

## The largest deployment of hydrogen powered fuel cell materials handling vehicles in Europe in operation at Carrefour Vendin Le Vieil in the framework of HyLIFT-EUROPE project

On 22<sup>nd</sup> of November 2018 the supermarket chain Carrefour, one of the largest retailers on European level, has inaugurated the operation of its fleet of 137 hydrogen powered fuel cell materials handling vehicles in its warehouse located in Vendin Le Vieil, France, today the largest deployment of this type of vehicles Europe has ever seen.

This is the result of a collaboration of Carrefour with major industries such as Air Liquide that developed the hydrogen refuelling station and STILL, the provider of the fuel cell vehicles, in the framework of HyLIFT-EUROPE project co-funded by the Fuel Cells and Hydrogen Joint Undertaking (FCH JU).

The HyLIFT-EUROPE project paves the way for a self-sustaining market for hydrogen powered fuel cell materials handling vehicles in Europe by increasing the volumes of vehicles in operation by reaching the ambitious goal of deploying two very large fleets of fuel cell materials handling vehicles, counting more than 200 vehicles in total. The fleet in Carrefour is the largest one developed in this context; a second fleet of 75 fuel cell vehicles was deployed already in 2016 at Prelocentre, a logistics provider for fruits and vegetables.

Fuel cells, in particular in industrial environments, bring advantages to the material handling sector: the hydrogen powered material handling vehicles are efficient and reliable; they can be rapidly refueled in less than 3 minutes, boosting productivity by eliminating the time associated with battery changing and charging; they generate only water and heat with no local pollutants allowing indoor operations.

### Olivier Danneels – North France warehouses Director, Carrefour Supply Chain

*“We can say today that hydrogen doesn't only answer to environmental requirements but allows a better operational efficiency (performances, agility, working conditions). The use during the next months must confirm this”*

### Bart Biebuyck – Executive Director FCH-JU

*“The Carrefour site in Vendin Le Vieil will be looked at by others who will want to assess the technology and the business model, therefore it is a very important example for the future expansion of fuel cell application in the logistics sector in Europe”*

### Björn Grünke - Product Manager Energy Systems, STILL

*“The Carrefour project with 137 trucks has proved, that fuel cell technology works in intralogistics. We are excited to observe the further developing of the fleet and are looking forward to the competition of energy technologies for the future”*

### Erwin Penfornis – COO Air Liquide Hydrogen Energy World Business Unit

*“Hydrogen is at the heart of the energy transformation. What we see today here at Carrefour Supply Chain is just the beginning. A lot is going on around hydrogen thanks to pioneers like you”*

**Jose Luis Crespo – General Manager Plug Power Europe**

*“This is the largest deployment of Plug Power’s GenDrive units in Europe, with every truck that is turned over to hydrogen and fuel cell power, Carrefour is taking another step forward in its philosophy to adopt clean energy in its operations into its employees and stakeholders. Plug Power congratulates Carrefour on its business expansion. We look forward to many of this type of deployments in the near future in Europe”*

**Hubert Landinger – HyLIFT-EUROPE project coordinator, Ludwig- Bölkow Systemtechnik**

*“With this deployment of 137 hydrogen powered fuel cell materials handling vehicles at Carrefour we have for the first time the possibility here in Europe to showcase the potential of this technology at scale. This might serve as starting point for a broad roll-out and as an incubator for further stakeholders in the whole supply chain to join in”*

The technology of hydrogen powered fuel cell forklifts and warehouse trucks and related infrastructures for the hydrogen refuelling are ready for the market roll out and represent a serious option in the materials handling market.

