HyTrEc2

Hydrogen **Tr**ansport **Ec**onomy for the North Sea Region

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1 June 2023

[Toyota Mirai waterstofauto 2015 autotest - ANWB Auto - YouTube]

Toyota Mirai waterstofauto 2015 autotest - ANWB Auto

ANWB Auto
16,9K abonnees
Abonneren
60
Delen

The hydrogen economy – Vision or reality? [1] ☆,

Michael Ball [a], Marcel Weeda [b]

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https://doi.org/10.1016/j.ijhydene.2015.04.032 ↗

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The hydrogen infrastructure challenge and how to overcome it

Without a convenient hydrogen refuelling infrastructure, no one buys a fuel cell car, and car manufacturers have no incentive to produce those vehicles in the first place. But until some choice of FCEVs is offered by car manufacturers and market conditions are created such that demand for the cars can arise, there is no point in building a network of hydrogen retail stations. This has been the classic chicken-and-egg dilemma, ever since hydrogen has been considered a potential vehicle fuel....

Hydrogen Transport Economy in the North Sea Region2 (Call 2) (HyTrEc2)

A.1 Master data

Project Type	Full Application
Call	Call 2 January 2016: EoI and FA
1.1 Project title	Hydrogen Transport Economy in the North Sea Region2 (Call 2)
1.2 Project acronym	HyTrEc2
1.3 Lead Beneficiary	Aberdeen City Council
1.4 Start Date	02/10/2016
1.4 End Date	10/10/2021
1.5. Programme Priority	Priority 4 Promoting green transport and mobility
1.6. Specific objective	4.2 Stimulate the take-up and application of green transport solutions for regional freight and personal transport

A.2 Summary

A.2 Project Summary	With 94% of transport currently oil based, green transport solutions such as hydrogen will play a key role in achieving EU energy and climate change targets. Hydrogen Fuel Cell Electric Vehicles (FCEVs)are key as they have a larger range than electric battery vehicles and this extended range is essential in the North Sea which has a large number of small and medium sized cities with a large suburban and rural hinterland. Currently there is market failure caused

Interreg North Sea Region HyTrEc2 European Regional Development Fund

EUROPEAN UNION

HyTrEc2 Hydrogen Transport Economy for the North Sea Region

Vision

Stimulating hydrogen fuelled transport solutions for business, for the environment, for the future.

- The Hydrogen Transport Economy (HyTrEc) 2 project is part of the Interreg VB North Sea Programme Region Programme and is partly funded by the European Regional Development Fund.
- Falls within programme Priority 4: Promoting green transport and mobility
- Project from from **2016 to 2023.**
- **Lead partner is Aberdeen City Council : programme manager is Louise Napier**

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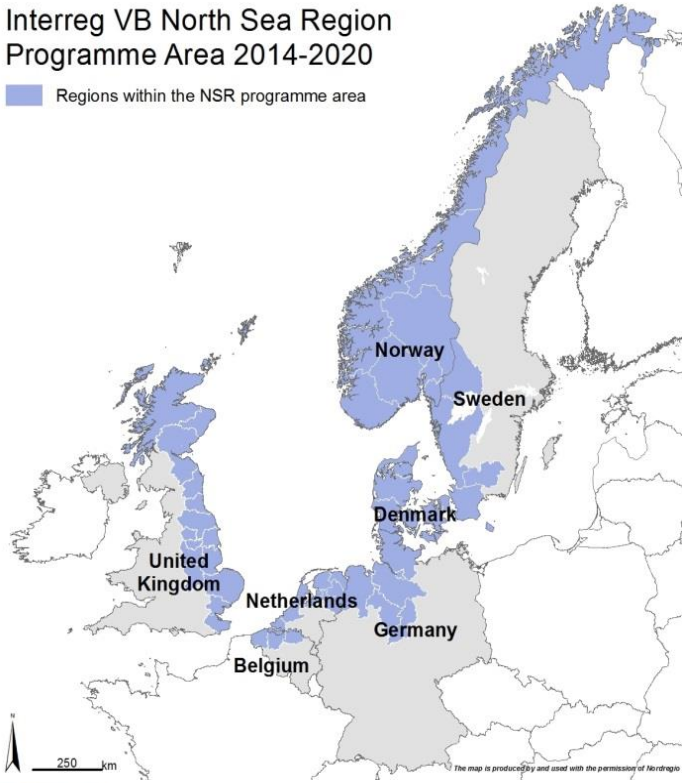
HyTrEc2 Partners

ABERDEEN CITY COUNCIL

European Institute for Innovation
Europäisches Institut für Innovation

cenex

Aberdeenshire COUNCIL



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Scope

Deployment H2 vehicles & refueling infrastructure

Research life cycle analyses

Monitoring

Business Cases

Training modules

Value chain mapping

Vehicle Deployments – Fuel Cell Electric Vehicles

- Hyundai ix35s in Groningen
- Toyota Mirais in Aberdeen City and Aberdeenshire
- Hyundai Nexos in Drenthe and Aberdeen City
- Waste trucks in Groningen
- Vehicles mainly used by staff but in some cases placed on Car Sharing Clubs for citizens to try

Vehicle Deployments – Retrofitting

- Streetscooter in Groningen
- Renault Kangoos in Groningen and Aberdeen
- Nissan env200 van in Aberdeen
- DAF H2ICEd Roadsweeper
- Mix of electric + hydrogen range extenders and hydrogen-diesel injection

Green Hydrogen Production, Storage and Distribution

- Hydrogen Refuelling Station connected to solar array in Groningen
- Hydrogen refuelling station using green tariff electricity in Aberdeen
- Hydrogen refuelling station in Narvik
- Business cases for renewables and green hydrogen production in Drenthe, Aberdeen Hydrogen Hub and RISEs Economic Modelling for Green Hydrogen in the NSR

Retrofit Ground Power Unit

- Holthausen Clean Technology
- KLM Equipment Services
- Noorderpoort (student Vincent)
- Hanzehogeschool (Cor Scholte)
- Groningen Airport Eelde
- Rijksuniversiteit Groningen