



**D 7.1**

**DELIVERABLE**

**PROJECT INFORMATION**

Project Title: **Harmonized approach to stress tests for critical infrastructures against natural hazards**

Acronym: **STREST**

Project N°: 603389

Call N°: FP7-ENV-2013-two-stage

Project start: 01 October 2013

Duration: 36 months

**DELIVERABLE INFORMATION**

Deliverable Title: **Implementation of the web component with general information on the project**

Date of issue: 11 February 2014

Work Package: WP7 – Dissemination and stakeholder interaction

Deliverable/Task Leader: ETH Zurich

Reviewer JRC

REVISION: Final



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## Abstract

The [www.strest-eu.org](http://www.strest-eu.org) website provides information to the public about the STREST project. It is the principal STREST platform for communication, public awareness and dissemination of results. The public website - developed using the Content Management System *OpenCms* 9.0 and hosted by ETH Zurich, Switzerland - is designed for an easy navigation through a simple one-level menu (Home | Methods | Results | Consortium | Login) and for immediate impact via animations and a bullet point approach. The restricted part of the website is accessible to STREST participants only, with a login and password required. It is the exchange platform of STREST with upload/download options in a folder-based architecture developed using the Document Management System (DMS) *Agorum*, also hosted by ETH Zurich (<http://dms.seismo.ethz.ch/>).

*Keywords: www.strest-eu.org, dissemination, portal*



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# Deliverable Contributors

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# 1 Public website

## 1.1 CONTENT MANAGEMENT SYSTEM (CMS)

The public website is hosted by ETH Zurich under the URL [www.strest-eu.org](http://www.strest-eu.org). It is developed using the Content Management System (CMS) *OpenCms* 9.0. *OpenCms* is an open source CMS distributed by Alkacon Software with a user-friendly environment for the development of website templates, for content management and for the use of sophisticated tools such as slideshows. Figure 1.1 shows the *OpenCms* environment for the STREST project.

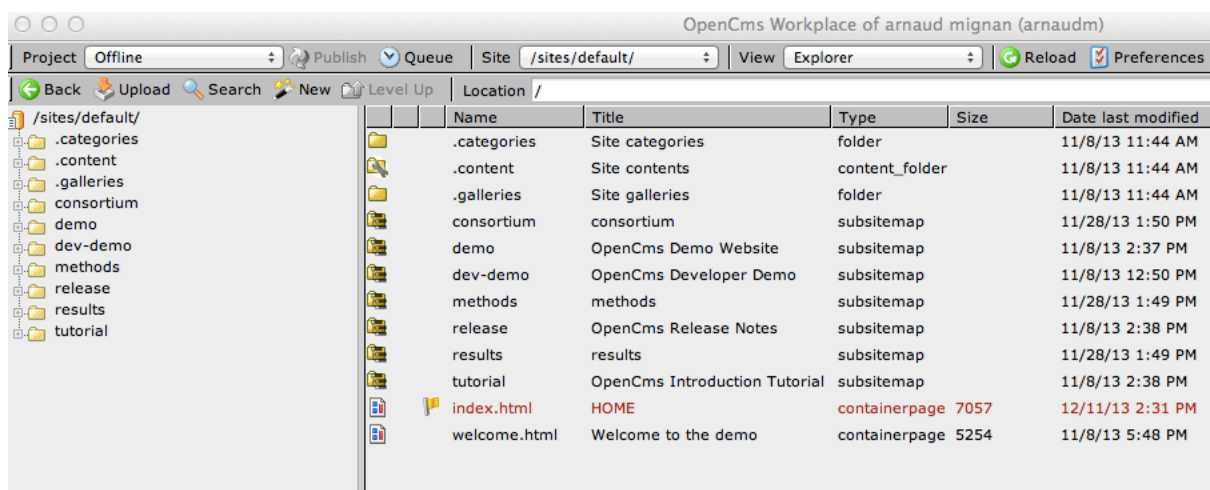


Fig. 1.1 *OpenCms* environment

In addition to the standard *OpenCms* tools, classic HTML coding was used for the development of the menu bar.

## 1.2 STREST LOGO DESIGN

About a dozen of STREST logo variants were proposed by several STREST participants. The official STREST logo was selected after a vote by the General Assembly. It is shown in Figure 1.2. An extended version including the project full title is shown in Figure 1.3. The first logo is used for official STREST documents such as deliverables. Both logos can be used by STREST partners for presentations, posters and other dissemination materials. The illustration on the left of the logo represents a seismic wave in red and a water wave in blue. It summarizes the main hazards considered in the STREST project.



Fig. 1.2 The STREST logo



Harmonized approach to stress tests for critical infrastructures against natural hazards

Fig. 1.3 STREST logo extended version with project full title

### 1.3 WEBSITE DESCRIPTION

The website ([www.strest-eu.org](http://www.strest-eu.org)) went online in December 2013. Figures 1.4 to 1.7 show screenshots of the different webpages: Home, Methods, Results and Consortium. Contents are subject to changes throughout the duration of the project. Only public documents are directly available in the Results section. Other documents (e.g. restricted access Deliverables) are available via the STREST portal (see section 2).

OpenCms | HOME

www.strest-eu.org:8080/opencms/opencms/

HOME | METHODS | RESULTS | CONSORTIUM | LOGIN

## STREST

Harmonized approach to stress tests for critical infrastructures against natural hazards

### Critical Infrastructures

### STREST at a glance

The Challenge | Objectives | Methods | Expected Results | STREST in Numbers

**Switzerland**  
Large dams

Critical Infrastructures (CIs) provide essential goods and services for modern society; they are highly integrated and have growing mutual dependencies. Recent natural events have shown that cascading failures of CIs have the potential for multi-infrastructure collapse and widespread societal and economic consequences. Moving toward a safer and more resilient society requires improved and standardized tools for hazard and risk assessment of low probability-high consequence (LP-HC) events, and their systematic application to whole classes of CIs, targeting integrated risk mitigation strategies. Among the most important assessment tools are the stress tests, designed to test the vulnerability and resilience of individual CIs and infrastructure systems. Following the results of the stress tests recently performed by the EC for the European Nuclear Power Plants, it is urgent to carry out appropriate stress tests for all other classes of CIs.

### Upcoming events

14 January 2014:  
WP2 workshop, in Zurich

26-28 February 2014:  
Joint WPs3-4-5 workshop, in Utrecht

### Latest News

#### STREST Kick-off Meeting

The kick-off meeting of the STREST project took place on 21-22 October 2013 at ETH Zurich, Switzerland. Thirty-three persons from the twelve partner institutions and from three of the six partner industries participated. The presentations and discussions are summarized in a report (Deliverable D1.1), which is now publicly available in the **Results** section.

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Fig. 1.4 STREST website screenshot: Home

OpenCms | Test SitesTest Sites

www.strest-eu.org:8080/opencms/opencms/methods/

HOME | METHODS | RESULTS | CONSORTIUM | LOGIN

# STREST

Harmonized approach to stress tests for critical infrastructures against natural hazards

## Work Packages

WP1 WP2 WP3 **WP4** WP5 WP6 WP7

### Vulnerability models for the performance and consequences assessment in stress tests of Clse

The objectives of WP4 are: to characterize the performance assessment of the selected critical infrastructure (CI) classes with respect to hazard scenarios (initiating events) and the resulting consequence analysis (triggered loss); to address vulnerability models required by stress tests on non-nuclear CIs exposed to natural hazards; to assess probabilistically the systemic performance for the selected CI classes in a multi-risk environment (including cascading risks) and standardized manner (i.e. exportable); to address the quantitative resilience of the facility and its performance with respect to post-accident risk management; to propose a taxonomy of CIs based on their vulnerability characteristics and exposure to natural hazard initiating events; to define appropriate measures of societal resilience to CI failures.

WP4 Leader: AMRA (Junio Iervolino)

## Test Sites

In order to develop and test harmonized methods, which can be implemented in practice, the STREST consortium works together with industrial partners to apply the STREST results in selected analyses of critical infrastructures (CI) exemplifying three CI classes:

- A. Individual, single-site infrastructures with high risk and potential for high local impact and regional or global consequences
- B. Distributed and/or geographically-extended infrastructures with potentially high economic and environmental impact
- C. Distributed, multiple-site infrastructures with low individual impact but large collective impact or dependencies

The description of the 6 critical infrastructures considered in the STREST project is given below.

CI-A1 CI-A2 CI-B1 CI-B2 **CI-B3** CI-C1

### Port infrastructures of Thessaloniki, Greece

Fig. 1.5 STREST website screenshot: Methods

OpenCms | Test Sites

www.strest-eu.org:8080/opencms/opencms/results/

HOME | METHODS | RESULTS | CONSORTIUM | LOGIN

# STREST

Harmonized approach to stress tests for critical infrastructures against natural hazards

## Deliverables

Only public reports (D1.1 and D7.x) are available or will be made available before October 2016. These reports can be assessed by clicking on the **[PDF]** icon. Access to other reports is restricted to members of the STREST Consortium (LOGIN section).

- D1.1 - Kick-off meeting report **[PDF]**
- D2.1 - Report summarizing the analysis and systematic classification of the results from hazard assessment and stress tests for NPPs
- D2.2 - Report on state-of-the-art in hazard assessment and stress tests for non-nuclear CIs
- D2.3 - Report on lessons learned from recent catastrophic events
- D2.4 - Report on lessons learned from on-going and completed EU projects
- D3.1 - Report on the effects of epistemic uncertainties on the definition of LP-HC events
- D3.2 - Report on the definition of extreme hazard scenarios for geographically-extended facilities
- D3.3 - Report on near-source hazard assessment and definition of reference scenarios for stress tests
- D3.4 - Guidelines and case studies of site monitoring to reduce the uncertainties affecting site-specific earthquake hazard assessment
- D3.5 - Report on cascading events and multi-hazard probabilistic hazard scenarios
- D3.6 - New software package incorporating induced seismicity hazard in PSHA
- D3.7 - Integrated report on the comparative analysis and sensitivity tests of multi-hazard assessment of LP-HC events for the six selected application areas
- D4.1 - Guidelines for performance and consequences assessment of single-site, high-risk, non-nuclear critical infrastructures exposed to multiple natural hazards
- D4.2 - Guidelines for performance and consequences assessment of geographically distributed, non-nuclear critical infrastructures exposed to multiple natural hazards
- D4.3 - Guidelines for performance and consequences assessment of multiple-site, low-risk, high-impact, non-nuclear critical infrastructures exposed to multiple natural hazards
- D4.4 - Report on the proposed taxonomy of CIs based on their vulnerability characteristics and exposure to natural hazard initiating events
- D4.5 - Report on development of a coherent definition of societal resilience and its attributes
- D5.1 - Report on the proposed engineering risk assessment methodology for stress tests of non-nuclear CIs
- D5.2 - Report on the proposed Bayesian network framework for conducting stress tests of non-nuclear CIs
- D5.3 - Tools and strategies to incorporate stress tests into the long-term planning and life cycle management of non-nuclear CIs
- D5.4 - Report on strategies for stress test implementation at community level and strategies to enhance societal resilience using stress tests
- D6.1 - Integrated report detailing analyses, results and proposed hierarchical set of stress tests for the six CIs covered in STREST
- D7.1 - Implementation of the web component concerned with general information on the project
- D7.2 - Project information factsheet leaflet **[PDF]**
- D7.3 - Project newsletters
- D7.4 - Report on user requirements from potential stakeholders
- D7.5 - Exploitation plan
- D7.6 - Publication of the STREST European Reference Reports and policy briefs

Fig. 1.6 STREST website screenshot: Results

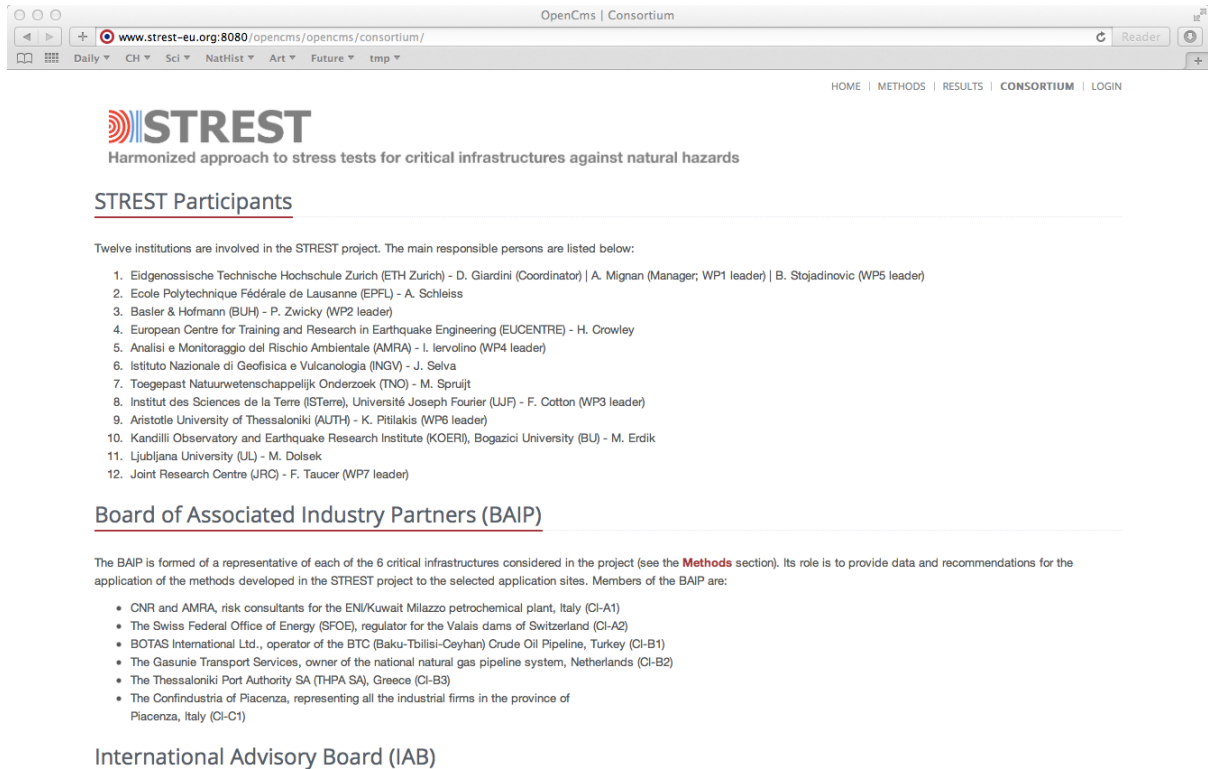


Fig. 1.7 STREST website screenshot: Consortium



## 2 Restricted section of the website

### 2.1 DOCUMENT MANAGEMENT SYSTEM (DMS)

The restricted part of the STREST website is accessible by clicking on the Login button in the 1-level menu. It yields to the portal page, shown in Figure 2.1. Access requires a login and password, which information has been sent to the STREST consortium. Once a valid login and password have been entered, the user is transferred to the Document Management System (DMS) *Agorum*, hosted by ETH Zurich (<http://dms.seismo.ethz.ch/>). This DMS allows STREST participants to track, store and download electronic documents. Read/write rights are described in the next section.

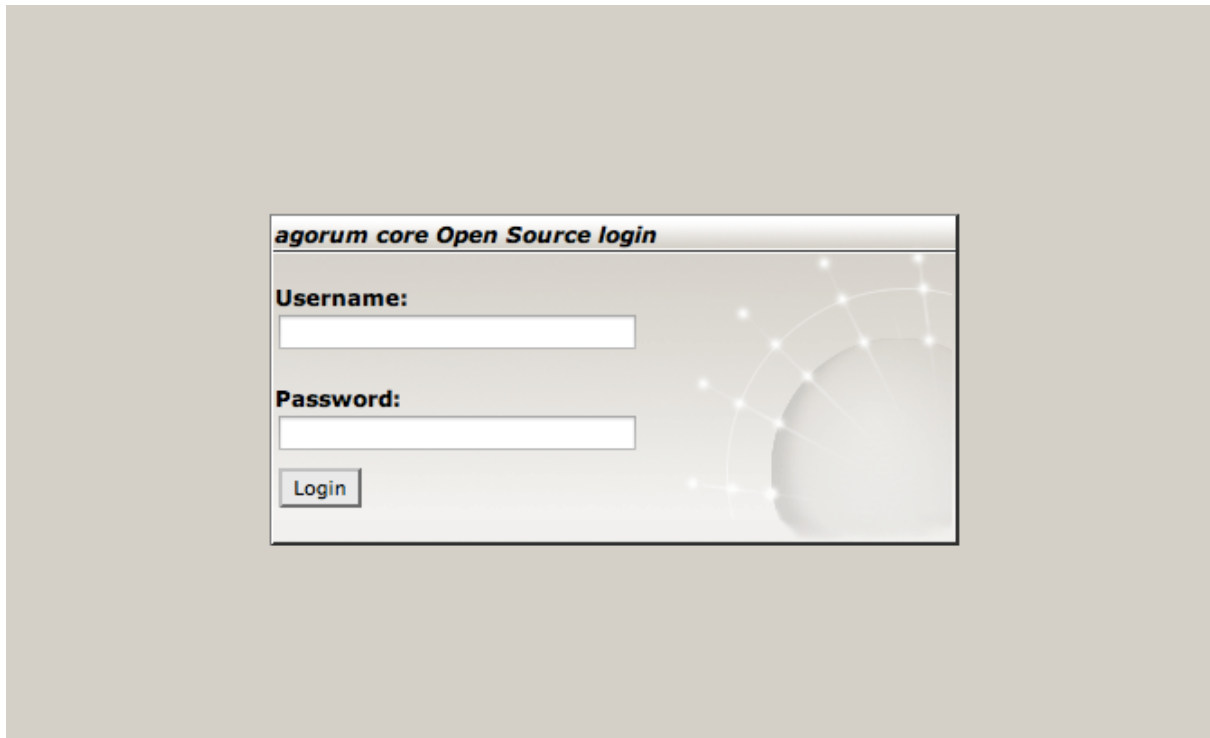


Fig. 2.1 STREST website screenshot: Portal

### 2.2 DESCRIPTION

Figure 2.2 shows the folder structure defined for the STREST DMS. For efficient information transfer, all STREST participants have the right to write, i.e. upload files, in the dropbox folder. They only have reading rights in all other folders. Only the administrator (Arnaud Mignan, ETH Zurich, at the time of the report writing) has full writing and reading rights. It is the administrator who is responsible for the maintenance and structuration of the DMS contents, which are subject to changes throughout the duration of the STREST project. As of January 2013, the main folders are: General (including document templates, STREST

logos...), Meetings (including presentations, meeting minutes...), Material (including deliverables), Management (including official documents) and Dropbox.

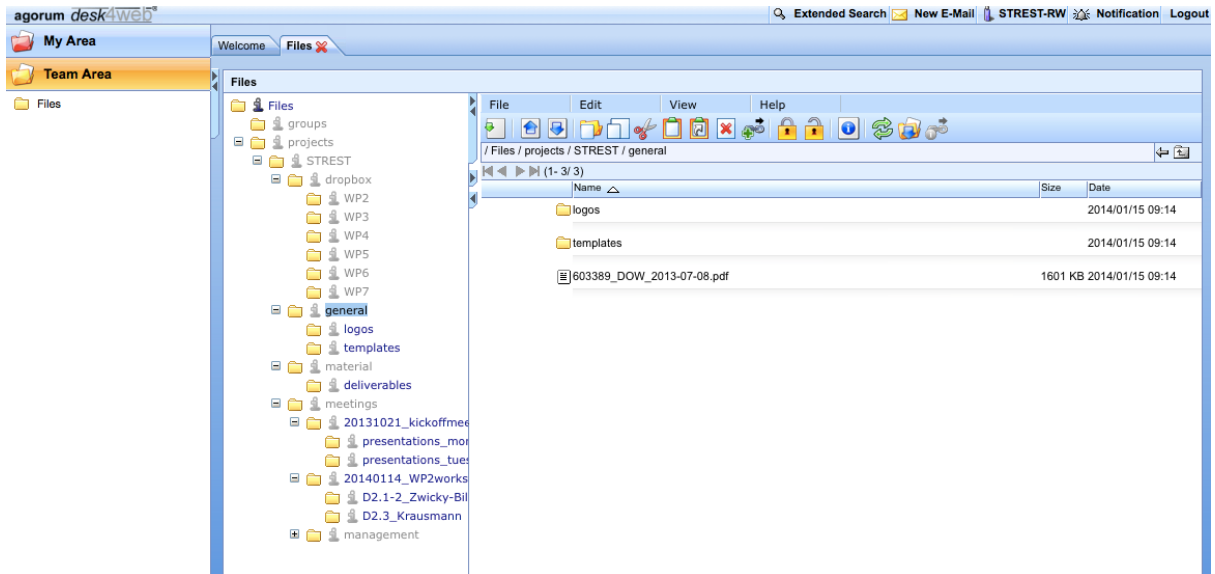


Fig. 2.2 STREST website restricted section: Agorum DMS