



# Hydrogen Europe: European Hydrogen & Fuel cell Project Database

## Project SUSANA

Support to SAFety ANalysis of Hydrogen and Fuel Cell Technologies

The support action addresses the topic SP1-JTI-FCH.2012.5.2 “CFD model evaluation protocol for safety analysis of hydrogen and fuel cell technologies”. SUSANA will critically review the state-of-the-art in physical and mathematical modelling of phenomena and scenarios relevant to hydrogen safety, i.e. releases and dispersion, ignitions and fires, deflagrations and detonations, etc.; compile a guide to best practices in use of CFD for safety analysis of FCH systems and infrastructure; update verification and validation procedures; generate database of verification problems; develop model validation database; perform benchmarking; and finally create the CFD model Evaluation Protocol built on these documents and project activities. A website will provide public access to all project outcomes. The protocol will facilitate use of CFD as a cost-effective contemporary tool for inherently safer design of FCH systems and facilities in Europe. It will be developed for all stakeholders directly involved in use of CFD and those who perform the evaluation of CFD safety analysis done by others, including but not limited to safety engineers and technology developers, regulators and public safety officials involved in permitting process, etc. The consortium is composed of key players in the field of modelling and numerical simulations relevant to hydrogen safety science and engineering from research institutions, academia and industry. The expert group is a powerful project instrument with open membership to maximise the outreach of the project outcomes and involve stakeholders in the protocol use at as early stages as possible. Experts will be invited to participate in online forum, benchmarking, attend events organised by the project. Dissemination activities will include workshops and seminars with invitation of CFD users and representatives of permitting authorities through different channels, including IA HySafe, IEA HIA Task 31, EHA, national and international projects, etc

## Project Information

**Type of project :** Others

**Timing :** 01/09/2013 > 31/08/2016

**Project website:** <http://www.support-cfd.eu>

**Project Budget :** 2.119.669 €

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## Funding

European Union through FCH JU: Grant agreement 325386 - [CORDIS link](#)

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## Project partners

**Coordinator :**

[KIT - Karlsruhe Institut für Technologie](#)

**Partners :**

[Ulster University](#)

[NCSR Demokritos - INRASTES](#)

[AREVA Energy Storage](#)

JRC - JOINT RESEARCH CENTRE - EUROPEAN COMMISSION

HEALTH AND SAFETY EXECUTIVE

ELEMENT ENERGY LIMITED

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[Sub project\(s\)](#)

**Sub project 1**

**Country:** Germany

**Address:**

Kaiserstrasse 12 76131 Karlsruhe

**Sub project categories**

Others

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Project Id: 1101

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**Modify this project datasheet**