



**AGREEMENT NUMBER - ECHO/SUB/2015/718655/PREV28**

## **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 F1– Dissemination of research output

Task F – Publicity (Visibility)

Deliverable/Task Leader: IST

March 2018

Project co-funded by the European Commission – Civil Protection Financial Instrument		
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

## **Deliverable Authors:**

INGV: Gemma Musacchio

IST: Mónica Amaral Ferreira

EERC: Rajesh Rupakhety

## **Deliverable Contributors**

INGV: Susanna Falsaperla, Giovanna Piangiamore

IST: Carlos Sousa Oliveira, Mário Lopes



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# **1. DESCRIPTION OF THE DELIVERABLE**

## **1.1 INTRODUCTION**

Dissemination and community engagement is central to the success of KnowRISK. The KnowRISK consortium recognises that dissemination activities are an essential and pervasive activity throughout the project's life, and integrated within all its tasks.

KnowRISK partners have decided to utilise the project website, internal meetings, journal publications, media communications and press releases, workshops, courses, lectures to school students, external conference presentations and social networks or blogs to disseminate the project through different stakeholder groups. Communication materials such as brochures, posters, power points, reports and videos were also developed and are available on the KnowRISK website.

This document provides a description of the KnowRISK dissemination strategy in the three countries participating in the project.



Table 1. Dissemination venues grouped according to the type of audience.

EXPERTS	LAYMAN	
	GENERAL PUBLIC	SCHOOLS
<p><b>Event name: EGU General Assembly 2016</b> Date(s): 17-22 April 2016 Location: Vienna, Austria KnowRISK involvement: project presentation + standard dissemination Website: <a href="http://www.egu2016.eu/">http://www.egu2016.eu/</a> Comments: the 3 presentations of the project (one PICO and two posters) received great appreciation, as the number of worldwide visitors was particularly high. Attendees had their expertise in several fields (seismologists, engineers, experts in communication, filmmakers, and architects).</p>	<p><b>Event name: Talks   Comunicação de Risco. Quando Lisboa Treme – de 1755 à Cidade Resiliente</b> Date(s): 28 January 2016 Location: Lisbon, Portugal KnowRISK involvement: standard dissemination Website: <a href="http://www.cm-lisboa.pt/cidade-resiliente">http://www.cm-lisboa.pt/cidade-resiliente</a></p>	<p><b>Event name: ScienzAperta</b> Date(s): 12-13 May 2016 Location: Milan, Italy KnowRISK involvement: project presentation + standard dissemination People: 10 classes with more than 200 students Website: <a href="http://scienzaperta.rm.ingv.it/">http://scienzaperta.rm.ingv.it/</a></p>
<p><b>Event name: Sísmica 2016 – 10º Congresso Nacional de Sismologia e Engenharia Sísmica</b> Date(s): 20-22 April 2016 Location: Azores, Portugal KnowRISK involvement: standard dissemination Website: <a href="http://sismica2016.azores.gov.pt/">http://sismica2016.azores.gov.pt/</a></p>	<p><b>Parliamentary questions</b> 7 November 2016 <a href="#">Answer given by Mr Stylianides on behalf of the Commission</a> Subject: Earthquake information for European citizens</p>	<p><b>Event name: TutelaSpezia</b> Date(s): 1-2 October 2016 Location: La Spezia KnowRISK involvement: lecture to elementary school students with a scientific story-telling activity. People: 500 students Website:<a href="http://www.speziafiere.it/index.php?option=com_content&amp;view=article&amp;id=386:tutelaspezia&amp;catid=22:calendario-completo-2016&amp;Itemid=72">http://www.speziafiere.it/index.php?option=com_content&amp;view=article&amp;id=386:tutelaspezia&amp;catid=22:calendario-completo-2016&amp;Itemid=72</a></p>
<p><b>Event name: ICUR2016 – International Conference on Urban Risks</b> Date(s): 30 June-2 July 2016 Location: Lisbon, Portugal KnowRISK involvement: standard dissemination Website: <a href="http://www.ceru-europa.pt/icur2016/">http://www.ceru-europa.pt/icur2016/</a></p>	<p><b>Event name: ScienzAperta</b> Date(s): 16-21 May 2016 Location: Catania, Italy KnowRISK involvement: project presentation + standard dissemination People: 600 visitors Website: <a href="http://scienzaperta.rm.ingv.it/">http://scienzaperta.rm.ingv.it/</a></p>	<p><b>Event name: La Settimana del Pianeta Terra</b> Dates: 16-23 October Location: Varese and La Spezia KnowRISK involvement: T0-Focus group, Lecture activity, hands-on laboratory People: 100 students</p>
<p><b>Event name: 35rd General Assembly of the European Seismological Commission (GA</b></p>	<p><b>Event name: European Researchers Night</b></p>	

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<b>ESC)</b> Date(s): 4-11 September 2016 Location: Triste, Italy KnowRISK involvement: project presentation + standard dissemination Website: <a href="http://www.35esc2016.eu/">http://www.35esc2016.eu/</a>	Date(s): 30 September 2016 Location: Milano KnowRISK involvement: conference. People: 100 participants Website: <a href="http://www.museoscienza.org/attivita/meetmetonight/meetmetonight2016.asp">http://www.museoscienza.org/attivita/meetmetonight/meetmetonight2016.asp</a>	Website: <a href="http://www.settimanaterra.org/">http://www.settimanaterra.org/</a>
<b>Event name: Jornadas pela Segurança (Santa Casa da Misericórdia de Lisboa)</b> Date(s): 2-4 November 2016 Location: Lisbon, Portugal KnowRISK involvement: project presentation + standard dissemination Website: <a href="http://www.scml.pt/pt-PT/destaques/jornadas_pela_seguranca/">http://www.scml.pt/pt-PT/destaques/jornadas_pela_seguranca/</a>	<b>Event name: BergamoScienza</b> Dates: 8 October 2016 Location: Dalmine (Norther Italy) People: 80 participants KnowRISK involvement conference Website: <a href="https://www.bergamoscienza.it/ENG/Homepage.aspx">https://www.bergamoscienza.it/ENG/Homepage.aspx</a>	<b>Event name: Bimbi per bimbi</b> Dates: October-November 2016 Location: Viareggio KnowRISK involvement: Lecture activity, hands-on laboratory People: 100 students Website: <a href="https://fiabeefrane.com/2016/09/24/bimbi-per-bimbi/">https://fiabeefrane.com/2016/09/24/bimbi-per-bimbi/</a>
<b>Event name: Specialized course FUNDEC, IST</b> Date(s): 9-10 March 2017 Location: Lisbon, Portugal KnowRISK involvement: lecture activity, project presentation Website: <a href="http://www.fundec.pt/pt-pt/content/reabilitacao-estrutural-de-edificios-avaliacao-do-risco-sismico-tecnicas-de-reforco-e">http://www.fundec.pt/pt-pt/content/reabilitacao-estrutural-de-edificios-avaliacao-do-risco-sismico-tecnicas-de-reforco-e</a>	<b>Event name: La Settimana del Pianeta Terra</b> Dates: 16-23 October 2016 Location: Ferrara People: 20 citizens KnowRISK involvement a role game (playdecide) Website: <a href="http://www.settimanaterra.org/">http://www.settimanaterra.org/</a>	<b>Event name: The Security Day in Schools</b> Date(s): 22 November 2016 Location: Italy KnowRISK involvement: Action E3 People: 50 students Website: <a href="http://hubmiur.pubblica.istruzione.it/web/ministero/cs201115">http://hubmiur.pubblica.istruzione.it/web/ministero/cs201115</a>
<b>Event name: School of Science Communication</b> Date(s): 27 March 2017 – 1 April 2017 Location: Castiglion del Lago (Italy) KnowRISK involvement: lecture to PhD students and young researchers Website: <a href="http://www.sciencecommunicationschool.org/">http://www.sciencecommunicationschool.org/</a>	<b>Event name: Sons do Vale_Sustentabilis</b> Date(s): 11 September 2016 Location: Lisbon, Portugal	<b>Event name: The week of Passions</b> Dates: 31 January - 2 February 2017 Location: La Spezia KnowRISK involvement: KnowRISK EAS at “Mazzini” school of La Spezia

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**Sub-Project [number] – [title]**


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**Event name: ICESD 2017**

Date(s): 12-14 June 2017

Location: Reykjavík, Iceland

KnowRISK involvement: project presentation, standard dissemination, KnowRISK General Meeting

Website: <https://icesd.hi.is/>**Event name: KnowRISK Final Conference**

Date(s): 11-12 December 2017

Location: Lisbon, Portugal

KnowRISK involvement: project presentation, standard dissemination, KnowRISK Final Conference and General Meeting

Website: <https://knowriskproject.com/conferencia-final-knowrisk/>**Event name: 10ª Conferência de Proteção Civil – Risco Sísmico e a Proteção Civil**

Date(s): 10 March 2018

Location: Ferreira do Zêzere, Portugal

KnowRISK involvement: Keynote, standard dissemination

Website: <https://www.cm-ferreiradozezere.pt/>**Event name: Centro de Estudos e Intervenção em Proteção Civil**

Date(s): 24 March 2018

KnowRISK involvement: project presentation + standard dissemination

Website: <https://www.facebook.com/sonsdovalesustentabilis/?fref=ts>**Event name: Talks | Fórum Fazer Política**

Date(s): 2 November 2016

Location: Lisbon, Portugal

KnowRISK involvement: project presentation + standard dissemination

**Event name: Talks | Lisboa Sísmica. Estamos Seguros?**

Date(s): 15 November 2016

Location: Lisbon, Portugal

KnowRISK involvement: project presentation + standard dissemination

**Event name: Talks | Conversas de café**

Date(s): 24 March 2017

Location: Lisbon, Portugal

KnowRISK involvement: standard dissemination

Website: <http://www.jf-olivais.pt/Noticias/Noticia/?UserKey=Conversas-de-Cafe>

People: 100 students

Website: [http://www.istitutocomprendivo6laspezia.it/pvw/app/SPME0045/pvw\\_sito.php?sede\\_codice=SPME0045&from=-1&page=1979591;](http://www.istitutocomprendivo6laspezia.it/pvw/app/SPME0045/pvw_sito.php?sede_codice=SPME0045&from=-1&page=1979591;)[http://www.istitutocomprendivo6laspezia.it/pvw/app/SPME0045/pvw\\_sito.php](http://www.istitutocomprendivo6laspezia.it/pvw/app/SPME0045/pvw_sito.php)**Event name: Lecture: O risco sísmico em Portugal**

Dates: 12 February 2017

Location: IST, Lisbon

KnowRISK involvement: KnowRISK lecture for students from Escola Camilo Castelo Branco -Oeiras

People: 50 students

**Volalibro**

Dates: 6-10 Marzo 2017

Location: Noto

KnowRISK involvement: Augmented reality exhibit and game “Treme-treme”

People: 350 students

Website: <http://www.volalibro.org/wps/>**Event name: Lectures for teachers**

Dates: 24 February 2017

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Location: Mafra, Portugal

KnowRISK involvement: Keynote + standard dissemination

**Event name: PERSISTAH Workshop**

Date(s): 26-27 March 2018

Location: Algarve (Portugal) and Huelva (Spain)

KnowRISK involvement: Keynote, project presentation + standard dissemination

Website: <http://www.poctep.eu/pt-pt/2014-2020/projetos-de-escolas-resilientes-aos-sismos-no-territ%C3%B3rio-do-algarve-e-de-huelva>

**Event name: Workshop Loja + sustentável**

Date(s): 24 March 2017

Location: Lisbon, Portugal

KnowRISK involvement: workshop

Website: <http://www.if-olivais.pt/Noticias/Noticia/?UserKey=Conversas-de-Cafe>

**Event name: European Researchers Night**

Date(s): 29 September 2016

Location: Lisbon, Portugal

KnowRISK involvement: project presentation + standard dissemination

People: + 1000 participants

Website: <https://noitedosinvestigadores.org/programa/lisboa/>

**Event name: Exhibition "Hard Engineering: Propositions for Future Ruins"**

Date(s): 29 Sept- 5 Nov 2017 and 8 Feb-3 Apr 2018

Location: Lisbon, Portugal

KnowRISK involvement: Research adviser for the exhibition and project dissemination

Website: <http://www.museus.ulisboa.pt/pt-pt/hard->

Location: Bolzano, Museum of Natural History

KnowRISK involvement: lecture on "how to teach earthquakes at school"

People: 50 teachers

Website: [http://www.provincia.bz.it/intendenza-scolastica/sistema-scuola/elenco-iniziativa-2016-2017.asp?kurs\\_id=22871](http://www.provincia.bz.it/intendenza-scolastica/sistema-scuola/elenco-iniziativa-2016-2017.asp?kurs_id=22871)

**Event name: Exhibition KnowRISK**

Dates: April 2017

Location: Rainha D. Leonor and Padre António Vieira schools, Lisbon

KnowRISK involvement: Students presented the KnowRISK project to other colleagues and teachers  
People: +200 students

**Event name: Lectures for students, teachers and Civil Protection**

Dates: 31 October 2017

Location: Almada, Colégio Campo de Flores

KnowRISK involvement: lecture on "measures to reduce seismic risk"

People: 100 students, teachers and 20 agents from Almada Civil Protection

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[engineering](https://gulbenkian.pt/biblioteca-arte/evento/engenharia-pesada-propostas-ruinas-futuras/); <https://gulbenkian.pt/biblioteca-arte/evento/engenharia-pesada-propostas-ruinas-futuras/>

**Event name: Workshop for students, teachers and Civil Protection**

Dates: 27 February 2018

Location: Almada, Colégio Campo de Flores

KnowRISK involvement: lecture on "KnowRISK-non-structural seismic risk"

People: 100 students, teachers and 20 agents from Almada, Cacilhas and Trafaria Civil Protection

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Table 2. Dissemination publications grouped according to the type of audience.

EXPERTS	LAYMAN	
	GENERAL PUBLIC	SCHOOLS
PICO PRESENTATIONS at EGU 2016	KnowRISK Project Brochure	KnowRISK 3D Brochure for schools
The KnowRISK project: Tools and strategies for risk communication and learning	Un chiodo può salvare una Vita	Action for Prevention
Musacchio G., Ferreira M.A., Falsaperla S., Piangiamore G.L., Pino N.A., Solarino S., Crescimbene M., Eva E., Reitano D., Þorvaldsdóttir S, Silva D.S, Rupakhety R., Oliveira C.S. and the KnowRISK Team; EGU2016-5727	"A hook can save a life"	video
EXTENDED ABSTRACTS at the KnowRISK 2nd GENERAL MEETING	INGV NewsLetter 6: <a href="http://comunicazione.ingv.it/index.php/2016/newsletter-n-7/1216-giornalisti-per-un-giorno-al-liceo-kant-2">http://comunicazione.ingv.it/index.php/2016/newsletter-n-7/1216-giornalisti-per-un-giorno-al-liceo-kant-2</a>	<a href="https://www.youtube.com/watch?v=NxS3kbTaEZk">https://www.youtube.com/watch?v=NxS3kbTaEZk</a>
Published in Miscellanea INGV 33	Progetto KnowRISK: a Catania si discute di danni non strutturali causati dai terremoti	KnowRISK Students Short Guide
Strategies of risk-communication in the KnowRISK project: the Italian case.	"KnowRISK project: in Catana discussions on earthquakes non-structural damage"	<a href="https://knowriskproject.com/students-short-guide/">https://knowriskproject.com/students-short-guide/</a>
Musacchio G. and the KnowRISK-Task E working group (2016).	INGV NewsLetter 11:	
Identification of the most vulnerable non-structural components. The Italian case: Mt. Etna pilot area.	<a href="http://comunicazione.ingv.it/index.php/2017/newsletter-n-12/1493-progetto-knowrisk-a-catania-si-discute-di-danni-non-strutturali-causati-dai-terremoti">http://comunicazione.ingv.it/index.php/2017/newsletter-n-12/1493-progetto-knowrisk-a-catania-si-discute-di-danni-non-strutturali-causati-dai-terremoti</a>	
Meroni F, Squarcina T, Azzaro R, Torrisi A and Musacchio G.	Progetto KnowRISK: gli studenti del Master in stage presso l'Istituto Nazionale di Geofisica e Vulcanologia	
Mapping the risk in the Mt. Etna pilot area.	"KnowRISK project: Masters students training at Istituto	
Meroni F, Squarcina T, Azzaro R, D'Amico S, Musacchio G (2016).		
Know your school: be safe! – where students become active part of the KnowRISK		

project.

Piangiamore G.L., Musacchio G. , Eva E. and the KnowRISK-TaskE working group

Two concepts for Risk communication and Learning.

Orlando L, Faggioli M.M., Musacchio G. and Piangiamore G.L.

Risk communication impact assessment procedure.

Crescimbeni M, Pino A. N. and Musacchio G.

Seismic Scenarios Relevant for Non-Strucural Damage. First Results Mt. Etna and Southern Iceland Pilot Areas.

Tusa, G, Rupakhety, R., Langer, H., Musacchio, G.

Towards a practical guide in nonstructural risk reduction: a tool for the KnowRISK countries.

Solarino S, Ferreira M.A., Musacchio G and The Know Risk working

POSTERS at EGU 2016

The KnowRISK project – Know your city, Reduce seIsmic risk through non-structural elements

Carlos Sousa Oliveria, Mónica Amaral Ferreira, Mário Lopes, Delta Sousa Silva, Gemma Musacchio, Rajesh Rupakhety, Susanna Falsaperla, Fabrizio Meroni, Horst Langer and the KnowRISK Team; EGU2016-5807

Nazionale di Geofisica e Vulcanologia"

<https://studentigcs.wordpress.com/2017/02/22/progetto-knowrisk-gli-studenti-del-master-in-stage-presso-listituto-nazionale-di-geofisica-e-vulcanologia/>

KnowRISK 1st Newsletter March 2017

<https://knowriskproject.com/newsletter/>

KnowRISK Practical Guide

<https://knowriskproject.com/practical-guide/>

Move, Protect and Secure video awareness campaign

<https://knowriskproject.com/move-protect-secure/>

KnowRISK Portfolio of Solutions

<https://knowriskproject.com/portfolio/>

KnowRISK 2nd Newsletter November 2017

<https://knowriskproject.com/newsletter/>

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The KnowRISK project: Tools and strategies to reduce non-structural damage

Carlos Sousa Oliveira, Mário Lopes, Francisco Mota de Sá, Mónica Amaral Ferreira, Paulo Candeias, Alfredo Campos Costa, Rajesh Rupakhety, Fabrizio Meroni, Raffaele Azzaro, Salvatore D'Amico, Horst Langer, Gemma Musacchio, Delta Sousa Silva, Susanna Falsaperla, Luciano Scarfi, Giuseppina Tusa, Tiziana Tuvé and the KnowRISK Team; EGU2016-7255

### POSTERS at ESC 2016

Know your school: be safe! - the participatory risk communication action of the KnowRISK project

G. L. Piangiamore, G. Musacchio, E. Eva, M. Crescimbene, S. Falsaperla, S. Solarino, N. A. Pino and the KnowRISK Team

Definition of seismic action relevant for non-structural earthquake damage – Case studies from KnowRISK test sites

G. Tusa, R. Rupakhety, F. Meroni, H. Langer, G. Musacchio and the KnowRISK Team

KnowRISK - using risk maps to identify and prevent non-structural problems

M.A. Ferreira, C. S. Oliveira, F. Mota de Sá, R. Rupakhety, F. Meroni and the KnowRISK Team

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EXTENDED ABSTRACTS at 26th - Society for Risk Analysis - Europe (SRA-E) Annual Meeting, June 19-21, 2017

Empowering youngsters for seismic risk reduction through participatory maquette modeling

M.Vicente, D. Silva, A. Pereira, R. Bernardo, M.A. Ferreira

Evaluating a risk communication process for seismic risk protection: methodological challenges

D. Silva, A. Pereira, R. Bernardo, M.Vicente

ORAL PRESENTATIONS – SPECIAL SESSION KNOWRISK at ICESD2017 International Conference on Earthquake engineering and Structural Dynamics, June 12-14, 2017

How to survive earthquakes: the example of Norcia

Lopes, M., Mota de Sá, F., Ferreira, M.A., Oliveira, C.S, Oliveira, C.F. Meroni, F., Squarcina, T., Musacchio, G.

Shaping favorable beliefs towards seismic protection through risk communication: A pilot experience in two Lisbon (Portugal) schools

D. Silva, M. Vicente, A. Pereira, R. Bernardo, P. Candeias, M.A. Ferreira, M. Lopes, C.S. Oliveira, P. Henriques

From seismic input to damage scenario: an example for the pilot area of Mt. Etna

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volcano (Italy) in KnowRISK Project

R. Azzaro, S. D'Amico, H. Langer, F. Meroni, T. Squarcina, G. Tusa, T. Tuvè, R. Rupakhety

Between Perception and Knowledge: the construction of the Italian questionnaire to assess the KnowRISK Project actions

M. Crescimbene, N. A. Pino, G. Musacchio

The participatory risk communication action of the KnowRISK project: case study in Italy

G.L. Piangiamore, E. Eva, G. Musacchio

Development of a common (European) tool to assess earthquake risk communication

S. Platt, G. Musacchio, M. Crescimbene, N. A. Pino, D. S. Silva, M.A. Ferreira, C. S. Oliveira, M. Lopes

KnowRISK on seismic risk communication: the set-up of a participatory strategy

G. Musacchio, S. Falsaperla, G. L. Piangiamore, S. Solarino, M. Crescimbene, N. A. Pino, E. Eva, F. Manzoli, M. Butturi, M. Fabbri, M. Accardo

Seismic risk communication: how to assess it? The case of Lisbon pilot-area

D. Sousa e Silva, A. Pereira, M. Vicente, R. Bernardo, M.A. Ferreira, M. Lopes, C. S. Oliveira

Seismic performance of non-structural elements assessed through shake table tests:

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The KnowRISK room set-up

P. Candeias & M. Vicente, R. Rupakhety, M. Lopes, M.A. Ferreira & C.S. Oliveira

KnowRISK Practical Guide for mitigation of seismic risk due to non-structural components

H. O'Neill, M.A. Ferreira, Oliveira, C.S., Lopes, M., S. Solarino, G. Musacchio, P. Candeias, M. Vicente, D. S. Silva

Awareness on Seismic Risk: How can Augmented Reality help?

D. Reitano, S. Falsaperla, G. Musacchio, R. Merenda

A study of rigid blocks rocking against rigid walls

G. Ö. Sigurðsson, R. Rupakhety & S. Ólafsson

ORAL PRESENTATIONS – SPECIAL SESSION “SS11. Seismic Performance and Risk Communication on Non-Structural Elements” at 16ECEE 16th International Conference on Earthquake Engineering, June 18-21, 2018

The KnowRISK Project: Objectives and Achievements

Oliveira, C.S., Lopes, M., Musacchio, G., Silva, D.S., Rupakhety, R., Ferreira, M.A.

Seismic hazard and ground motion intensity parameters for non-structural risk

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evaluation: experiences from pilot areas of the Knowrisk project

M. A. Ferreira, S. Solarino, G. Musacchio Oliveira, F. Mota de Sá, C.S. Oliveira, M. Lopes, H. O'Neill, L. Orlando, M.M. Faggioli

KnowRISK tools for preparedness and community resilience: Practical Guide, Short Guide for Students and Portfolio

G. Musacchio, D.S. Silva, M. A. Ferreira, S. Falsaperla, E. Eva, G., Piangiamore, S. Solarino, D. Reitano, R. Ruphakhety, C.S. Oliveira, M. Lopes, M. Vicente, S. Olafsson, B., Bessason

Seismic risk communication to schools, citizens and professionals: the KnowRISK approach

G. Musacchio, D.S. Silva, M. A. Ferreira, S. Falsaperla, E. Eva, G., Piangiamore, S. Solarino, D. Reitano, R. Ruphakhety, C.S. Oliveira, M. Lopes, M. Vicente, S. Olafsson, B., Bessason

Approaching communities to better communicate seismic risk and protection

M. A. Ferreira, G. Musacchio, D.S. Silva, I. Pais, C.S. Oliveira, M. Lopes, R. Ruphakhety, F. Manzoli, F. Mota de Sá, D. Reitano

Assessing the effectiveness of risk communication in Europe

S. Platt, G. Musacchio, D.S. Silva, M. Crescimbene, N. Pino, M. A. Ferreira, C.S. Oliveira, M. Lopes, R. Ruphakhety

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## 1.2 DISSEMINATION TO THE SCIENTIFIC COMMUNITY

Because the implementation of communication strategies is a core object of the KnowRISK we considered dissemination to the scientific community as a channel to spread best practices and replicant capacity of the actions undertaken within the project. Presentations to international conferences are listed in Table 1. We published several papers, abstracts and posters for the scientific community listed in Table 2.

## 1.3 DISSEMINATION TO THE LAYMAN COMMUNITY

### 1.3.1. The Portuguese case

In Portugal the communication and dissemination strategy comprised the implementation of a set of public awareness, education/training activities. These activities were adjusted taking into account the level of awareness of the various target audiences, the messages we wanted to deliver, the communication channels, the duration and budget of each activity.

More specifically the dissemination activities are presented in Table 1.

#### 1.3.1.1 *Television, Radio and Newspapers*

KnowRISK was widely presented and referred to in several Portuguese TV programmes and Radio.

TV interview presentations:

RTP Notícias (October 26, 2016): [http://www.rtp.pt/noticias/mundo/investigadores-portugueses-em-italia-para-avaliar-danos-em-amatrice\\_a957324](http://www.rtp.pt/noticias/mundo/investigadores-portugueses-em-italia-para-avaliar-danos-em-amatrice_a957324)

RTP1 (October 26, 2016): <http://www.rtp.pt/play/p2229/e256900/bom-dia-portugal-fim-de-semana>

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RTP Notícias (October 30, 2016):

[http://www.rtp.pt/noticias/mundo/mario-lobes-nao-estamos-preparados-para-sismos-como-os-de-italia\\_v958223](http://www.rtp.pt/noticias/mundo/mario-lobes-nao-estamos-preparados-para-sismos-como-os-de-italia_v958223)

TVI24 (October 30, 2016):

<http://tviplayer.iol.pt/programa/noticias/53c6b3613004dc006243c401/video/5817170a0cf22cbca50dfa7b>

TVI (January 11, 2017): <http://tviplayer.iol.pt/programa/voce-na-tv/53c6b3153004dc006243b077/video/58762dcf0cf2ce85092bb0dc#/iol/login>

RTP 3 (August 17, 2017) <https://www.rtp.pt/play/p2476/e302671/3-as-11>

RTP 2 (December 16, 2017): <https://www.rtp.pt/play/p3148/e321272/biosfera>

RTP (December 27, 2016): <http://www.rtp.pt/play/p2063/e266178/ponto-de-partida>

RTP 1 (February 22, 2018): [media.rtp.pt/agoranos/artigos/sem-dia-hora-fala-das-grandes-catastrofes-aconteceram-portugal](http://media.rtp.pt/agoranos/artigos/sem-dia-hora-fala-das-grandes-catastrofes-aconteceram-portugal)

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RTP1 (March 12, 2018): <https://www.rtp.pt/play/p4234/e335428/pros-e-contras/643438>







Radio:

TSF (October 26, 2016): <http://www.tsf.pt/internacional/interior/tres-portugueses-foram-a-italia-investigar-sismos-e-foram-apanhados-por-um-5465710.html>

Newspaper:

Detailed and extended interviews about the KnowRISK project are available on the RTP website (March 2-3, 2017): [http://www.rtp.pt/noticias/pais/risco-ssmico-em-portugal\\_i987012](http://www.rtp.pt/noticias/pais/risco-ssmico-em-portugal_i987012)

All the information is available on the KnowRISK website / News & Events.

<p>17 Agosto 2017</p> 	
 <p>RTP notícias "Não estamos preparados para sismos como os de Itália"</p>  <p>TVI24 - Notícias 00h Início: aprox. 7'10" duração: aprox. 2 min.</p> <p>KnowRISK project in the News</p>	 

### 1.3.2. The italian case

In Italy INGV has a well-established channel for dissemination to layman. These are newsletters (<http://comunicazione.ingv.it/index.php/news>) and outreach venues that are spread all over the country. Moreover KnowRISK established collaboration with the Master of Scientific Journalism and

Institutional Communication of Science at the University of Ferrara that allowed an additional channel of dissemination to the general public.

The KnowRISK project had two articles published in the newsletter number 6, in March 2016, and 11, in January 2017. The former, "A hook can save a life" (Un chiodo può salvare la vita) was devoted to highlight the goals of the project to the general public. The latter, "KnowRISK project: in Catania discussions on earthquakes non-structural damage" (Progetto KnowRISK: a Catania si discute di danni non strutturali causati dai terremoti), informing about the 2nd General Meeting of the project that was held in Catania in December 2016, put emphasis on the need of public engagement in risk communication strategies.

The Master of Scientific Journalism and Institutional Communication of Science published project dissemination products on his blog <https://studentigcs.wordpress.com/>.

In spring every year INGV hosts general public with opendoors in many locations of the institute. In the fall the Week of Planet Earth is an outreach event aimed at spreading the culture of geoscience inside society. Here a special attention is given to natural hazards. In 2016 the ministry of education launched the Security Day in Schools.

Each pilot area participated to the above venues and had his specific ones as it is described below.

### **1.3.2.1    *The Northern Italy Pilot Area***

In the Northern Italy pilot area KnowRISK participated to the following science outreach events: ScienzAperta, TutelaSpezia, La Settimana del Pianeta Terra, Bimbi per Bimbi, Terremoto in Piazza, La giornata sulla sicurezza nelle scuole, La settimana delle passioni (see table 1)

#### *ScienzAperta, in Milan May 12-13 2016*

*ScienzAperta* is an outreach event that INGV offer every year to general public. Within the KnowRISK project framework we engaged middle schools students with Focus group on the concept of hazard-risk-vulnerability-exposure, a hands-on activity and team games that trigger reflexive thinking on non-structural elements. The team games were "*La Catena*" (The Chain) and "*Trova il rischio*" (Spot the risk). "*La Catena*" is a game with words linked one to the other in a chain; they depict an aspect of seismic hazard, risk and non-structural vulnerability. "*Trova il rischio*" is a visual game where students are provided with images on apartment interior and have to spot the risk related to non-structural elements.

#### *TutelaSpezia, in La Spezia October 1-2 2016*

*TutelaSpezia* is a festival of civil protection and best practice that was held in the city of La Spezia. It engages public, scientists, policy makers and schools. KnowRISK was involved, together with The Ligurian Order of Geologists and the association FiabeeFrane, in the following activities:

- lectures to elementary school students with a scientific story-telling activity



- The participated exhibition “Non aver paura! Gioca e impara a convivere con la natura” (Don't be afraid! Play and learn how to live with nature) with hands on activities and *scientific story-telling* activity
- The conference “Risk is a choice, are you aware?” (by G. Piangiamore)

*La Settimana del Pianeta Terra, in Varese, Ferrara and La Spezia, October 16-23 2016*

*La Settimana del Pianeta Terra* (The Week of Planet Earth) is a geoscience outreach event that every year involve scientists spread all over the county. KnowRISK participated with the following events:

- 16/10/2016 **Playdecide: terremoti, comunicare l'emergenza**, Ferrara.  
<http://www.settimanaterra.org/node/1981>.
- 17-22/10/2016 **Rischio sismico e ambientale: tra conoscenza e mitigazione**, Lerici (La Spezia) with the scientific games for schools **Trova il senso... con il rischio**.  
<http://www.settimanaterra.org/node/2067>.
- 18-19/10/2016 **Tra terremoti e dissesto idrogeologico: un paese di pericoli**, Varese with scientific games for schools and excursion in collaboration with Parco Campo dei Fiori. <http://www.settimanaterra.org/node/2069>

In the city of La Spezia and Varese we have engaged students with Focus group on the concept of hazard-risk-vulnerability-exposure, hands-on activities, team games and lectures. In the city of Ferrara we engaged old downtown citizens with the role game Play-decide, a tool to discuss with the public how to best manage an earthquake emergency.

*Bimbi per Bimbi, in Viareggio and Fivizzano October-November 2016*

*Bimbi per bimbi* (Kids for kids) is an action that schools of Viareggio, a town located about 60 km south of La Spezia, took in support of schools hit by the 2016 seismic sequence in Central Italy. The knowRISK project participated with hands-on activities at school in Viareggio and in town squares.

- 11/11/2016 at "Jenco" school of Viareggio
- 20/11/2016 at Fivizzano (MS) "Terremoto in Piazza"

*La giornata sulla sicurezza nelle scuole, in La Spezia 22 November 2016*

*La giornata sulla sicurezza nelle scuole* (The schools' security day) was a nationwide event launched in 2016 by the Ministry of education in Italy. On November 22nd throughout the country the challenges to improve safety in schools were discussed. Earthquakes have been a hot topic, given the sequence in Central Italy. KnowRISK was in a schools of la Spezia with the action "know your school: be safe!".

*La settimana delle passioni, in La Spezia 31 January - 2 February 2017*

*La settimana delle passioni* (The week of Passions) is a week in which at school are addressed topics that do not belong to the usual curricula. KnowRISK was in a schools of la Spezia with the action "know your school: be safe!".

ScienzAperta, in Milan May 12-13 2017

In May 2017 ScienzAperta in Milano was again entitled to KnowRISK. Members of the INGV task-E working group, coming from INGV divisions in Catania, La Spezia, Genoa and Milano, and the project's consultant gave talks and run several activities with more than 120 students. We used the Augmented Reality (AR) tool to motivate students towards the need to reduce NSC vulnerability, the Students Short Guide to run games (i.e. find the difference before and after the solutions). To distinguish structural from non-structural components is fundamental to support Do-it-Yourself actions. Towards this end we run with the students a shake table activity with mush-mellow and spaghetti.



ScienzAperta in Milano: background and top left-corner images are conference hall snapshots and INGV coordinator welcome address. "Shake it!", a cardboard hand made shake table to understand the effect of shaking on buildings (1); "On duty at the earthquake monitoring centre" to learn which are the most important parameters to measure when an earthquake occurs (2); "The risk is not a game" to learn how to distinguish hazard from risk and to detect non-structural elements (3); "Non-structural damage: do you know the risk?" to learn from AR applications the consequences of shaking on NSC and how to reduce risk (4).

The ERN 2017, in Milan September

In Northern Italy pilot area, during the ERN the INGV coordinator presented and distributed to general public the Practical Guide and the Short Guide for Students at the Museum of Science and Technology of Milan.

#### Science Festival, October 2017

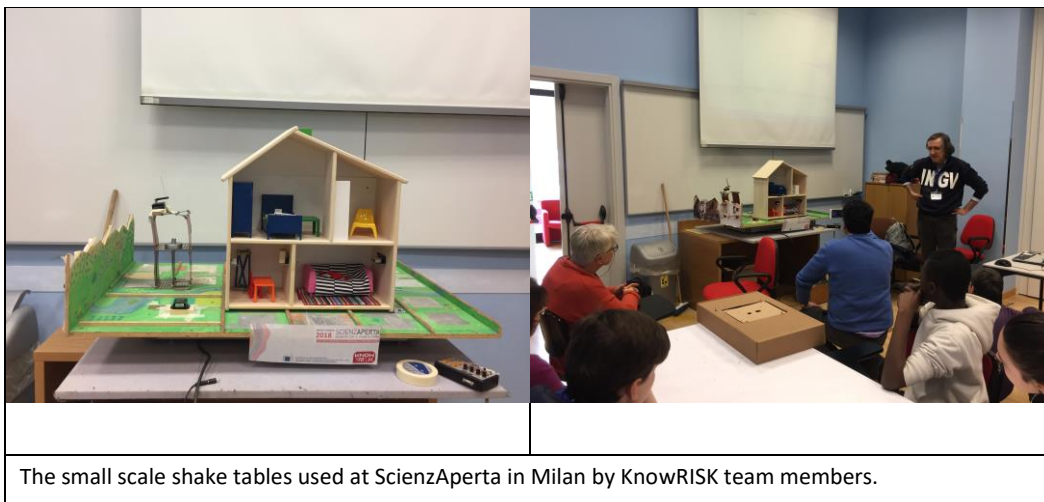
In Northern Italy pilot area, KnowRISK participated at the 2nd edition of a Science Festival from 2nd to 5th of November 2017, held in Suzzara (MN), a small town hit by a damaging earthquake in 2012. Two conferences, for adults and students, were the framework in which KnowRISK products (i.e. the Practical Guide and the Students' Short Guide) were presented and delivered.



Science Festival (Suzzara, MN): INGV coordinator talking to students on earthquakes and solutions to improve vulnerability of buildings contents.

#### ScienzAperta, in Milan March 2018

In March 20-23, 2018 ScienzAperta in Milano was again entitled to KnowRISK. This was the last and closing event with schools in Italy. Members of the INGV task-E working group, coming from INGV divisions in Genoa and Milano, and the project's consultant gave talks and run several activities with about than 300 students. Schools had booked their visit to INGV already in October 2017 in order to be sure there would be place for them to participate. In four days we hosted 14 classes from secondary schools coming from Milano and Torino. The difference between structural and non-structural elements was the major issue of the festival. We used the small scale shake table to demonstrate students the damage caused by non structural elements than we engaged them in making their own model of building with spaghetti and mushmellow to understand what how to reinforce structural elements. The game "Do it right: be safer!" was used to discuss solutions to vulnerable NSE in a household. The game was prepared by adding to the KnowRISK Practical Guide wrong solutions that can challenge students and engage them in a discussion.



### 1.3.2.2 *The Mt Etna Pilot Area*

In the Mt Etna pilot area KnowRISK participated to the following science outreach events: *ScienzAperta* and *Volalibro*.

ScienzAperta in Catania, May 16-21 2016

Italian pupils and students tested the first prototype of the KnowRISK exhibit with Augmented Reality applications in May 2016. The exhibit was open to visitors (students and public) during ScienzAperta at INGV Catania, Italy, during the 5-day-long event, from 16 to 20 May 2016. The total number of persons who visited the exhibit was about 600. The exhibit made them aware of the potential danger of heavy furnishings above their bed or close to doors, causing injury or hindering escape in case of fall.

Volalibro in Noto, 6-10 March 2017

*Volalibro* (Flying book) is a “festival” of the culture for children. INGV was involved in the IX edition, which was held at Noto (Italy) from 6 to 10 March 2017. Theme of the activity proposed by INGV Osservatorio Etneo was “*Italia: lo stivale ballerino*” (Italy: the dancing booth), which explained what each of us can do to reduce non-structural damage caused by earthquakes. About 350 pupils and students from primary to secondary school followed an “interactive path” created by INGV personnel in collaboration with Dr. Simona Caruso and Pier Raffaele Platania in the school “Melodia” at Noto. The path encompassed slides, videos, the game “Treme-treme”, and a special exhibit with Augmented Reality applications developed by partners of the KnowRISK project.

### 1.3.3. The Iceland case

The publicity and dissemination activities in Iceland have focussed on publication and presentation of research and other work performed during the project. Much of these results have been described above. For example, papers and presentations at different conferences. In addition, dissemination activity conducted specifically in Iceland is described here. The work performed in this regard is the preparation of an international conference held in Iceland in June 2017. The conference was held in memory of late Professor Ragnar Sigbjörnsson, and was called “International Conference on Structural Dynamics and Earthquake Engineering (ICESD 2017)”. Further details on the conference can be found at [www.icesd.hi.is](http://www.icesd.hi.is). Ten invited speakers, which are leading scientists and researchers in the field of earthquake engineering and structural dynamics delivered keynote speech in the conference. The KNOWRISK annual project meeting was held in Iceland at the same time of the conference. A special session was dedicated in the conference to present the results of the KNOWRISK project. The main aim of this activity was to disseminate the achievements of the project to a wider range of experts, to share experience and knowledge with them, and to get feedback from them regarding the activities of the project. This enabled a wider exposure of the project results and achievements. Several oral presentations were presented in the conference by participants of the KNOWRISK project. All presentations were accompanied by full-length papers which are peer reviewed, and are scheduled to be published in a conference proceedings by Springer. Other dissemination activities has been display and demonstrations of the KNOWRISK project results and products to the general public during different events. One of such events is the annual university day in Iceland. More details of the event can be found at the following webpage.

<http://www.haskoladagurinn.is/>

The scaled model of an apartment and furniture built during the project was used to inform general public about non-structural risk and protection measures. In addition, the videos of shake table tests from LNEC were used. Products of the project such as the practical guide was disseminated during university day 2017 and 2018.

Dissemination activities were also conducted at the technology conference UTmessan (<http://www.utmessan.is/english.html>) held in 2018 in Iceland. An example is available in the following link.

<https://www.facebook.com/utmessan/photos/rpp.146664692062107/1735684026493491/?type=3&theater>

## REFERENCES