

GES-Newsletter September 2022

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- **Are developing countries being patronised in the production of green hydrogen?**

The goal: one euro per litre of e-fuel



Philipp Engelkamp, Ineratec

According to Ineratec it is currently building the world's largest production plant for synthetic fuels. The output of the pioneering plant at the Industriepark Höchst in Frankfurt is to be up to 3,500 tonnes per year. Ineratec is currently primarily targeting air traffic - a risk-free market. After all, the EU Parliament demands fixed blending quotas of Sustainable Aviation Fuels (SAF), 2 percent by 2030 and as high as 85 percent by 2050. In the future, Philipp Engelkamp, Managing Director of

Ineratec, sees the price of synthetic fuels at one euro per litre. But that only applies to regions where the production conditions for green hydrogen are particularly favourable - hence not in Germany. The company has set itself the goal of replacing 5 per cent of Europe's oil demand with e-fuels by 2035. This requires a huge expansion of Ineratec's production facilities, worldwide.

[To the interview](#)

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New GES factsheet: Climate-friendly steel



An excerpt: The fixation on green hydrogen in steel production could get Germany's industry into serious trouble. Discussing a climate-friendly steel industry, GES recommends considering CO₂-elimination pathways other than direct reduction with hydrogen. Especially on an international level, supplementing the existing blast furnace route with CCS or CCU seems to be a promising path. This is because the extremely expensive conversion to direct reduction is not a realistic option in China and other developing and emerging countries.

[To the factsheet](#)

Are developing countries being patronised in the production of hydrogen?

The EU Commission wants to hold companies accountable in matters of human rights and protection of the environment and climate. According to the provisions of the Supply Chain Due Diligence Act, European and non-European companies are to enforce corresponding standards within their value chains. What appears to be positive at first glance may bring considerable disadvantages for countries in the global South. In their article Prof. Dr. Estelle Herlyn and Nikolas Lokau point out that economically viable processes for the production of low-CO₂ hydrogen - for example with natural gas - are made more difficult or even impossible, while Germany and Europe themselves continue to rely on natural gas and even try to obtain it from Africa. The authors see this as "hypocrisy on the part of the rich countries".

[To the paper](#)

News in brief

At this point, we pick up news from the last few weeks which, from GES' point of view, give hope because they contain building blocks of a possible global solution and / or help to develop a realistic view of the challenges ahead.

The expansion of electrolysis projects in Germany is lagging behind the government's targets. That is the result of a [study](#) by the German Academy of Science and Engineering and Dechema. If the electrolysis projects planned so far were to continue, a coverage gap for green hydrogen of 5.7 gigawatts would open up in 2030. The traffic light coalition (German government) has set itself a target of 10 gigawatts.

According to the Norwegian Prime Minister [Jonas Gahr Støre](#), Norway wants to store all the CO₂ produced in Europe. Norway has great experience in injecting the climate gas at a depth of 3000 metres under the North Sea. Later, Norway wants to use the CO₂ again as a raw material.

In future, CO₂ is to be transported by pipeline from Germany to Norway. Wintershall Dea and [Equinor](#) are working on a technical and commercial solution for transporting and storing the climate gas.

[Saudi Aramco](#) also wants to inject CO₂ into former oil and gas fields from 2026 onwards. The climate gas is produced, for example, during the production of (blue) hydrogen from natural gas.

A Japanese consortium of the oil company Inpex, the [heavy industry company IHI](#) and the shipping company Mitsui O.S.K. Lines has developed a low-CO₂ supply chain for ammonia. The ammonia is produced from natural gas in the United Arab Emirates. CO₂ is split off and injected into oil fields. The (blue) ammonia then goes by ship to Japan, where it is burnt.

If more houses were built with wood instead of concrete, large amounts of CO₂ could be saved. How big would the wood plantations have to be for that? And how do you protect the forests as a whole? Answers can be found in a [study](#) by the Potsdam Institute for Climate Impact Research and the Humboldt University Berlin.

Why is electricity so expensive in Germany? According to an article by [Spektrum.de](https://www.spektrum.de) the reason is a "completely derailed pricing mechanism". Because the price is based on the most expensive provider – and not the cheapest (Merit Order). A [study](#) by the DIW on the same topic.