The KnowRISK project: Tools and strategies for risk communication and learning

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Damage of non-structural elements of buildings (i.e. partitions, ceilings, cladding, electrical and mechanical systems and furniture) is known to cause injuries and human losses. Also it has a significant impact on earthquake resilience and is yet being worldwide underestimated.

The project KnowRISK (Know your city, Reduce seISmic risK through non-structural elements) is financed by the European Commission to develop prevention measures that may reduce non-structural damage in urban areas. Pilot areas of the project are within the three European participating countries, namely Portugal, Iceland and Italy. They were chosen because they are prone to damage level 2 and 3 (EMS-98, European Macroseismic Scale) that typically affects non-structural elements. We will develop and test a risk communication strategy taking into account the needs of households and schools, putting into practice a portfolio of best practice to reduce the most common non-structural vulnerabilities.

We will target our actions to different societal groups, considering their cultural background and social vulnerabilities, and implement a participatory approach that will promote engagement and interaction between the scientific community, practitioners and citizens to foster knowledge on everyone's own neighborhoods, resilience and vulnerability.

A Practical Guide for citizens will highlight that low-cost actions can be implemented to increase safety of households, meant as being the places where the most vulnerable societal groups, including children and elderly people, spend much of their time. Since our actions towards communication will include education, we will define tools that allow a clear and direct understanding of elements exposed to risk.

Schools will be one of our target societal groups and their central role played at the community level will ensure spreading and strengthening of the communication process. Schools are often located in old or re-adapted buildings, formerly used for other uses, or when the growing number of students or new needs require adapting the space to the necessities, often without taking enough care of safety. Moreover, in urban areas, schools may be hosted in tall buildings where the shaking of moderate-to-low magnitude earthquakes can cause damage level 2 and 3.

Students will be involved into looking after their own situation in terms of non-structural vulnerability to promote education and prevention, while increasing resilience in terms of societal capacity to cope with future disasters.

The actions will undergo specific effectiveness assessment with ex-ante and ex-post surveys. The results of this assessment will allow an evaluation of on-site risk communication activities, the comparability between pilot-areas achievements, and an opportunity for learning and guidance for future risk communication.