

# COSMHYC/COSMHYC XL INTERVIEW

Interview with Enrique Girón, Project Manager at FCH JU

Hydrogen mobility on the rise – Current trends in the European field of hydrogen mobility and the role of the FCH JU enabling research and innovation.

The **Fuel Cells and Hydrogen Joint Undertaking (FCH JU)** is a unique public private partnership supporting research, technological development and demonstration activities in fuel cell and hydrogen energy technologies in Europe. Its aim is to accelerate the market introduction of these technologies, realising their potential as an instrument in achieving a carbon-clean energy system. The three members of the FCH JU are the European Commission, fuel cell and hydrogen industries represented by Hydrogen Europe and the research community represented by Hydrogen Europe Research.



**Enrique Girón** is a Chemical Engineer from the University Complutense of Madrid. He began his career in Repsol's (a Spanish oil company) research department where he started looking at the possibilities of hydrogen as an energy carrier.

He joined the Fuel Cells and Hydrogen Joint Undertaking as Project Manager in 2010, at first in charge of the Early Markets application area, dealing with material handling vehicle and back-up power or UAV demonstration projects as well as portable application research activities. Currently he is in charge of the Transport Pillar, where he is involved mainly with Fuel Cell Electric Vehicle demonstration and hydrogen valley projects.

## 1. The COSMHYC and COSMHYC XL projects aim to develop an innovative hydrogen compression solution improving the efficiency and reliability of hydrogen refuelling stations. Which role does hydrogen compression play in the FCH JU strategy?

The FCH JU objective is to facilitate and accelerate the deployment of fuel cell and hydrogen technologies for any appropriate application. For most of these applications, especially in the transport sector, compressed hydrogen is the only feasible storage possibility. Therefore, to have a reliable, cheaper and less energy consuming technology for compression which can deliver the hydrogen in the proper flows is essential for the further deployment of fuel cell vehicles. This will be even more important as we move to heavy duty applications, which need greater flowrates to ensure timely filling of the vehicles.

## **2. From your point of view: Which main actions need to be undertaken by public authorities and the industry in order to establish hydrogen as a cornerstone of Europe's energy transition?**

Hydrogen has already been identified in most policies as key to reach the Energy Transition. Now, after the technology is further tested in the heavy duty application, proper legislation that forces the change must be put in place. Example of the type of actions would be “zero emission zones” in cities and a switch to fully decarbonized public transport or legislation that rewards energy storage and grid balancing. To ensure that the energy transition takes place, further enhancement of renewable energy should be put in place, allowing hydrogen to act as an energy vector to accommodate it. Finally, no regret investments should be ensured, meaning that there should be no investment in infrastructure that would lock us into intermediate solutions that do not allow to reach the objectives.

As for the industry, once the path is clear from the legislators, further investments and a clear bet for zero emission transport technologies and for energy storage should be demonstrated.

## **3. As project officer you get insights into various research projects. What are challenges most consortia face and how can they be overcome best?**

Consortia tend to be over-optimistic in their “time” assumptions. No sufficient time is allocated for contingency measures of to account for problems in the execution of the projects. This leads always to delays in the project execution, and far too often, in requests of prolongation of the duration of the projects.

Better planning that allows for time contingency measures should be put in place from the beginning. Identification of the critical path is essential. Once identified, put the necessary efforts to meet the deadlines.

## **4. In which field of hydrogen applications do you see the next big focus of the FCH JU?**

There are four focus areas for the development of fuel cell and hydrogen technologies in the near future: heavy duty transport, electrolytic hydrogen production further development and scale up, hydrogen distribution (large scale, including imports to Europe) and use of hydrogen in industrial application (replacing other fuels or feedstock).

Many thanks for your time and the interview, Mr. Girón!