Technologieförderung Münster GmbH

wfc Wirtschaftsförderung Kreis Coesfeld GmbH

Wirtschaftsförderung Münster GmbH

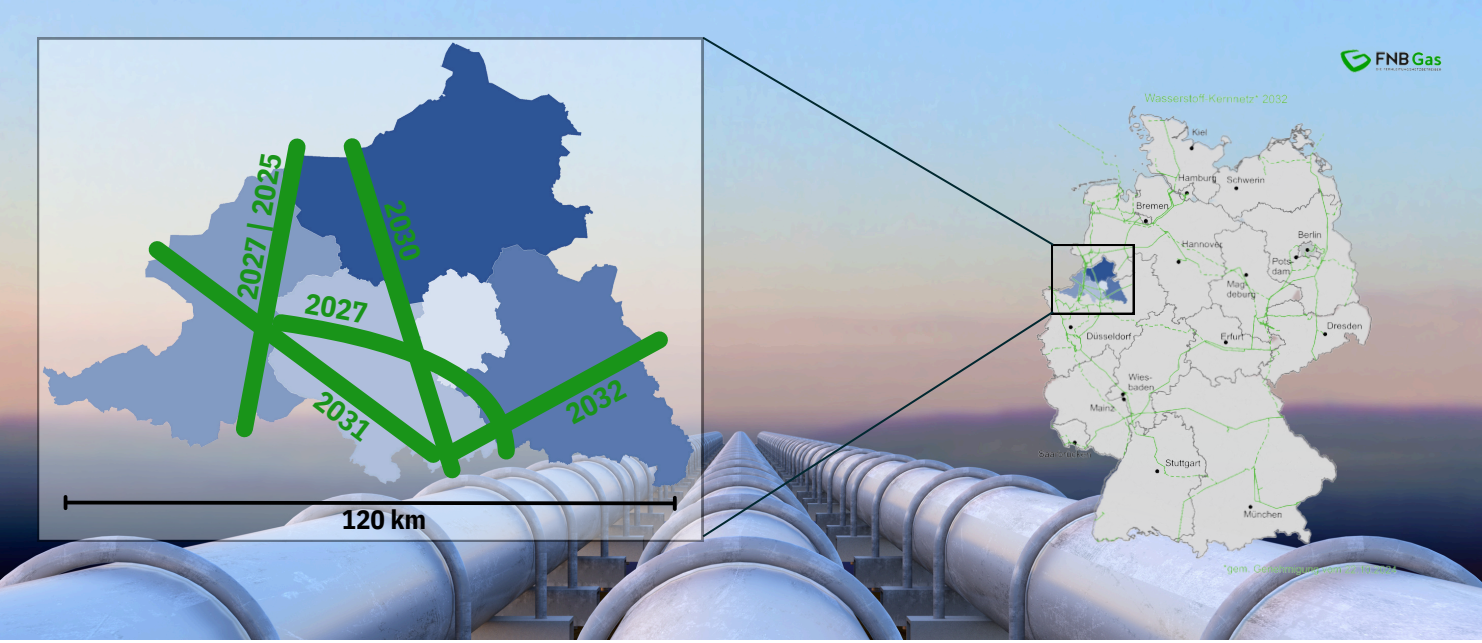
gfw Gesellschaft für Wirtschaftsförderung im Kreis Warendorf mbH

WEST

WFG FÜR DEN KREIS BORKEN

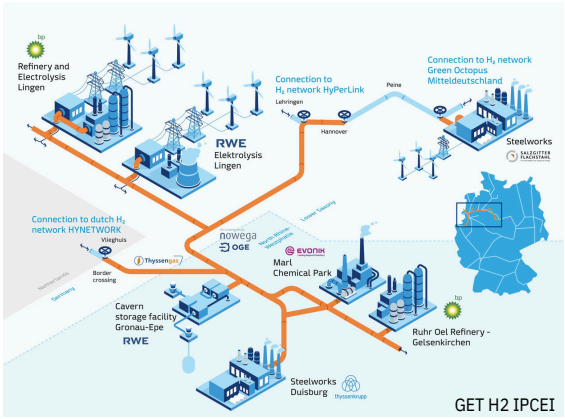
Hydrogen in Münsterland

The region of renewable energies and hidden hydrogen champions



Hydrogen Pipeline Infrastructure

Münsterland region is one of the first regions in Germany to benefit from a hydrogen pipeline infrastructure. The **first pipelines** will reach Münsterland region in the north as early as **2025**. In 2032, approx. **300 km** of **converted** and approx. **100 km** of **newly built** hydrogen pipelines will then open up the entire Münsterland region. As early as **2027**, a **salt cavern storage** facility in Gronau-Epe will store up to **66 million cubic meters** of green hydrogen. This will make Münsterland region one of the most important regions for the hydrogen core network in Germany. It will not only enable hydrogen to be transported from Lingen to the Ruhr region and from the Netherlands to East Westphalia, but will also feed hydrogen in and out itself. That is real added value for the regional economy!
This is made possible by the transmission system operators, one of which has its headquarters in Münster.



Nowega operates and markets around 1,500 kilometers of high-pressure gas pipelines and is in charge of the GET H2 initiative. The initiative is backed by companies, municipalities and institutions from the Münsterland region, among others. With **GET H2 Nukleus**, the partners are creating a 130 km long H2 network in the regulated area with non-discriminatory access and transparent prices. This is the start of the nationwide core network.

www.get-h2.de/en/geth2-projects/

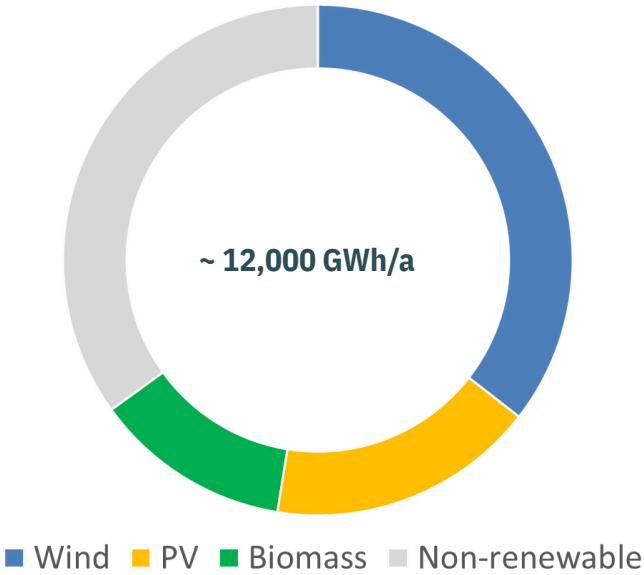
Enough Green Energy

Münsterland region is making significant strides in renewable energy adoption, leveraging wind, solar photovoltaic (PV), and biogas technologies to drive its energy transition.

As of recent data, the region hosts approximately **990 wind turbines**, collectively delivering an installed capacity of **2,033 megawatts** (MW). In the solar sector, Münsterland region boasts several **PV systems** installed on rooftops and in the ground, amounting to a combined capacity of **2,188 megawatts** (MW). With **254 megawatts** (MW) installed capacity, **biogas** also contributes significantly to Münsterland region's renewable energy mix.

The three technologies mentioned can thus generate an impressive **7,840 GWh of renewable electricity per year**. This accounts for a good **65% of the region's electricity requirements**. The Münsterland region is therefore well above the average for the Federal Republic of Germany.

Share of renewable energies in gross electricity consumption in Münsterland region (2024)



(c)Münsterland e.V. / Philipp Fölting

FH MÜNSTER
University of Applied Sciences

FH Münster
Department of EBE

The Department of Energy · Building Services · Environmental Engineering at FH Münster University of Applied Sciences is a leading center for hydrogen research in Germany. Under Prof. Dr. Christof Wetter and Prof. Dr. Elmar Brügging, the department focuses on innovative biohydrogen production, particularly through **dark fermentation**, which converts organic waste into green hydrogen with minimal energy input. This two-stage process also generates biogas, supporting environmental sustainability.
A key initiative is the **BioTecH2** project, which explores **biohydrogen** production from organic waste. The project has received the Biogas Innovation Award of German Agriculture, highlighting its impact.

In a joint project with **Enapter**, FH Münster's research team, led by Prof. Dr. Christof Wetter and Prof. Dr. Elmar Brügging supported the development of the **AEM Multicore**, a modular megawatt-class electrolyser, by testing and refining the system in a dedicated application lab.

Through pioneering research and practical applications, FH Münster contributes to advancing sustainable hydrogen technologies, reinforcing Germany’s role in renewable energy innovation.

www.fh-muenster.de/en

Saerbeck Bioenergy Park

As a hub for **renewable energy**, the Saerbeck Bioenergy Park serves as a model for the transition to a sustainable energy system by integrating science, research, and industry. Its primary goal is to demonstrate and advance innovative technologies for climate-friendly energy production and storage. The park features a unique combination of **wind, solar, and biogas energy sources**, producing more renewable energy than the local community consumes.

A key focus is on practical applications and knowledge transfer, supporting research projects on **hydrogen production, sector coupling, and energy efficiency**. The park also serves as a real-world laboratory for educational institutions and companies to develop and test new solutions.

KLIMAKOMMUNE SAERBECK

With its infrastructure, including **biogas plants, electrolyzers, and storage facilities**, the Saerbeck Bioenergy Park offers an adaptable platform for research collaborations and pilot projects. Its success showcases how decentralized, community-driven energy concepts can contribute to a carbon-neutral future.

www.klimakommune-saerbeck.de

Enapter Multicore at Saerbeck Bioenergy Park

Saerbeck Bioenergy Park
(c)Münsterland e.V. / Kai Marc Pel

2G Energy AG

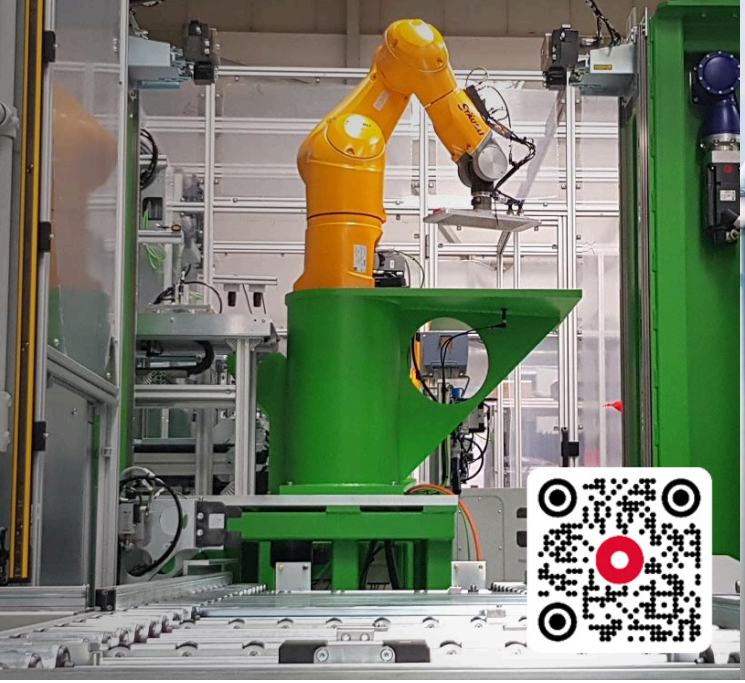
Founded in Heek (North Rhine-Westphalia, Germany) in 1995, the publicly traded 2G Energy AG is currently one of the leading international manufacturers of **combined heat and power systems** for the decentralized production of energy in the output range from **20 to 4,500 kW**. As a technological leader with 15 subsidiaries and over 1,000 employees worldwide, we provide holistic energy supply solutions suited to almost any field of application imaginable.
2G's CHP units use **hydrogen** as a climate-neutral fuel to convert it back into electricity - and heat/cool - in a highly efficient, economically attractive, and profoundly environmentally friendly way.

www.2-g.com

33 Green Energy GmbH

33 Green Energy GmbH is a hydrogen-focused cleantech company based in Ibbenbüren. G33 develops and delivers **modular, containerized systems** for zero-emission energy supply – including **hydrogen power generators (gensets), combined heat and power (CHP) units** based on fuel cell technology, and **battery energy storage systems (BESS)**. These solutions enable both grid-connected and off-grid operation, even in demanding environments with strict requirements for zero emissions, low noise levels, and high flexibility. Key markets include autonomous energy supply for construction sites, residential districts, fast-charging solutions for e-mobility, events & festivals, critical infrastructure, and specialized airport applications.

www.g33.energy



aumann

Aumann Group

We are a **world-leading provider of special machinery and automated production lines** both for **E-mobility** and **Next Automation** applications such as consumer electronics, converting and industry.

In the field of hydrogen, our expertise extends across the entire value chain of fuel cell and electrolyser manufacturing – from **high-precision CCM coating** via the **automated stacking** up to the **assembly of the complete balance of plant**.

Our innovative, scalable solutions help meet the growing **demand for high-performance hydrogen processing solutions**, thus supporting the trend to sustainable decarbonization.

www.aumann.com

egeplast

egeplast GmbH

egeplast is an innovative manufacturer of **plastic pipe systems**, and has been setting benchmarks for decades. Customers in over 30 countries rely on egeplast consultancy solutions and quality products for **transporting water, gas and data**. In the field of gases, egeplast develops innovative Green Gas Pipes with an additional permeation barrier layer to reduce the emissions of **hydrogen and methane**. Prerequisite for the sustainable future viability of the network is the reduction of gas losses. This can be achieved through renovation, expansion and new construction with innovative plastic pipes with a permeation barrier layer. Thereby, the plastic pipes achieve a maxiumum operation pressure of 16 bar.

www.egeplast.de/en

H2 GREEN POWER & LOGISTICS

H2 Green Power & Logistics

H2 Delivery functions as an “enabler” for **climate-friendly commercial vehicle mobility**. With our special know-how and with the help of our unique and extensive partner network, we can provide our customers with the necessary turnaround towards carbon free mobility - from **vehicle supply** via **pay-per-use** or **rent**, to the provision of climate-friendly logistics services with **reports of CO2 savings**, to the supply of our customers’ fleets with **green electricity and/or hydrogen**. Furthermore, our company holds several assets which will enable the infrastructural growth necessary to go along with the vehicles, such as **hydrogen production, green energy sources, hydrogen refueling stations**.

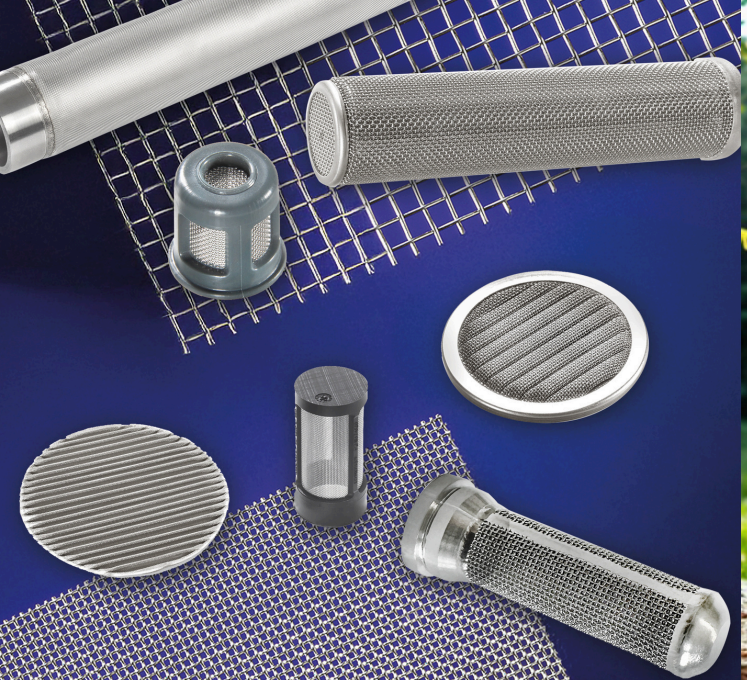
www.h2greenpowerlog.de

H2 POWERCELL.
Strom + Wärme

H2 Powercell GmbH

H2 Powercell is a full-service provider of plug & play **hydrogen production and storage systems** as well as **hydrogen fuel cell power plants**. The company offers its products and solutions to hydrogen refilling stations and to renewable energy producers for long term energy storage, Combined Heat and Power (CHP) as well as Emergency Power Supply (EPS) systems. Modular systems developed for these purposes are the **H2 PowerCube** and the **H2 SecurePower**. They can already be offered economically and in a future-proof manner for BEV charging, hydrogen refuelling stations, grid stabilisation, decentralized and self-sufficient energy islands, emergency power, industrial requirements and many other exciting applications.

www.h2powercell.de



HAVER & BOECKER

Haver & Boecker oHG

Haver & Boecker is a family-managed, midsize company with its headquarters in Oelde, Westphalia. Founded in 1887 the Haver & Boecker oHG comprises the **Wire Weaving and Machinery Division**. In these areas it is active on all five continents worldwide with more than 50 subsidiaries and 150 agencies as a technology leader.

Wire meshs, produced by Haver & Boecker, are an important component of hydrogen production and use: As **part of the anode and cathode** or coated with a catalyst as the **GDL/PTL** they enable efficient reactions in electrolyzers and fuel cells. In addition, the wire mesh can be used as protection and for even heat distribution as well as a filter for water purification or for refueling processes.

www.haverboecker.com

Hengst FILTRATION

Hengst SE

Founded in 1958 in Münster, Westphalia, Hengst Filtration is a family-owned company that develops **innovative filtration and fluid management solutions** with more than 3,700 employees at 28 locations worldwide.

To enable the safe and efficiency-optimized operation of **fuel cell stacks**, Hengst offers high-performance filtration solutions: the **Ion exchanger** Blue.iox, a specially developed **cathode filter** and a new type of **separator module** for anode gas recirculation. Developed as modular systems or customized modules, they make an effective contribution to the expansion of CO_2-neutral mobility. Hengst is thus living up to its corporate vision of “purifying our planet”.

www.hengst.com

Matthews
INDUSTRIAL TECHNOLOGIES

Matthews Engineering

Within Saueressig Group the Matthews International Corporation is bringing together the business units engineering, surfaces, rollers, packaging and elastomers under a common umbrella brand. Saueressig is an innovative **full-service provider** of **calendaring, embossing and rotary processing systems** in standard and custom designs. The solutions include design and engineering services for high volume production **equipment for fuel cell components and stacks** - from the development of the manufacturing processes for metal and graphite BPP, the CCM and the GDL, over the production of rotary forming and cutting tools, to engineering and building prototyping, pilot and series production lines for components and stack assembly.

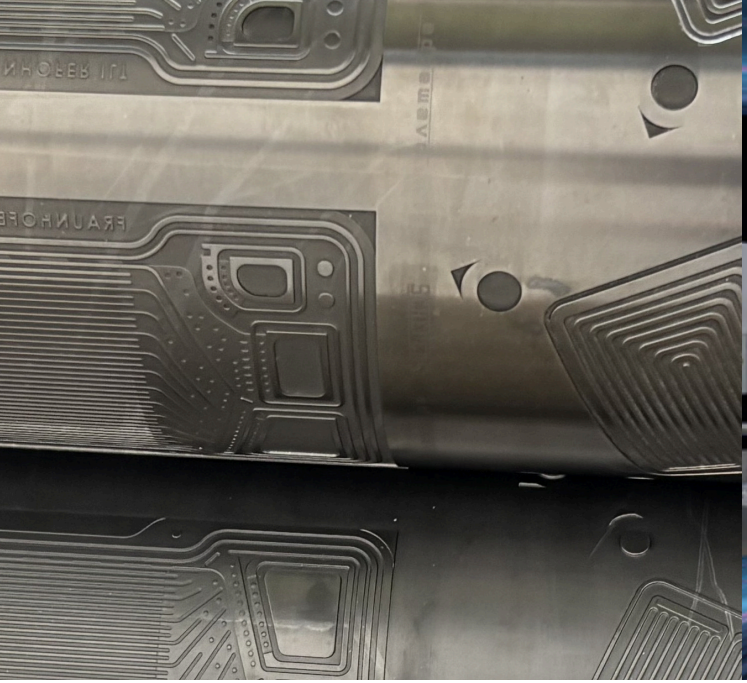
www.matthews-engineering.com
www.saueressig.com

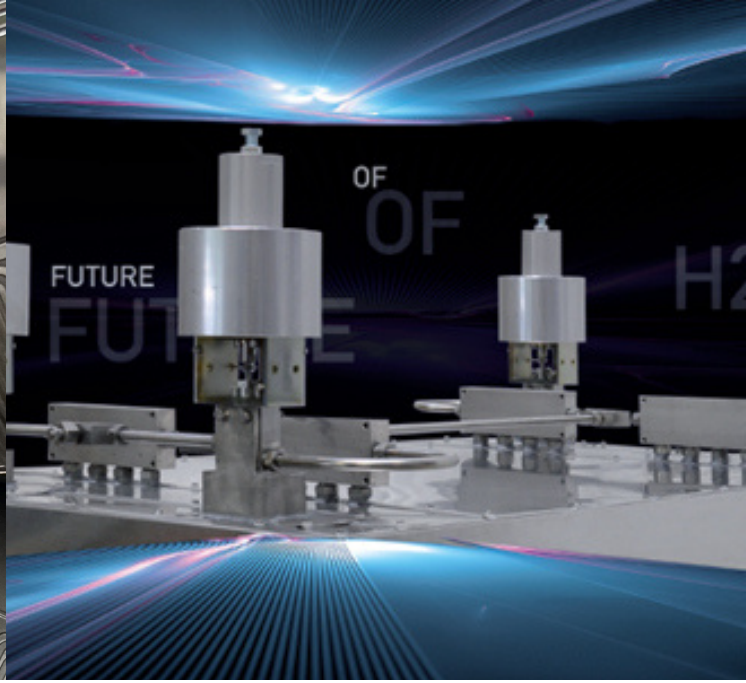
Wir transportieren Gas.
nowega

Nowega GmbH

Nowega is a **transmission system operator** and service provider based in Münster. The company operates and markets around **1,500 kilometres of high-pressure gas pipelines** - from the Dutch border, across the northern German state of Lower Saxony, through parts of North Rhine-Westphalia, and all the way to the Wendland region. Nowega is one of the first mover companies building up the **hydrogen core network** in Germany. It is also a founding member and coordinator of the **GET H2 hydrogen initiative**, which consists of more than 50 companies, institutions and municipalities that are actively involved in the development of the hydrogen economy in Germany and Europe.

www.nowega.de/en





SCHEPERS
LASER TECHNOLOGY

Schepers GmbH & Co. KG

Schepers - Laser Technology, founded in 1991 in Vreden, is synonymous with innovative solutions, outside of the standard. As one of the world market leaders of **laser machines for structuring printing, embossing and decor cylinders**, Schepers develops high-tech machines - always tailor-made to individual demands.
In the field of hydrogen, Schepers constructs machines for **high-precision laser engraving for micro-patterns and flow channels in bipolar plates**.
The HyCoFC research project, in which Schepers is developing new hybrid compound bipolar plates together with partners from research and industry, is representative of this.

www.schepers-digilas.de/en

THEISEN
SMART SOLUTIONS

Theisen GmbH & Co. KG

Since 1984, we have been manufacturing **components, cylinder filling systems and special plants for the use of technical gases** - worldwide.
In the field of hydrogen, we provide **customised solutions for refuelling systems**. These include cooling systems according to SAE, heat exchangers, pressure vessels, fittings and control panels.
Our high pressure coolers have an operating pressure of **up to 1,400 bar** and are cooled via a secondary circuit with a heat transfer fluid or directly with a refrigerant. Furthermore, we have been developing filling solutions for Hydrogen storage trailers and are specialized in high pressure piping on site, either welded or screwed design.

www.theisen-gmbh.de

Westfalen

Westfalen AG

As a familiy-owned company with a 100-year history, the Westfalen Group is now represented at numerous locations throughout Europe. Westfalen's business areas include **Industrial Gases & Services, Energy Solutions, Mobility and Respiratory Homecare**. Hydrogen represents a growth area which the company, headquartered in Münster, would like to further expand in the future. Westfalen has been supplying customers with **hydrogen** in various quality standards **for around 40 years** and is operating a **hydrogen refueling station since 2016** in Münster. The company has founded a joint venture with RWE (two4H2) to put hydrogen on the road and, at the beginning of 2026, Westfalen will launch its first **own electrolyzer**.

www.westfalen.com

YARA

YARA GmbH & Co. KG

With its 17,000 employees in more than 60 countries, Yara International ASA is the **world´s biggest ammonia trader** and thus, able to supply Germany with **low carbon ammonia** at competitive prices. This way, Yara can enable and accelerate the ramp-up of the hydrogen economy with existing infrastructure, fleet, and expertise in NH_3 production and handling.

The Dülmen site in the Münsterland region of Germany employs around 200 people in sales, administration and research. Scientists and experts from more than 20 countries around the world work on innovations in Yara's fields, greenhouse and laboratory at the International Research Institute for Plant Nutrition, known as Hanninghof.

www.yara.com

ABC KLINKERGRUPPE

JANINHOFF KLINKERMANUFAKTUR

Hagemeister

Three Brickmaker prepare for the future

Kilns for brick production are heated up to 1,200°C - so far mainly with natural gas. Three brick manufacturers from the Münsterland region have taken different approaches to supplying their kilns with hydrogen in the future.

The **ABC-Klinker Group**, headquartered in Recke, uses a **120 kW electrolyzer** from Enapter at its site in Hörstel and feeds the self-generated hydrogen into the natural gas stream.

Hagemeister is validating the use of hydrogen in series production at the clinker plant in a **research project** together with partners from science and industry. In August 2023, a 3-week test was run under real conditions in which bricks were produced with the addition of hydrogen. Hagemeister is currently a partner in the **Hydrogen Valley** application “H2EART”.

In October 2024, **Janinhoff** made a contractual commitment via the **climate protection agreements** to convert its brick production from natural gas to green hydrogen. Janinhoff will receive funding of around **€60 million** from the Federal Republic of Germany for this purpose.

www.abc-klinker.de/en
www.hagemeister.de/en
www.janinhoff.de/en

DUTCH – GERMAN
TECH.LAND

4.9M+	480K+	20+	238B+ EUR
Inhabitants	Companies	Universities	Gross Domestic Product

TECH.LAND - 4 regions, 2 countries, 1 mission

The **Dutch-German** TECH.LAND program, launched in May 2024, promotes **cross-border collaboration** in emerging technologies, particularly hydrogen initiatives. It brings together stakeholders from the **Münsterland** and **Emscher-Lippe** regions and the Dutch provinces of **Gelderland** and **Overijssel**, including municipal authorities, universities, and industry representatives, to harness regional innovation. TECH.LAND focuses on advancing battery and hydrogen technologies to enhance research and development, integrate hydrogen solutions, and promote sustainable energy practices across the border.

The regions have been exhibiting together at **World Hydrogen in Rotterdam** since 2024. And in 2025, the partnership is aiming to become a **Hydrogen Valley** under the name **"H2EART"** and officially enter the European stage.

www.techland.org


(c)Münsterland e.V. / Philipp Fölting

(c)Münsterland e.V. / Philipp Fölting

A Great Place to Live and Work

The Münsterland region is a vibrant and forward-looking area at the heart of Europe. Home to **more than 1.6 million people**, Münsterland region offers a unique blend of urban life, charming towns, and scenic rural landscapes. The city of Münster, with its **renowned university**, **thriving economy**, and **historic city centre**, serves as the region's dynamic hub. But the region's appeal goes far beyond its largest city. Steady economic growth, modern infrastructure, and a skilled workforce make Münsterland region one of Germany's most attractive regions for investment and employment. Residents enjoy a high quality of life with **excellent schools, vibrant cultural offerings, and easy access to nature and activities**. With a perfect balance between city life and countryside, Münsterland region is a region where people feel at home — and where careers and ideas can truly thrive.


(c)Münsterland e.V. / Pascal Blech


(c)Münsterland e.V. / Sebastian Lehrke

Good Accessibility

Münsterland region, located in the western part of Germany near the Dutch border, provides easy access to a total of **five motorways**, supplemented by a **dense net- work of railway lines**, connecting Münsterland region with national and international destinations. Münsterland region has its **own airport** (FMO), plus several international airports within reach, such as Düsseldorf, Amsterdam, and Frankfurt. These transport links are completed by **two waterways**, the Dortmund-Ems Canal and the Mittelland Canal, providing direct links to the “Silk Road” (Duisburg/Rhine) and to the North Sea-Atlantic route (e.g. Rotterdam).

Interested?

Do you want to cooperate with one of our hydrogen partners from academia or industry? Are you interested in laboratory or office space for a branch in Germany?

Contact us for more information:

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