H2Sense Workshop

H_2 Sensors – the right one in the right place at the right price

12th September 2013

Fuel Cell and Hydrogen Joint Undertaking, Avenue Toison d'Or 56-60, B1049 Brussels (4th floor)

H2Sense is a FCH-JU funded project which addresses issues related to the effective deployment and availability of reliable hydrogen sensors, primarily but not exclusively for use in applications using hydrogen as an alternative fuel. One objective of the project is to *unite* and support stakeholders including sensor manufactures/developers, sensor end-users and certification/testing bodies to ensure the availability and optimum use of low-cost and reliable hydrogen sensors in various applications.

To achieve this objective, the H2Sense consortium is holding an interactive workshop on September 12th, 2013 at the premises of the Fuel Cell and Hydrogen Joint Undertaking in central Brussels. Due to the limited number of places available participation in this workshop is primarily by invitation however other stakeholders are welcome to contact the workshop organisers if interested. Foreseen participants include hydrogen sensor developing/manufacturing companies, sensor end-users from different application areas and sensor certification and independent testing bodies. The workshop offers the opportunity to share experiences on hydrogen sensor use including performance requirements, deployment best practices and practical aspects encountered in day to day use, directly with sensor manufacturers who can then use this information to design, manufacture and commercialise low-cost sensors, which are better tailored to suit end-user needs. The ultimate goal is that end-users will benefit from a broader range of effective products to choose from for specific applications.

A novel aspect of the Workshop will be the involvement of representatives of a US consortium (funded by the US Department of Energy) who are performing similar work in the States. Results from this consortium will be presented during the workshop and there will be an opportunity for open discussion on the status and mandates for hydrogen sensor use in the US.

Information for invitees: The H2Sense Workshop is being held immediately following the 5th International Conference on Hydrogen Safety (www.ichs2013.com) to facilitate stakeholder participation in both events. Invitees are kindly requested to confirm their participation in the workshop by **Friday 23rd August** to assist in the planning and logistics. Further information on the organisation of the workshop will be distributed to participants before the event providing more details on how the workshop will be run and the foreseen contribution from participants. In this way we anticipate an improved effectiveness and maximum benefit to all involved. Should you need any more information on the Workshop or H2Sense please feel free to contact Lois Brett (lois.brett@ec.europa.eu – Workshop organiser) or Thomas Hubert (thomas.huebert@bam.de – H2Sense Co-ordinator).

H2Sense partners:

Federal Institute for Materials Research and Testing (BAM) - www.bam.de

European Commission Joint Research Centre – Institute for Energy and Transport (JRC) - http://iet.jrc.ec.europa.eu

AppliedSensor - www.appliedsensor.com

Sensitron - www.sensitron.it

UST Umweltsensortechnik - www.umweltsensortechnik.de

Zentrum Für Sonnenenergie- Und Wasserstoff-Forschung Baden-Württemberg (ZSW) - www.zsw-bw.de

H2Sense Workshop Agenda[1]

Time	Item	Details
08:30	Registration	
08:45	Opening and welcome	Outline of workshop organisation, logistics, output (guidelines) etc.
08:55	Tour de table	Brief introduction from participants and their interest in the workshop
09:30	H2Sense project presentation	H2Sense co-ordinator – T. Hübert
09:45	Presentation from FCH-JU	H2Sense Project Manager – G. Leduc
10:00	Invited lecture: Applications for H2 sensors – US practices and perspective - *tbc*	W. Buttner (US DOE National Renewable Energy Laboratory - NREL)
10:30	Questions and open discussion	
11:00	Coffee	
11:15	AA Working Groups – Break out	Division of participants into Working Groups based on Application Areas (AA) and commercialisation
	AA WG1 AA WG2 AA WG3 AA WG4	AA WG1 = Fuel Cell exhaust sensors AA WG2 = Battery monitoring AA WG3 = Leak detection e.g. repair facility AA WG4 = Commercialisation/Marketing
12:15	Buffet Lunch	Opportunity to review/contribute to output from other AA Working Groups
13:45	AA Working Groups – Regroup	Regrouping of the AA WGs to summarise their findings to the Workshop
14:15	Invited lecture: *Hydrogen sensors in the US DOT and US DOE programs – tbc*	Charles James *(US Department of Energy- EERE Fuel Cell Technologies Program)*
14:45	Questions and open discussion	
15:00	SU Working Groups – Break out	Division of participants into Working Groups based on Sensor Use (SU) and manufacturing
	SU WG1 SU WG2 SU WG3 SU WG4	SU WG1 = Sensor selection criteria SU WG2 = Maintenance and calibration SU WG3 = Placement/Safety requirements SU WG4 = Manufacturing/Testing/Approvals
16:00	Coffee	Opportunity to review outputs from other SU Working Groups
16:15	Working Groups – Regroup	Regrouping of the AA WGs to summarise their findings to the Workshop
16:45	Workshop conclusions	Summarising the findings and conclusions of the workshop
17:00-18:00	Workshop Closing Reception	*t.b.c.*

[1] Subject to change