/88 and 52/90)
- 2. 1 Rule book on characteristics of construction products proposed from the list

in the annex of the project fiche:

- Rule Book on technical regulations for concrete and reinforced concrete (»Official Gazette of the Socialist Federal Republic of Yugoslavia«, No.11/71)

Vienna, 14.07.2012

Wolfpang Centson

Place, date

No Appendices

Annex 2: List of participants of Kick off Meeting and Seminar under activity 1.2

Kick off Meeting, May 8, 2012

- 1. Predrag Sekulić MSDT
- 2. Danilo Gvozdenović MSDT
- 3. Svetlana Vuksanović MSDT
- 4. Tatjana Vujošević MSDT
- 5. Milica Abramović MSDT
- 6. Lidija Medigović MSDT
- 7. Željka Beljkaš MSDT
- 8. Ivan Nedović MSDT
- 9. Ivana Bulatović MSDT
- 10. Milica Ćurić MSDT
- 11. Predrag Vuković- MSDT
- 12. Jelena Raičević- MSDT
- 13. Branislav Glavatović- Seismological Observatory
- 14. Zoran Begović Ministry of Interior
- 15. Miodrag Perović ISME
- 16. Radomir Zejak ISME & Faculty for civil engineering
- 17. Ljiljana Šoškić ISME
- 18. Slađana Vukašinović Institute for geological research
- 19. Božidar Pavićević Faculty for civil engineering; CAZI
- 20. Duško Lučić Faculty for civil engineering
- 21. Boro Rakčević Chamber of Commerce
- 22. Ilija Lalošević Faculty of architecture
- 23. Mladen Ulićević Engineers chamber of MNE
- 24. Ljubo Dušanov Stjepčević- Engineers chamber of MNE
- 25. Željko Radanović Engineers chamber of MNE
- 26. Ivan Lagator EUD MNE
- 27. Nicola Bertollini EUD MNE
- 28. Branko Micev Hydrological and meteorological service of MNE
- 29. Tariq Nawaz ASI
- 30. Joanna Gajdek ASI

Half day seminar "Implementing Eurocodes in Europe", July 11, 2012

- 1. Radomir Zejak ISME
- 2. Ljiljana Šoškić ISME
- 3. Nada Marstijepović Ministry of Interior
- 4. Branislav Glavatović Seismological Observatory
- 5. Jadranka Mihaljević Seismological Observatory
- 6. Božidar Pavićević Faculty of Civil Engineering
- 7. Mićko Radulović Faculty of Civil Engineering
- 8. Milan Radulović Faculty of Civil Engineering
- 9. Biliana Šćepanović Faculty of Civil Engineering
- 10. Srđan Janković Faculty of Civil Engineering
- 11. Nebojša Đuranović Faculty of Civil Engineering
- 12. Marina Rakočević Faculty of Civil Engineering
- 13. Jelena Pejović- Faculty of Civil Engineering

- 14. Duško Lučić Faculty of Civil Engineering
- 15. Marija Ivanović Geoprojekt
- 16. Mila Krulanović Geoprojekt
- 17. Maksim Matović Geoprojekt
- 18. Georg Wiesner Delegation of the European Union to Montenegro
- 19. Tatjana Vujošević Ministry of Sustainable Development and Tourism
- 20. Željka Beljkaš Ministry of Sustainable Development and Tourism
- 21. Dragana Filipović Ministry of Sustainable Development and Tourism
- 22. Peđa Vuković Ministry of Sustainable Development and Tourism
- 23. Jelena Knežević Ministry of Sustainable Development and Tourism

Annex 3: Roadmap for NAs and Priority packages for Montenegro

Edition: 2012-07-13

Roadmap of Implementation of Eurocode in Montenegro

Proposal made by: Calgaro, Fornather, Lentsch and Remy discussed at 2012-07-12 with local experts

Content:

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1.1	Tasks of Technical Committee for EC, which is already installed	2
1.2	Installation of a Task force group for Legal aspects	
2	Time Schedule for Implementation of Eurocodes in MNE	4
2.1	General	4
2.2	Training	5

Presumptions

Tasks of Technical Committee for EC, which is already installed General

The tasks of the Technical Committee are as follows:

- Install, coordinate all ad Hoc groups and decide on the National Annexes;
- Implement and translate EN 1990 and elaborate National Annexes for EN 1990.

Install, coordinate all ad Hoc groups and decide on the National Annexes

Technical Committee has to decide on the installation of ad Hoc groups (in one of the first meetings).

NOTE Ad Hoc Groups distribute the work of NDPs in the 1st ad Hoc meeting; discuss the proposals of each expert, elaborate proposal for National Annex, which have to be validated and decided by the Technical Committee. Ad Hoc groups consists of 3 or 4 experts, who will provide the information and additional 2 or 3 experts, who will check the information (procedure as done in civil engineering works in MNE).

Following ad Hoc Groups should be installed (the priority given is the result of the discussion with local experts and should be confirmed by the Technical Committee):

Priority 1:

- 1) Earthquake Design (EN 1998): Part -1;
- 2) Actions on Structures (EN 1991): Part -1-3, -1-4, -1-5, -1-1, -1-2, -1-6, 1-7;
- 3) Concrete Structures (EN 1992): Part 1-1.

Priority 2:

4) Geotechnics (EN 1997).

Priority 3:

5) Masonry Structures (EN 1996).

Priority 4:

- 6) Steel Structures, Concrete & Steel Structures (EN 1993 + EN 1994);
- 7) Timber Structures (EN 1995).

NOTE 1 The discussion with local experts showed that Building Structures are most important; but experts concerning road and railway bridges were not attending the meetings up to now.

NOTE 2 Aluminium structures (EN 1999) have priority 5; they will be integrated in the work of ad Hoc Group 6 (Steel Structures, Concrete & Steel Structures).

Implement and translate EN 1990 and elaborate National Annexes for EN 1990 Translation and proof reading

Translate EN 1990 into MNE-language from the Serbian-language-version (or other language versions which help translation); agreement of the technical terminology in MRE-Language has to be made for all parts.

- → 1 day for translation and/or proof reading (made by translator + expert) as a homework; will be send out one month in advance of the meeting.
- → 1st meeting for verification and discussion in the Committee on the concepts and terminology comprehensive approach of the concepts and the philosophy of Eurocodes: this will be a continuous action until the National Annex is finalised.

National Annex

Elaborate and priorize National Annex for EN 1990, Annex A1 (Buildings) and Annex A2 (Bridges)

- → 7 National Determined Parameters (NDPs) for Annex A1;
- → 37 NDPs for Annex A2.

3 possibilities:

- a) take over the recommended value of Eurocode;
- b) take over the value of National Annex (from other National Standard Bodies) of the Eurocode;
- c) choose value, which is already well known; good background information + reasons are needed;
- d) derive values from pre-normative-research (eg meteorological and seismic loads); good background information + reasons are needed.

In general 4 meetings are necessary:

- 1) Distribute the work of NDPs in the 1st meeting;
- 2) One month after 1st meeting, the proposals of each expert should be discussed in the 2nd meeting (1 day or more, depending on the amount of NDPs) NOTE: Discussion should not exceed 6 months.
- 3) Decide on all proposals, that means forward the document to public enquiry in the 3rd meeting (1 month internal editorial work; 2 months enquiry)
- 4) 4th meeting: Discussion on public comments and decision on publication. (1 month for publication)

Duration for preparation of National Annex to EN 1990, Annex A1: about 1 year.

NOTE To fulfil the work in a proper way the National Annexes of Austria, Croatia, Greece, Italy and Slovenia and Serbia shall be available for the experts.

Installation of a Task force group for Legal aspects

In parallel to the Technical Committees installed at the MNE-standardisation institute a Task force group shall be installed ensuring the link between legislation on building and construction works and standards and in particular Eurocodes and safeguarding that the Eurocodes are used in practise by the engineer as a favourable means to prove conformity with the essential requirements in particular "mechanical strength, fire, etc.

Experts from several ministries shall be involved in this Task force group, but also the main stakeholders such as the chamber of engineers and chamber of commerce and relevant faculties of the MNE University. The aims of the group are as follows:

- Ensure that the relevant building and construction works regulations provide the necessary link to the Eurocodes and to the harmonized European standards (when adopted as MNE standards) using the legal instrument of "presumption of conformity with relevant essential requirements established in the relevant legislation;
- Inform standardizers on the status of elaboration of the MNE legislation implementing the CPR 2011/305/EU in Montenegro, so that construction products compliant to the essential requirements of CPR 2011/305/EU (Annex I).
 - NOTE 1 The prove of some essential requirements (eg: ER 1, ER 2 and ER4) for building products which are used in constructions are based on Eurocodes (or by testing as alternative); eg.: solid timber acc. EN 14081-1, precast concrete acc. EN 13225.
 - NOTE 2 To fulfil the essential requirements (ER 1, ER 2 and ER4) on constructions, theses constructions shall be designed according Eurocodes with the appropriate material. The appropriate material is described in Section 3 of the specific Eurocode part.
- c) Ensure that secondary legislation and in particular forms to be used within a tendering under the Public Procurement Law are in the line with the EU Directives on Public Procurement and Technical specifications and contract documents refer as a preferred means for design and calculations to Eurocodes and harmonized European standards.
- d) Adapt relevant Curricula of technical universities and high schools, to ensure that lectures on Eurocodes are provided in order to meet the state of the art
- e) Provide proper financial resources for basic studies and background research for the elaboration of National Annexes to Eurocodes whenever deemed necessary.

Time Schedule for Implementation of Eurocodes in MNE *General*

The given time schedule is only valid, if there exists enough personal resources of the local experts in the Technical Committee and its ad Hoc groups.

The following milestones shall be decided by the Technical Committee:

- EN 1990, Annex A.1 in MRE-language and National Annex: availability as enquiry-draft: 2013-05
- EN 1998-1 in MRE-language and National Annex: availability as enquiry-draft: 2013-06
- EN 1992-1-1 in MRE-language and National Annex: availability as enquiry-draft: autumn 2013.

NOTE The structure of Technical Committee with its ad Hoc groups allows working in parallel on more than one Eurocode part. So it is possible that also for other Eurocode-part the MRE-language and National Annex will be available as enquiry drafts.

Training

After the stage of enquiry-draft is reached training on the use of the standards shall be provided.

A detailed training program for all the stakeholders will be provided by the STE until end of 2012.

NOTE

NOTE Because of the limited time schedule of the project, training courses on Eurocode parts will be given by the STEs in advance of the enquiry-phase of the relevant Eurocode-part.

After a phase of 2 years (contains training and collecting practical experience in using Eurocodes for eg pre-design) the Eurocodes become state of the Art in MRE.

Timetable

NOTE: This timetable is just a proposal by STE Mr. Fornather; but this has to be decided by the Technical Committee.

Group	Document		Aug-12	Sep-12	Okt-12	Nov-12	Dez-12	Jän-13	Feb-13	Mär-13	Apr-13	Mai-13	Jun-13	Jul-13	Aug-13
TC		Meeting	М	М	М	М	М			М				М	•
		Week	35	38	40	45	49								
		Days	1												
	EN 1990-Annex A1		Т	PROOF						RES	STAND	prEN 199	90	С	
	NA for Annex A1			PREP	DISC					RES	STAND	prEN 199	90/NA	С	
Ad Hoc - EC 8		Meeting		M1	M2	M2x	M2x	M2x	M2x	M2x	М3				M4
		Week		38	42/43										
		Days													
	EN 1998-1		Т		PROOF						RES	STAND	prEN199	8-1	С
	NA for EN 1998-1			PREP		DISC						STAND	prEN199	8-1/NA	С

Abbreviations:

Technical Committee TC

meeting (M1: 1st meeting, ..) Translation of Eurocode

PROOF Proof reading process

PREP Preparation of NA made by several experts

DISC Discussion of NA proposals in the TC or ad Hoc group

Resolution to make draft available for enquiry RES

STAND Internal procedure at standards institute to make draft available for enquiry

Meeting where comments from enquiry are discussed С

Annex 4

Packaging of the EN Eurocode Parts according to the Guidance Paper L						
EN Eurocode 2: Concrete Structures						
Package 2/1	Building and Civil Engineering Structures, excluding bridges and liquid retaining and containment structures					
Package 2/2	Bridges					
Package 2/3	Liquid retaining and containment structures					
	EN Eurocode 3: Steel Structures					
Package 3/1	Building and Civil Engineering Structures, excluding bridges, silos, tanks and pipelines, steel piling, crane supporting structures, and towers and masts					
Package 3/2	Bridges					
Package 3/3	Silos, tanks and pipelines					
Package 3/4	Steel piling					
Package 3/5	Crane supporting structures					
Package 3/6	Towers and Masts					
EN	EN Eurocode 4: Composite Steel and Concrete Structures					
Package 4/1	Building and Civil Engineering Structures, excluding bridges					
Package 4/2	Bridges					
	EN Eurocode 5: Timber Structures					
Package 5/1	Building and Civil Engineering Structures, excluding bridges					
Package 5/2	Bridges					
EN Eurocode 6: Masonry Structures						
Package 6/1	Building and Civil Engineering Structures, excluding bridges					
Package 6/2	Simplified design					
EN Eurocode 9: Aluminium						
Package 9/1	All without fatigue					
Package 9/2	With fatigue					