



H₂ Working Group

for the administrative district of Münster

SHORT
VERSION

H₂-Ramp-up

in the Technology and User Region



Industry



Heat



Mobility



International

Our region as the key to transformation:
The future of H₂ in Germany will be decided here

Industry Priorities



1

Timely expansion of the H₂ line infrastructure

The timely expansion of the H₂ core network with the connection of storage facilities, large-scale electrolyzers, import ports and hydrogen-capable power plants is necessary. The targeted commissioning date of 2027 must be met so that the conversion of large industrial plants can be carried out as part of the usual renewal cycles.

This also includes the expansion of interconnectors to our neighboring countries. In the short term, more than half of our demand for H₂ will have to be imported, and by 2045, when Germany aims to be climate-neutral, it will even be 90% according to the NRW H₂ import concept. Pipelines are usually the cheapest and safest way to import large volumes of H₂, especially for use in industry.

When building the necessary distribution infrastructure, both the demand for connection points must be determined and satisfied as far as possible and sustainable H₂ must be available in the upstream grid.

2

Development of regional distribution infrastructures

The locations of medium-sized companies are usually not on the routes of the core network, meaning that a regional distribution infrastructure is required. In contrast to the transport network, existing natural gas pipelines are rarely available for reallocation, as they will continue to be needed for natural gas supply for the foreseeable future. In addition, a bivalent grid connection with electrons and molecules must also be maintained in the future for energy-intensive companies.

The current focus on supra-regional transport networks leaves large parts of the SME sector out of access to sustainable H₂ and jeopardizes their competitiveness in the medium term.

We are therefore calling for greater consideration to be given to the regional distribution infrastructure and the promotion of hydrogen use in energy-intensive SMEs as part of the National Hydrogen Strategy. It is not enough to focus on the regulatory framework. Targeted government support is also needed to close the profitability gaps in the development and expansion of regional distribution networks. The expansion of supra-regional transportation and regional distribution infrastructure must be complementary. Distribution requires an egalitarian marketing model.

Climate protection agreements are a means of strengthening more climate-friendly production processes and thereby advancing the transformation of the economy. However, the current structure hardly grants SMEs any access. As a result, SMEs cannot survive the transformation without massively jeopardizing their competitiveness.

We are therefore calling for the funding instrument of climate protection contracts to be designed in line with the needs of SMEs.

3

Sharpening transformation incentives, protecting entrepreneurial freedom of choice

This means, for example, targeted support for medium-sized H₂ projects:

- Reduced minimum purchase quantities
- Accept cross-cluster mergers of companies so that they can achieve the required purchase volumes (e.g. climate port in Gelsenkirchen)
- to enable broader eligibility for funding, which also allows decentralized generation and trailer transport

The current verification obligations would have to be standardized. Funding and CO₂ pricing should be designed in such a way that there is planning certainty for CAPEX and OPEX costs so that viable business models can emerge.

4

Rapid implementation of the H₂-acceleration law without a strict color theory

We expressly welcome the simplifications to the approval procedures contained in the H₂ Acceleration Act, in particular the recognition of an "overriding public interest". **It is now important to implement these changes as quickly as possible in the 4th Federal Immission Control Ordinance and the Environmental Impact Assessment Act. In the long term, the aim remains to use green H₂ as far as possible. Low-CO₂ alternatives should also be allowed to be used for a transitional phase.**

5

Implementing European requirements pragmatically

The quota of 42% green H₂ for the year 2030 and 60% for the year 2035 set out in the third revision of the EU Renewable Energy Directive (RED III) is very ambitious in the opinion of the German Hydrogen Council. **We therefore call for this quota not to be imposed on individual companies, but to be demanded at national level.**

The individual companies have only limited influence on the availability of sustainable H₂. Low-emission H₂ will be needed in the transition period, regardless of the "color theory", in order to test new technologies and operate them economically. At the same time, we are very interested in European coordination and work closely with our neighbors in the Netherlands, Belgium and France.

Heat Priorities



1

Expansion of the supply infrastructure using existing gas pipelines

The gas infrastructure is a central part of the "community of fate" of heat, electricity and gas networks. **An integrated approach is necessary to ensure a secure, economical and climate-friendly energy supply.** By modernizing existing gas pipelines, the supply can be secured during the transition to climate-neutral alternatives.

Heat supply areas should therefore be designated on the basis of socio-economic criteria and uniform assessment criteria.

2

Reality check and integration of the economy

Industry needs a secure, cost-effective and climate-friendly heat supply. The high costs and uncertainties surrounding H₂ supply currently pose a major challenge here. The expansion of H₂ production and use must be carried out together with industry in order to ensure competitiveness and at the same time promote climate-friendly solutions. **The development and adaptation of the infrastructure should always be carried out in coordination with the energy and heat suppliers.**

3

H₂ in the heat supply with utilization of unavoidable waste heat

A reliable heat supply requires the permanent availability of one or more energy sources. Sustainable H₂ is currently only available in small quantities, so it does not currently play a role in the heat supply. **H₂ production, storage and use must be expanded in order to make H₂ a viable heat source.**



4

Avoid compulsory connection and use

In order to enable the customized, flexible and efficient use of renewable energies on site, **we are calling for a waiver of the obligation to connect to and use the grid and the promotion of decentralized solutions.** While centralized grids often require extensive infrastructure measures and high investment costs, decentralized H₂ solutions offer a faster and less cost-intensive transition to climate-neutral energy sources during the market ramp-up phase. Companies in rural or inaccessible regions are also less dependent on large-scale grid structures and can control their heat and power supply themselves. This should not prevent the establishment of an efficient municipal heating network (in cities and conurbations).

5

H₂-Heat partnerships

The H₂ infrastructure requires **cooperation across local and national borders.** The German-Dutch HYNENETWORK project serves as a model here. It is upgrading existing gas pipelines for H₂ transportation between the two countries. This cross-border partnership improves access to green H₂ for industrial centers. Such projects strengthen Europe's competitiveness in the global H₂ market and increase security of supply - important steps on the way to a resilient and climate-neutral energy supply.



Mobility Priorities



1

Long-term investment incentives in favor of the H₂ mobility value chain

Targeted and sustainable investment incentives along the entire value chain are crucial in order to anchor H₂ in mobility in the long term. A wide range of measures are required, some of which could be implemented in the short term and without great expense.

In order to promote the use of H₂ heavy-duty vehicles, fuel cell vehicles and vehicles with H₂ combustion engines should be exempt from tolls in the long term and the energy tax on H₂ as fuel should be abolished.

2

Making European requirements more flexible

The European regulations on the production of green H₂, particularly in the context of RED II and Delegated Regulation (EU) 2023/1184, represent significant hurdles for investments in this forward-looking technology. In Germany, these provisions were implemented by the 37th BImSchV, which regulates the production conditions for renewable fuels of non-biogenic origin (RFNBO). The requirements for additionality and simultaneity appear to be particularly problematic here. These requirements significantly slow down the expansion of H₂ production and put H₂ at a disadvantage compared to other technologies, such as battery electric vehicles (BEVs), which do not have to meet such requirements.

There is therefore a need for...

- an extension of the grandfathering clause (suspension for at least 10 production years for production facilities that go into operation before 2030).
- a waiver of the monthly and hourly correlation during the market ramp-up.

3

Need for reliable funding

Under the current CO₂ pricing of fossil fuels, the variable additional costs of H₂ must be bridged in order to make H₂ mobility economically viable. The current main instrument for promoting climate protection, the GHG quota, cannot fulfill this function. Due to the sharp fall in prices, which are now highly volatile, the GHG quota does not provide a stable financing basis for H₂ projects. As a result, the additional costs have to be passed on to end customers, which makes H₂ unattractive.

During the market ramp-up, funding (preferably a combination of OpEx (operating costs) and CapEx (investment costs) funding) is therefore crucial to keep H₂ competitive for end customers at the filling station. As long as economies of scale and learning effects and the associated costs have not been reflected in the supply price, it is essential to resume or continue programs to promote both H₂ infrastructure and H₂ commercial vehicles, regardless of the type of drive.

4

Promotion suitable for SMEs

Only low-bureaucracy funding is effective in driving forward the transition to the H₂ economy. Currently, European and German funding programs are often so complex that SMEs in particular are dependent on external service providers in order to submit funding applications correctly.

We are therefore calling for low-bureaucracy funding regimes that significantly simplify and largely standardize the requirements and verification obligations, particularly with regard to certifications, CO₂ footprint and project details.

At the same time, real incentives for action should be created along the entire value chain in order to sustainably promote investment and innovation in the H economy.²

5

H₂ think cross-sectorally, cross-regionally and internationally in mobility

Mobility, industry and renewable energies must be considered and promoted holistically. Separating funding mechanisms between mobility and industry wastes valuable synergies. Mobility must be understood as a supra-regional, cross-border concept, especially in regions such as North Westphalia, which borders on the Netherlands. The expansion of regional H₂ production and the filling station infrastructure can only be successful if it is carried out in parallel and closely coordinated. Electricity connection capacities are already in short supply in Germany and the Netherlands, and the expansion of the electricity grids is stalling. Here, the use of climate-neutral H₂ and its derivatives, e.g. as Power-to-X technology, offers an opportunity to relieve the pressure on the electricity grid.

The administrative district of Münster is only part of a larger puzzle. With the Alternative Fuel Infrastructure Regulation (AFIR), the EU has already created the necessary guidelines to reform mobility across regions.

International Priorities



1

A cross-border legal framework for H₂

The border region between Germany and the Netherlands offers ideal conditions to act as a testing ground for innovative regulations in the H₂ sector. Both countries face the challenge of aligning their national legislation with the European H₂ directives. The region can play a pioneering role here by testing and adapting experimental regulations that can later be transferred to other regions in Europe. This pragmatic approach would enable faster implementation of H₂ projects and reduce bureaucratic hurdles.

2

Cross-border development of the H₂ infrastructure

A functioning H₂ economy requires a robust and well-connected infrastructure. **The existing H₂ pipeline connections, such as the Dutch Hydrogen Backbone in the Netherlands and the H₂ core network in Germany, must be further expanded.** The integration of storage capacities, such as the salt caverns in Gronau-Epe, is particularly important. The cross-border use of this infrastructure strengthens the resilience of supply chains and enables the large-scale use of H₂ in both countries.

3

Establishment of common educational standards

One of the most important prerequisites for the successful development of an H₂ economy is the training of qualified specialists. There are already initial initiatives in the border region to establish educational standards for academic and vocational training in the H₂ sector. Programs such as the H₂! Academy or new courses of study such as "Hydrogen Systems and Renewable Energies" at the Westphalian University of Applied Sciences offer tailor-made qualification paths. **Harmonizing these educational programmes across borders would promote the mobility of skilled workers and strengthen the region's innovative power.**

4

TECHLAND: Strengthening cross-border cooperation

The success of the H₂ economy depends to a large extent on close cooperation between companies, research institutes and political players. The TECH.LAND program promotes the cross-border exchange of best practice examples and supports the transfer of knowledge between the regions. This networking offers the region competitive advantages and enables shorter development cycles for technologies such as electrolyzers and fuel cells.

5

Cross-border H₂ mobility

In order to drive forward the decarbonization of mobility in the border region, a joint mobility concept is needed that optimizes the use of H₂ in various transport sectors - especially in heavy goods transport, shipping and aviation. So far, mobility projects in the region have been largely limited to national initiatives. **We are therefore calling for a joint strategy that takes into account the specific requirements of both countries and thus not only strengthens the logistics infrastructure, but also helps to reduce CO₂ emissions in transport.**





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