

HyTrEc

Hydrogen Transport Economy for the North Sea Region

November 2013

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 aims of the HyTrEc project are to support

- regional accessibility strategies
- environmentally responsible energy production practices
- developing different modes of transport
- transnational transport corridors
- efficient and effective logistics solutions
- sustainable growth solutions.

Partners from the UK, Germany, Denmark, Belgium, Sweden and Norway have been working together to improve cross border collaboration, share best practice and support joint activities. The project establishes a transnational network which will improve accessibility to hydrogen across the North Sea Region as an alternative energy vector.

The partners met in Gateshead, UK on 16th and 17th October 2013 to discuss developments for the project including:

- The HyTrEc strategy document;
- Development of the HyTrEc Stakeholder Group;
- The Demonstration of hydrogen technologies (page 3).



2nd Partner Meeting, Antwerp, November 2012

This was the fourth partner meeting of the project. The first was a kick-off meeting in Aberdeen in July 2012 and following that were meetings in Antwerp in November 2012 and near Bremen in March 2013. Some of the partners, along with regional stakeholders, also took part in a study visit to three hydrogen sites in and around Berlin in September 2013. The project's initial conference was at All Energy in Aberdeen, in May 2013 attended by some partners.

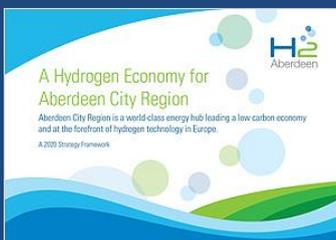
Study trip, September 2013



Gateshead College has produced a poster to represent the developments in the region. To download the HyTrEc – Gateshead poster [visit the HyTrEc website.](#)



The Strategy Framework is available to [download from the HyTrEc website.](#)



Aberdeen’s Hydrogen Strategy launched at All Energy

Aberdeen's plans to create a hydrogen economy in the Granite City, securing its place as a centre of excellence in hydrogen technologies were unveiled on 23rd May 2013.

City Council leader Barney Crockett launched the hydrogen strategy framework – A Hydrogen Economy for Aberdeen City Region at the All-Energy event at the Aberdeen Exhibition and Conference Centre in May 2013.

A Hydrogen Economy for Aberdeen City Region is a strategy framework to reinforce the area's position as the energy city now and in the future.

With the transferable oil and gas expertise and infrastructure that the area has, along with renewables capacity, hydrogen offers an exciting opportunity to develop and diversify the energy industry, maximise the capacity and value of renewable energy and give greater energy security.

The high level actions that are presented in Aberdeen’s Strategy Framework are based on early joint-working with HyTrEc partners, which led to the identification of four themes to the roll-out of hydrogen technologies: infrastructure and applications; communication and education; policy and regulation; and finance and economics.

[Further information is available on the Aberdeen City Council website.](#)

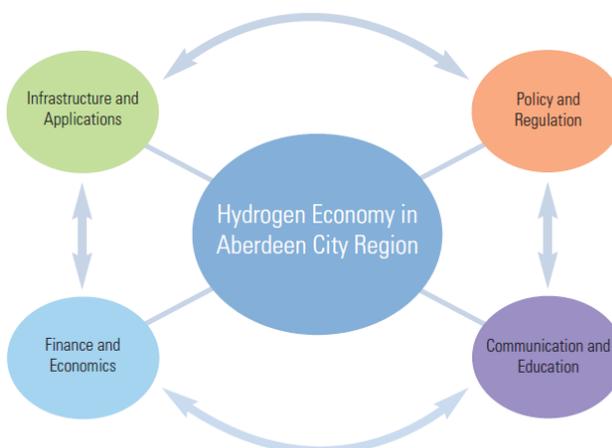
HyTrEc Education Forum

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 44 members so far.

[Visit LinkedIn to sign up for the Hydrogen Transport Economy \(HyTrEc\) Education Forum.](#)



Key themes to the strategic framework of Aberdeen City Region’s Hydrogen Economy





PARTNER NEWS

Green Tech Center

Opened on 30 October 2013 in Vejle, Denmark, the Green Tech Center will be a hub for low carbon energy technology it will also be on a smart grid, have district heating and energy from wind. HyTrEc project partner Green Network has been part of the project.

The Green Tech Center offers entrepreneurs, researchers, educators and businesses a unique combination of offices, laboratories, classrooms and testing centre. The Center includes:

Green Tech House – a 4,000 m² large cluster house in 3 levels with a central and visible location near the E45 motorway.

Green Tech Park – a 16, 000m² energy park with integrated energy infrastructure for electricity, district heating, cooling and data monitoring; The park is designed for easy installation of new renewable energy generation and storage products from wind, solar, fuel cells and ground.

Smart Grid data is collected for further development and demonstration. The park is intended for manufacturers, researchers, education and government who want to work with renewable energy production and storage in a smart grid context.

Green Tech Lab – a 1,200 m² laboratory which houses teaching facilities, workshop, entrepreneur rooms as well as a smart grid control, which groups all energy data from the energy park. The lab is intended for energy park exhibitors, entrepreneurs and research and teaching to test and demonstrate energy solutions in theory and practice.

For further information see the [Green Tech Center brochure](#).

Photograph below: The HyTrEc Demonstration refuelling station is now based on site at the Green Tech Center, Vejle, Denmark.



Offer of €1.2million EU funding to introduce 100 hydrogen buses to Scotland for study

A potential opportunity to develop of a Scotland-wide fleet of 100 hydrogen buses has been raised by the European Fuel Cell and Hydrogen Joint Undertaking (EFCH JU). [For more information visit the HyTrEc website.](#)

Scandinavia makes the Next Move



HyTrEc project partner [Hydrogen Sweden](#) is involved in [the Next Move project](#). Regions and municipalities in the Öresund - Kattegat – Skagerrak area have expressed a political will to enforce the use of emission-free vehicles. This aim brings some costly and complex challenges, such as procurement of a new type of vehicle, competence building regarding servicing and maintenance of the new technology. The great value of the Next Move project is that it brings together early users for operational and strategic cooperation that will show very visible results.

The project is financed by the EU-program [Interreg IV A Öresund – Kattegat – Skagerakk](#). It has a total budget of around EUR 6 million and runs 2011–2014. Skåne Regional Council, the southernmost county of Sweden carried out the first public procurement for FCEVs in Sweden. In the spring of 2013 two Hyundai IX35 FCEVs were delivered. Another big part of the project is the Road Tour which aims to bring public awareness of hydrogen and FCEVs. The FCEVs from Next Move have been displayed in Denmark, Norway, Sweden and Finland.



Waterstofnet

On Friday 29th November WaterstofNet holds its third conference discussing the Flanders / South Netherlands region's activity in Interreg.

This conference aims to give attendees a clear picture of the results and perspectives in the field of hydrogen in the region with leading speakers from industry, government and the EU. Subsequently, the hydrogen fuelling station commissioned by WaterstofNet will be officially opened in Hemond. Speakers at the conference include Bert de Colvenaer, Executive Director Fuel Cells and Hydrogen Joint Undertaking and Adwin Martens, Director of WaterstofNet. [A full agenda is available on the Waterstofnet website](#) (in Dutch).

Hyacinth project

Aberdeen City Council has become a partner of the recently approved project Hyacinth, supported by the 7th Framework Programme. HYdrogen ACceptance IN the Transition pHase aims to:

- Identify and understand awareness and acceptance of hydrogen energy and fuell cell and hydrogen (FCH) technology and perceived potential benefits (added value).
- Identify the main drivers of social awareness and acceptance of FCH technologies.
- Support stakeholders (such as industry, project managers, policy makers) by providing a social acceptance research toolbox.

LOWCAP video



[The Low Carbon Regions in the North Sea \(LOWCAP\) cluster project produced a video](#) showcasing the best practice examples of low carbon projects happening within the Aberdeen region including developments in hydrogen technology.

Launch of Aberdeen Hydrogen Buses

The Aberdeen Hydrogen Bus project is a large transport demonstration project (> €23 m), looking to build on the learning from earlier demonstration projects across the EU and contribute to the environmental and economic case for incorporating hydrogen technologies into cities in the future. Part of the HighVLoCity and HyTransit projects, this will be Europe's largest fleet of hydrogen fuel cell buses. The project is testing fuel cell technology, looking at comparisons of operational issues with diesel equivalents; Investigating economic and environmental impacts. The Aberdeen buses are currently in production for use in mid-2014.



This graphic shows what the refuelling station at Kittybrewster depot in Aberdeen will look like, which also includes electrolyzers for producing the hydrogen.



HyTrEc partners include:

- Aberdeen City Council
- European Institute for Innovation
- Narvik University College
- WaterstofNet
- Gateshead College
- Green Network
- Hydrogen Sweden
- SP Technical Research Institute of Sweden.

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*Investing in the future by working together
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