microzonation studies provided important data characterizing seismic response of shallow structures to earthquake excitation. The measurements in buildings resulted in a large database of building free-frequencies and damping, also suggesting which buildings are potentially prone to soil-structure resonance. Some of the results were also incorporated into the Croatian National Annex to Eurocode 8. In retrospective, it is clear that Marco's inexhaustible energy, enthusiasm, love for science and open-hearted cooperation were among the key ingredients that opened new perspectives for Croatian engineering seismology.

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ARMONIA: TOWARDS HARMONIZATION OF STRONG MOTION NETWORKS BETWEEN NORTHEASTERN ITALY AND AUSTRIA

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The Southeastern Alps corresponds to the northernmost part of the Adriatic microplate which in this sector collides and rotates anticlockwise with respect to the Eurasian plate. As a consequence, the area, a seismically active region in particular the pre-Alpine belt, has a high seismic hazard, with an expected maximum acceleration for an exceedance probability of 10% in 50 years between 0.250 and 0.275 g. In the area several seismological networks, from different countries, operate. In Austria and in Italy, the main ones are the Istituto Nazionale di Oceanografia e di Geofisica Sperimentale (OGS) seismological network, the Friuli Venezia Giulia Accelerometric network, managed by University of Trieste, which is integrated to the National Accelerometric Network managed by Dipartimento della Protezione Civile Nazionale, and the Austrian seismological Network managed by the ZAMG of Vienna. In addition the real-time data are exchanged in the Southern Alps area with the seismic network managed by the Istituto Nazionale di Geofisica e Vulcanologia (INGV) and by the Autonomous Provinces of Trento and Bolzano; further the networks are integrated with the networks operating in Slovenia, Croatia and Switzerland. The seismic signals are acquired and processed in real-time by the Antelope® software. The sharing of cross-border waveforms improves the network geometries and, as a consequence the earthquake detection threshold near the borders. This is very important because natural disasters, as strong earthquakes, can cause damages and loss of life on the cross border area and in different countries; thus, the development of a trans-frontier strategies in the management of natural disasters is an important issue in order to harmonize trans-frontier actions to accelerate and facilitate the rescue operations. In this context we develop the interregional ARMONIA project between Austria and Italy aiming to tighten collaboration between the civil protection institutions for the risk prevention. Through the use of innovative methodologies, it develops a trans-frontier strategy in the management of natural disasters. The development of common protocols allows joint planning and implementation of harmonize actions to accelerate and facilitate the rescue operations. Partners develop an innovative seismic monitoring system extended also to the specific buildings (called 'sentinella' buildings) that will provide critical information, in the cross-border area, crucial for a rapid and focused interventions at the occurrence of earthquake. Tools for data analysis, as real time cross-border thematic maps, are developed, for operative rooms to have an immediate evaluation of the damages distribution. The realization of a homogeneous trans-frontier management model of risk prevention will help the civil defence institutions and regional government prepare plans to protect the population, mitigate the earthquake damages. The realization of common protocols for the training and joint exercises of civil protection volunteers and citizen will help to improved coordination of cross border interventions and a fast emergency actions.

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