

H2-Share's first hydrogen-powered rigid truck hits the road in the Netherlands

On Wednesday, 1 April, a 27-tonne hydrogen fuel cell rigid truck built by VDL started its first demonstration with BREYTNER as part of the EU-funded H2-Share project in Schelluinen, the Netherlands. Wystrach GmbH built a low-energy mobile hydrogen refueller to accompany the truck on its demonstration sites.

This hydrogen truck is unique in the Benelux. It is the first time that a truck will be demonstrated in a setting like this, certainly in combination with a mobile refuelling station. The launch of this demonstration is a giant leap forward in the development of the zero-emission heavy-duty vehicle industry in Northwest Europe and to gain practical experience with fuel cell trucks.

BREYTNER, a zero-emission transport provider, will operate the truck for three months in retail logistics, such as replenishing stores and feeder lines for zero-emission last-mile solutions. By testing the truck in different types of logistical processes, BREYTNER hopes to contribute to the question of where a hydrogen truck is best deployed. After the demonstration at BREYTNER, the truck will go to one of the other project partners for its next demonstration.

'We are very excited to be one of the few companies worldwide that can demonstrate a hydrogen rigid in real-time operation. This gives our customers and us valuable knowledge on zero-emission transport solutions and will help us in taking the next steps towards more sustainable transport.' - Marie-José Baartmans, BREYTNER

The aim is to demonstrate the truck and the mobile refuelling station at 6 locations in Germany, the Netherlands, Belgium and France. To demonstrate the truck on all 6 locations, regardless of the availability of hydrogen refuelling stations, Wystrach is presenting a user-friendly and officially approved solution in the form of a mobile refuelling station with ample storage capacity, that allows flexible application possibilities. The truck can also refuel at the hydrogen stations in Rhoon/Rotterdam and Helmond during the demonstration in Schelluinen.

'We realise that there is an increasing demand for a holistic view of mobility concepts. Manufacturers of trucks, trains, buses, and even forklifts are interested in hydrogen-fuelled systems. The H2Share project, therefore, is an important showcase for trendsetting possibilities.' – Wolfgang Wolter, CEO of Wystrach GmbH.

Evidence from the logistics sector shows a strong, growing interest in zero-emission solutions to reduce emissions and environmental impact on air quality. In urban areas, zero-emission logistics can be operated by battery-electric trucks. They are, however, limited in their range. For large heavy-duty vehicles which travel longer distances, electric trucks with a hydrogen fuel cell range extender are a zero-emission solution. In the EU, such vehicles are not yet commercially available but have enormous potential. 'H2-Share' aims to unlock this potential.

The objective of H2-Share (Hydrogen Solutions for Heavy-duty transport Aimed at Reduction of Emissions in North-West Europe) is to facilitate the development of a market for low-carbon heavy-duty vehicles on hydrogen for logistics applications and to gain practical experience in different regions in North-West Europe.

'At this moment, there are some roadblocks for widely cost-effectively deploying hydrogen-electric heavy-duty vehicles in the market. To come to a good TCO (Total Cost of Ownership) model, these need

to be tackled; the cost of hydrogen needs to come down significantly, the number of hydrogen refuelling stations needs to go up, and the reliability of the hydrogen fuel cell system needs to come up. Within the H2-Share project, VDL aims to prove the market readiness of the hydrogen fuel cell system in a heavy-duty vehicle and demonstrate the reliability in daily use with real users in the North-Western Europe region as a pre-cursor to the mass-market deployment of the technology.’ - Menno Kleingeld, managing director VDL ETS

The H2-Share project will deliver proof of readiness of hydrogen technology for heavy-duty applications in real-life conditions and will provide a basis for the development of zero-emission heavy-duty vehicle industry in the NWE area. The project receives 1.69-million-euro EU funding through Interreg NWE and is coordinated by WaterstofNet. WaterstofNet has been focusing on the development of hydrogen in Europe for over a decade and was responsible for the first projects with hydrogen refuse trucks and hydrogen heavy-duty trucks in Europe.

‘At WaterstofNet, we foresee a major role for hydrogen in heavy-duty applications. Over four years ago, we started developing European projects with a focus on hydrogen as a heavy-duty solution with regional players, focussing on demonstrations with industrial partners and gaining practical experience. After successful demonstrations with hydrogen refuse trucks in other projects, we are very proud to be involved in the first demonstration of this rigid-truck in our region within the H2-Share project. We believe it is clear that this technology has strong prospects for the North-West-Europe region, and we are looking forward to taking the next steps.’ – Adwin Martens, director of WaterstofNet

Concerning the current COVID-19 outbreak and hydrogen, Jorgo Chatzimarkakis, Secretary General of Hydrogen Europe, stated: “Currently Europe is facing an unprecedented crisis. Our economy will be greatly affected and hydrogen, as innovative technology, can play a crucial role in supporting the post-COVID 19 recovery plan while complying with the EU Green Deal. With the deployment of the H2Share truck, we have tangible evidence that hydrogen fuel cell technology is ready today to play its part”.

Partners

The H2-Share partners and associated partners are VDL, Wystrach GmbH, Rai Automotive NL, BREYTNER, Colruyt Group, Cure, DHL, e-mobil BW, Hydrogen Europe, Dutch Ministry of Infrastructure and Water Management, TNO, WaterstofNet. The city of Helmond and VIL are sub-partners in the project.



Pictures for free use can be found here (photo credit - Wystrach):

<https://cloud.wystrach.gmbh/s/ydk2mx3x4zcNQ3x>

Password: H2Share!

For more information:

Interreg NWE: <https://www.nweurope.eu/projects/project-search/h2share-hydrogen-solutions-for-heavy-duty-transport/>

WaterstofNet: <https://www.waterstofnet.eu/en/projects-roadmaps/h2-share>

VDL: <https://www.vdlgroep.com/en>

Wystrach: <https://www.wystrach.gmbh/en/produkt-wyrefueler.html>

Breytner: <https://breytner.com/>