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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)	



## **Abstract**

The communication of the concepts behind natural hazard and risk assessment to the greater public was one of the activities set out in WP8 “Dissemination/end users”. The primary source of information about the MATRIX project is its website, which is generally the first contact most people (regardless of their professional or general interest in the project) would have with the project. Various products that are of potential interest to the broader community may be found there. This includes a pair of reports produced with the wider community in mind, namely D8.4 “MATRIX results I and reference report”, which consists of a series of short reports about some of the results gained from the different work packages, reflecting the multi-disciplinary nature of the project, and D8.5 “MATRIX results II and reference report”, which describes the response of the disaster risk reduction community to several decision making tools, within the context of multi-hazard and risk assessment, and how this impacts upon risk governance. There are also two other deliverables with the general public in mind, namely D8.17 “Course design and material” and D8.18 “Virtual laboratory”.

This deliverable therefore summarises what products are available, and what may be expected in the near future given that the project is now completed.

*Keywords:* Public dissemination



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# 1. Introduction

The issue of communicating the concepts of multi-hazard and risk assessment, and its differences from the more commonly undertaken single-type approaches, should not be limited to disaster risk reduction (DRR) researchers and practitioners. The general public, who in the end are the ones that bear the brunt of natural disasters, have a need to be aware of this discussion, especially with the rise of the contribution of social media and crowd sourcing to disaster assessment.

Therefore, within the MATRIX project, the responsibility for disseminating the ideas, goals and results of the MATRIX project was with WP8 “Dissemination/end users” (see deliverable D8.2 “Communication strategy”). Included in the necessary actions set out was the production of this document, D8.16 “Materials to the public”, which is a summary of the other activities carried out during the MATRIX project that could be related to educating and informing the general public about the issues surrounding multi-hazard and risk.

The first point of contact for most people (regardless of their professional or otherwise interest in the themes covered by the project) will have with MATRIX is the project website. There are a number of products available that are of potential interest to the general public. For example, there is a pair of reference reports (D8.4 “MATRIX results I and reference report”, and D8.5 “MATRIX results II and reference report”), which were produced with the wider community in mind. Two other deliverables of interest are D8.17 “Course design and material” and D8.18 “Virtual laboratory”.

In the following section, this deliverable summarises the various products that are available from the project and which may be of interest to the broader community. The conclusion outlines some additional products that are being produced, given the conclusion of the project.

## 2. MATRIX products for the general public

### 2.1 Project website

As mentioned, the first point of contact for the general public to the MATRIX project is most likely the project website<sup>1</sup> (see also D8.1 Project web portal”). It contains general information about the project (its goals, organisation, contact points), links to other projects and relevant websites dealing with related themes, and access to various products produced by MATRIX. The most important of these, at least to the DRR research and practitioner communities, are the deliverables, most of which will be made available for public access (some are yet to be made publically available due to the ongoing preparation of publications based on them, but will be as soon as these efforts are completed).

### 2.2 Project deliverables

Of the project deliverables, two were produced with the general public in mind:

- D8.4 “MATRIX results I and reference report”, which consists of a series of short reports about some of the results gained from the different work packages within the project. These reports were produced in a manner to appeal to a broader audience, and they reflect the multi-disciplinary nature of the project.
- D8.5 “MATRIX results II and reference report”, which summarises work by the project on the response of the disaster risk reduction community to several decision-making tools, including the Virtual City of WP7. This study was carried out within the overall context of multi-hazard and risk assessment, and how this impacts upon risk governance (see also Komendantova et al., 2014).

Two other deliverables that are of potential interest to the public, as mentioned earlier, are D8.17 “Course design and material” and D8.18 “Virtual laboratory”. D8.17 is essentially a series of 7 lectures (which are also available from the website) covering various themes relevant to natural hazards. The lectures in question are:

- Lecture 1 - Elements on the assessment of natural risks
- Lecture 2 - Earthquakes and Waves: An Introductory Lecture
- Lecture 3 - Volcanic risk
- Lecture 4 - Hydrogeological risk
- Lecture 5 - Tsunamis risk

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<sup>1</sup> <http://matrix.gpi.kit.edu/index.php>

- Lecture 6 - Multi-risk assessment
- Lecture 7 - Concept and Technology for Seismic Early Warning System

While useful for those at an undergraduate level, they nonetheless may still be of interest (and are at an appropriate level) for the interested non-specialist.

D8.18 is concerned with two means of education. The first, better suited to a more technically-specialist audience, is centred about a tutorial to explain the use of the “Virtual City”, the generic IT tool developed within WP7 “Virtual City and test cases” (see deliverable D7.2 “Implementation of the Virtual City”. This tool allows one to assess the differences in total risk estimates when dealing with a multi-hazard and risk environment, where a series of potential hazards (earthquakes, floods, volcanoes, windstorms, etc.) may be inflicted upon a “virtual city”. The intention is to see what the consequences are of considering, or neglecting, the possible interactions between hazards and their resulting risk.

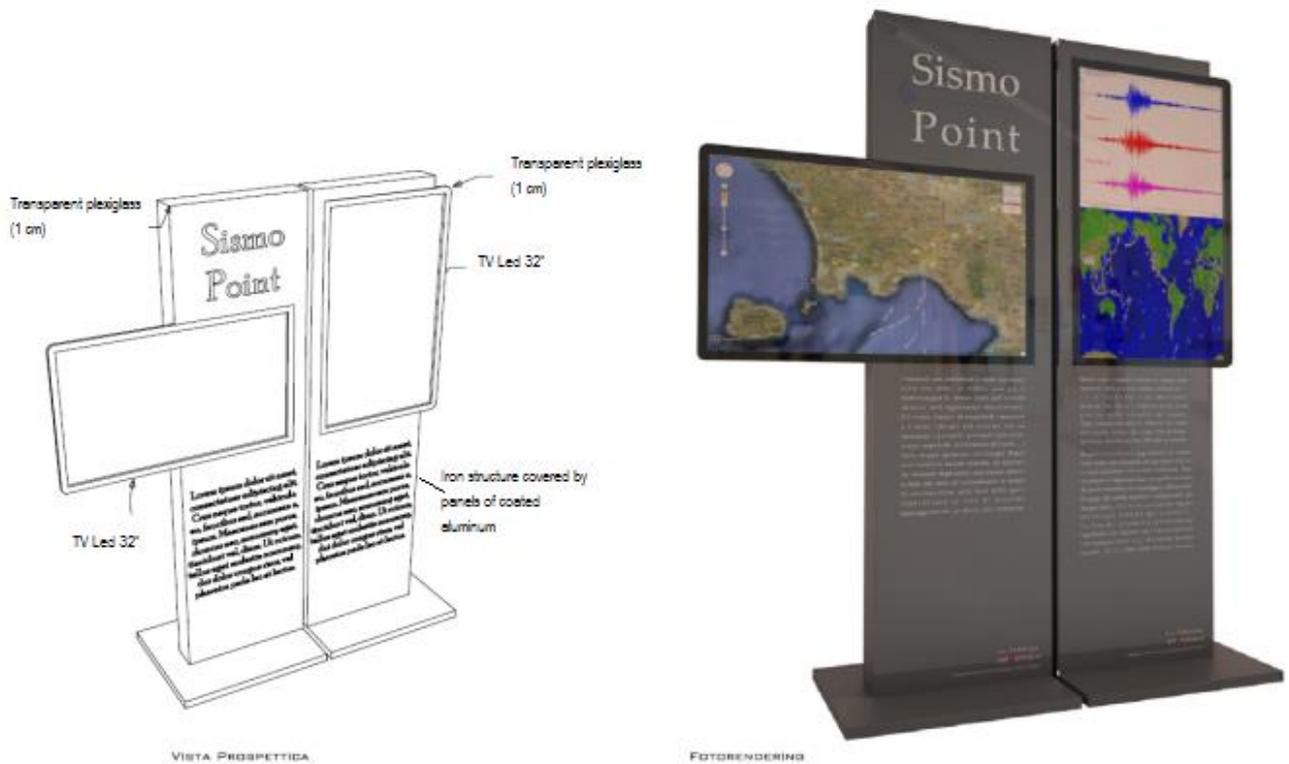
The second part of D8.18 deals with a product more suited for the general public, referred to as a Sismo Point (Figure 1). The purpose of these units is to visualize, on different types of large monitors, information about the latest detected seismic event (where, when and intensity) and, where possible, to give information about the vulnerability of buildings, and in cases where there is an early warning system installed on site, the possibility of using this point to produce alarm sirens and, depending on the available lead time, to suggest appropriate mitigating actions.

Such a unit is managed by an embedded pc and therefore it is possible to visualize other information about other environment sensors, internal news and so forth. The fundamental idea is to raise awareness about environment risks, and in particular risks from earthquakes. Such units would be installed in schools, municipalities, and commonly visited localities in the area around Naples, where the general population can receive information about recent earthquakes close to them.

### **2.3 Other items of public interest**

Other items of possible interest to the public that are available from the website include a number of presentations made by members of the consortium (conferences, expert meetings in Brussels, and meetings with other projects), information sheets and publications, the latter being made accessible as they are produced. Note for this last point, the publications will be made available in an unformatted form and will be the “accepted version” to comply with the copyright regulations of the journals involved. These manuscripts will also be made available via the OpenAire (Open

Access Infrastructure for Research in Europe)<sup>2</sup> repository.



**Figure 1:** An example of a Sismo point. These units will be installed in various public places (schools, municipal offices, etc.) and will serve an educational role by presenting the latest information above seismic events in the area around Naples, as well as being the source of any early warning alarms.

<sup>2</sup> <https://www.openaire.eu/en/home>

### **3. Conclusion and “end-of-project” products**

The items listed in this report are those that are hoped to be of interest to the general public (as well as to more specialist DRR communities). There are, however, other documents and products that will soon be made available, given that the project has now ended.

- The project reports will be made available, after an appropriate period for review.
- Additional conference material that will be presented at the EGU 2014 General Assemble will be accessible from the website.
- Manuscripts currently under review will be made available as soon as they have been accepted for publication.
- A general flyer outlining the results of MATRIX will be produced.
- An overview report detailing the research highlights of the project will be made available. This overview is being designed with the general public and a broader audience in mind.

In conclusion, although the MATRIX project has ended, its products will still be publically available to the public for some time yet, as well as additional products that will provide accessible summaries of its results.



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