



This project  
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Project fiche

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## Harmonization of Seismic Risk Reduction in the Vrancea Zone

(ref. 980468)

This project is addressing the risks posed by earthquakes in the Vrancea zone of Eastern Europe, an area situated between two lithospheric plates moving in opposite directions. The project involves seismic hazard assessment zoning, taking into account directivity effects, local soil conditions and the vulnerability of the existing buildings. The end-goal is to harmonize the different risk maps of Bulgaria, Moldova and Romania and to create standard risk maps in Eurocode 8 format, reflect the real transboundary geophysical characteristics, replacing current maps that are limited by political borders.

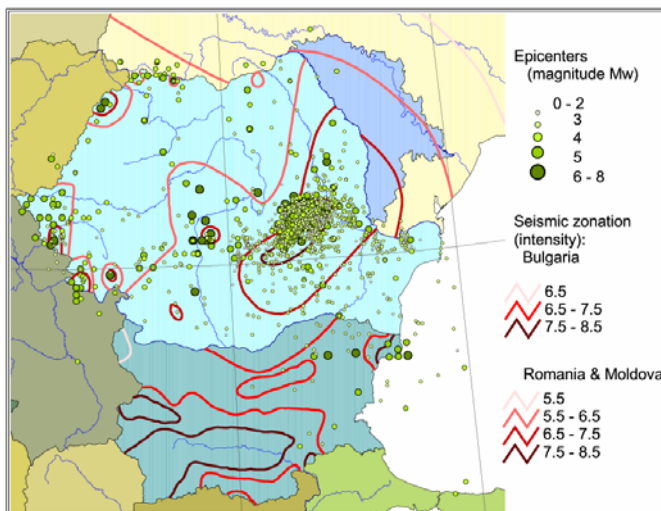
In order to build capabilities, young scientists from all the countries involved have been trained in the field of seismic hazard, vulnerability and risk assessment. Historical and current data have been collected in one large database that allows direct comparison and harmonization using standard scientific methods. In addition, the project has helped to upgrade the monitoring facilities of the countries. Detailed maps of seismic micro-zonation for the cities of Chisinau, Moldova, and Russe, Bulgaria have been developed and particularly vulnerable buildings and building sites have been identified. The results being disseminated to local authorities, ministries and the engineering communities concerned. The end-users include the Department of Emergency Situations and the Agency for Territorial Development in Chisinau, the Municipality of Bucharest as well as the Technical University of Civil Engineering and the National Centre for Seismic Risk Reduction in Bucharest.

This project was followed by a larger project for the remaining western Balkan countries using the same methods (ref. 983054). Both projects are coordinated with the Disaster Preparedness and Prevention Initiative for South-Eastern Europe ([www.dppi.info](http://www.dppi.info)).

### Project Co-Directors:

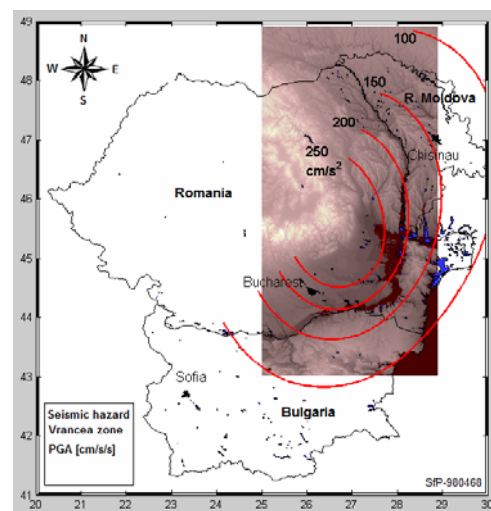
- Prof. Güney Özcebe, Middle East Technical University, Ankara, Turkey (NPD)
- Dr. Anton Zaiceco, Institute of Geophysics and Geology, Chisinau, Moldova (PPD)
- Prof. Ivanka Paskaleva, Central Lab Seismic Mechanics & Earthquake Eng., Sofia, Bulgaria
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**Approval Date:** 27 December 2004; **Effective Start Date:** 25 February 2005  
**Duration:** 4 years; completion by February 2009 followed by a nationally funded implementation phase.  
**Web site:** <http://igg.asm.md/sfp/index.html>



**BEFORE**

Old map of seismic zonation for Romania, Moldova and Bulgaria dated before the start of this project. Inconsistencies can be seen at the political borders.



**AFTER**

An example for a newly produced map using the methods developed in this project, now reflecting the real transboundary geophysical characteristics.