

Results of the Network's Activities

The activities of the Fuels and Drives of the Future Network involve its participation in various projects. Below are a number of examples:

"NRW - Window to the World" for sustainable mobility solutions in conurbations

Synthetic fuel from natural gas (GtL - Gas to Liquid) has been available in limited quantities for about 10 years. The greatest quantities currently come from Qatar. Under the "Mega City Concept" it is planned to use this fuel primarily in conurbations with high densities of vehicle fleets – for example buses and taxis. This will mean that the emission-cutting effects of the new fuel will soon become evident. For Germany the Ruhr Region is an ideal area for demonstrating, even now, the advantages of a clean fuel technology – together with leading German diesel engine technology.

"UBA Test Vehicle" - Project conducted together with the Institute for Motor Vehicles, Aachen (IKA)

On instruction of the German Federal Environmental Agency, the potentials for increasing the efficiency of cars have been investigated. The base vehicle chosen was the VW Golf 1,4 I TSI with 125 kW, a volume model with economic petrol engine and above-average kilometric performance figures. Efficiency-enhancing measures - including long transmission ratio, shift indication, automatic start-stop system, heat accumulator, mirror replacement system, low-rolling-resistance tyres, light-weight components and fuel-economy oils - have resulted in a reduction of CO₂ emissions of 24 per cent.



REGIONOL - A regional bioethanol project

In Münsterland region the bioethanol value chain has been completed from production to distribution using a company filling station and a public filling station. The fuel is marketed under the brand name REGIONOL. The advantage of decentralised raw spirit production is that the distilleries can be linked with biogas plants or straw-fired heating systems.

MEET - Münster Electrochemical Energy Technology

MEET is the newly founded battery research centre in the Westphalian Wilhelm University of Münster. Here an international team of more than 50 scientists are working on innovative electrochemical storage systems with improved output, longer service life, substantially greater energy and maximum safety.

The aim of the batter research is to continue the development of lithium-ion batteries for large-scale applications in automobiles or also to store regeneratively produced energy.

Imprint:

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EnergieRegion.NRW

The Fuels and Drives of the Future Network is part of the EnergyRegion.NRW Cluster. The cluster EnergyRegion.NRW offers a unique of concentration of energy-economic expertise, due to its mixture of multinational corporations, medium sized companies, as well as research institutes. In eight networks of the Cluster EnergyRegion.NRW are companies, associations, universities and institutes interconnected along the entire value chain. The activities of the cluster are supported by the cluster policy of the state government of North Rhine-Westphalia and funded through the NRW-Target-2 Programme of the European Union. The EnergyAgency.NRW manages the EnergyRegion.NRW Cluster



Fuels and Drives of the Future Network

Sustainable Development of Mobility



The Fuels and Drives of the Future Network

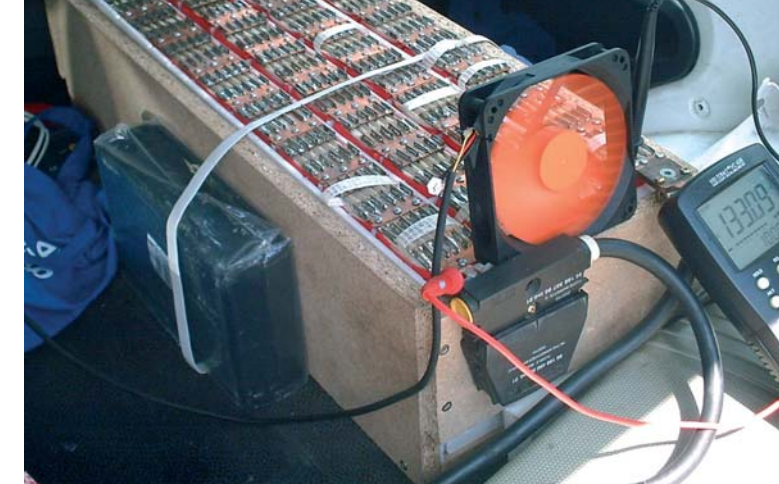
The cluster policy being pursued in the Energy Region of North Rhine-Westphalia the theme of mobility issues plays a major role. That is why the EnergyAgency.NRW launched the network "Fuels and Drives of the Future". The aim is to muster all the forces along the respective value chains in order to develop joint solutions for future forms of mobility. This also encompasses the development of new technologies and the testing of new business models.

The Network's Objectives

- Establishment of the Energy Region of North Rhine-Westphalia as an attractive and leading hub for activities in the field of sustainable fuels and related drives
- Identification of potential Network partners, their strategies and their chances for development
- Combination of all relevant competencies in the value processes from the extraction of fuels through to the consumer
- Creation of a solid basis for the expansion and settlement of companies and the establishment of new ones in North Rhine-Westphalia
- Sustainable creation of jobs in the field of forward-looking fuel and drives technologies
- Increase in the acceptance of future fuels and drives including in the international environment

Tasks

- Development, conduct and support of projects by setting up a basis for the co-operation between science and industry
- Information and communication platform for players from research, production and services
- Internationalisation through trade fair presentations and setting up of contacts with related initiatives at home and abroad
- Public relations in the form of an Internet presentation and publications in the specialist media
- Settlement consultancy in co-operation with regional industrial funding sources, support in the implementation of the settlement of companies
- Qualification measures in the form of workshops, training courses and visits to companies



Special Areas of Work

Fuel products

- natural gas / biogas
- oil products
- biodiesel (admixture / B 100)
- ethanol (admixture / E 85)
- synthetic fuels (designer fuels) GtL, CtL, BtL
- hydrogen in the overall fuel scenario

New engine and drive technologies

- combined combustion engines
- hybrid systems (micro, mild and full hybrid)
- electrification of the power train through to electromobility

Accumulator technologies

- development of high-powered batteries

Regional location development

- development/assessment of fuel scenarios from the producer to the filling station
- regional aspects of fuel supply (e.g. vegetable oil / biogas)
- marketing of new concepts in the region
- settlement of new technologies in NRW

