European Commission

Current situation in adoption of the Eurocodes in Moldova (standards and legislation) specific problems and needs, training, guidelines and training material

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Republic of Moldova. General presentation

- *population - 3,4 mil. pers.*
- *3 seismic zones – 6, 7, 8 grades*

Legal/policy framework for adoption of the Eurocodes

- *Gov. Decision #356/2005 Action plan RM-EU*

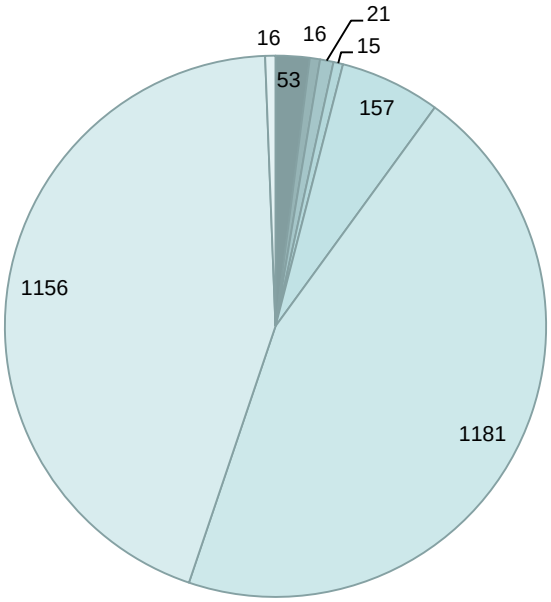
(implementation of EU Directives and EN standards)

- *Gov. Decision #289/2012 Action plan for Gov. 2012-2015 (implementation of Eurocodes)*

Institutional framework

- ***Ministry of Regional Development and Construction*** *(technical regulation of construction) +* ***Technical Committees for technical regulation in construction*** *(accept the draft regulations and Codes of practice)*
- ***INCERCOM*** *– State Scientific and Research Institute in Construction (development of technical regulations, Codes of practice in construction, technical agreements, testing, certification of construction products, research)*
- ***URBANPROIECT*** *– State Design and Research Institute (development of technical regulations, Codes of practice in construction, design of constructions, development of masterplans for localities)*
- ***National Institute for Standardization*** *(development and adoption of standards)*

Technical regulations and standards in construction. Current situation



- A (53) - moldovan construction norms - mandatory - (NCM)
- B (16) - interstate construction norms (MSN) adopted as moldovan - mandatory - (NCM)
- C (21) - moldovan Codes of practice in construction (CP)
- D (15) - interstate codes of practice adopted as moldovan - voluntary - (CP/MSP)
- E (157) - ex-soviet construction norms - mandatory - (SNiP)
- F (1181) - ex-soviet Codes of practice, guides, instructions etc. - voluntary
- G (1156) - national standards (including ex-soviet, interstate, european, international and of other states)
- H (16) - moldovan standards

Technical regulations and standards in construction ≡ Eurocodes

Eurocod	Title Eurocod	Analogical Moldovan norm	Title
EN 1990	Basis of structural design	GOST 27751- 88	Reliability of structures and bases. Principal rules of the calculations.
EN 1991	Actions on structures	SNiP 2.01.07-85*	Loads and actions
EN 1992	Design of concrete structures	NCM F.02.02-2006	Concrete and reinforced concrete structures. Calculation, designing and methods of production of elements from reinforced and prestressed concrete
EN 1993	Design of steel structures	SNiP II-23-81*	Steel structures
EN 1994	Design of composite steel and concrete structures	–	–
EN 1995	Design of timber structures	NCM F.05.01-2007	Wood structures. Designing timber constructions
EN 1996	Design of masonry structures	NCM F.03.02-2005	Masonry structures. Design of buildings with masonry walls
EN 1997	Geotechnical design	SNiP 2.02.01-83*, SNiP 2.02.03-85	Bases of structures. Pile foundations
EN 1998	Design of structures for earthquake resistance	SNiP II-7-81*	Construction in Seismic Areas
EN 1999	Design of aluminium structures	SNiP 2.03.06-85	Aluminium structures

Technical regulations in construction. Development

- *Interstate Technical Commission for Technical Regulation and Standardization in Construction (CIS countries – Russia, Ukraine, Belorussia, Moldova etc.) – interstate technical norms in construction (MSN) and Codes of practice in construction (MSP)*
- *INCERCOM - Moldovan construction norms (NCM), Moldovan Codes of practice in construction (CP) and Technical approvals*

Standards in construction. Development

- *National Institute for Standardization - adoption of EN, ISO standards (agreement NIS Moldova – ASRO Romania, translations in RO)*
- *Interstate Union for Standardization, Certification, Accreditation and Metrology (CIS countries – Russia, Ukraine, Belorussia, Moldova etc.) – interstate standards in construction GOST*
- *INCERCOM & other institutions - Moldovan standards (SM)*

Eurocodes implementation. Current situation

- *In 2010-2011 all 58 standards are adopted as national (without national annexes ! – reason is to make them publically available and to raise the awareness of the Eurocodes among the specialists)*
- *In 2013 MRDC and URBANPROIECT has started development of NA for Eurocode 0, 1, 2 (in collaboration with Technical University in Construction from Bucharest - Romania)*

Eurocodes implementation. Challenges

- *Insufficient capacities (specialists, financial, technical)*
- *Inadequate legislative framework for EN standards implementation (SNiP, NCM ≡ Eurocode, SNiP and NCM – mandatory, prescriptive; EN standards – voluntary, mainly performance based)*
- *Resistance from professionals (high degree of conservatism)*

Eurocodes implementation. Opportunities

- *Governmental decision – "political will"*
- *Collaboration with Romania (ASRO, Technical University in Construction from Bucharest, etc.) – similar climatic, seismic, geophysical conditions, no need of translation of the Eurocodes in RO*
- *Experience already exists (NDP database, manuals, soft, guidelines, TA projects etc.)*

Eurocodes implementation. Next steps

- *MDRC has started to develop an Action plan for implementation of the Eurocodes in Moldova*
- *MRDC has asked the Delegation of the European Commission in Moldova to initiate a TA project for Eurocodes implementation in Moldova (national annexes, manuals, training, soft, etc.)*
- *MDRC has started development of the Construction Code (legislative act)*

Thank you for attention!

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www.standard.md

Useful links:

Ministry of Regional Development and Construction (www.mdrc.gov.md)

INCERCOM State Scientific and Research Institute in Construction (www.incercom.md)

National portal for construction regulations (www.ednc.gov.md)