

"The way forward for the Eurocodes implementation in the Balkans"

10-11 October 2018, Tirana

Present status of Eurocodes in Albania

Rikard LUKA Chairman of TC-250 Mirror Committee -Albania

Albania before '90

Construction sector was public,
regulated and controlled at central level

Ministry of Construction &
National Institutes were responsible
for:

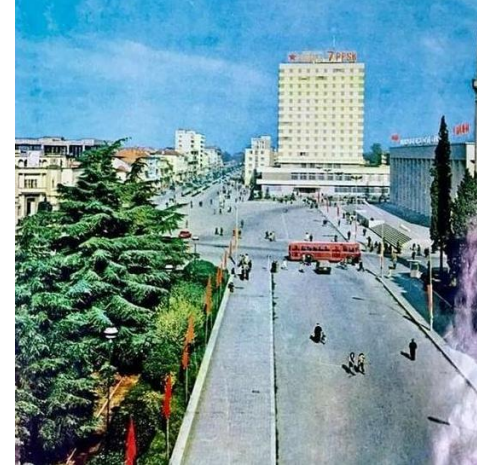
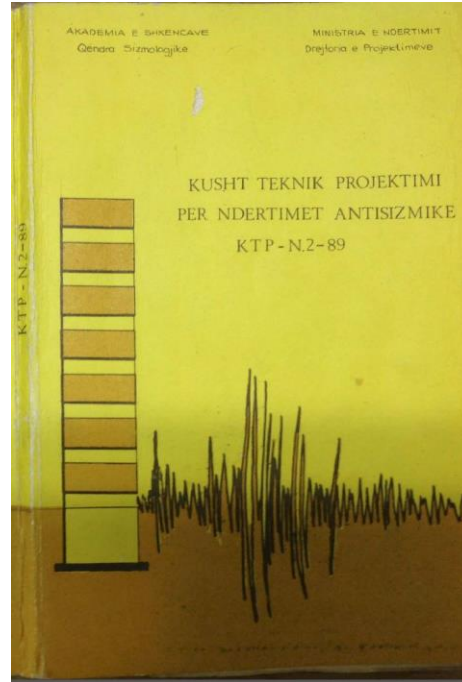
- Preparing Building Codes;
- Designing public infrastructure and buildings;
- Urban development of cities was typical of communist countries



Albania before '90

Edition of building codes '78

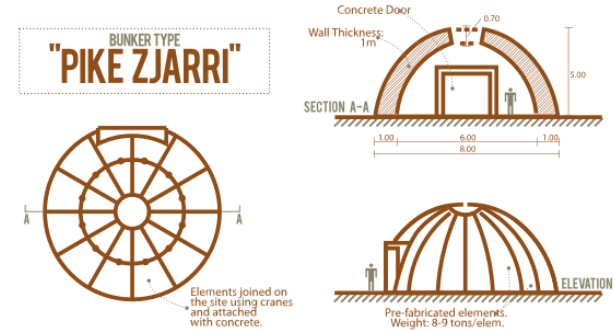
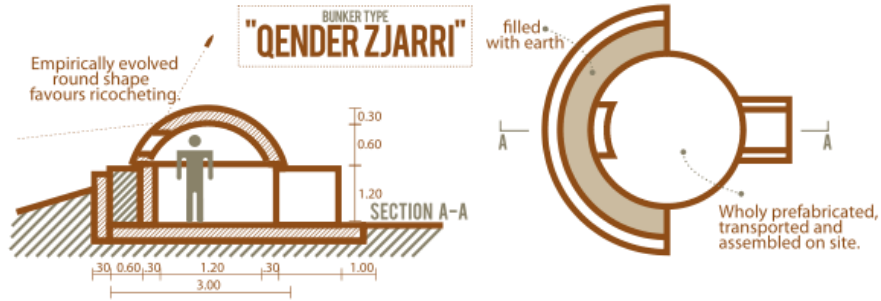
Last update of seismic code '89



Albania before '90

Best construction practices & products were used for military purposes

"bunkerisation" programme 1960-1983



Albania after '90

Free Market Principles were introduced

Private sector & Creativity emerged



10 years

No State control & No Bulding Regulation

Albania after '90

...BOOM of construction!



Albania after '90

...BOOM of construction!



First Steps...

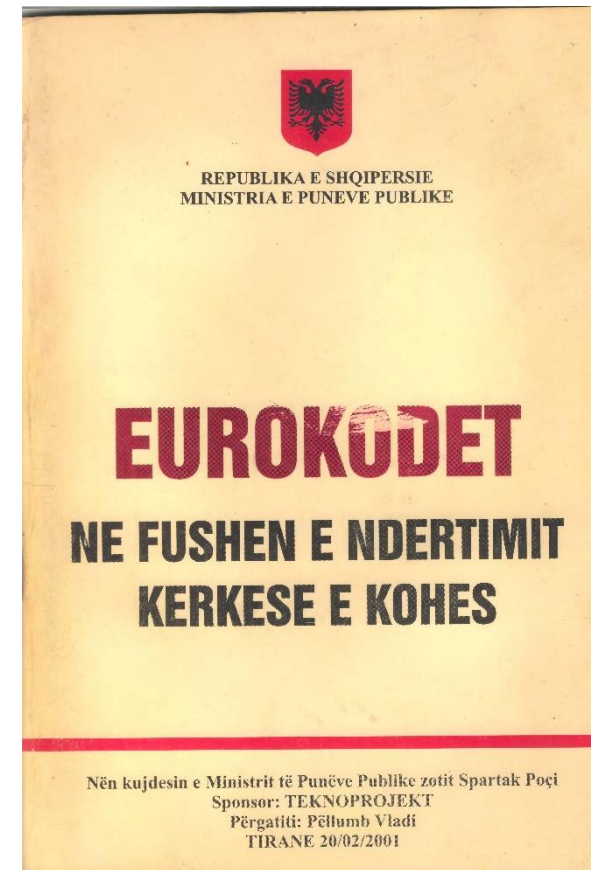
In 2001 Minister of Public Works organize the Workshop:

EUROCODES, IN CONSTRUCTION SECTOR AN ACTUAL NEED

In the workshop, more than 200 representatives:

- Central institutions;
- Academy of Science;
- University Professors;
- Engineering community;
- & Students

Based on this initiative in 2003-05 main ENV were translated from different WG.



I. What is done

In 2008 Ministry of Transport & Public Works was part of implementing World Bank Project:

«Disaster Risk Mitigation in Albania»

Component 1 ...

Component 2 ...

Component 3 «Review Building codes»

Component 4 ...

Component 5 ...

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED LOAN

IN THE AMOUNT OF EUR 2.0 MILLION
(US\$3.0 MILLION EQUIVALENT)

AND A

PROPOSED CREDIT

IN THE AMOUNT OF SDR 3.8 MILLION
(US\$6.16 MILLION EQUIVALENT)

TO

ALBANIA

FOR A

DISASTER RISK MITIGATION AND ADAPTATION PROJECT

May 23, 2008

Sustainable Development Department
South East Europe Country Unit
Europe and Central Asia Region

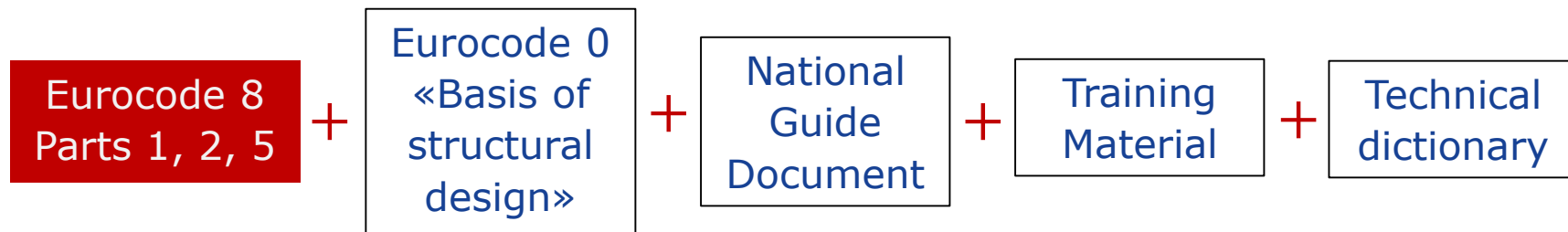
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I. What is done

Component III: «Review Building codes»

The component objective was to reduce risks from seismic activities through development of improved building codes and mechanisms for introduction of improved standards

Ministry decision: Focus on Eurocodes



I. What is done

- *Translated and accepted as Albanian Standard (**2012**)*
 1. SSH EN 1990 + A1;
 2. SSH EN 1998 Parts 1,2,5;



I. What is done

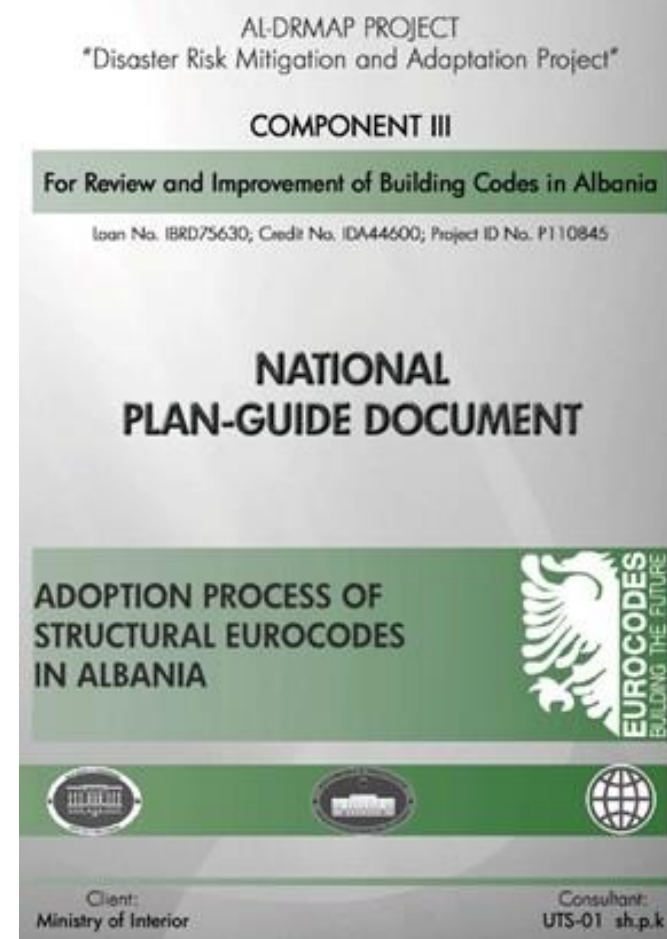
National plan-guide document

Set up of Eurocode Steering Committee

The steps needed as well as institutions & stakeholders involved;

Time schedule for the adoption process;

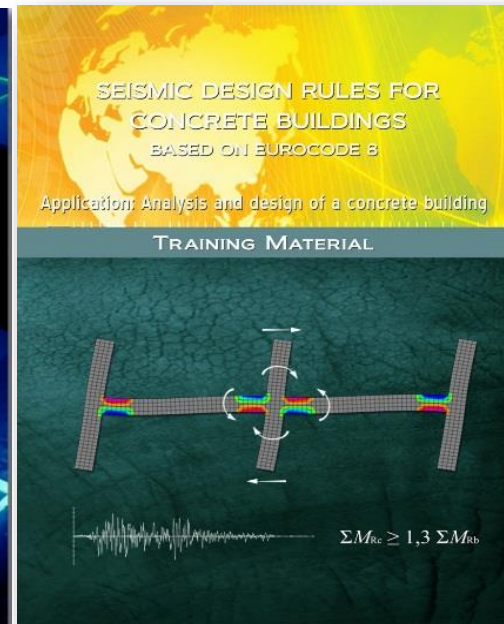
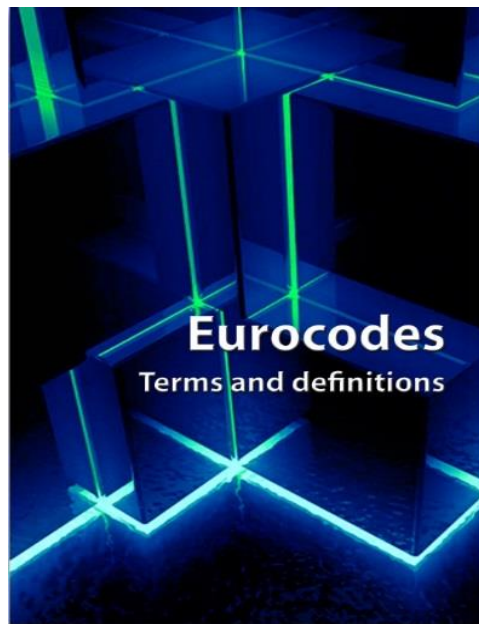
Prepared following JRC recommendations.



I. What is done

Training materials

- *A glossary of terms and definitions for Eurocodes (600 terms AL & EN);*
- *Technical materials understanding EN 1990;*
- *Design procedures for concrete structures*
- *Seismic design rules for r/c buildings;*



I. What is done

- Translated and accepted as
Albanian Standard (**2013**)

- SSH EN 1990;
- SSH EN 1991 all parts;
- SSH EN 1992 all parts;
- SSH EN 1993 all parts;

VENDIM
Nr.511, datë 6.7.2011

PËR ADOPTIMIN E EUROKODEVE TË NDËRTIMIT

Në mbështetje të nenit 100 të Kushtetutës, të neneve 4 e 18 të ligjit nr.8402, datë 10.9.1998 "Për kontrollin dhe disiplinimin e punimeve të ndërtimit", të ndryshuar, dhe të nenit 4 të ligjit nr.9870, datë 4.2.2008 "Për standardizimin", me propozimin e Ministrit të Punëve Publike dhe Transportit, Këshilli i Ministrave

VENDOSI:

1. Adoptrimin e eurokodeve-standardeve europiane të projektimit, së bashku me anekset kombëtare (Eurokodi 0-3), për plotësimin e kërkesave themelore që kanë të bëjnë me: rezistencën dhe qëndrueshmërinë mekanike; sigurinë nga zjarri; higjienën, shëndetin dhe mjedisin; sigurinë në përdorim; mbrojtjen nga zhurmat; kursimin e energjisë dhe ruajtjen e ngrohtësisë.

2. Shpenzimet operative prej 20 (njëzet) milionë lekësh për përkthimin, redaktimin, përshtatjen dhe hartimin e anekseve kombëtare të eurokodeve, të përballohen nga shpenzimet korente të miratuara për Ministrinë e Punëve Publike dhe Transportit, në programin "Strehimi dhe urbanistika", të cilat t'i kalojnë Entit Kombëtar të Banesave për këtë qëllim.

3. Ngarkohet Enti Kombëtar i Banesave për administrimin e fondeve dhe ndjekjen e procedurave, ligjore dhe nënligjore në fuqi, për kryerjen e shërbimit, sipas pikës 2 të këtij vendimi.

4. Drejtoria e Përgjithshme e Standardizimit, me kërkesë të EKB-së, vë në dispozicion të grupeve të punës dokumentacionin e plotë dhe të veçantë të nevojshëm të eurokodeve.

5. Ngarkohen Ministria e Punëve Publike dhe Transportit, Ministria e Financave dhe Ministria e Ekonomisë, Tregtisë dhe Energjetikës për zbatimin e këtij vendimi.

Ky vendim lryn në fuqi pas botimit në Fletoren Zyrtare.

KRYEMINISTRI
Sali Berisha

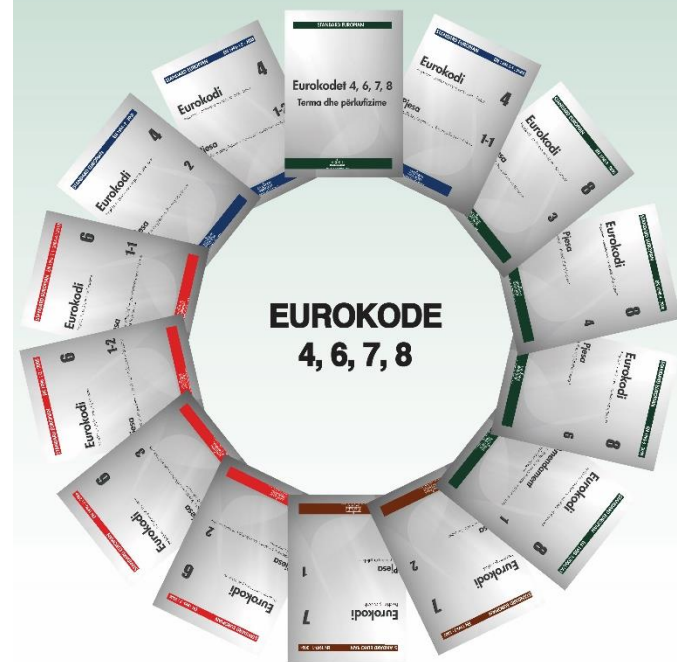
I. What is done

- Translated and accepted as Albanian Standard (**2016**)
- SSH EN 1994;
 - SSH EN 1996;
 - SSH EN 1997;
 - SSH EN 1998 Parts 3,4,6;

Përkthimi, përpunimi, përshtatja dhe redaktimi i EUROKODEVE

Në bazë të kontratës nr. 5283 prot. dt. 28.9.2016, kompania UTS-01 ka përfunduar shërbimin "Përkthim, përpunim, përshtatje dhe redaktim të Eurokodeve - EN 1994, 6, 7 dhe pjesët 3, 4, 6 të EN 1998, së bashku me Korrigjimet e Amendamentet përkatëse".

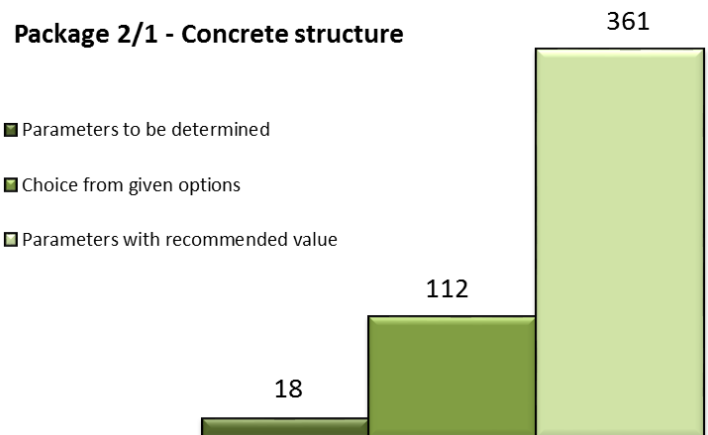
Projekti u mbikëqyr nga drejtorja e Standarde Urbane dhe Antikorrupsionit, MZHU, me drejtues Z. Sokol Demaliaj; iu nënshtroa oporencës e cila u krye nga ekipi i aktuar nga MZHU, i përbërë nga: Ilir Gërtozi, Vjollca Bazaiti, Anila Xhahysa, Anila Duzha, Alba Canaj; iu dorëzua grupit të ngritur për marrjen në dorëzim të dokumenteve, drejtuar nga Znj. Blerta Dymishi dhe u mbështet plotësisht nga DPS-ja, me drejtues Z. Riza Hasanaj. Nisma për hartimin e projektit u mor nga MZHU, nën kujdesin e veçantë të ministres Znj. Eglandina Gjermeni.



I. What is done

- NAs and NDPs*

Preparation of a database containing NDP's of all Eurocodes, divided into Eurocode Packages

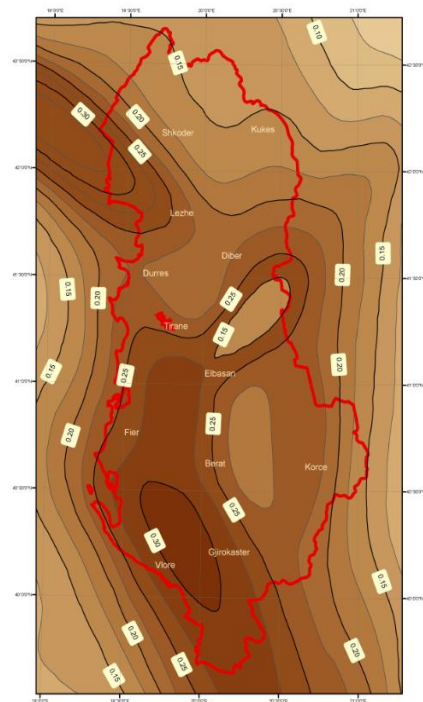


		Parameters to be determined	Choice from given options	Parameters with recommended
EN 1990	EN 1990 w/o A2	0	14	8
EN 1991	EN 1991-1-1	0	3	8
	EN 1991-1-2	2	7	1
	EN 1991-1-3	4	15	9
	EN 1991-1-4	6	20	56
	EN 1991-1-5	3	4	15
	EN 1991-1-6	0	11	16
	EN 1991-1-7	0	17	26
	EN 1991-3	0	1	6
EN 1992	EN 1992-1-1	0	1	118
	EN 1992-1-2	0	6	4
EN 1997	EN 1997-1	1	8	33
EN 1998	EN 1998-1	2	3	51
	EN 1998-3	0	2	6
	EN 1998-5	0	0	4
Totali	Package 2/1	18	112	361

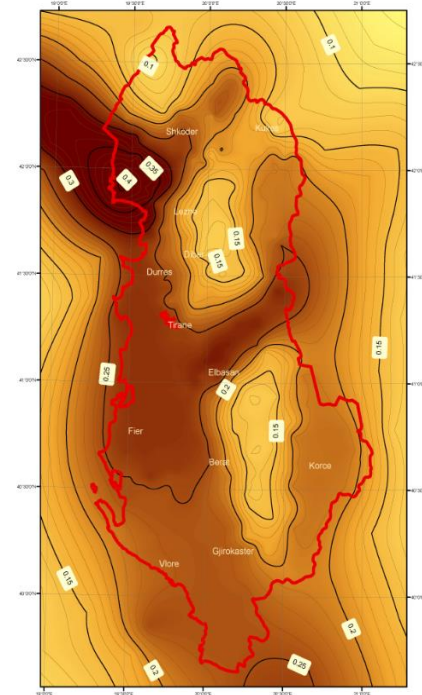
I. What is done

- ***Parameters to be determined***

Studies for the NDPs that require national decision have been undertaken (e.g. studies for seismic PGA map);



HARTA E SHPEJTIVEVE MAKSIMALE REFERENCE, NE TRUALL
TE FORTE PER PERIUDHE RIKTHIMI 475 VJET
("Vlerësimi i Rrezikut në Shqipëri", PNUD 2003)



HARTA E SHPEJTIMIT MAKSIMAL PER SHQIPERINE, NE TRUALL
SHKEMBOR PER 475 VJET PERIUDHE RIKTHIMI (SIZMITETI,
SIZMOTEKNIKA DHE VLERESIMI I RREZIKUT SIZMIK
NE SHQIPERI - AKADEMIA E SHKENCAVE E SHQIPERISE)

I. What is done

- ***Conferences and Workshops***

Round-tables with institutions and stakeholders;

Several workshops and training seminars across Albania;



I. What is done

- *Use of translated and non-translated Eurocodes*

The EN version of Eurocodes has been used for the design of structures in Albania since several years ago.

Many consulting companies use the Eurocodes, especially in international projects and collaborations with European companies;

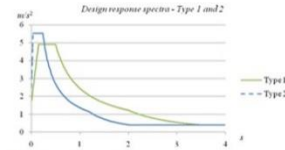
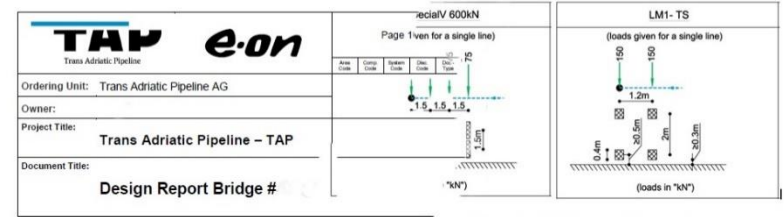


Figure 11 Design horizontal response spectra

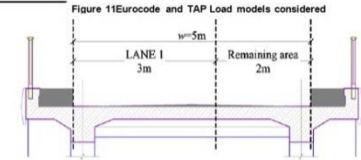


Figure 10 Definition of notional lanes



I. What is done

- *Introduction of Eurocodes at universities*

Eurocodes have been partially introduced within different study programs in Universities for many years

- *Execution, product and testing standards*

Following CPD already incorporated in our legislation, many industries and companies operating in civil engineering have introduced ENs in their products and procedures

I. What is done since last workshop (June, '16)

Translation of Eurocode 4, 6, 7 and parts 3, 4, 6 of Eurocode 8 NAs and NDPs - Partially prepared

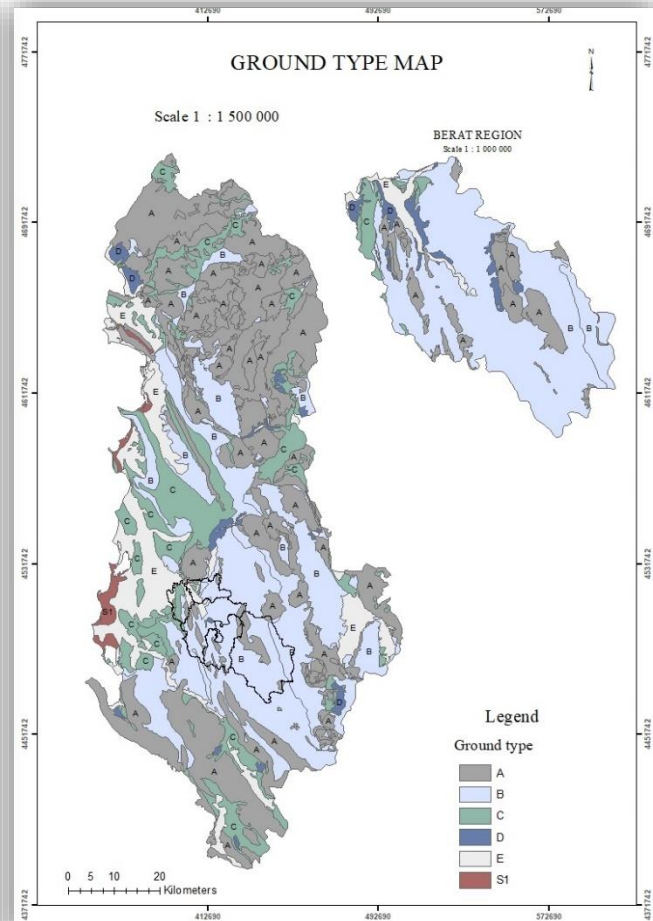
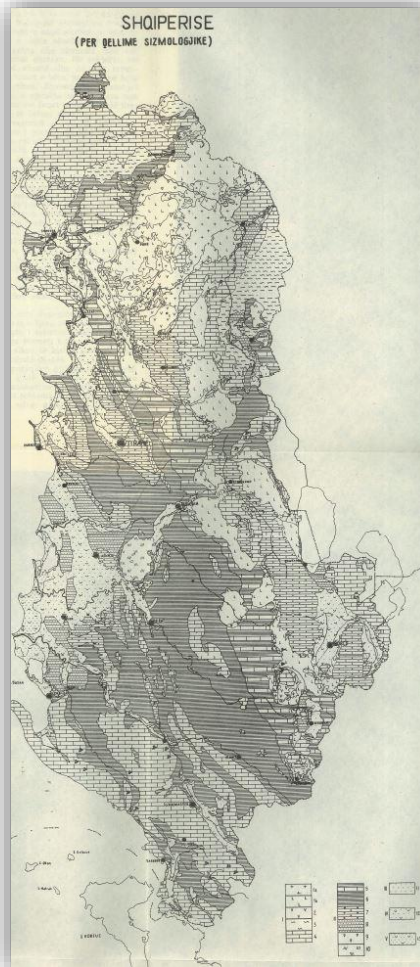
- Preparation of draft National Annexes, accepting all recommended parameters of all Eurocodes already translated;
- Examples to understand and apply some NDP's of Package 2/1.
- The list of old Technical Codes to be replaced by Eurocodes as well **as the list of those remaining after Eurocode implementations**

Use of Eurocodes at the universities

- Faculty of Civil Engineering, in many subjects are introduced Eurocode procedure (EC1, 2, 3, 7 and 8).

I. What is done since last workshop

There are private initiatives regarding translation of remaining parts and preparing National Annexes



II. Difficulties & next steps

- *Insufficient coordination between different national authorities*
 1. Adoption process requires collaboration between different government units (MFE through GDS, MIE, and MES through Universities);
 2. Reformatting of Ministry that cover construction issues;
 3. Also the legislation in construction sector requires interventions.
- *Eurocode Steering Committee*
 1. The Eurocode Steering Committee that coordinate all activities leading to the replacement of the old Technical Codes with Eurocodes is not constituted yet;
 2. The TC-250 (Mirror Committee) within GDS is a volunteer small group (with not enough technical experts and financial support) and does not have any legislative power to approve NAs with NDPs or other administrative and technical steps;

II. Difficulties & next steps

Eurocodes: both “Standards” and “Technical Codes”;

According to Albanian legislation in the field of construction, the design of structures still must follow the KTPs – Albanian Technical Codes (1978). Therefore, Eurocodes are National Standards that can be used voluntarily. They must be approved as “Albanian Technical Codes” and replace old ones.

Unified terminology

- An unified terminology in Albanian is necessary in the field of Civil and Structural Engineering. Different Authorities use a non-unified terminology, leading to possible misunderstandings;
- Usage of European Standards in their official languages might lead to confusion to the end users.

II. Difficulties & next steps

Unified terminology

An unified terminology in Albanian is necessary in the field of Civil and Structural Engineering. Different Authorities use a non-unified terminology, leading to possible misunderstandings;

Usage of European Standards in their official languages might lead to confusion to the end users.

Glossary already contains 1000 terms in 4 languages: Albanian, English, French & Italian

vepër ndërtimi (AL)

gjithçka që ndërtohet ose që rezulton nga veprimtaria ndërtuese

Shënim: Ky përkufizim është në përputhje me ISO 6707-1. Termi përfshin si ndërtesa ashtu edhe vepra të Inxhinierisë civile. Ai i referohet veprës së ndërtimit të përfunduar, duke përfshirë elementë strukturorë, jostrukturorë dhe gjeoteknikë.

construction works (EN)

everything that is constructed or results from construction operations

Note: This definition accords with ISO 6707-1. The term covers both building and civil engineering works. It refers to the complete construction works comprising structural, non-structural and geotechnical elements.

construction (FR)

tout ce qui concerne ou résulte des opérations de construction

Note: Cette définition est conforme à l'ISO 6707. Ce terme recouvre les bâtiments et les ouvrages de génie civil. Il désigne les constructions entières, incluant leurs éléments structuraux, non structuraux et géotechniques.

costruzione (IT)

tutto ciò che viene costruito o risulta da operazioni di costruzione.

Nota: Questa definizione è in accordo con la ISO 6707, parte 1. Il termine comprende sia gli edifici che le altre opere dell'ingegneria civile. Esso si riferisce alle costruzioni complete, compresi elementi strutturali, non strutturali e geotecnici.

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Thank you for your attention!

Stay in touch



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