



HYDROGEN BEYOND THE HYPE

The integral approach of hydrogen in the city of Emmen - Boosting sustainable mobility

Melinda Loonstra & Remke Palsma

1 December 2021

The integral approach of hydrogen in the city of Emmen

Emmen : located in the Northern Netherlands, 108.000 inhabitant, 700 ha industrial area, more than 7.000 companies (including heavy chemicals)

Sustainability ambition: in 2050 carbon free

Hydrogen:

- promising option in the context of the value chain

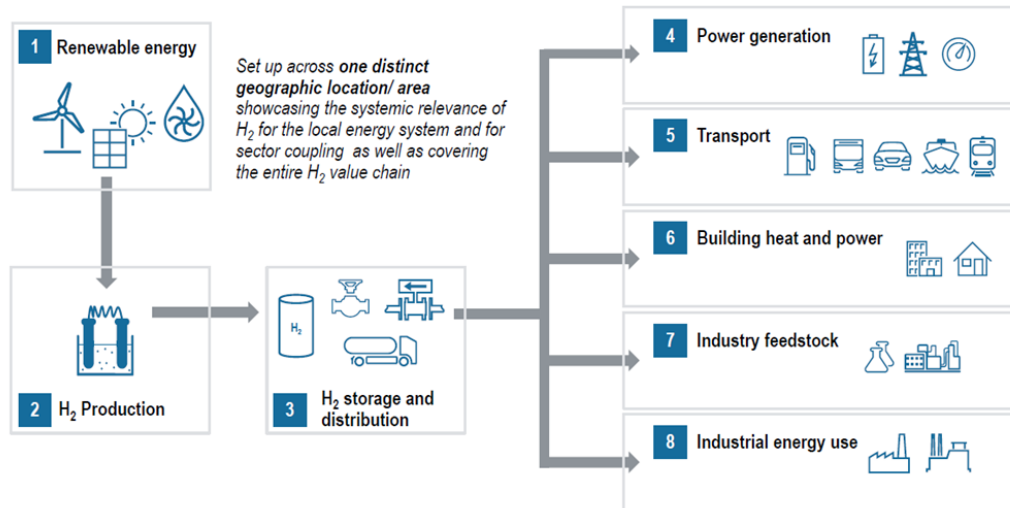
- Integrated approach



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Factor X: regional cooperation

Conceptual overview of a H₂ Valley



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The Hydrogen Valley Northern Netherlands



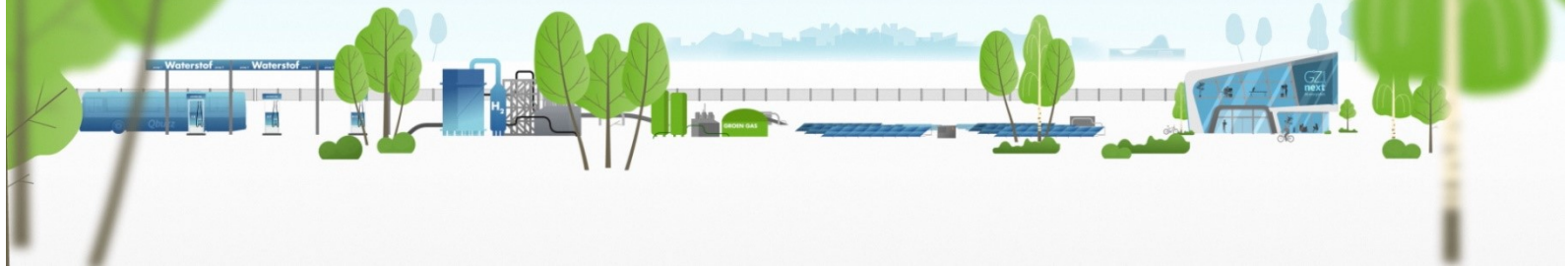
HEAVENN in Emmen: Energy Hub GZI NEXT Emmen



GZI next

dé energiehub

[GZI Next 2021 - Google Drive](#)



Energy Hub Emmen stimulating sustainable mobility

Putting in place:

- 10 MW Electrolyser, serving:
 - the local heavy industry cluster, first by tube trailers, later on by pipeline
 - Mobility
 - R&D goals
- Hydrogen Refuelling station
 - 10 hydrogen public buses
 - Trucks of local industries



Results of our integral approach

1. own local green hydrogen value chain
 2. local hydrogen system part of a regional ecosystem for hydrogen: EU recognized Hydrogen Valley
 3. HORIZON project HEAVENN with Energy Hub GZI Next Emmen: reusing the existing energy infrastructure for new energy sources.
 4. Gas 2.0 (Campus Emmen) : designed curriculum for new knowledge and skills concerning hydrogen application for vocational education in collaboration with several educational institutions.
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The lessons we learned

- Our influence as local government is limited, therefore a broader approach to sustainable mobility is needed
 - Focus on the entire hydrogen value chain
 - Work across municipal, regional and national borders
 - Function as a connecting partner bringing together private and public goals and ambitions
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