NRW.GLOBAL BUSINESS
Trade & Investment Agency

Hydrogen in Rheinisches Revier

Power the Wave of Change

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Located in the west of Germany's economically strongest state of North Rhine-Westphalia, Rheinisches Revier has set a clear plan for becoming climate-neutral while at the same time remaining a center of industry. While that may seem like a contradiction at first, the region's transformation is right on track. After all, a strong hydrogen ecosystem is growing in Rheinisches Revier – and it offers plenty of space and potential for international investors.



Be part of an emerging international H_2 hub

With around 460,000 employees, the energy-intensive industry sector is the key to North Rhine-Westphalia's leading economic role in Europe. To maintain this position after the coal phase-out, a large-scale expansion of the hydrogen economy is needed. NRW is well on its way, supported by the largest H_2 pipeline network in Germany. The Government of North Rhine-Westphalia strongly supports the ramp-up of the hydrogen economy. Hydrogen and its derivatives are essential to achieving climate neutrality and maintaining NRW as a competitive energy and industrial hub. Key priorities include building infrastructure for hydrogen production, storage, and transport, expanding electrolysis capacity for green hydrogen, and attracting companies and production sites for hydrogen technologies in NRW. And Rheinisches Revier, a key center of energy-intensive industry, is playing a decisive role in this transition.

The region already enjoys a very prominent position in the hydrogen value chain. Future-oriented projects and initiatives are being developed throughout the region. So it will come as no surprise that a study from 2022 indicates enormous job and sales potential for the H_2 industry in Rheinisches Revier.[1]

[1] Zukunftsagentur Rheinisches Revier, „Wasserstoffwertschöpfungskette im Rheinischen Revier – Kurzstudie", October 2022

RHEINISCHES REVIER

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Supported by:
Federal Ministry for Economic Affairs and Energy
on the basis of a decision by the German Bundestag

Hydrogen in NRW and Rheinisches Revier: Facts & Figures

240-km

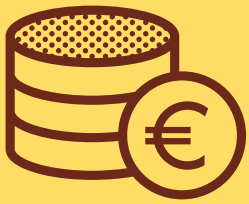
pipeline network in North Rhine-Westphalia – set to double by 2030

11,000

H_2-powered trucks and 3,800 buses by 2030

700

million EUR in **turnover,** 4,500 future jobs in Rheinisches Revier's H_2 industry

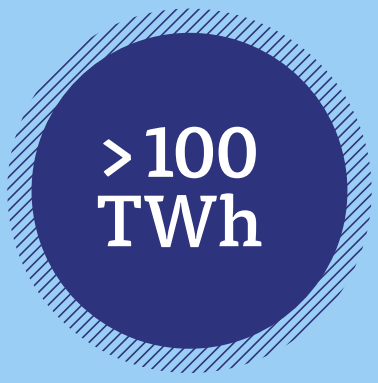


860

million EUR in funding for the **Helmholtz Cluster Hydrogen**



of hydrogen **currently used** in NRW's industry



of hydrogen in industrial use **by 2050**

460,000

employees in NRW's energy-intensive sector



Be part of a vital industrial network

Rheinisches Revier already has a broad portfolio of highly-innovative companies covering various parts of the hydrogen value chain.

Company	Role in the value chain	Portfolio
BOLLFILTER	**Filtration**	Develops customized filtration systems for liquids and gases across the green hydrogen value chain, from feedwater filtration for electrolyzers to high-pressure gas and liquid filtration for hydrogen and synthesis products.
Ecoclean GmbH	**Equipment & systems for parts cleaning/surface treatment**	Develops, manufactures and sells industrial machines and services for component cleaning, cleaning trials, surface treatment.
FEV Group	**Mobility powertrain & systems engineering**	Provides engineering, testing, development services for combustion engines, electric and hydrogen drives, software, and instrumentation.
Griesemann Gruppe	**EPC & engineering + industrial services**	Provides engineering, construction, installation and maintenance of industrial plants.
iGas energy	**Circular economy & renewable hydrogen systems**	Builds systems that convert aqueous organic waste into syn-gas (HyGas), recover nutrients (e.g. phosphor), and produces hydrogen via high-pressure PEM electrolyzers.
Kessels	**Industrial supply & gas services**	Sells welding equipment, technical gases, gas-pressure vessel inspection, storage and transport systems.
Neoxid Group	**Hydrogen components & sensor tech**	Develops and sells hydrogen sensors, catalytic hydrogen burners, and H_2 catalysts.
NEUMAN & ESSER Group	**Gas & compressor/ energy conversion technology**	Wide product range across the hydrogen value chain – from electrolyzers to steam reformers to compressors and hydrogen refueling stations.

NPROXX	**Hydrogen storage tanks & pressure vessels manufacturing**	Designs, manufactures and delivers fiber-composite hydrogen storage tanks and systems for transport and stationary use.
Omexom	**Energy infrastructure engineering & maintenance**	Delivers planning, construction, installation, maintenance of energy networks (transmission, substation, e-mobility, etc.).
Propan Rheingas GmbH & Co. KG	**Energy supply & gas/energy technology services**	Supplies LPG, natural gas and electricity; sells gas equipment, heating and energy-efficiency systems.
RWE	**Mining; generation; trading; renewables development**	Sells electricity and guarantees of origin on wholesale markets.
STAWAG	**Municipal energy & utility services**	Supplies electricity, gas, district heating, water and wastewater services.
Yncoris	**Industrial & infrastructure services for chemical parks**	Operates and services infrastructure in chemical parks including utilities, pipelines, wastewater treatment.

Be part of ambitious projects

There are several hydrogen flagship projects in Rheinisches Revier. Including the Helmholtz Cluster Hydrogen, currently one of Germany‘s largest H_2 infrastructure projects.

H2 Bedburg	Builds an electrolyzer with a hydrogen filling station and refueling facility in the Mühlenerft industrial park to provide locally produced green hydrogen for public transport and businesses starting in 2026.
Helmholtz Cluster Hydrogen (HC-H2)	Advances innovative hydrogen technologies for the production, storage, logistics, and use of green hydrogen. Working closely with companies and local authorities, the project focuses on developing a sustainable and infrastructure-compatible hydrogen economy in Rheinisches Revier through applied research and large-scale demonstration projects.

HyDn GmbH	Strengthens hydrogen technologies and the regional value chain at Brainergy Park Jülich, an innovation-driven technology and business park closely linked to Forschungszentrum Jülich.
REFHYNE	Operates PEM electrolyzers to produce green hydrogen, replacing part of the fossil-derived hydrogen and reducing CO_2 emissions in refinery operations, while generating revenues through hydrogen use, decarbonization value, and regulatory support.

Be part of strong clusters and networks

Industry, politics, and science are joining forces through dynamic clusters and networks in virtually every part of Rheinisches Revier. A major asset for investors looking to gain a foothold in the region.

H2 HUB Rheinland	Facilitates the development of hydrogen infrastructure and demonstration projects in Rhein-Kreis Neuss, fostering collaboration between industry, municipalities, and research stakeholders.
H2.NRW	Acts as the central point of contact for all questions and support needs related to hydrogen in North Rhine-Westphalia. It provides companies with consolidated information on hydrogen, support in project implementation, access to funding, and opportunities for networking.
HyCologne	Operates as a public-private network supporting large-scale hydrogen projects and the market rollout of hydrogen technologies across the greater Cologne area and adjacent parts of Rheinisches Revier.
Hydrogen HUB Aachen	Coordinates regional stakeholders in the Aachen region – including Düren, Euskirchen, and Heinsberg – to build a model hydrogen region with integrated infrastructure, mobility, and production projects.
IN4climate.RR	Supports the industrial transformation of Rheinisches Revier by connecting climate policy, research, and industry to drive hydrogen-based decarbonization in energy-intensive sectors.

Be part of a powerhouse for applied hydrogen research

One of the most prominent features of the hydrogen hub in Rheinisches Revier is its dynamic, business-oriented scientific landscape, which translates research into practical applications.

Forschungs-institut Jülich – Institute of Energy and Climate Research	Conducts advanced research in hydrogen technologies, focusing on sector coupling, PEM electrolysis, and the development of cell components, catalysts, membranes, and system integration. As a leading institution in the Helmholtz Cluster for a Sustainable and Infrastructure-Compatible Hydrogen Economy (HC-H2), the Forschungszentrum Jülich drives innovation and scientific progress in the hydrogen sector.
Fraunhofer IPT – Institute for Production Technology	Specializes in the industrialization of hydrogen technologies, focusing on scaling up electrolyzer and fuel cell production. Applies expertise in advanced manufacturing processes, automation, and system engineering to accelerate the development and deployment of hydrogen systems.
DLR Institute for Future Fuels	Develops technologies for solar-thermal hydrogen production using renewable energy and novel reactor systems. Conducts research on reactive materials and high-efficiency receivers to enable the integration of hydrogen into future energy systems.
RWTH Aachen University	Engages in cutting-edge hydrogen research through dedicated centers such as the Center for Sustainable Hydrogen Systems and the Fuel Cell Industrialization Center (FCI), positioning RWTH Aachen as a leading German technical university in advancing hydrogen technologies.
FH Aachen – Solar Institute Jülich	Focuses on renewable energy storage, hydrogen systems, and the integration of photovoltaics with electrolysis. Plays a central role in applied hydrogen research and in advancing regional energy transition strategies.

Our services for investors

Rheinisches Revier's transformation is a high-priority political project, for which the German federal government and the state of NRW have set aside 14.8 billion EUR. The hydrogen ramp-up is a central pillar of the region's development, so there's a variety of funding opportunities. NRW's trade agency NRW.Global Business helps investors get the most out of their options – long before and after they've settled in the region.

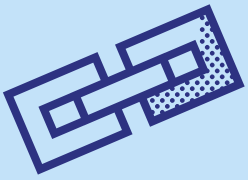
Consulting and planning

Consulting services regarding financial, real-estate and networking questions



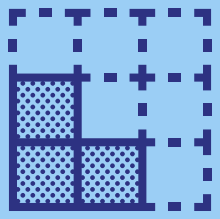
Location selection

Scouting for locations, shaping regional partnerships and support for identifying suitable funding instruments



Growth support after initial setup

Keeping track of companies' development and supporting them with expansion plans



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