

Dear reader,

The year 2025 is drawing to a close. We at HC-H2 are therefore particularly pleased to announce some really good news at the end of the year: namely, another officially launched HC-H2 demonstration project. The press release on the HyHeat project was published recently, so we can already give you an insight into the idea and the goals. Together with the Schwartz Group from Simmerath, one of the leading manufacturers of heat treatment plants for steel, aluminium and non-ferrous metals for 40 years, we are dedicated to the challenge of making an important high-energy industrial process climate-friendly in the future by using green hydrogen as a fuel gas.

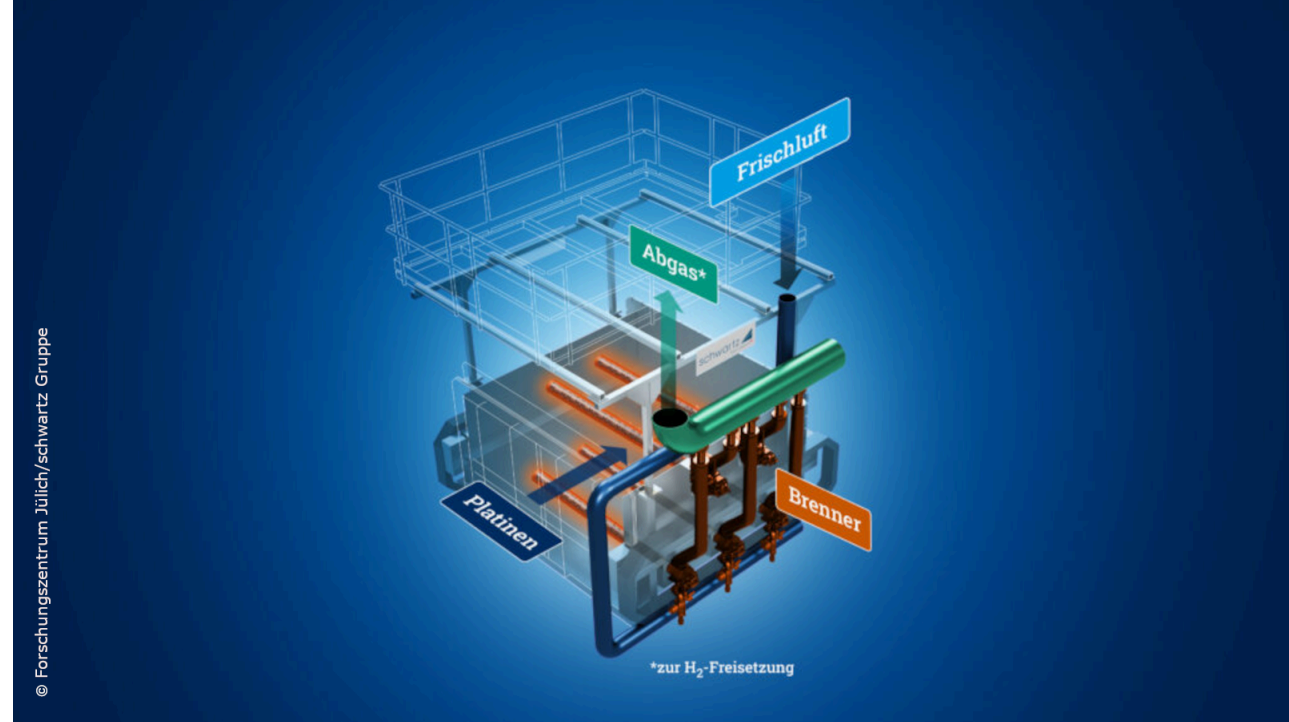
But there is more good news! The Rhineland mining region is applying to become a Net Zero Valley as part of the European Net Zero Industry Act initiative. Our colleagues at the Zukunftsagentur Rheinisches Revier (ZRR) have officially submitted the application. There are also exciting prospects for two of the opencast mines: Garzweiler will be the venue for the International Garden Exhibition (IGA) in 2037, and in the indeland on the edge of the Inden opencast mine, the so-called RevierStrand, a local recreation area with a Copacabana feel, is being created. These are two projects that make structural change visible and show how the region can be successfully transformed.

I hope you enjoy reading!

Yours Vanessa Düster, HC-H2 Network

Good News

HyHeat: New HC-H2 demonstration project launched



Together with new partners from the Rhineland mining region, we want to optimise industrial high-temperature processes. The Schwartz Group is the global market leader in heat treatment systems for press hardening steel, aluminium and non-ferrous metals. And that is also the focus of the recently launched HC-H2 demo project HyHeat: low-emission heat treatment of press-hardenable steel blanks.

[Read more](#)

HC-H2 Close Up



Expert exchange at Brainergy Park

The HC-H2 Science Spotlight provides the perfect platform for exchanging ideas with experts in the field of hydrogen research. October was a very special month for us: we welcomed three experts to the Institute for Sustainable Hydrogen Economy (INW). Prof. Ulrike Kramm from TU Darmstadt gave us insights into the development of energy sources with a special focus on iron-based catalysts. Prof. Jens-Uwe Repke from TU Berlin presented his findings on intensified separation processes and dynamic modelling as a precursor to flexible and sustainable chemical production. Dr Jakub Dmiec and Ing. Pavel Srbečský concluded the October series with an overview of their current vision for the future connection between hydrogen and the economy.

With speed, technology and teamwork



One thing is clear: we need speed, technology and teamwork. E.ON executives Dr Leo Birnbaum and Dr Victoria Ossadnik visited the Jülich Research Centre to learn about the progress and projects in energy-related fields. The guests gained insights into current hydrogen research through discussions with Prof. Andreas Peschel, Director of the Institute for Sustainable Hydrogen Economy, and Dr. Simon Hahn, who is working on low-emission catalytic combustion processes with his planned spin-off 'Clean H2eat'. The tenor: hydrogen must be affordable, flexible in its application, and available on a larger scale. This requires government support – for now.

[Read more](#)

Focus on the Rhenish Mining Area

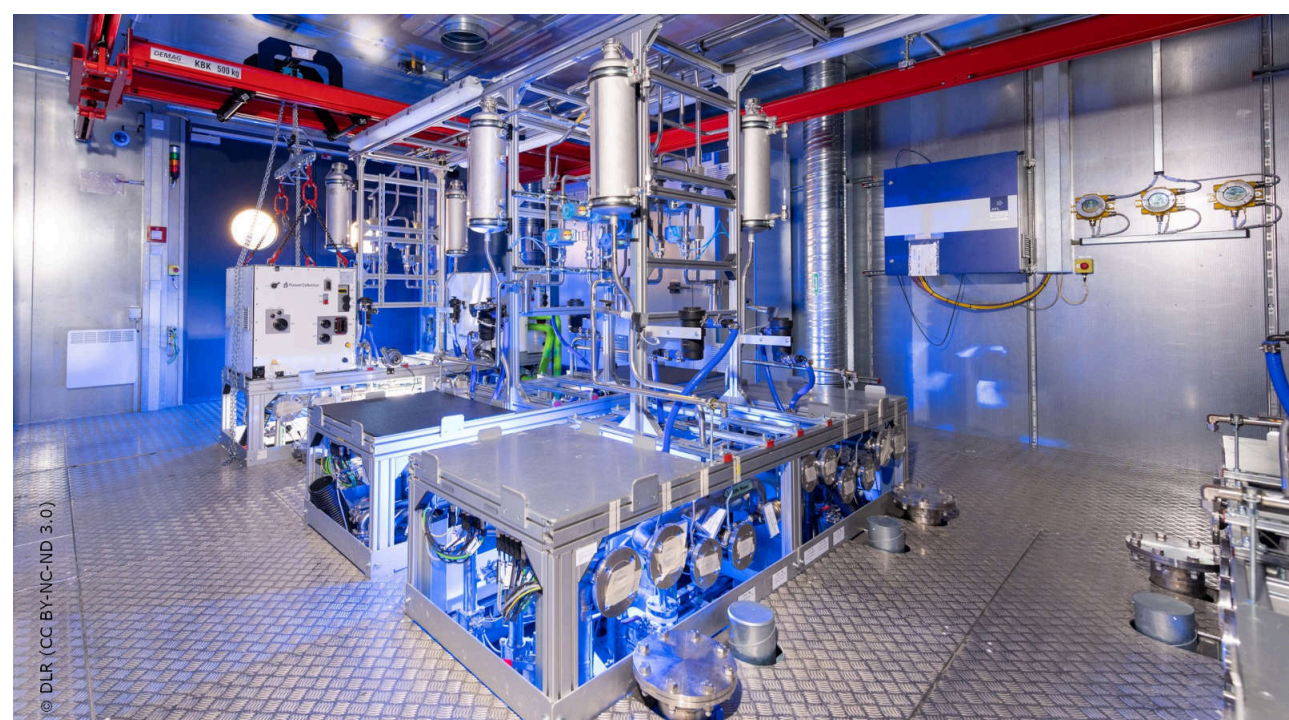


Potential threat to decarbonisation in North Rhine-Westphalia

In a new discussion paper, the state initiative IN4climate.NRW warns that current EU regulations are jeopardising the decarbonisation of industry in North Rhine-Westphalia. The issue concerns the operation of electrolyzers, which are directly linked to the ramp-up of the hydrogen economy. The paper provides clear recommendations and is supported by more than 20 companies and industry associations as well as research institutions.

[Read more](#)

Milestones in fuel cell development



The German Aerospace Centre (DLR) is developing and testing electric propulsion systems based on hydrogen fuel cells. With the BALIS test infrastructure, a first milestone has now been reached, with two of the core components achieving an output of more than one megawatt. Together, the fuel cell system and the electric motor achieve up to 1.5 megawatts.

[Read more](#)

Copacabana feeling in the Rhenish mining area

A beach at an open-cast mine? From 2035 onwards, a new leisure hotspot will indeed be developed in the indeland area of the Rhineland mining region. The RevierStrand is one of the first projects to make the transformation of the waterfront visible to local residents. As part of this key project, a new location is being created on the riverbank near Lucherberg – a space for leisure and recreation that exemplifies the new face of the indeland.

[Read more](#)

International Garden Exhibition in Garzweiler



Here, the change and growth of a region undergoing structural transformation are visible: in 2037, the International Garden Exhibition (IGA) will come to Garzweiler. The LANDFOLGE Garzweiler special-purpose association is thus demonstrating how the revitalisation of an open-cast mining landscape works, as the IGA offers an opportunity to look into the future of landscape design, construction, living and working, and life in green, urban spaces.

[Read more](#)

HC-H2 Documentary Series



Who am I?



'I am known as a gas from agriculture because I am produced during digestion in cattle and sheep. I am colourless and odourless and am also referred to in science as CH4 or methyl hydrogen. I can store hydrogen for long periods of time and transport it over long distances, and I am mostly used for heating or powering engines in natural gas cars. I am methane!'

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Events



At Chinese speed – but with German quality!



At the recent HC-H2 Brainergy Park Connect event, Dr Lothar Schunk, COO and Head of Measurement Technology at Phoenix Mecano Management AG, provided an insight into the new building at Brainergy Park. The Swiss technology group is investing in a new production hall for its subsidiary REDUR GmbH & Co. KG, a specialist in transformers, current transformers, transducers and precision measurement technology. The hall is being built by VALERES Industriebau GmbH. REDUR's products are used worldwide, for example in offshore wind farms.

[Read more](#)

The Rhenish mining area as Net Zero Valley

The goal: to position the Rhineland mining region as a leading location for climate-neutral and competitive industry in Europe. As part of the European Net Zero Industry Act initiative, the managing director of the Zukunftsagentur Rheinisches Revier (ZRR), Bodo Middeldorf, and the head of project development at the ZRR, Elke Hohmann, have now officially submitted the application to NRW Minister for Economic Affairs and Climate Protection Mona Neubaur, NRW Environment and Transport Minister Oliver Krüger, and the European Commission, represented by Dr Stefan Lock, Head of the European Commission's Regional Representation in Bonn.

[Read more](#)

Upcoming Events



Forschungsnetzwerke Energie

11. – 12. November 2025, Berlin

RWTH-Wissenschaftsnacht „5 vor 12“

14. November 2025, RWTH Aachen

WASSERSTOFF BEWEGT – H2.NRW-Webinar-Reihe

19. November 2025, online

Branchentag Wasserstoff

27. – 28. November 2025, Neuss

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