

ICHS, Pisa (I), September 8-10, 2005



The EU NoE

"Safety of Hydrogen as an Energy Carrier"

invites you to the:

**ICHS**  
**International Conference**  
**on Hydrogen Safety**

*September 8-10, 2005*

*Congress Palace*

*Pisa, Italy*

**Call for Paper**

ICHS, Pisa (I), September 8-10, 2005  
**In Association with:**



**CUTE EU PROJECT**



**International Partnership  
for the Hydrogen Economy**



**NATURALHY EU PROJECT**



**STORHY**  
**STORHY EU PROJECT**



**ITALIAN NATIONAL FIRECORPS**

**With the Collaboration of:**



**INTERNATIONAL ASSOCIATION FOR  
HYDROGEN ENERGY**

ICHS, Pisa (I), September 8-10, 2005

**ICHS CONFERENCE - SCOPE**

Hydrogen safety issues are currently subject to intensive research efforts. There are, however, still gaps in knowledge and in particular significant deficiencies in terms of safety solutions (e.g. mitigation techniques), and the availability of accepted standards, risk assessment methodologies, and associated legislation.

The ICHS conference will focus uniquely on safety issues relevant to improving and co-ordinating the knowledge and understanding of hydrogen safety. It will aim at fostering a sound basis for the removal of safety-related barriers to the implementation of hydrogen as an energy carrier. In this way it will also contribute to promoting public awareness and trust in the use of hydrogen technology within Europe and the methods used for assessing the associated risks.

The Conference is aimed at all involved in EU and International Projects on hydrogen safety, as well as University and Research Institutes, Industry, Government and Municipal Bodies, Reliability and Safety Consultants and other organisations with an interest in hydrogen.

***Since this event will focus on safety issues and trust building measures its scope will be different from other "Hydrogen Conferences". A key criterion for accepting papers for presentation will be the quality and relevance of their safety content.***

**ICHS CONFERENCE – STRUCTURE**

The main ICHS Conference events will be the paper presentations (Oral and Poster). After each sub-session there be an opportunity to discuss the current understanding in the topic area and the way forward. At the end of the Conference there will also be a Round Table session, held by the Scientific Committee members, to discuss and assess the overall outcomes of the Conference.

## THEMATIC SESSIONS AND SUB-SESSIONS

### **1<sup>st</sup> Session: Hydrogen Hazard and Risk**

- 1.1: Hydrogen release, mixing, and distribution
- 1.2: Ignition properties, thermal, pressure, and missile effects from H<sub>2</sub> fires and H<sub>2</sub>-air explosions
- 1.3: Mitigation techniques
- 1.4: Risk evaluation, both specific and in comparison with today's fossil fuels

### **2<sup>nd</sup> Session: Hydrogen Production and handling**

- 2.1: Production
- 2.2: Storage
- 2.3: Transport and distribution - refueling stations

### **3<sup>rd</sup> Session: Hydrogen Applications**

- 3.1: Vehicles powered with H<sub>2</sub>, storage
- 3.2: Tunnels, parking and garages
- 3.3: Portable and stationary H<sub>2</sub> applications

### **4<sup>th</sup> Session: Standardisation and legal requirements**

- 4.1: Standards
- 4.2: Regulations

## ABSTRACT SUBMISSION

The deadline for abstract submission is February 28<sup>th</sup>, 2005.

Authors should use the electronic proforma on the Conference Website [www.hysafe.org/conference](http://www.hysafe.org/conference).

The abstract should not include formulas and figures and not exceed 30 lines.

The abstracts should include the thematic session and sub-session the paper is intended for, the title of the paper and the Author(s) Name(s).

The abstracts will be reviewed for provisional paper acceptance by the members of the Scientific Committee; the decision will be sent to the author(s) by e-mail.

## FULL PAPER SUBMISSION

**A key criterion for accepting papers for presentation will be the quality and relevance of their safety content.**

Authors of provisionally accepted papers are requested to submit their full papers in electronic format directly to the Secretariat by e-mail.

Papers shall not exceed a maximum length of 12 A4 pages and conform to the paper template given on the Conference Website, otherwise they will not be considered.

For final acceptance a paper has to pass a second review conducted by the members of the Scientific Committee. As part of the review process authors will receive suggestions on ways their paper could be improved.

Accepted papers will be published in the Conference Proceedings which will be available at the beginning of the Conference.

## CONFERENCE PROCEEDINGS

The proceedings will be published on a CD-ROM. Selected papers will be also published in the **International Journal of Hydrogen Energy** and in the Hysafe **Biennial Report of Hydrogen Safety**.

## CONFERENCE DEADLINES

- Submission of Abstracts **February 28<sup>th</sup>**, 2005
- Full Paper Submission **May 1<sup>st</sup>**, 2005
- Acceptance of Papers **June 1<sup>st</sup>**, 2005
- Submission of Paper Final Versions and Payment of Conference Fees **July 1<sup>st</sup>**, 2005
- ICHS Conference **September 8-10**, 2005

## CONFERENCE ORGANIZING COMMITTEE

L. Bauwens, M. Carcassi, G. Chimenti, P. Davis, S. Grigoriev, M. Grosse, G. Hankinson, T. Jordan, I. MacIntyre, G. W. Mair, D. Makarov, A. Marangon, H. Paillere, D. Pfund, D. Pritchard, G. Romano, Y. Sato, M. Schuckert, M. Steen and N. Versloot.

## CONFERENCE SCIENTIFIC COMMITTEE

P. Adams, D. Baraldi, G. Cacciola, F. Ceccherini, N. Chaumeix, N. Ciannelli, H. Crutzen, M. A. Delichatsios, S. B. Dorofeev, M. Fairweather, B. G. Halvorsen, G. P. Haugom, T. Hirano, C. Kirchsteiger, F. Markert, V. V. Molkov, H. J. Pasman, J.L. Paulsen, C. Rasche, E. A. Reinecke, U. Schmidtchen, V. Tam, A. V. Tchouvelev, A. Teodorczyk, R. Vellone, K. Verfondern and F. Williams.

## CONFERENCE LANGUAGE

The Conference language is English. No translation will be provided.

## CONFERENCE CENTRE

Congress Palace, Pisa (I)

## CONFERENCE FEE

**The full Conference Fee is 500 Euro** (450 Euro if you register before July 1<sup>st</sup>) and includes: Conference Proceedings, Conference Programme, Reception, Transport, Attendance at all Conference Sessions, 3 Lunches, 2 Conference Dinners and refreshments (coffee) during session breaks.

## CONFERENCE INFO

Website: [www.hysafe.org/conference](http://www.hysafe.org/conference)  
Secretariat e-mail: [ICHHS@hysafe.org](mailto:ICHHS@hysafe.org)

**PROJECTS & ORGANIZATIONS**

ARDENTHY NEDO JAPAN PROJECT

*Development of Safe Utilization and Infrastructure of Hydrogen.*  
New Energy and Industrial Technology Development Organization (NEDO), Aichi Steel Corporation, Hitachi, Ltd., Iwatani International Corporation, Japan Aluminium Association, Japan Automobile Research Institute, Japan Energy Corporation, Japan Industrial Gases Association, Kobe Steel, Ltd., Mitsubishi Aluminum Co., Ltd., Mitsubishi Heavy Industries, Ltd., National Institute of Advanced Industrial Science and Technology, Nippon Light Metal Company, Ltd., Nippon Steel Corporation, Obayashi Corporation, Osaka Gas Co., Ltd., Petroleum Energy Center, Riken Keiki Co., Ltd., Shimizu Corporation, Showa Denko K.K., Sumitomo Light Metal Industries, Ltd., Sumitomo Metal Industries, Ltd., Tatsuno Corporation, The Furukawa Electric Co., Ltd., The High Pressure Gas Safety Institute of Japan, The Institute of Applied Energy, The Japan Research and Development Center for Metals, The Japan Steel Works, Ltd.

CUTE EU PROJECT

AVL (L), BL (E), BPA (UK), DE (D), EMT (E), Evo (D), FirstGroup (UK), FLEAA (L), GVB (NL), HHA (D), HEW (D), IST (P), London Buses (UK), MDA (NL), MF (S), MVV (D), Norsk Hydro (N), PE (D), Planet (D), Polis (B), Shell (NL), SL (SE), SSB (D), Statkraft (N), STCP (P), Sydkraft (S), TB (E), USTUTT (D).

HYSAFE EU PROJECT:

Forschungszentrum Karlsruhe GmbH (D), Air Liquide (F), Federal Institute for Materials Research and Testing (D), BMW Forschung und Technik GmbH (D), Building Research, Establishment Ltd (UK), Commissariat à l'Energie Atomique (F), Det Norske Veritas AS (N), Fraunhofer-Gesellschaft zur Foerderung der Angewandten Forschung e.V. (D), Forschungszentrum Juelich GmbH (D), GexCon AS (N), Foundation INASMET (E), Institut National de l'Environnement industriel et des RISques (F), Instituto Superior Tecnico (PT), European Commission - Joint Research Centre - Institute for Energy (NL), National Center for Scientific Research Demokritos (GR), Norsk Hydro ASA (N), Risø National Laboratory (DK), The United Kingdom's Health and Safety Laboratory (UK), TNO (NL), University of Calgary (CND), University of Pisa (I), Universidad Politécnica de Madrid (E), University of Ulster (UK), Volvo Technology Corporation (S), Warsaw University of Technology (PL).

IPHE INTERNATIONAL PROJECT

Australia, Brasile, Canada, China, European Commission, France, Germany, Iceland, India, Italy, Japan, Republic of Korea, Norway, Russian Federation, United Kingdom, United States.

NATURALHY EU PROJECT:

Borås (S), BP (UK), Commissariat à l'Energie Atomique (F), CETH (F), CMI (UK), COGEN (B), CSM (I), DBI (D), DEPA (GR), DGC (D), ECN (NL), ENIM (F), Exergia (GR), Gasunie (NL), GdF (F), GE PII (UK), GERG (B), IFP (F), IGDAS (TR), ISQ (P), Leeds (UK), Loughborough University (UK), Midt-Nord (DK), NEN (NL), NTNU (NO), NTUA (GR), PLANET (D), Saviko (DK), Sheffield Hallam University (UK), Shell Global Solutions (UK), SHELL H2 (UK), SQS (P), STATOIL (NO), The United Kingdom's Health and Safety Laboratory (UK), TNO Industrie (NL), TOG (UK), Total (F), Transco (UK), TU Berlin (D), Tubitak (TR), WPTG (UK).

STORHY EU PROJECT:

ADETE - Advanced Engineering & Technologies GmbH (D), Air Liquide (F), Austrian Aerospace GmbH (A), BMW Forschung und Technik GmbH (D), Bundesanstalt für Materialforschung und -prüfung (D), Centre National de Recherche Scientifique / Université de Franche Comté (F), Comat Composite Materials GmbH (D), Commissariat à l'Energie Atomique (F), Contraves Space AG (CH), Daimler Chrysler AG (D), Dynetek Europe GmbH (D), ET-Energie Technologie GmbH (D), European Commission - Directorate General Joint Reserach Centre (NL), Faber Industrie Spa (I), Ford Forschungszentrum Aachen GmbH (D), Forschungszentrum Karlsruhe GmbH (D), Fundacion para la investigación y el desarrollo en Automoviön (E), GKSS Forschungszentrum Geesthacht GmbH (D), Institut für Verbundwerkstoffe GmbH (D), Institute for Energy Technology (N), Institute for Protection Systems - Prochain e.V., Instituto nacional de técnica aeroespacial (E), Linde AG (D), MAGNA STEYR Fahrzeugtechnik AG & Co KG (D), MAN Technologie AG (D), Material S.A. (B), Air Liquide Deutschland GmbH (D), National Center for Scientific Research Demokritos (GR), Öko-Institut e.V. (D), PSA Peugeot Citroen Automobiles (F), University of Nottingham (UK), Volvo Technology Corporation (S), WEH GmbH (D), Wroclaw University of Technology (PL).

ITALIAN NATIONAL FIRECORPS (Italian Ministry of Interior Department): 35.000 Personnel, 1.500 Engineers, 600 Fire stations (land, ports, airports), 3 training centres.

**REGISTRATION / INFORMATION FORM:**

Title (Prof. Dr. Mr. Mrs. Ms.): \_\_\_\_\_

Surname / Name: \_\_\_\_\_

Organization: \_\_\_\_\_

Address: \_\_\_\_\_

Postcode / Zip: \_\_\_\_\_ Country: \_\_\_\_\_

Telephone / Fax: \_\_\_\_\_

E-Mail: \_\_\_\_\_

I suggest this announcement should also be sent to:

Title (Prof. Dr. Mr. Mrs. Ms.): \_\_\_\_\_

Surname / Name: \_\_\_\_\_

E-Mail: \_\_\_\_\_

I am interested in:

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Receiving further information \_\_\_\_\_

Being an auditor \_\_\_\_\_

Presenting a poster \_\_\_\_\_

To be sent:

By e-mail to:

[ICHS@hysafe.org](mailto:ICHS@hysafe.org) or

Or by fax to:

+39-050-836665

**We will not disclose this information to third parties.**