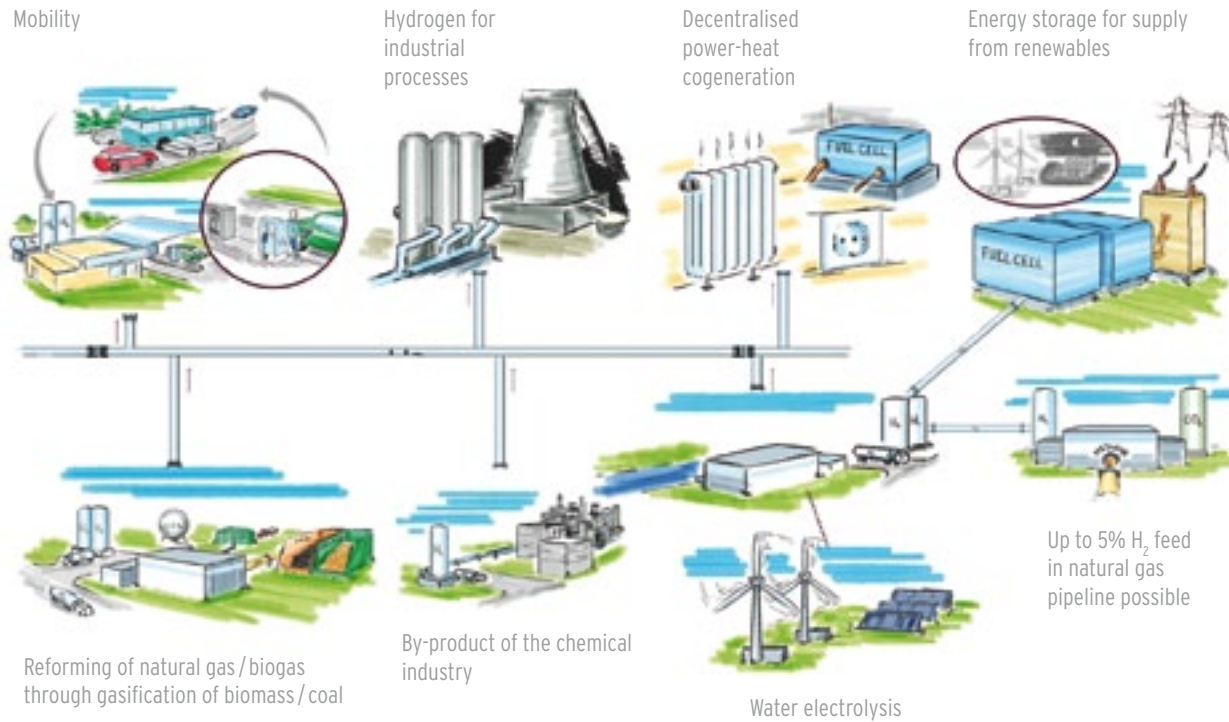


KEY ROLE OF HYDROGEN AS AN ENERGY CARRIER TO FACILITATE THE ENERGY TRANSITION IN GERMANY



HYDROGEN MOBILITY GETS GOING



NIP IS ...



In 2006, Government, industry and science initiated the National Innovation Programme Hydrogen and Fuel Cell Technology (NIP) strategic alliance. NIP intends to significantly accelerate the process of market preparation of products based on this future-oriented technology. The total budget spanning the 10-year term of the programme until 2016 amounts to 1.4 billion euros. The funds are provided in equal parts from the federal government - the Federal Ministry of Transport, Building and Urban Development (BMVBS) and the Federal Ministry of Economics and Technology (BMWi) - with the remaining 50% coming from participating industry.

NOW IS ...



NOW GmbH (National Organisation Hydrogen and Fuel Cell Technology) was founded in 2008 by the Federal Government, represented by the Federal Ministry of Transport, Building and Urban Development (BMVBS). The task of NOW is to coordinate and manage two federal funding programmes: the National Innovation Programme Hydrogen and Fuel Cell Technology (NIP) as well as the Electromobility Model Regions of the BMVBS.



CLEAN ENERGY PARTNERSHIP (CEP)

- 15 companies are jointly testing hydrogen mobility under everyday conditions
- Growing fleet of fuel cell vehicles in deployment
- Hydrogen refueling stations are in test operation
- Fuel cell buses deployed in daily local public transport services

KEY ACHIEVEMENTS

- Safety of stations proven
- Refueling standards agreed
- Storage and compressor technology tested
- H₂ supply chain tested

HYDROGEN: A CO₂-FREE FUEL AND ENERGY STORAGE MECHANISM

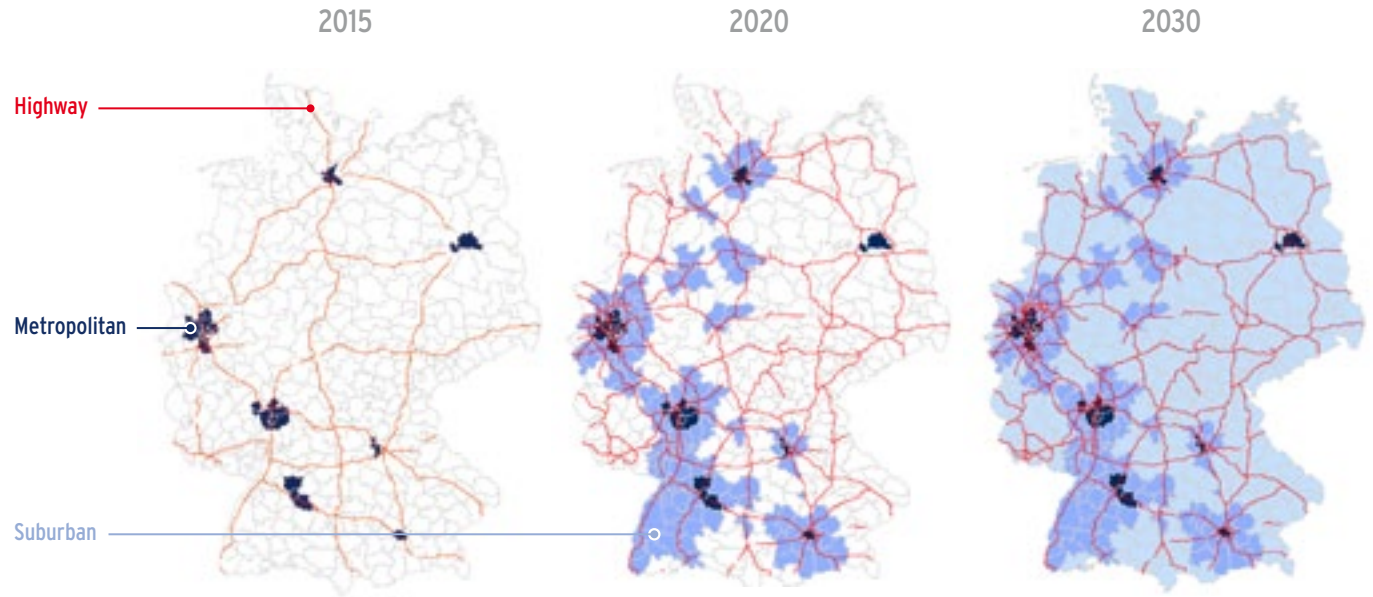
- In the further development of renewable energy, hydrogen is without equal as a means of storing energy in large volumes and for long periods.
- Through the use of green hydrogen as a CO₂-free fuel, the transport and energy fields will be linked, creating new supply chains and jobs in Germany.

POLITICS AND INDUSTRY

From 2014/15 hydrogen-operated fuel cell vehicles will come onto the market. An adequate number of hydrogen fuelling stations will be required which at first will not be fully utilised. Industry and politics must find a way to together bear the initial burdens until profitability is reached. H₂ Mobility is an initiative of industrial companies which discuss the joint building up of a hydrogen infrastructure in Germany.

POTENTIAL HYDROGEN REFUELING STATION (HRS) ROLLOUT IN GERMANY

■ Tier 1 regions ■ Tier 2 regions ■ Tier 3 regions



No. of FCEVs Thousands	~ 5	~ 150	~ 1,800
No. of HRS	~ 100	~ 400	~ 1,000
Total population covered by HRS Percent	~ 20	~ 60	~ 100

Source: H₂ Mobility

H₂ Mobility is an initiative of industrial companies to analyse the joint development of a hydrogen infrastructure in Germany.

