# Hydrogen Transport Economy for the North Sea Region

#### March 2014

The Hydrogen Transport Economy (HyTrEc) project aims to improve access to and advance the adoption of hydrogen as an alternative energy vector across the North Sea Region. The project will identify and address structural impediments constraining development of, access to and adoption of this alternative fuel in urban and rural settings.

#### The HyTrEc project is about:

- Working with EU partners around the North Sea to facilitate transnational cooperation and learning.
- Enhancing the competitiveness of the North Sea Region in hydrogen development.
- Providing a platform for joinedup working towards a hydrogen strategy across the North Sea Region.



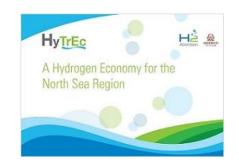
#### The North Sea Region hydrogen strategy in the pipeline

The HyTrEc partnership met in Gothenburg, Sweden in February 2014. Following input from all partners, the North Sea Region strategy on hydrogen is starting to come together with a focus on policy, regulation, communication, education, finance, economics, infrastructure and applications. The findings from the HyTrEc partnership will be presented to the HyTrEc stakeholder group for review. The group is due to meet in April 2014.

Work continues on the modular training material on hydrogen as a fuel and a review of the regulatory requirements of a hypothetical journey in a hydrogen vehicle across the North Sea Region.

Watch the videos from the Gothenburg meeting:

Interview with Rachel Interview with Adwin





The new HyTrEc brochure is available to view which gives an overview of the project as well as the regional activities from project partners across the North Sea Region.

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## Trip to visit PowerCell, Gothenburg, Sweden

On 19<sup>th</sup> February the HyTrEc partners were given a very interesting tour of PowerCell's lab and exhibition space. PowerCell is a spin-off company of Volvo Research and specialises in low temperature PEM fuel cells, and is currently working on stationary power supplies.

The PowerCell team demonstrated their fuel cell systems including applications for the transport industry, the telecommunication industry and the military sector.

The group was set up with the objective to develop and produce environmentally friendly power systems based on a unique fuel cell and reformer technology that matches existing fuel infrastructures. For further information, please visit: <a href="https://www.PowerCell.se">www.PowerCell.se</a>

#### **Hannover Messe**

HyTrEc will be at Europe's largest hydrogen, fuel cells and battery exhibition taking place at Hannover Messe, Germany from 7 to 11 April 2014.

The world's leading trade fair for industrial technology anticipates over 200,000 visitors and 5,000 exhibitors will attend. The trade fair will explore a range of topics including; hydrogen, fuel cells and batteries as well as wind, solar, hydro and geothermal power, energy storage and power plant efficiency.



April 7-11, 2014 Hall 27, B 66

Exhibition Grounds Hannover, Germany

HyTrEc will be there throughout the week and would like to see you at our exhibition stand at booth number 36 where you can find information on regional activities in the project. Come and listen about our latest work, we will be speaking at the event on the following dates:

Tuesday 8 April 2014	Colin Herron	Public forum
12.20 - 12.40 CET		
Wednesday 9 April 2014	Rachel Sharp	Technical forum
10.00 - 10.30 CET		
Thursday 10 April 2014	Adwin Martens	Public forum
11.00 - 11.20 CET		





#### First hydrogen buses roll into Aberdeen

The Aberdeen Hydrogen Bus Project marked a major milestone with the unveiling of the first vehicles of Europe's largest hydrogen bus fleet. The city council has taken delivery of four of the 10 hydrogen vehicles ordered from Belgian firm Van Hool as part of the Aberdeen Hydrogen Bus Project. The others are due to be delivered in the coming weeks.

The arrival of the buses signals a significant step forward in the Aberdeen Hydrogen Bus Project – the most high-profile of a range of projects designed to create a hydrogen economy in the city. Read more.

For further information on the <u>Aberdeen Hydrogen Bus Project visit</u> <u>Aberdeen's Invest Live Visit website</u>.

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#### The WaterstofNet hydrogen filling station achieves a milestone of 1000 uses

On the 3<sup>rd</sup> of February 2014, the WaterstofNet hydrogen refuelling station in Belgium fuelled a vehicle for the 1000th time. WaterstofNet coordinates the development of a joint strategy plan for the implementation of hydrogen in the North-Sea region as part of the HyTrEc project.

The station, built as part of the Interreg-Program Flanders- South Netherlands, has been in use since 2012 at the Colruyt distribution centre in Halle. At the distribution site, forklifts running on hydrogen are being tested and cars are regularly fuelled at the station.

#### The Swedish Hydrogen Infrastructure for Transport National Implementation Plan

The Swedish Hydrogen Infrastructure for Transport project (known as HIT-1) has started springtime with a series of four national workshops in the involved countries (Denmark, France, the Netherlands and Sweden). In the workshops the drafts of the national implementation plans (NIPs) for hydrogen roll out were presented, discussed and improved. Sweden kicked off this series in Stockholm on 5 March.

"As manager of the Hydrogen Sweden association, I am very pleased that in this relatively short time so many key stake holders have chosen to join the Swedish HIT-study" said Bjorn Aronsson from Hydrogen Sweden. "This could therefore very well be seen as the start of a Swedish H2Mobility initiative. On our request the consultancy firm Sweco has performed a well-organised study, developed during five interactive workshops, located in different regions of the country."

Each workshop had a unique theme addressing the following topics:

- Production of hydrogen
- Distribution and storage of hydrogen
- Role and potential of hydrogen for transport
- **Policies**
- Proposal for Implementation

The last workshop also included valuable participation with presentations from the other three HIT countries. Key findings so far are:

- The right stakeholders have been addressed in order to get a wider view.
- There has been a focus on understanding the customer's benefits.

Decisions for deployment of a network of hydrogen infrastructure cannot wait if the Swedish environmental target for zero emission from transport in 2050 is to be reached.

Visit the Hydrogen Infrastructure Transport website.

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### Denmark predicts hydrogen vehicles set to be the new black in the automotive industry

During February and March 2014, as part of the launch of the hydrogen infrastructure in Denmark, Green Network and its partners offered the opportunity for citizens to see the latest in hydrogen technology and take a test drive in a hydrogen car.

Stakeholders were invited along to a series of events in Denmark to learn more about the possibilities of hydrogen transport technology and offered the chance to see and drive a Hyundai ix35 hydrogen fuel cell vehicle.

For more information, visit the partner page.



There was great demand to test the hydrogen car from Hyundai among the young mechanics when it visited Vejle, Denmark on Wednesday 5 March 2014.

## **Launch of Aberdeen Smarter City and Hydrogen Strategies**

On 27<sup>th</sup> November, Aberdeen City Council held a roundtable event in Brussels, through which to launch the City's Smart Aberdeen document, as well as raise awareness in Europe of the City's Hydrogen Strategy Framework. The event was a valuable opportunity for stakeholders to learn more about HyTrEc and was very useful in offering a platform to discuss some of issues the partnership are discussing around the roll-out of hydrogen technologies in Europe. The meeting was chaired by Alyn Smith MEP and attendees included representatives of DG Energy, DG Move, DG Research, as well as industry representatives.



Paul Turner and Hugh Murdoch discuss HyTrEc's hybrid hydrogen vans, which are set to arrive in 2014.



Highlighted at the event was the importance of availability of hydrogen fuelling stations for the hydrogen car to truly breakthrough in Denmark.



Michael Castle from H20 Logic briefs a group of young mechanics who could be involved in the repair and maintenance of hydrogen vehicles across Denmark as the technology progresses.

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#### **HyTrEc Education Forum**

Gateshead College has set up an Education Forum, which offers a great opportunity to meet colleagues and discuss hydrogen training and education. The group was set up in Summer 2013 and has 56 members so far.



Visit LinkedIn to sign up for the HyTrEc Education Forum

#### Study trip to Hydrogen London

Kevin White and Colin Herron from Gateshead College visited the hydrogen bus depot in Leyton, East London in March 2014.

The visit enabled the team to see the hydrogen fuelling station, storage, bus workshop and bus.





**European Union** 



#### **HyTrEc partners include:**

- Aberdeen City Council, UK www.aberdeencity.gov.uk
- Gateshead College, UK www.gateshead.ac.uk
- Hydrogen Sweden www.vatgas.se
- SP Technical Research Institute of Sweden

www.sp.se

 European Institute for Innovation (Elfl), Germany

www.eifi.eu

- WaterstofNet, Belgium www.waterstofnet.eu
- Green Network, Denmark www.greennetwork.dk
- Narvik University, Norway www.hin.no

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