



# Hydrogen Policies in North Rhine-Westphalia

*Driving demand // Global markets // Research & Innovation*

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# Driving demand for hydrogen in our region

Call for a pilot region „Hydrogen Mobility in NRW“

Region Rhineland, Düsseldorf-Wuppertal-Rhein-Kreis Neuss and district of Steinfurt → decision can be expected this year

Develop a clear and holistic transformation path → working on a Hydrogen Roadmap NRW in cooperation with FZ Jülich, IEK-3

Financial aid for innovative projects in industry, e.g. testing hydrogen in a steel plant in Duisburg

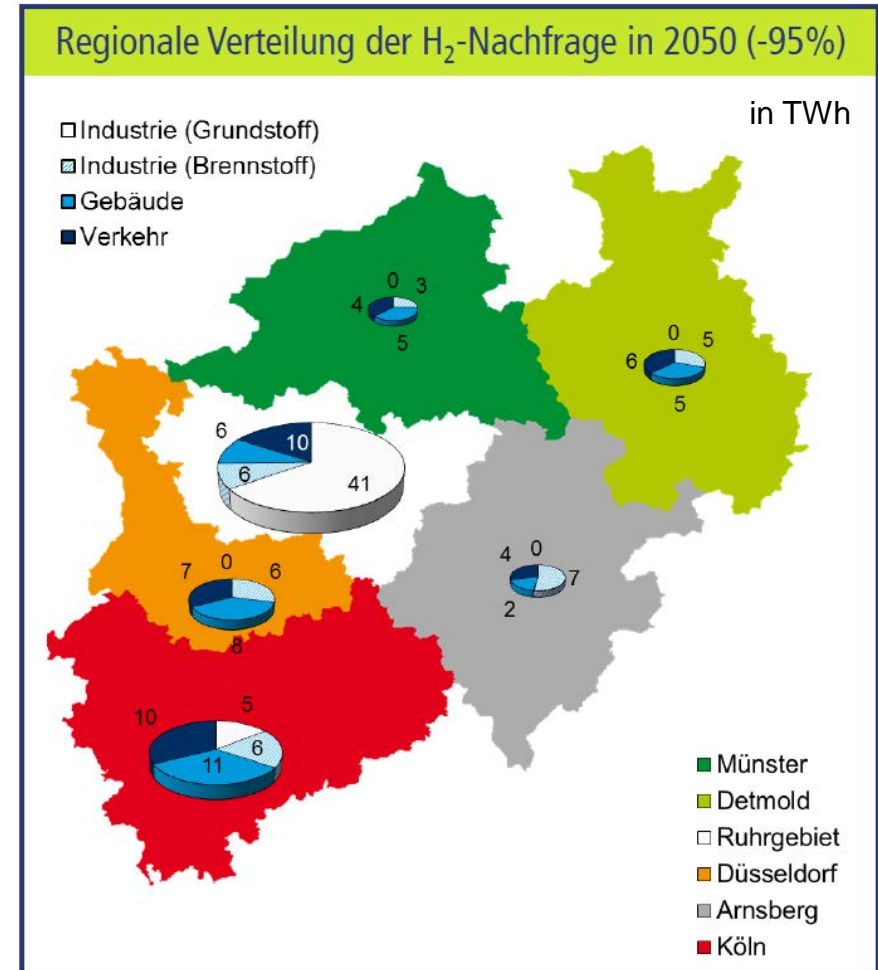


Hydrogen demand in industry  
could escalate quickly

From an industrial perspective  
most important

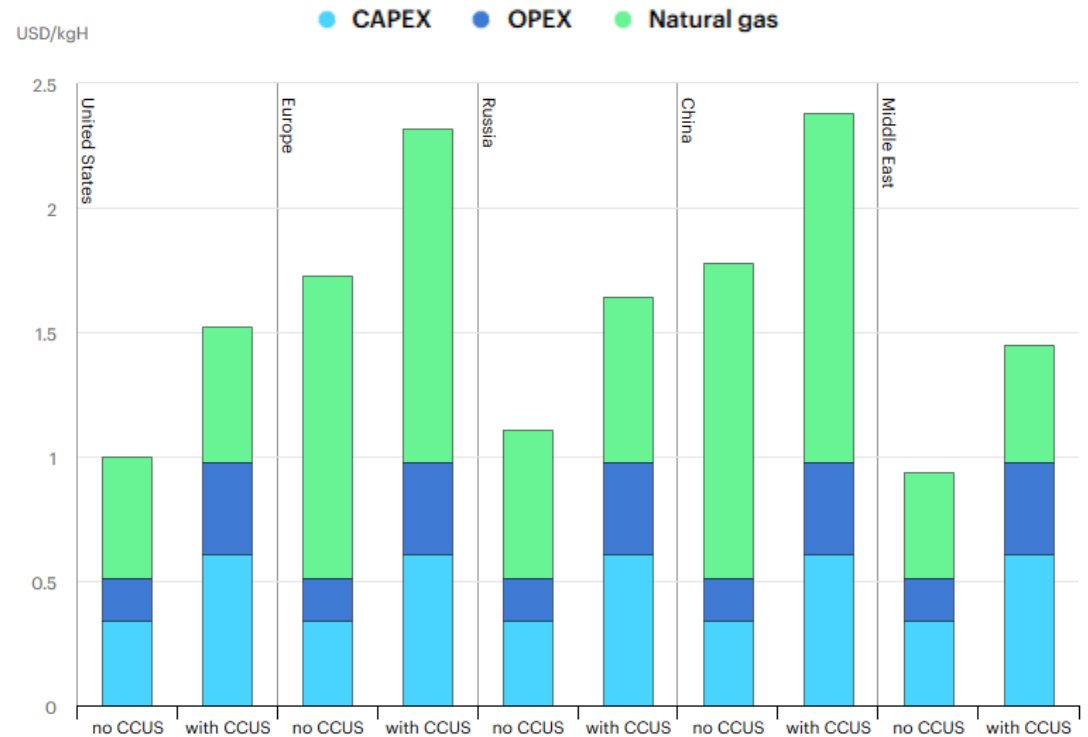
- sufficient quantities
- security of supply and
- affordable prices

to stay competitive in a global  
market





**Which role should blue hydrogen play in a transformation towards a GHG-neutral economy?**



Hydrogen production costs using natural gas in selected regions, in USD/kg H<sub>2</sub>

(Source: <https://www.iea.org/data-and-statistics/charts/hydrogen-production-costs-using-natural-gas-in-selected-regions-2018-2>)





# Scale-Up PtG and promote international cooperations

Large-scale PtG plants >100 MW should be developed and tested at suitable locations

PtG and FC technologies have world market potential → job creation and added value for regions

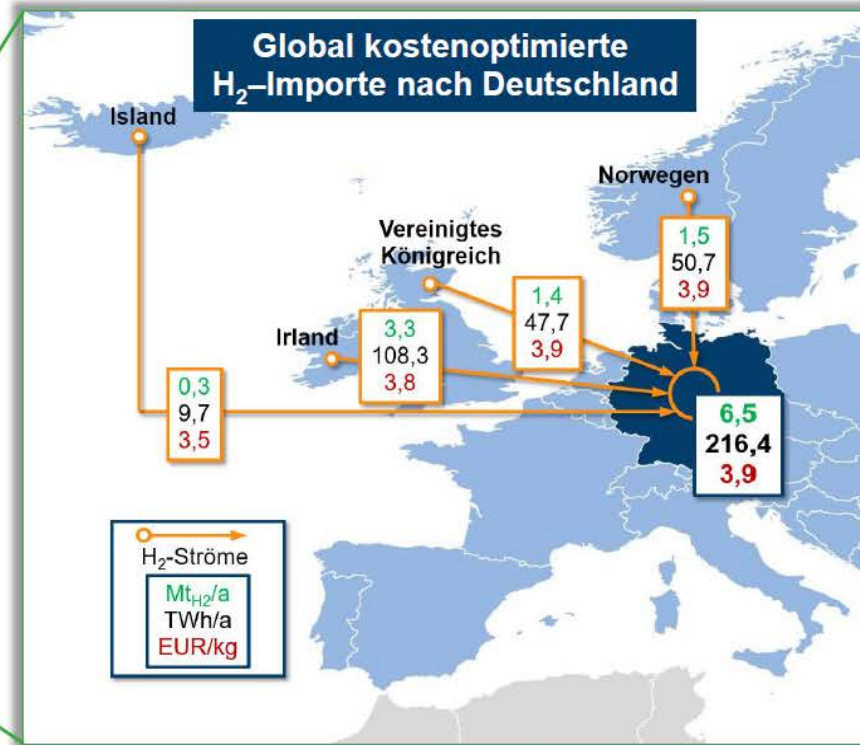
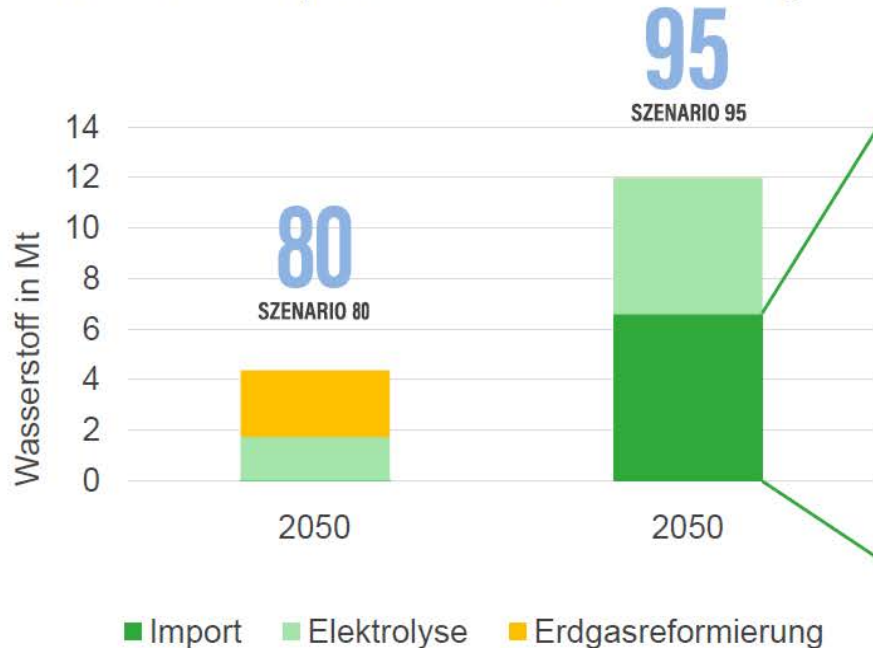
Implementation of RED II has potential to push the Scale-Up of PtG forward → renewable share should be increased to 20 %

International cooperations to set the path for import structures



## How should we promote European and global hydrogen markets?

### Wasserstoffimport und -bereitstellung



Source: Robinius, M., Markewitz, P., Lopion, P. et al. (2019): Kosteneffiziente und klimagerechte Transformationsstrategien für das deutsche Energiesystem bis zum Jahr 2050. (Kurzfassung) Forschungszentrum Jülich GmbH





# Support research and innovation

Initiated an energy research offense (“Energieforschungsoffensive”) to strengthen research and innovation for the upcoming energy transformation

Next energy research dialogue will be based on hydrogen

Exploit the potential of innovative hydrogen storage and transport technologies, such as LOHC.



## Key Questions for the upcoming Word Café

**How can we strengthen our European innovative capacity in regards to Hydrogen and how can we transfer this to added value?**

**How should we promote European and global hydrogen markets?**

**Which role should blue hydrogen play in a transformation towards a GHG-neutral economy?**