Current situation in adoption of the Eurocodes in Moldova

Legal/policy framework for adoption of the Eurocodes

1. *Gov. Decision #289/07.05.2012 - Government action plan for 2012 – 2015 period (implementation of Eurocodes)*

185	**Facilitate the implementation of innovations and new technologies in construction, by reforming the system of technical regulation of buildings and implementing performance standards in construction**	**Presentation to the National Standardization Body of proposals for the adoption of Eurocodes and their implementation**	**Ministry of Regional Development and Construction; Ministry of Economy**	**4th Quarter 2014**	**100 % adoption**

2. *Law #112/02.07.2014 - Association Agreement RM – UE (ratified)*

3. *Gov. Decision #933/12.11.2014 - Government action plan for 2014 – 2020 period (implementation of Eurocodes)*

3	**Harmonization of national normative documents in the field of construction with European standards**	**Collaboration with the National Standardization Institute to replace all existing GOST national standards with identical European (Eurocodes)**	**Ministry of Economy and Infrastructure; National Standardization Institute**	**4th Quarter 2020**	**50% - 2017 80% - 2018 100% - 2020**

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Institutional framework

- **Ministry of Economy and Infrastructure** (*technical regulations in construction + Technical Committees for technical regulations in construction)*
- **INCERCOM** – *State Scientific and Research Institute in Construction (development of technical regulations, technical agreements, testing, certification of construction products, research)*
- ***URBANPROIECT*** *– State Design and Research Institute (development of technical regulations, design of constructions, development of city plans)*
- **Institute for Standardization of Moldov***a (development and adoption of standards)*

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Institutional framework

- **Academy of Science of Moldova**

1. Institute of Geography and Ecology – climate maps
2. Institute of Geology and Seismology – seismic maps

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Technical regulations and standards in construction ≡ Eurocodes

Eurocode	Eurocode title	Analogical Moldovan regulation	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.

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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)*

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Eurocodes implementation luck

NO TRANSLATION

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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)

National Annexes:

Eurocode EN 1990;

Eurocode EN 1991;

Eurocode EN 1992.

Eurocode EN 1993;

Eurocode EN 1994;

Eurocode EN 1995.

TECHNICAL UNIVERSITY OF CIVIL ENGINEERING BUCHAREST

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ÚNMZ CZECH OFFICE FOR STANDARDS, METROLOGY AND TESTING

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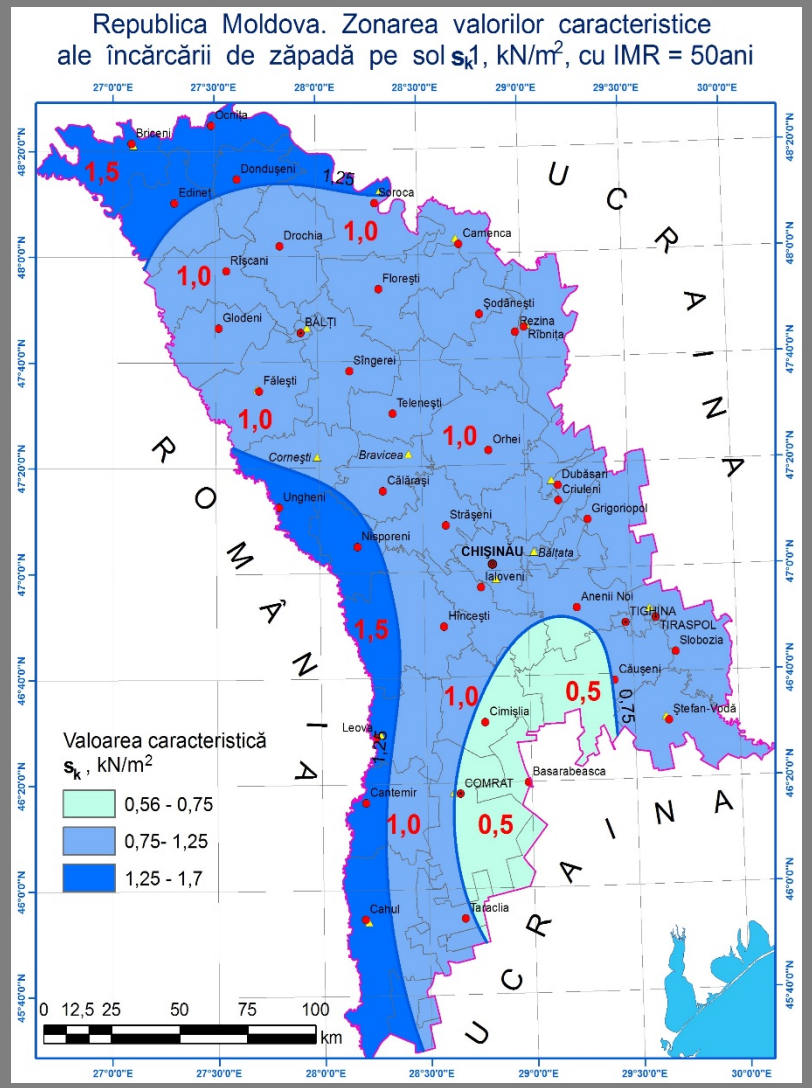
Snow



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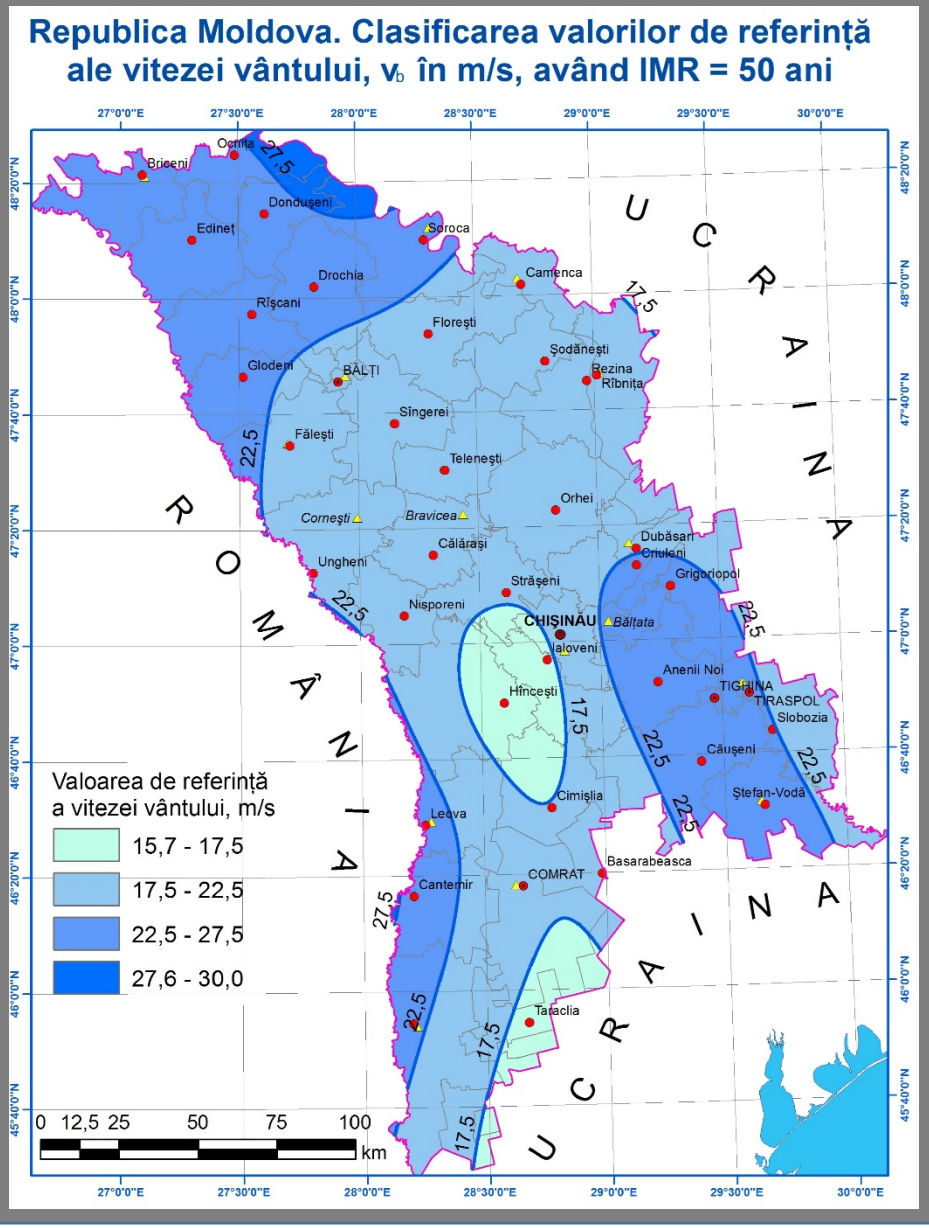
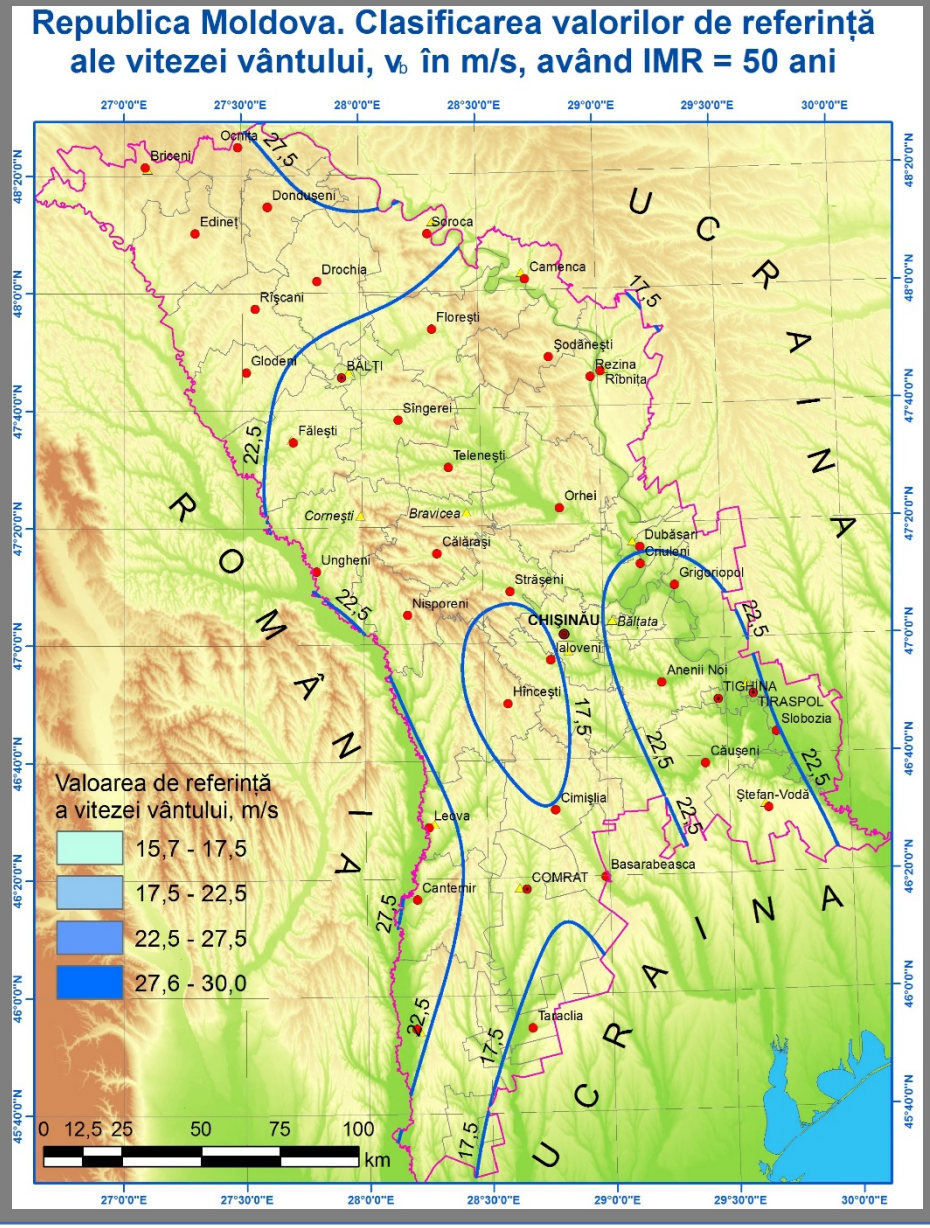
Wind





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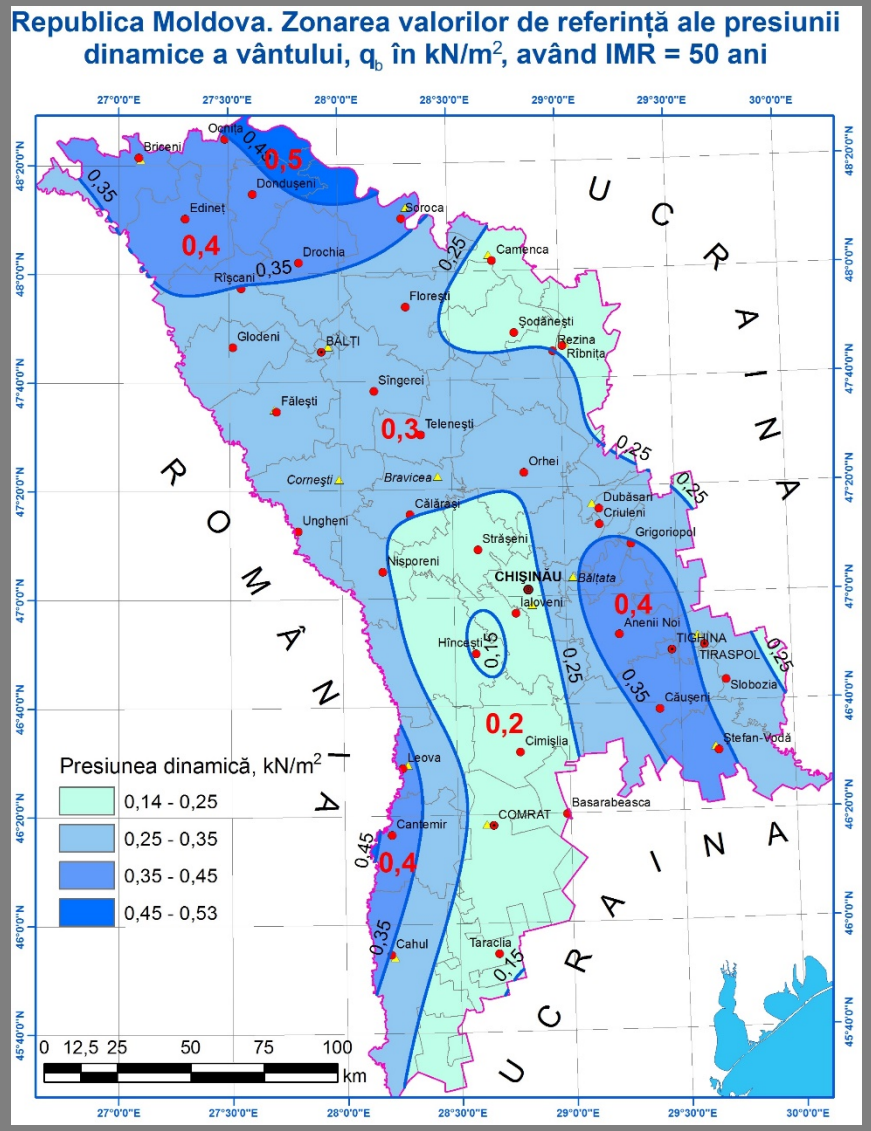
Wind pressure



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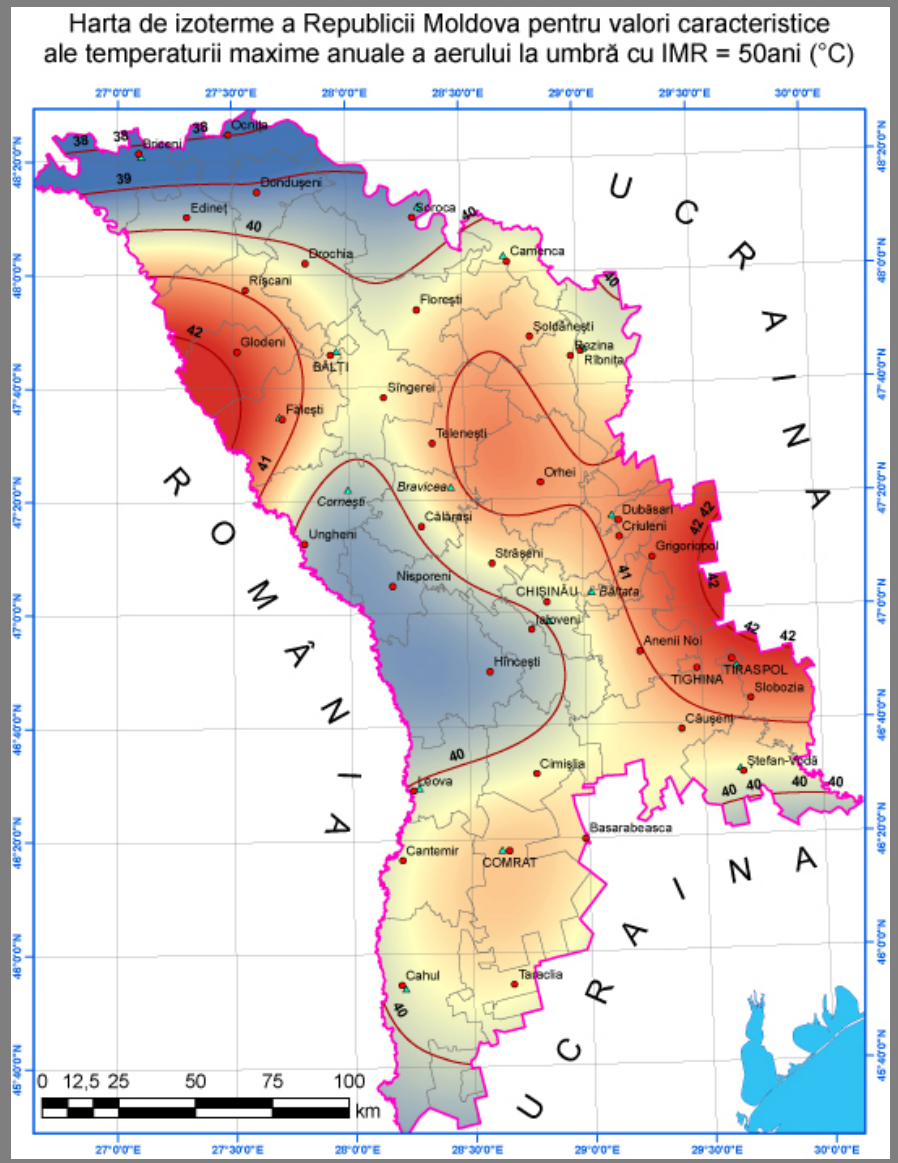
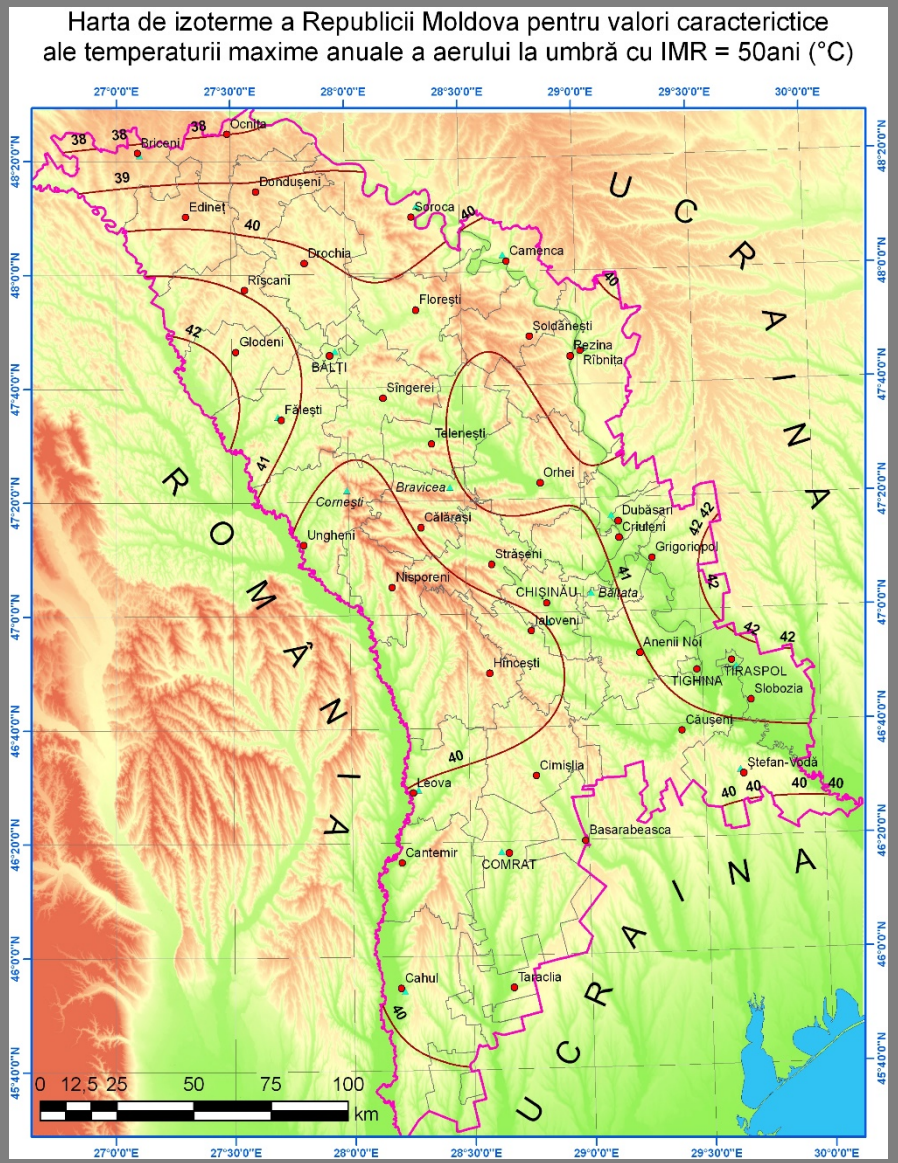
Maximum air temperature (in shadow)





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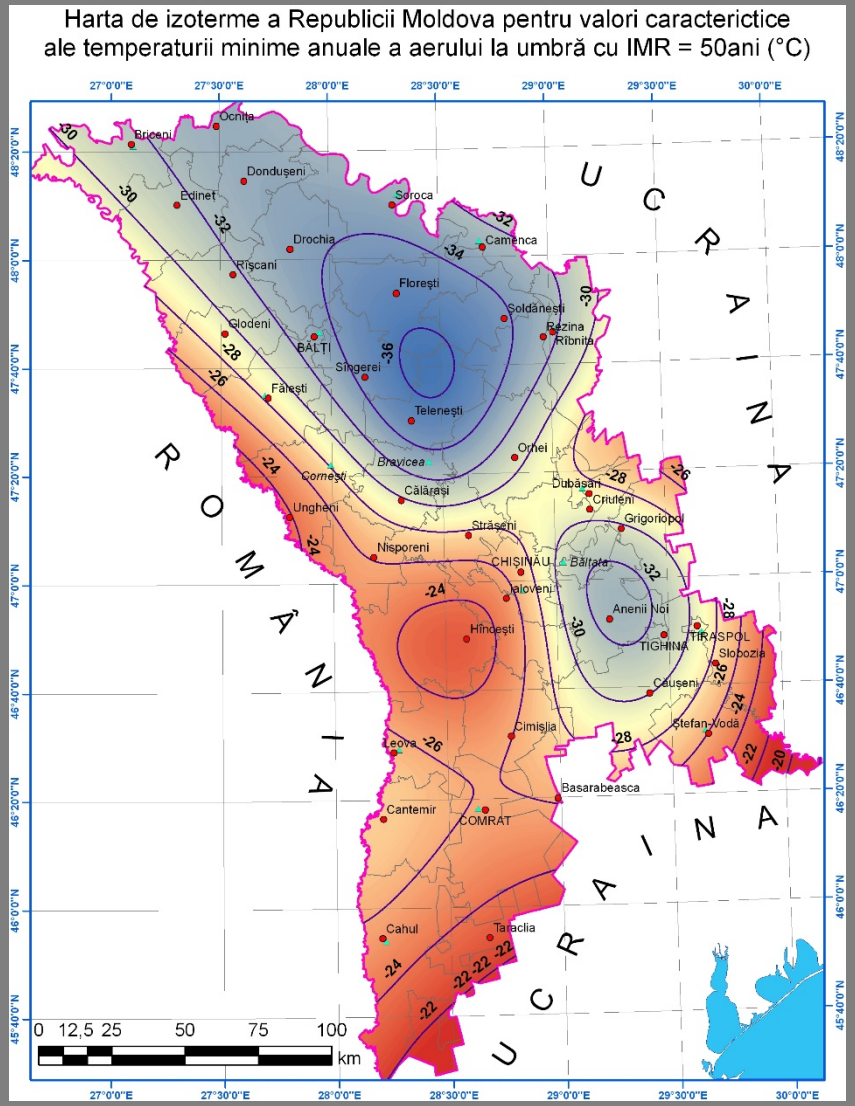
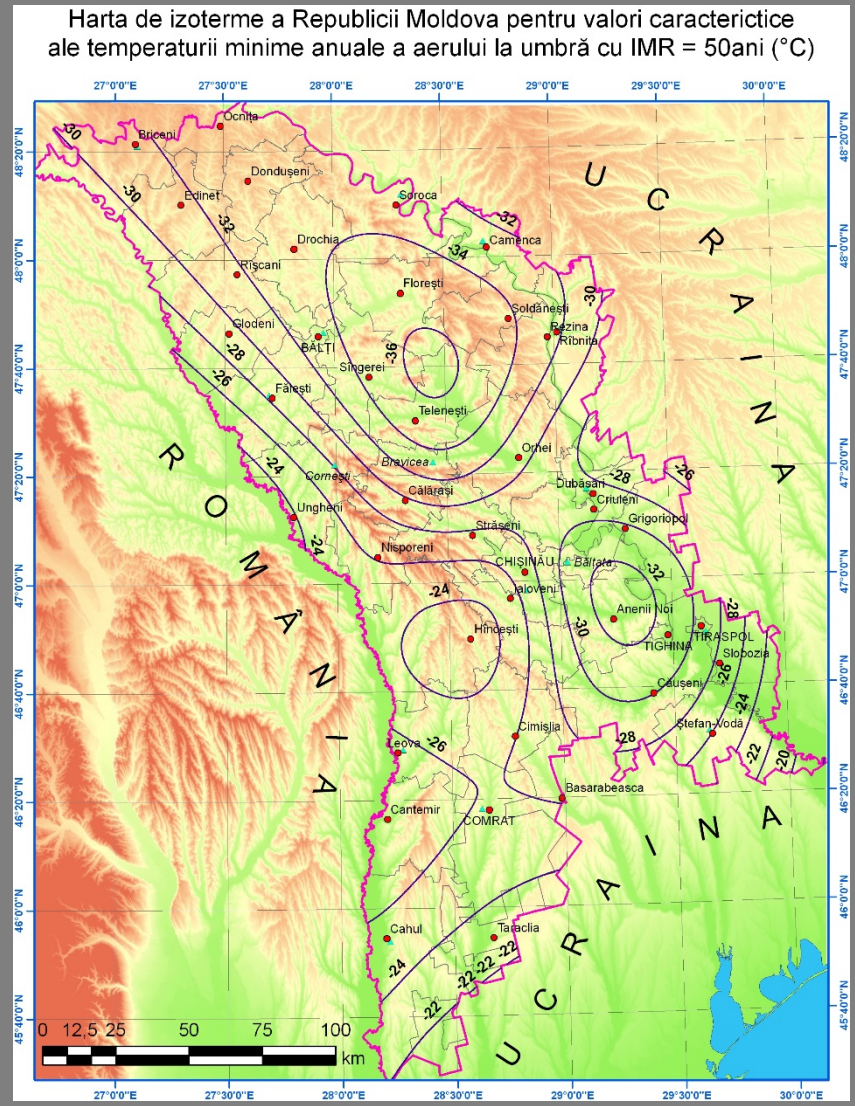
Minimum air temperature (in shadow)





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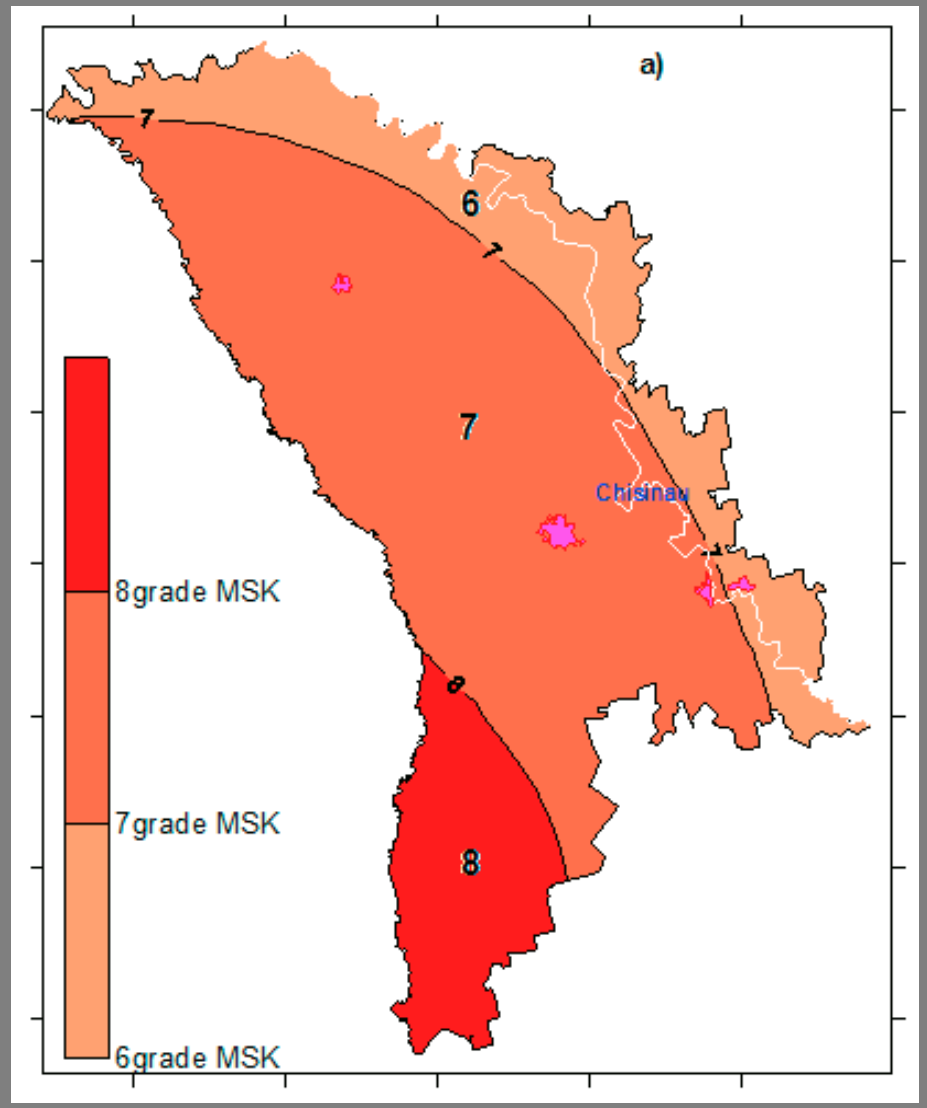
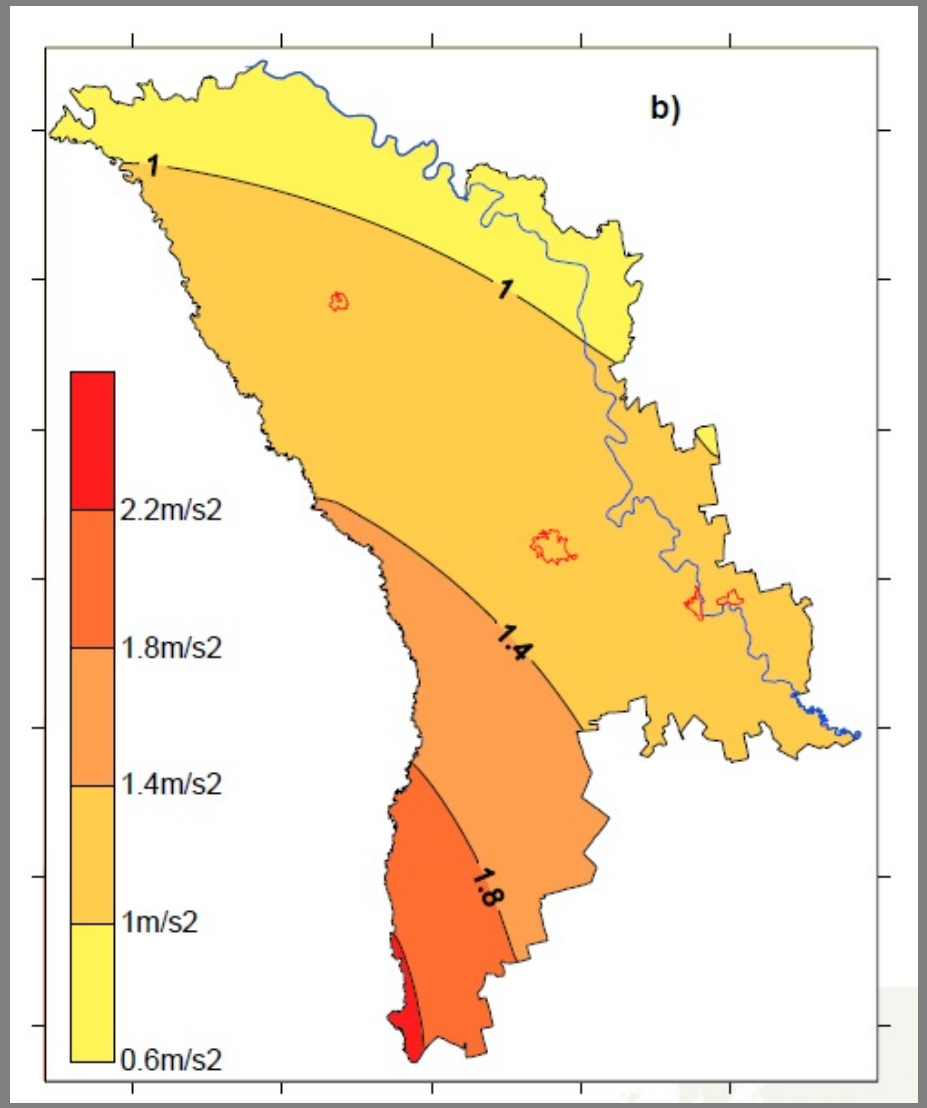
Seismic zoning



a) In terms of MSK



b) In terms of EUROCODE 8

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Eurocodes implementation. Future….

- Eurocode EN 1996 - Design of masonry structures
- Eurocode EN 1997 - Geotechnical design
- Eurocode EN 1998 - Design of structures for earthquake resistance
- Eurocode EN 1999 - Design of aluminium structures

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Thank you for your attention

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