



H2-Share Newsletter II, April 2021

In this second edition of the H2-Share newsletter we fill you in on the successful first two demonstrations of the hydrogen truck and mobile refueler. We look back at BREYTNER's (NL) and ABC Logistik's (DE) evaluations and look ahead to what's coming up next in the new demonstrations planning.

Lessons learned at BREYTNER

As mentioned before an evaluation of the first demonstration for BREYTNER Zero Emission Transport, in corporation with BREYTNER's sister company Vlot Logistics in Schelluinen from April - June 2020, would follow. This happens through the publication of a deliverable or report which describes the experiences and learnings based on a final evaluation at the end of June. The deliverable can be consulted on the project space, in line with the 'knowledge sharing function' of the H2-Share project.

The setup on site of such a pilot doesn't happen overnight. A lot of time and effort was put in the production and deployment of the hardware. Mainly in the beginning of the demonstration there were a few malfunctions. For example, during the demonstration BREYTNER experienced difficulties with the swap body, which needed a flat surface, with the recharging of the battery and start-up of the truck. It is key to have the drivers well trained and have a support system in place. BREYTNER wrote a couple procedures (annexed in the deliverable) for the next demonstrations partners to use. It was a big learning curve for all partners, who helped each other in solving the problems with a very good and quick support service.

In the end, BREYTNER successfully tested the hydrogen-powered 27 ton rigid truck in three different delivery routes. Thanks to the fact that a hydrogen truck offers a bigger range, it didn't have an impact on the logistical planning. The mobile hydrogen refuelling station was well-functioning too; the refuelling happened nearly daily, fully automated and hassle-free. Leaves to mention that the permitting process for this first demonstration went very smoothly (8 weeks) thanks to a good preparation and the fact that it was a short demonstration.

You can find the public H2-Share deliverables on <u>the project space on the Interreg NWE</u> website, under Downloads – Deliverables.



H2-Share video

Unfortunately, Covid-19 spoiled the party of the first and long-awaited H2-Share demonstration kick-off event in April 2020. But thanks to the H2-Share video light was shed on the successful demonstration for BREYTNER Zero Emission in Schelluinen in July.

The H2-Share video shows that the hydrogen and fuel cell technology is ready to play a central role in zero emission, heavy-duty and long haul transport. It shows the hydrogen fuel cell truck and mobile refuelling station up and running in the Netherlands. The video is in Dutch but has both Dutch and English subtitles (below).

Watch it again: '<u>H2-Share, Emission-free transport running on hydrogen in North-West Europe</u>' video.



German demonstration for ABC Logistik in Düsseldorf a success

The H2-Share truck performed well in demonstration at transport company ABC Logistik in Düsseldorf from the beginning of November until the end of December 2020. The company concluded in its final evaluation that hydrogen trucks are the future for zero-emission heavy-duty logistics.

Thanks to the efforts and collaboration of ABC Logistik, VDL, the EnergieAgentur.NRW and H2 MOBILITY Deutschland, the 27 tonne truck demo was organised on short notice. It was just the second of six demonstrations within the international H2-Share project, dedicated to the development of hydrogen heavy-duty transport and refuelling technology. It transported up to 8 tonnes of general cargo (e-commerce products), mainly on motorways and in industrial zones. The truck refuelled under supervision of Air Liquide at the hydrogen refuelling station (HRS) Düsseldorf-Holthausen operated by H2 MOBILITY Deutschland.

Of course, the demonstration also brought a number of points for improvement into focus for the next stage of development. Hills formed challenges at times and a more powerful electromotor may be required. The truck is also quite noisy, too much so for night deliveries. This could be improved by relocating the air intake. In general, the configuration of the H2-Share truck consists of a number of compromises given the need for multiple demonstrations at different end-users. ABC Logistik concluded that most of these challenges can be overcome and are keen to continue the tests in a following phase. This will be supported by the commitment of North Rhine-Westphalia to stimulate the deployment of fuel cell vehicles with green hydrogen in the region.

Read the full article here!



Great interest in the WyRefueler - the mobile hydrogen refueling station

The mobile hydrogen refueling station that Wystrach developed for the H2-Share project is arousing great interest. Whereas the project focused on trucks, the hydrogen refueling station offers a flexible, energy-efficient, and user-friendly solution for other vehicles too: buses and trains as well as vehicles on construction sites, at ports, or at airports.

BREYTNER, a zero-emission transport service provider in the Netherlands, tested the WyRefueler over a period of several weeks. Managing director Marie-José Baartmans described her company's experience: "The WyRefueler is a huge help in everyday operations. It has a compact design and is very easy to operate, so refueling is fast and uncomplicated."

This means a major increase in flexibility in day-to-day business, adds Jeroen Baartmans, also managing director at the logistics company: "The system made an enormous difference to our everyday business, as we were able to schedule a hydrogen truck for our routes as usual. There was no need for trips to a public refueling station and no waiting in line at the pump. In addition, the WyRefueler operated without a hitch the entire time, ultimately saving us time and money." He goes on to say that obtaining an operating license to use the system at the company's own depot "went quickly and smoothly."

"We had a steady stream of inquiries about the WyRefueler right from the start of the project, but in the past few months interest has really skyrocketed," says Jochen Wystrach, Managing Director Resources at Wystrach. "Hydrogen strategies adopted at the national and EU level are clearly having an impact. We're seeing more and more players wanting to see a demo."

If you would like more information about the system or wish to schedule a demonstration, please contact Wystrach: wyrefueler@wystrach-gmbh.de.



Great flexibility for the WyRefueler!

It's transportable, energy-efficient, and user-friendly: the WyRefueler is here! The mobile hydrogen refuelling station is suitable for wide range of refuelling applications. Besides filling trucks, buses, and trains with hydrogen, it can be used for vehicles on construction sites, in ports, or at airports. The WyRefueler enables emission-free logistics and intralogistics - and there's great flexibility to where it can be deployed!



Demonstration programme

H2-Share targeted for 6 demonstrations at the start of the project. However, at the beginning the project encountered some delays. The first demonstration for Cure in Eindhoven couldn't take place as planned and had to be cancelled.

The demonstration for BREYTNER Zero Emission did take place successfully last summer.

In November - December 2020 the H2-Share truck was successfully demonstrated at ABC Logistik in Düsseldorf, Germany. (This demonstration replaced the demo for DHL in Stuttgart.)

So, according to the new planning there are three remaining demonstrations to be held in three countries with two end-users (see below).

New planning demonstrations:

- Brussels/Laekebeek (BE) @ Colruyt Group: April 2021 (without mobile refueler)
- Dole/Rochefort-sur-Nenon (FR) @ Colruyt Group: May June 2021 (with mobile refueler) (postponed due to Covid-19, no new date yet)
- Breda (NL) @ DHL: July September 2021 (with mobile refueler)

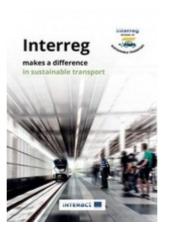
Not all the end-users need the mobile refueler on site. Interreg NWE allowed for Wystrach to use the WyRefueler in the meantime in other locations as well (see WyRefueler articles in this newsletter or read the <u>article on the demonstration of the HRS at Geldhauser bus company in Munich</u>.



Making a difference in sustainable transport

INTERACT included the H2-Share project in the publication 'Interreg makes a difference in sustainable transport'. It gathers 22 projects from 9 programmes. Other hydrogen projects in the picture are Hector and H2Ships. The publication was initially planned for the TEN-T days in May 2020

You can access the Interreg brochure on sustainable transport here.



Our next newsletter will focus on the demonstration at Colruyt Group.

Sign up for our newsletter! (https://fuelcelltrucks.eu/newsletter/)

H2-Share is a EU-funded project coordinated by WaterstofNet.

More info on our project space on the Interreg North-West Europe website: www.nweurope.eu/H2share and fuelcelltrucks.eu

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