



# Post-Emergency, Multi-Hazard Health Risk Assessment in Chemical Disasters PEC

**Deliverable D.G.1**

**PEC Web Portal**





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# 1 PEC WEB PORTAL

The PEC web-portal is located at <http://www.pec-echo.eu>, and it has been implemented and hosted by EUCENTRE. The portal is the first point of access for all interested scientific and business parties in order to raise and grow awareness over the project results on the broadest possible international scale and as the integral project knowledge base for the consortium members. In this light it serves as a major communication and dissemination tool throughout the entire project providing a virtual place to outreach to stakeholders and end-users, to exchange and discuss experiences, methodologies and results targeting both lay people and professionals.

The portal's content is constantly updated with new material, public deliverables, publications, news, events, etc.

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Figure 1: The PEC web-portal home page



## 1.1 Portal Structure

A clean, informative and modern design has been implemented, so that easy and fast access is offered to all basic information about the project, organized under the following structure:

- **Home Page:** Includes an overview of the main topics, along with special announcements, latest news, recent posts and links to the other web pages .
- **About:** Includes an overview of the PEC project, its objectives and the expected results .
- **Workpackages :** Includes information on the various project's tasks as well the project workplan .
- **Deliverables :** Will include publicly available deliverables grouped for project tasks
- **News:** Includes a list with all the latest news related to project.
- **Links:** Includes links to other project and useful web sites
- **Participants:** provides key information on the project partners as well as links to their web sites.
- **Thematic Areas:** Provides summery information on the different risks addressed by PEC (i.e. seismic risk, anthropogenic risk, flood risk and health risk)



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## HEALTH IMPACT



### HEALTH IMPACT

Adverse health outcomes to toxic chemical exposure following a chemical disaster may be:

- effects that are local or arise at the site of contact with the chemical, such as bronchoconstriction from respiratory irritants, or irritation of the skin and eyes by gases, liquids and solids;
- effects that are systemic or affect organ systems remote from the site of absorption, such as depression of the central nervous system from inhalation of solvents, or necrosis of the liver from the inhalation of carbon tetrachloride; and
- effects on mental health arising from real or perceived releases, which depend on the psychosocial stress associated with an incident.

The time elapsing between exposure and the onset of symptoms can vary:

- Some effects, for example eye and respiratory irritation or central nervous system depression, can occur rapidly, within minutes or hours of exposure (acute effects).
- Other effects, for example cancers or congenital malformations, may take months or years to appear (long-term effects).

In PEC health impact assessment of environmental stressor will follow the so-called "full chain approach" from source to internal dose in target tissues to take into account all relevant health stressors and their interaction. This approach shifts towards a more biologically based approach for aggregate exposure assessment, dealing with the associated risks with a lower degree of uncertainty, reducing unnecessary conservatism and allowing for a more comprehensive cost/benefit analysis and efficient risk management.

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## PARTECIPANTS



### EU CENTRE

Eucentre, European Centre for Training and Research in Earthquake Engineering, was founded in 2003 by the following institutions: Italian National Department of Civil Protection, University of Pavia (Italy), Italian Institute of Geophysics and Volcanology (INGV) and Institute of Advanced Study (IUS) of Pavia (Italy). It is a non-profit foundation with head office in Pavia. EU CENTRE promotes, supports and sustains training and research in the field of seismic risk mitigation.

[www.eucentre.it](http://www.eucentre.it) - EU CENTRE Foundation



### Aristotle University of Thessaloniki

The Environmental Engineering laboratory (EnvE-Lab) of the Chemical Engineering department at the Aristotle University of Thessaloniki (AUTH) was established in 2011, bringing along novel approaches to environment and public health risk assessment and management developed over more than 20 years of international scientific work, including at the University of California at Berkeley and the European Commission's Joint Research Centre. The research work of the Lab focuses on: 1) Environment and Health – development of integrated systems for the assessment of environmental pollution to public health; 2) Advanced Technologies of environmental pollution monitoring and pollution management; and 3) Industrial Ecology – design of industrial systems aiming to reduce ecological footprint.

[www.auth.gr/en](http://www.auth.gr/en) - Aristotle University of Thessaloniki  
[www.auth.gr/en](http://www.auth.gr/en) - ENVE Lab



### Delft University of Technology

Safety and Security Science Group is a section of the Faculty of Technology, Policy, and Management at Delft University of Technology, The Netherlands. The group is involved in conducting research and developing innovative methodologies in safety and security in a variety of domains including but not limited to chemical plants, civil infrastructures, transportation, human behavior, occupational health and safety, societal safety, and cyber security.

<http://www.tudelft.nl/> - Delft University of Technology  
<http://www.tudelft.nl/> - The Safety and Security Science Section



### D'Appolonia S.p.A.

D'Appolonia S.p.A., part of the RINA Group, is the largest fully independent Italian firm providing consulting & engineering services to Clients belonging both to the public and the private sector. The company operates in the markets of Energy, Transport and Infrastructures, Industry and Investor Support. With a staff of more than 1000 engineers, scientists and associated professionals located in 20 offices worldwide, D'Appolonia offers high-end services to investors, promoters, operators and contractors, insurers and public administrations, taking into due consideration sustainability and health, safety and environmental targets.

<http://www.dappolonia.it/en> - D'Appolonia S.p.A.

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