

Dear Readers,

Although we are only a few months into 2024, we have already seen a number of surprises. Companies and researchers continue to work tirelessly on developing **solutions for the future** and paving the way for an energy economy with low greenhouse gas emissions.

Nevertheless, we are constantly faced with unexpected challenges. To overcome these, it is worth pooling the expertise of different stakeholders. Together, we can **reach a shared level of expertise** that goes far beyond what we would achieve on our own. Expanding the network in the Rhenish mining area is an important step in this direction.

HC-H2 considers itself an important player when it comes to advancing these developments using innovative hydrogen technologies, supporting companies, and presenting results that can be utilized on a large scale. We reached an important milestone at the beginning of March when we hosted the **first-ever HC-H2 Show Room event**, during which a new technology was put into operation at Erkelenz hospital. As part of the first HC-H2 demonstration project, a novel and sustainable energy supply system was installed there. You can find out more about the project and the official launch event below.

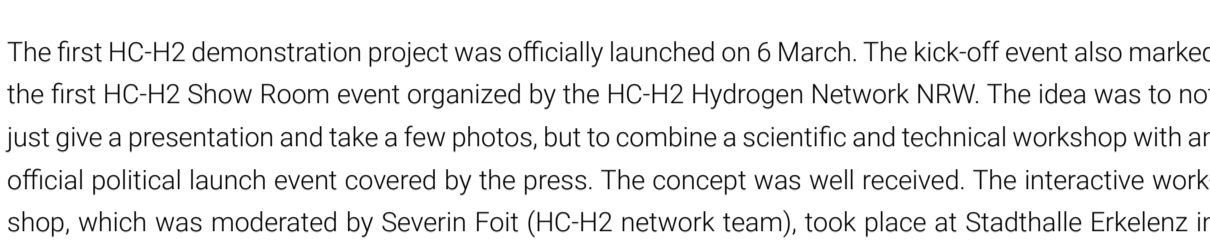
We are also pleased to share some of the **recent successes of our partners** in the Rhenish mining area and our direct neighbours at Brainery Park Jülich. **The cooperation and the network are growing**, and we look forward to establishing many other collaborations and supporting each other in order to achieve our goal step by step.

We hope you enjoy this newsletter.

Yours Vanessa Düster, HC-H2 Network

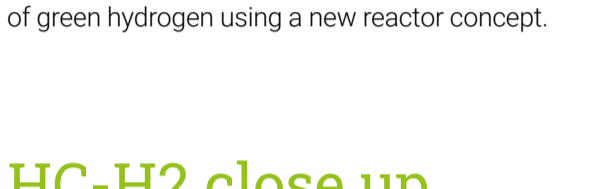
Good News

The First HC-H2 Show Room Event



The first HC-H2 demonstration project was officially launched on 6 March. The kick-off event also marked the first HC-H2 Show Room event organized by the HC-H2 Hydrogen Network NRW. The idea was to not just give a presentation and take a few photos, but to combine a scientific and technical workshop with an official political launch event covered by the press. The interactive workshop, which was moderated by Severin Foit (HC-H2 network team), took place at Stadthalle Erkelenz in the morning. Attendants were given an **insight into the technologies behind the Multi-SOFC system**. Fabian Patzak (head of the HC-H2 network team) then hosted the afternoon programme. In an auxiliary building of the Hermann-Josef-Krankenhaus (HJK) hospital in Erkelenz, which is only a short distance from the demonstrator, we welcomed various speakers including MinDirig'in Oda Keppler (Federal Ministry of Education and Research), Prof. Astrid Lambrecht (Chair of the Board of Directors of Forschungszentrum Jülich), and Stephan Muckel (Mayor of Erkelenz and Chair of the Hermann-Josef-Stiftung foundation). This event would not have been possible without a great team of INW colleagues and the help of our project partners. Further information on the event and the project, as well as photos and a summary of the media response can be found on our website at hch2.de. [▶ Read more](#)

The Role of Ammonia in a Climate-Smart Energy System of the Future



Can a new reactor concept help solve the major challenges of the energy transition? Absolutely. Scientists from Forschungszentrum Jülich, the Technical University of Munich, and Linde Engineering are convinced that this is possible. In an article recently published in the Chemical Engineering Journal, they describe a new approach that can help **reduce the costs of storing green energy in hydrogen derivatives**. The research group is initially focusing on ammonia synthesis, a process which they aim to better adapt to the fluctuating availability of green hydrogen using a new reactor concept. [▶ Read more](#)

HC-H2 close up

Renowned Scientists Visit to Exchange Ideas

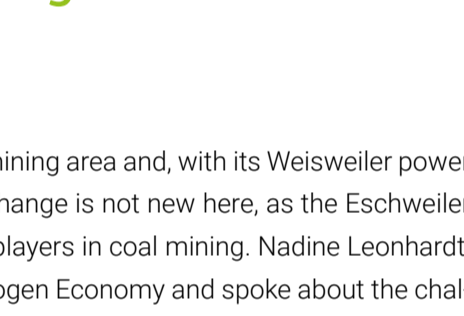
The HC-H2 Science Spotlight event format is a regular series of scientific seminars at the Institute for a Sustainable Hydrogen Economy (INW). Once a month, a speaker visits INW, and the event programme also gives participants **the opportunity to speak directly with them**. In February and March, Prof. Dr.-Ing. Karsten Müller (Institute of Technical Thermodynamics, University of Rostock) held a presentation with the promising title "Hydrogen: More than just H2", and Prof. Dr.-Ing. Peter Stenzel (TH Köln) spoke about the field of hydrogen system technology. The series of seminars is well attended, and scientists can also participate online. If you are interested in attending the seminar, you can register for the series of seminars online (connect@hch2.de).

A Growing Network

As we have already pointed out several times in our articles, the hydrogen industry is no "One-WoMan-Show". The aim should be to **pool expertise and achieve better results through collaborations**. This effort is being supported by various networking events organized by different stakeholders in the Rhenish mining area. The HC-H2 network is also growing thanks to its many contacts. But what exactly is the HC-H2 network? What do we do, and how can interested parties collaborate with us? We answer these and other questions in a recently published HC-H2 pitch document, which can be found on our website at hch2.de. [▶ Read more](#)

Welcome to Brainery Park

What catalyst materials are actually needed for chemical hydrogen storage? And what is a medium-sized construction company doing at Brainery Park? At the HC-H2 Brainery Park Connect network meetings, we **meet our new neighbours and learn more about their work and why they chose to locate their business at Brainery Park**. In January, Prof. Regina Palkovits (director at INW-2) provided us with insights into her research on catalyst materials for chemical hydrogen storage. In February, we then had the opportunity to learn more about a completely different topic: Lamers Bau GmbH showed us their property and presented the projects that they will be implementing at Brainery Park in the next few years. [▶ Read more](#)

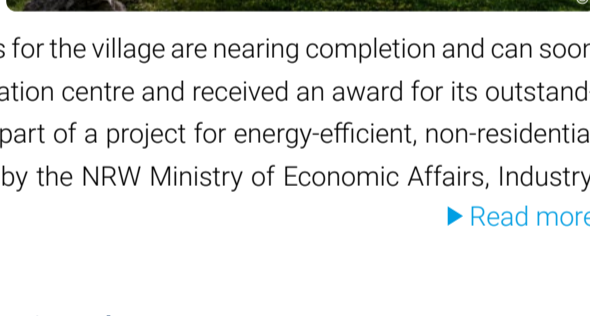


Focus on the Rhenish Mining Area

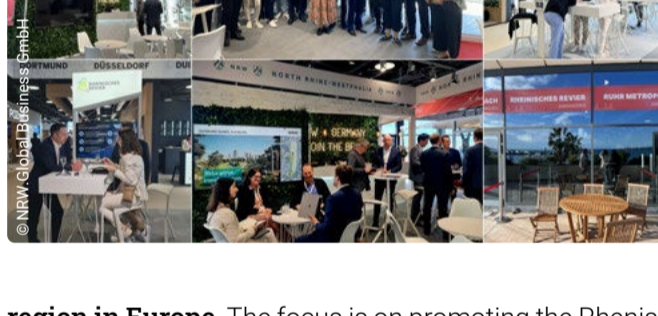
Structural Change in Eschweiler

The town of Eschweiler is located in the middle of the Rhenish mining area and, with its Weisweiler power plant, is an important power plant site. The topic of structural change is not new here, as the Eschweiler Bergwerksverein mining company used to be one of the major players in coal mining. Nadine Leonhardt, mayor of Eschweiler, visited the Institute for a Sustainable Hydrogen Economy and spoke about the challenges facing a municipality of more than 56,000 people in the heart of the Rhenish mining area. She is, however, optimistic and focuses on the advantages that result from the good location of the town and its connection to the A4 motorway. **As a location for the energy industry, hydrogen will also be one of the major topics of the future** here, and the mayor is considering a future collaboration with the Helmholtz hydrogen cluster, as this will help to increase value creation. [▶ Read more](#)

The number of companies moving to Brainery Park is growing, and the demand for space is high. Brainery Park Jülich GmbH is involved in various projects and is at the forefront when it comes to hydrogen and the creation of new jobs. Two important events are approaching fast: **the official opening of the start-up village in May and the groundbreaking ceremony for the Brainery Hub at the end of 2024**. Both the central building of the start-up village and the hybrid-timber construction modules for the village are nearing completion and can soon be moved into. Brainery Hub is a start-up and innovation centre and received an award for its outstanding achievements in the field of energy efficiency as part of a project for energy-efficient, non-residential buildings in North Rhine-Westphalia (NRW) initiated by the NRW Ministry of Economic Affairs, Industry, Climate Action and Energy. [▶ Read more](#)



The Rhenish Mining Area Goes International



The Rhenish mining area is now also being promoted on an international level by our new neighbours at Brainery Park: several members of the NRW.Global Business team are working closely together with Zukunftsgesellschaft Rheinisches Revier at Brainery Park to this end. With its own team, the state-owned foreign trade promotion agency NRW.Global Business is supporting **the transformation of the region into a climate-neutral model region in Europe**. The focus is on promoting the Rhenish mining area internationally as an attractive and innovative economic region and on attracting international investors to secure jobs in the long term. To achieve this goal, the team participates in trade fairs, congresses, and other international events. Most recently, for example, they attended the Marché Internationales des Professionnels de l'immobilier (MIPI) trade fair in Cannes, where the focus was on networking with economic development organizations. [▶ Read more](#)

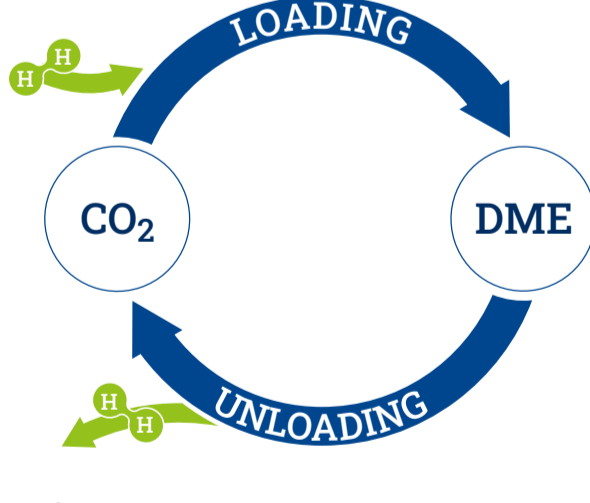
The Helmholtz Hydrogen Cluster as a Key Project

It's all about driving structural change. To draw more attention to this effort and the transformation of the Rhenish mining area, the NRW Ministry of Economic Affairs, Industry, Climate Action and Energy (MWIK) has selected 19 key projects. **These projects symbolize the successful, rapid, and visible implementation of structural change**, and play a crucial role in this process. The Helmholtz hydrogen cluster is one of the projects that have been selected. [▶ Read more](#)

HC-H2 Documentary series: Who am I?

Part 1

"I am the simplest ether and behave in a similar way to barbecue gas. **Normally I am invisible**, because I am a colourless gas and smell ethereal. Almost 200 years ago, I was discovered by two French chemists, Jean-Baptiste Dumas and Eugene Péligot, who first produced me from methanol in 1835. Today, I am still produced when two parts of methanol are combined. I am dimethyl ether." In one of our new documentary series, we present profiles of various molecules that play a role in hydrogen research. [▶ Read more](#)



Events

Relevance of Decentralized H2 Clusters in the Rhenish Mining Area



A workshop organized by IN4climate.RR and the Aachen Chamber of Industry and Commerce (Hydrogen Hub) recently served as a platform for networking and sharing experiences. The programme, which focused on requirements and prospects for decentralized hydrogen clusters in the Rhenish mining area, began with short keynote speeches (including by HC-H2) on the relevance of decentralized H2 clusters, approval procedures, and regulations as well as current funding programmes. There was also a **focus on practical examples and the exchange of experience between entrepreneurs**. To give it more of a workshop feel, the event was followed by an exchange and discussion in small groups. [▶ Read more](#)

Event Announcements

Zukunftstag Jülich

Information day on the future of the town of Jülich and the surrounding region

04 May 2024, Schlossplatz Jülich

DIE ENERGIEWENDE ERFAHREN 2024 LEE

Bicycle tour from the Münster region to Brussels with stops at renewable plants and companies

02 – 07 May 2024, Münsterland to Brussels

World Hydrogen Summit

13 – 15 May 2024, Rotterdam Ahoy

Aachen Hydrogen Colloquium

14 – 15 May 2024, Aachen

Woche der Umwelt

Week of events dedicated to solutions for the energy transition

04 – 05 June 2024, Schloss Bellevue, Berlin

Woche des Wasserstoffs

Week of events dedicated to hydrogen

15 – 23 June 2024

Follow the HC-H2 on LinkedIn, Facebook, Twitter

Published by/Imprint: Forschungszentrum Jülich GmbH

Contact/responsible editorial office: Vanessa Düster, connect@hch2.de

Our privacy policy

Unsubscribe from our newsletter

Here you can also read and download the newsletter online on our website.

We are not responsible for the content of external homepages.

