Land Relations and Cadastre Agency
Institute of Geodesy, Engineering Research and Cadastre

National Report of Republic of Moldova

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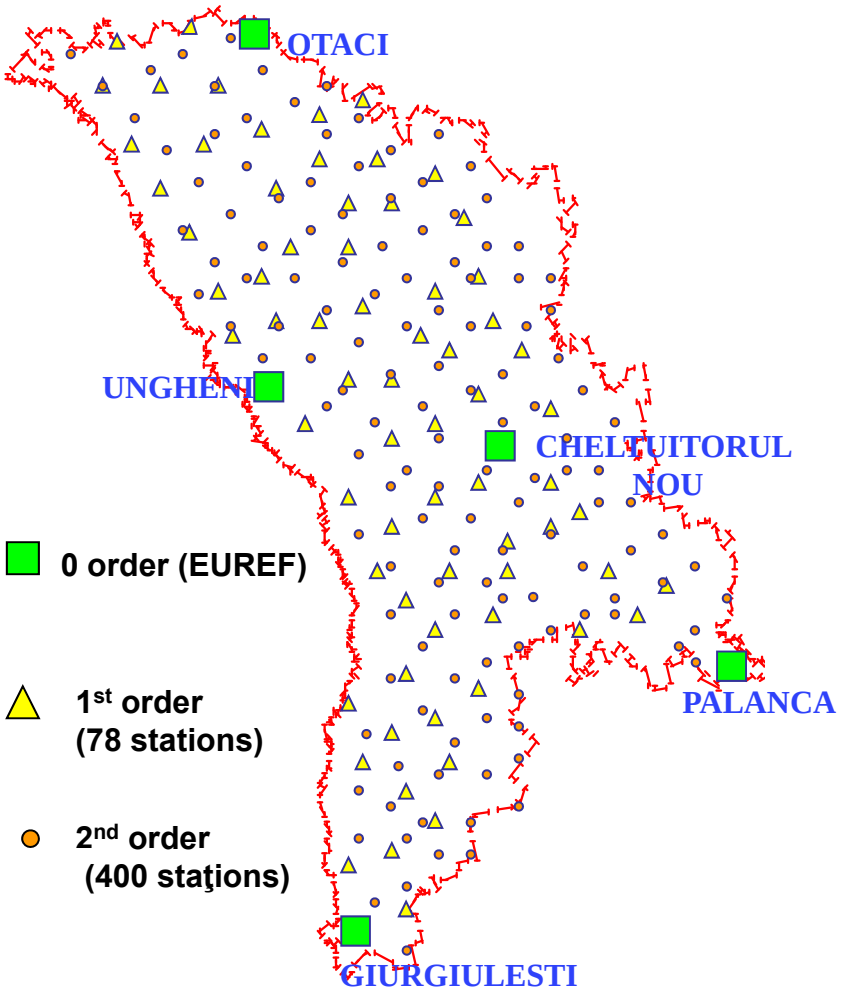
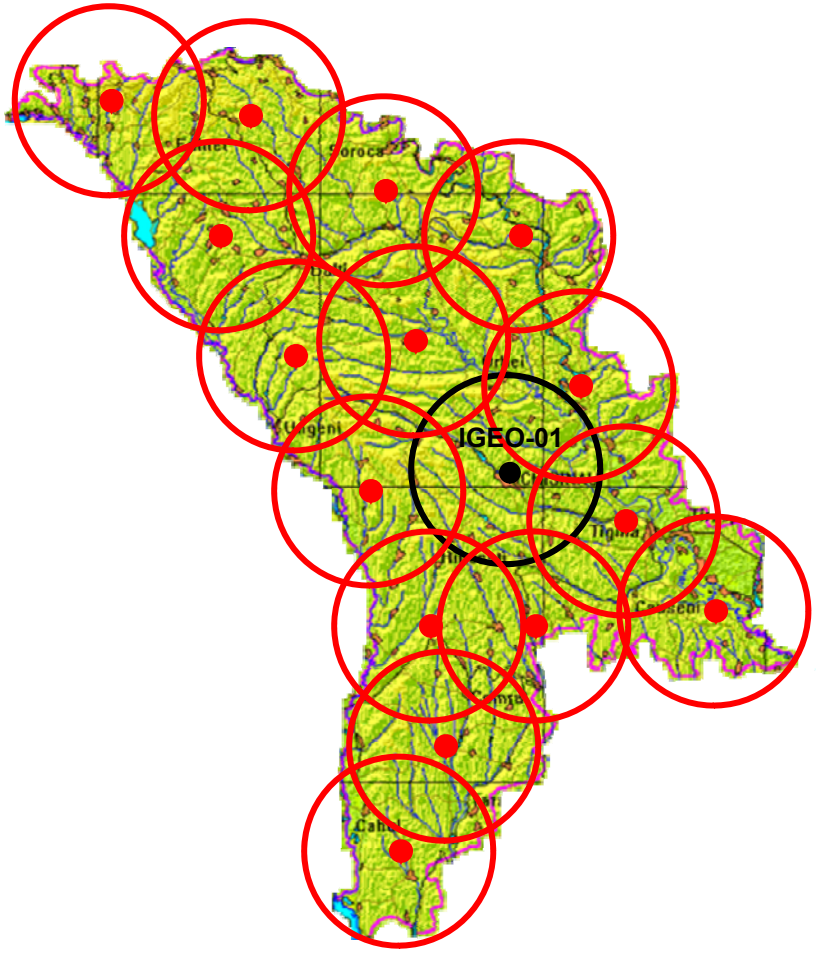
GNSS observations

GNSS "passive" network (1999-2002) → **GNSS "active" network (2009-2010)**





GPS observations

Integration with EPN

Starting from August 2007 the Agency of Land Relations and Cadastre in collaboration with BKG installed and jointly operate a GNSS permanent tracking station IGEO (Chisinau) integrated into EPN

GNSS observations

MOLDPOS Concept

• The densification with the ~ 30-40 km spacing requires that at least 16 permanent operating GNSS stations to be installed in order to provide the differential GNSS for navigation and real time kinematics for surveying

•The next step to organize the MOLDPOS service to generate and distribute differential corrections and height anomalies from the national quasigeoid model

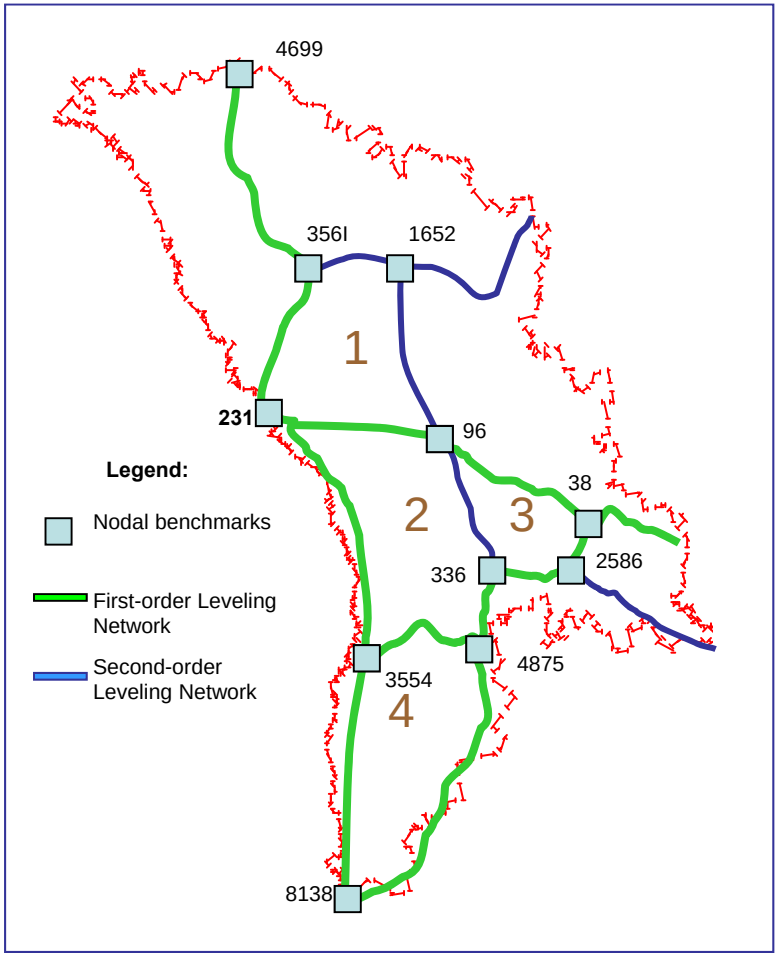
• We suppose the MOLDPOS will be used by a large spectrum of users (geodetic works, cadastral surveying, GIS applications, mapping and boundary marking, etc.)

• MOLDPOS will be the basis of support of scientific applications (landslide and floods monitoring, environmental research, geohazard prediction, meteorology, etc.)

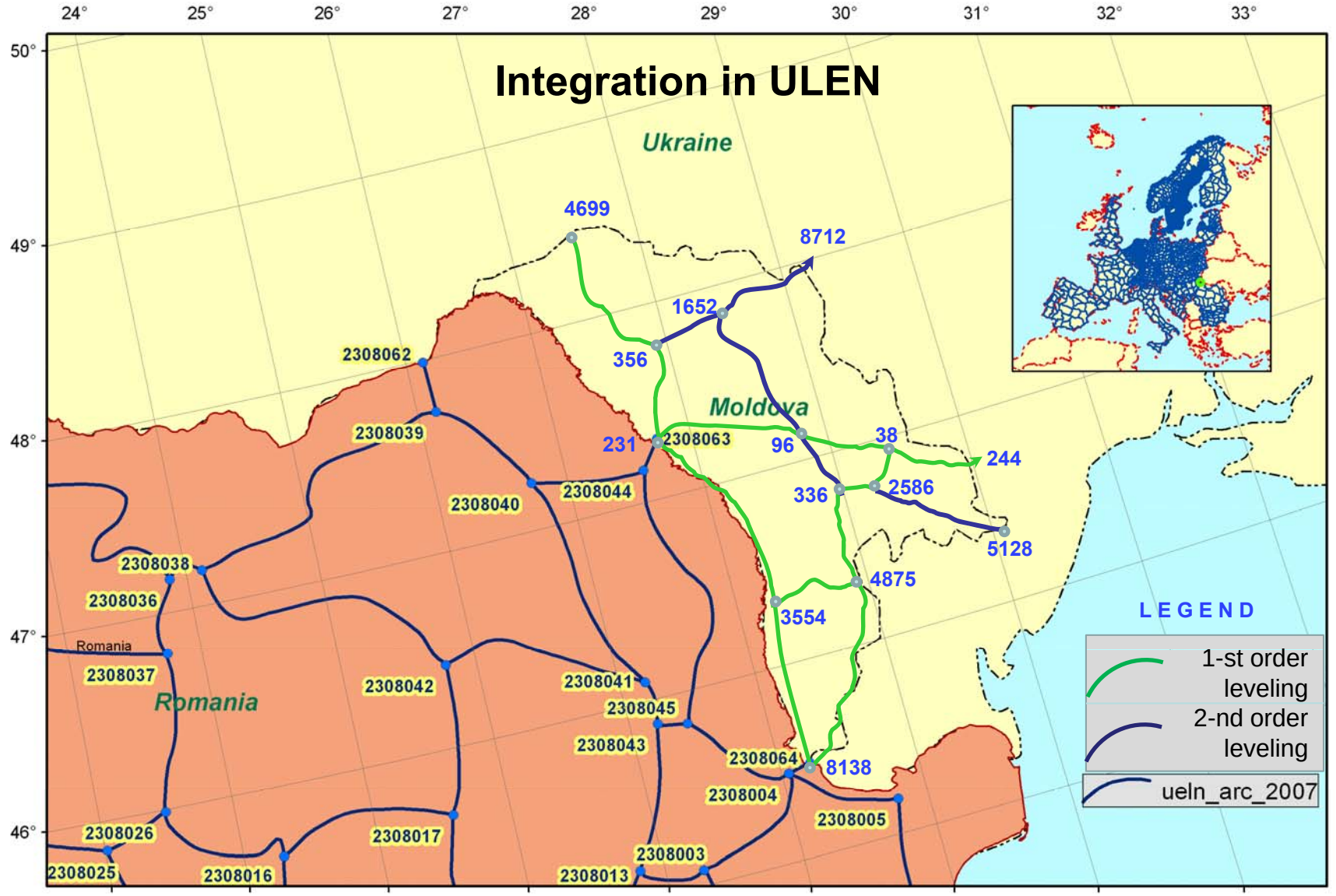
Precise leveling

National leveling network reconstruction

- 1st polygon (350 km) closed in 2008
- 2nd polygon (429 km) performed 202 km in 2009
- 3rd polygon (116 km) performed 30 km in 2008
- 4th polygon (267 km) to be performed in 2010-2011



Precise leveling

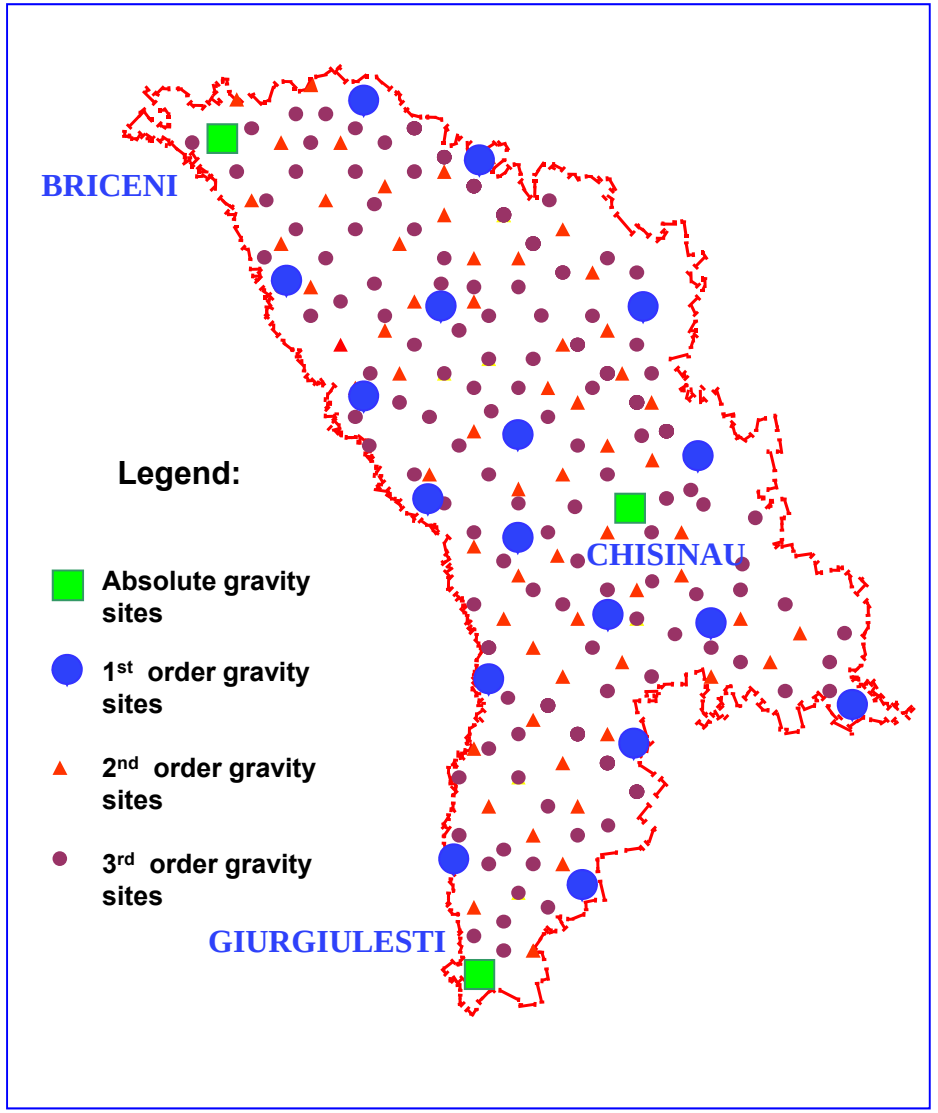


Absolute and relative gravity measurements

National Gravity Network

- 3 absolute gravity stations (2006) with RMS < 5 μGal
- 17 first order gravity stations (2006) with RMS < 10 μGal
- 112 second order gravity stations (2007-2008) with RMS < 20 μGal
- 271 third order gravity network performed (2008-2009) with RMS < 40 μGal
- 1511 third order gravity network to be performed (2010-2011)

Total: 2012 gravity stations (4x4 km)



Way ahead

- MOLDPOS development and Integration in the EUPOS and participation in international projects

- The future steps are gravity network densification about 1 point per 15-20 square kilometres for geophysical applications, precise levelling and the high resolution local quasigeoid modelling

- The reconstruction of national levelling network in order to integrate data into UELN and to introduce the national height system, which should be the realization of EVRS2000

- Improvement of normal height determination accuracy from GNSS measurements and organizing the MOLDPOS service to generate and distribute differential corrections and height anomalies from the national quasigeoid model

Thank for your attention

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