

Global standards need to reflect European needs

Interview with Frédéric Barth, Global Leader for standards in hydrogen energy for Air Liquide

Mr Frédéric Barth is Global Leader, Regulations, Codes and Standards in the area of hydrogen energy for Air Liquide. He is currently an active member of ISO TC 197¹, the standardisation technical committee in ISO, the International Organization for Standardisation, that deals with hydrogen technologies. He is also involved in the recently established Joint Technology Initiative for Fuel Cells and Hydrogen (FCH JTI²).

-Mr Barth, you are currently working on standardisation for hydrogen technologies. Could you tell us in a few words why your company is supporting and funding your involvement in standardisation?

Hydrogen technologies promise to bring benefits for many applications requiring clean energy. To name but a few, I can mention motor vehicles, portable devices and back-up electricity generation for critical installations. However, in order to be accepted and trusted by users and public authorities, there is a whole new framework of regulations and standards to be put in place. In ISO we are building a global consensus on standards for the safety of the different applications following a common search for the best solutions.

-Is interoperability also a relevant issue in hydrogen technologies?

Of course! Interoperability across the whole supply chain will clearly accelerate market acceptance of hydrogen and fuel cell technologies. The obvious example is the dispenser of hydrogen for vehicles at fuel stations. We want to avoid the case of natural gas, where you find different refuelling interfaces across Europe. Global standards also need to reflect European needs, and in this respect the standards bodies have good arrangements, for example the Vienna Agreement between ISO and CEN[1], ensures there is no overlapping work. International standards from ISO can become CEN European Standards, and CEN standards can be provided to ISO for development as international standards. The route to be followed is the one which most efficiently addresses the needs of both European and international stakeholders in each individual case. In the field of hydrogen, many new standards are developed directly at ISO level in order to benefit from all the available expertise and to have a standard which is globally harmonized from the onset.

-Are there concrete advantages in addressing standardisation issues within the Fuel Cells & Hydrogen JTI?

Our JTI is a unique instrument for making things happen in the hydrogen area. To put in place a whole new framework of coherent regulations, codes and standards is a complex undertaking which requires the different players first to agree on priorities and the way forward, and then to allocate sufficient resources to key activities in standardisation and related pre-normative research. Also, considering that standardisation is one of the key instruments to foster innovation and advance

¹ http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_tc_browse.htm?commid=54560

² <https://www.hfpeurope.org/hfp/jti>

commercialisation of hydrogen and fuel cell technologies – as recognised by both the Commission and industry - it is of the utmost importance that European input into international standardisation work be better coordinated. I am convinced that the JTI is the right place to do this. During 2009 the JTI should put in place the proper mechanism to ensure strategic coordination of regulation, codes and standards at the European level.

Strategic guidance from the JTI will greatly facilitate the specific role of CEN in this field in developing or adopting standards to support European regulatory needs.

-And what about challenges?

At the moment, the European presence in the relevant ISO standardisation committees is relatively weak, compared in particular with North American and Japanese representation. This may bring significant disadvantages to European industry and users in the long term. As said, I expect the FCH JTI will help us to rebalance this situation.

-Would you invite colleagues in other ETPs and JTIs to address standardisation ?

Most ETPs have to deal in some degree with safety and interoperability issues, for which standards are of course a key enabler. I think it is safe to say that most ETPs will increase market acceptance of their technologies by jointly identifying within ETPs/JTIs priorities for standardisation and for related research.

-Mr Barth, thank you very much for this interview

The Standards Landscape

Europe has three recognised European Standardization Organisations – CEN (for most sectors), CENELEC (the electrotechnical sector) and ETSI (for electronic communications).

CEN, CENELEC and ETSI link with international standards bodies in their respective fields – ISO, IEC and ITU-T, and work-sharing or other arrangements ensure coherence between European and international standards.

Standards and Research activities

There are often links between established research programmes and standardisation. However, particularly in innovative areas, these contacts are slow to develop. Researchers may not find the right standards contacts easily, or the timescales of traditional standardisation may be thought too slow for short-term research projects. The 2008 Commission Communication on Standardisation and Innovation, and the subsequent Conclusions of the Competitiveness Council, recognise the importance of improving the interface between standards and research in helping to secure market acceptance of innovative solutions, and creating jobs in Europe. ETPs and JTIs can facilitate this interface by providing an effective framework for identifying pre-normative research priorities in accordance with commercialisation objectives and for ensuring that R&D results are fed into the standardisation work.

The standards organisations have already provided facilities for informal, but open, consensus building for some time. Formal standards can take several years, but the product of innovative research may be more suitable for fast, informal consensus. CEN and CENELEC

offer standards workshops, open to any interested party globally, that provide results sometimes in six months or fewer. Roughly one third of current CEN Workshops, for example, have some direct link to research projects. ETSI now has a new concept – Industry Specification Groups, providing similar open platforms, and has also provided much easier membership arrangements for universities and research bodies.

ETPs and standards bodies

Some ETPs have already developed good links with relevant standards groups, but in some case these contacts can be improved. During 2009, the Commission plans to invite ETPs (and Joint Technology Initiatives) to increase the profile of standardisation in their respective fields and the European Standards Organizations will be pleased to help in this process.

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