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KnowRISK

Know your city, Reduce seISmic risK through non-structural elements

Prevention and preparedness projects in civil protection and marine pollution. Prevention Priorities

Deliverable Report

Deliverable E1 – Practical Guide on non-structural safety for population

Task E – Tools and strategies of risk communication and learning

Deliverable/Task Leader: IST & INGV/INGV

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Dissemination Level		
PU	Public	x
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

Preface

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1. DESCRIPTION OF THE DELIVERABLE

The European project KnowRISK aims at educating and motivating people to make necessary changes in their homes (secure tall furniture, cabinet doors, reduce risks from breaking glass, etc.) to help protect people, homes, and contents if an earthquake happens. In this Task a Practical Guide with seismic mitigation solutions for non-structural elements was designed for those who are not experienced with this topic in order to start taking the right steps to minimize or avoid injuries, damage, and long-term financial consequences.

The Practical Guide addresses essentially non-structural issues found in our homes. It privileges DIY (do it yourself) solutions at no cost (ex: move heavy or large items to the floor or low shelves) or low cost solutions as hang mirrors and pictures, install latches on kitchen cabinets, etc. The main end-users are the householders.

The remaining of this deliverable, aimed at the description of the conception and contents of the Practical Guide, coincides with the paper “KnowRISK Practical Guide for non-structural earthquake risk reduction” submitted to ICESD - International Conference on Earthquake Engineering and Structural Dynamics. The paper can be found in the following link: https://www.dropbox.com/s/djmg8muw91s29ec/ICESD_Practical%20guide.doc?dl=0



Figure 1: Practical Guide general overview

1.1 STUDENTS SHORT GUIDE

The target public is the students and for this reason the environments are the school and household. The Students Sort Guide was developed specifically for students, however the suggestions contained in it aim at increasing, in a more general view, the safety in the households and school building, at least from the point of view of damage to non-structural elements. This is achieved through the education of the students as “observers” and the actions of both the students and the personnel working in the school through retrofitting operations at different levels. It must be noticed that in some European countries school buildings are not completely safe; in some cases they are very old; they are often located in constructions built with a different intended use (buildings, monasteries, factories); in some cases the emergency facilities or those for the disabled have been added only when the laws make them mandatory; in some extreme cases, many of these buildings would not resist to a major earthquake. The SSG has a double task, being at the same time a reminder about the likely dangers and an interactive game where the students can raise their awareness on possible non-structural elements failures during earthquakes. This Student Short Guide as well as the Practical Guide are available in English, Italian and Portuguese at the KnowRISK website (www.knowriskproject.com).

The guide is printed on an A4 sheet and it consists of two situations: one specific for the house and another for the school

The SSG was used in several occasions some of which are listed here: during the interventions in schools held within Action E3, within the open door ScienzaAperta event (2016-17-189 and withing the KnowRISK final meeting. Students were challenged in spotting the difference between damage to a bedroom and a schoolroom with and without solutions.

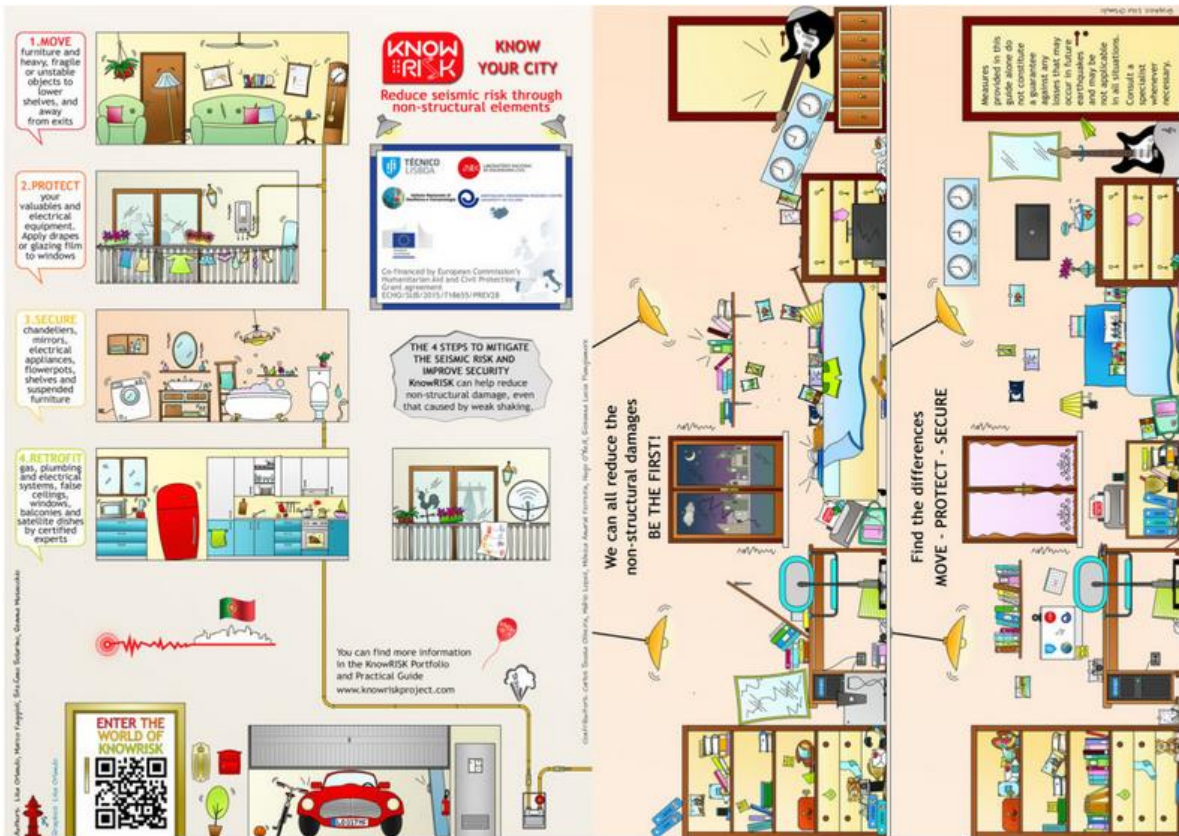


Figure 1- a house with details on a youth's bedroom, on one side, small frames with, living room, kitchen and balcony on the other side

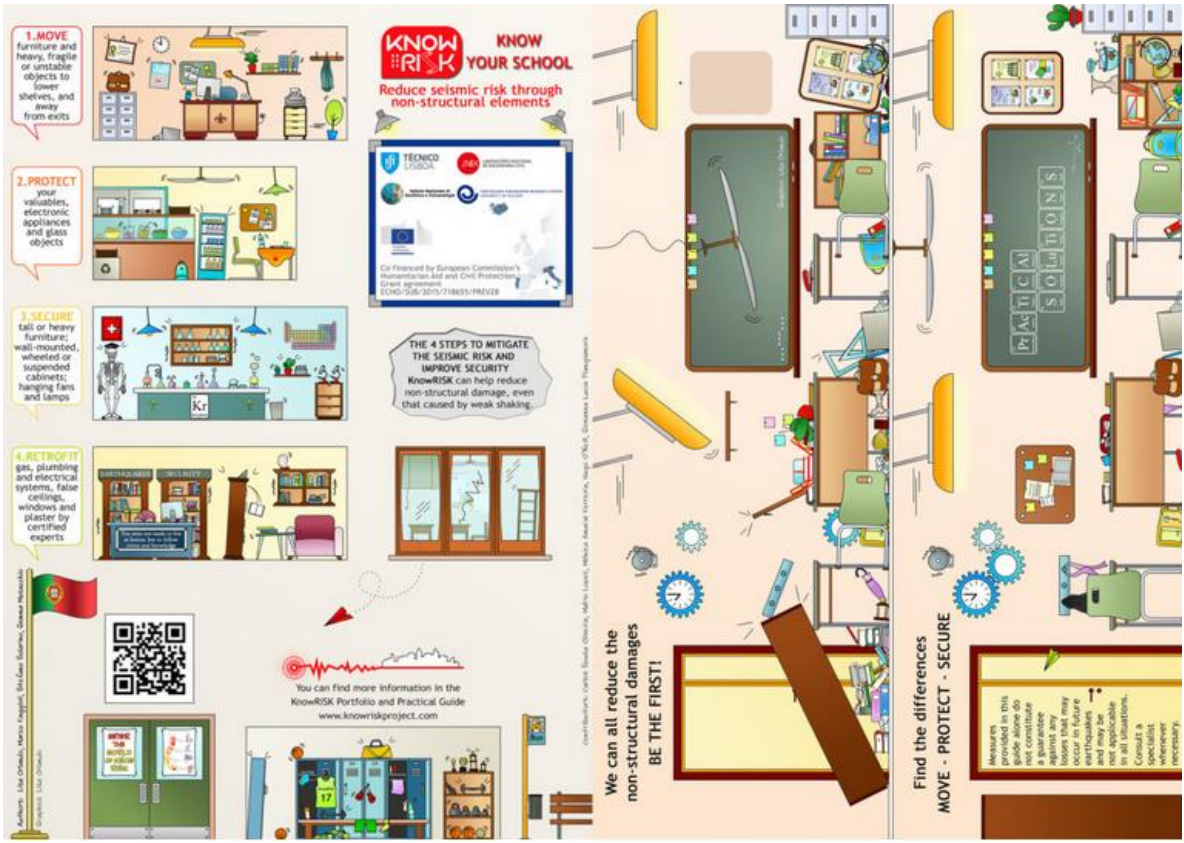


Figure 2- a school with details on the classroom, on one side, small frames with the office of the Principle, a chemic lab, the gym, the canteen and the bathroom, on the other side.