



Niedersächsisches
Wasserstoff-Netzwerk

The Green Hydrogen Economy of Lower Saxony



28.02.2024 Dr. Alexander Bedrunka

Hydrogen Network of Lower Saxony

www.wasserstoff-niedersachsen.de

- founded in 2020 by the Ministry of Environment of Lower Saxony
- network coordination by an interdisciplinary team
- central contact for all hydrogen players in Lower Saxony
- more than 900 contacts within the network



Dr. Alexander Bedrunka
specialist hydrogen
KEAN



Neele Birnbaum
specialist funding
KEAN



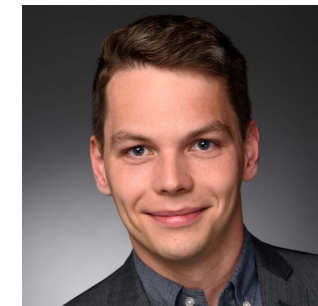
Lis Blume
public relation
KEAN



Jörg Schrickel
specialist hydrogen
KEAN



Lukas Kutzki
project leader UVN

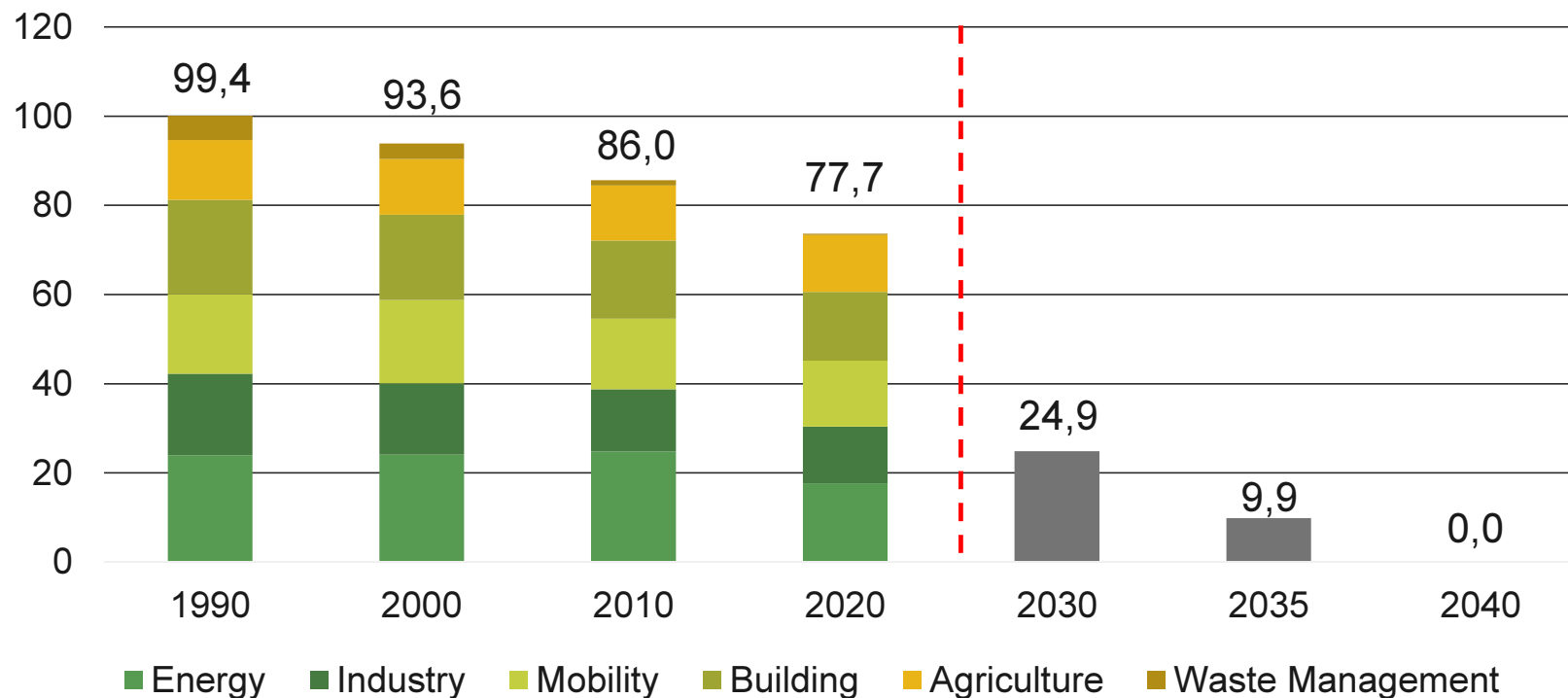


Christoph Peters
project leader DGB/AuL

Climate Law of Lower Saxony

The framework for building a green hydrogen economy.

Development of greenhouse gas emissions (in million tonnes of CO2 equivalent)



Source: Niedersächsisches Ministerium für Umwelt, Energie und Klimaschutz (2022): Bericht über die Entwicklung der Treibhausgasemissionen in Niedersachsen

National Hydrogen Strategy

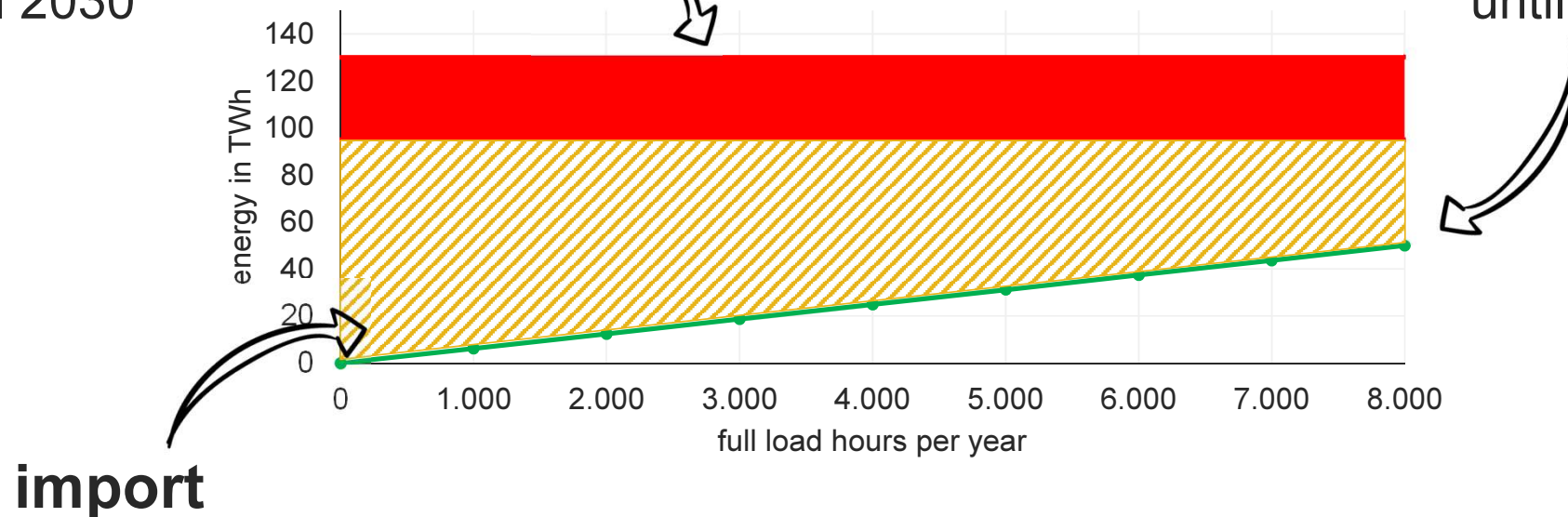
How much hydrogen do we need in Germany?

95 – 130 TWh

hydrogen demand
until 2030

10 GW

electrolysis capacity
until 2030



Hydrogen Strategy of Northern Germany

Only possible with strong cooperations.



- building a green hydrogen economy until 2035
- 500 MW electrolysis capacity by 2025 / 5 GW by 2030
- H₂ fueling stations: 50 by 2025 / 100 by 2030

Regional Hydrogen Networks

- regional networks as a central point of contact for activities and actors in these regions
- over 13 regional networks in Lower-Saxony
- supra-regional networking of hydrogen stakeholders through the Hydrogen Network of Lower Saxony
- continuous exchange to identify synergy effects

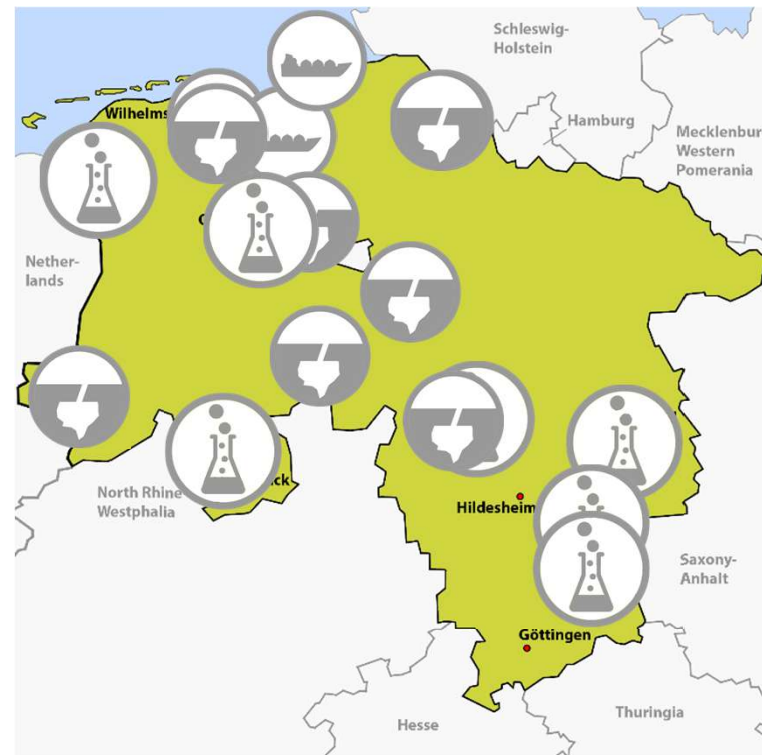


Hydrogen Country No. 1

Optimal conditions for a climate-friendly hydrogen economy.

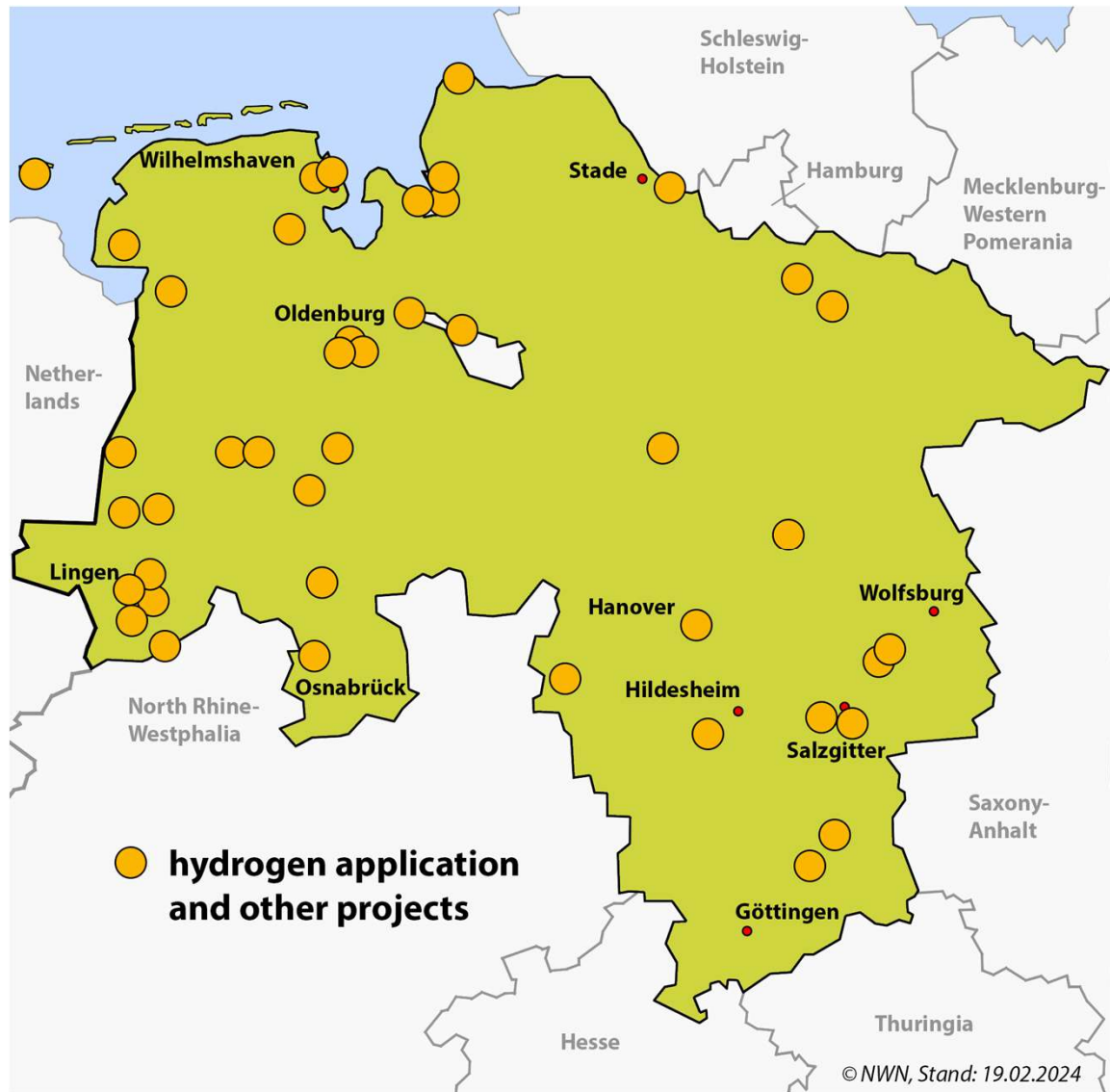
access to renewable energy sources (especially on- and offshore) to produce green hydrogen

seaports for importing hydrogen via coastal areas

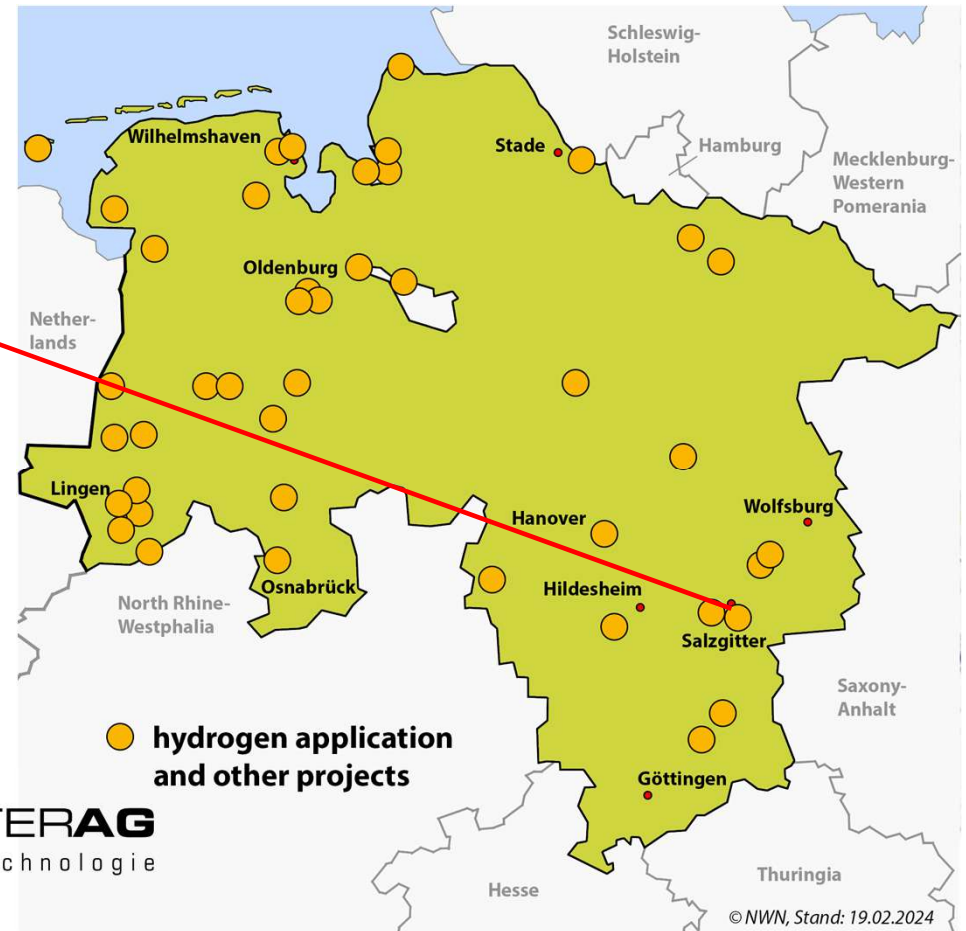
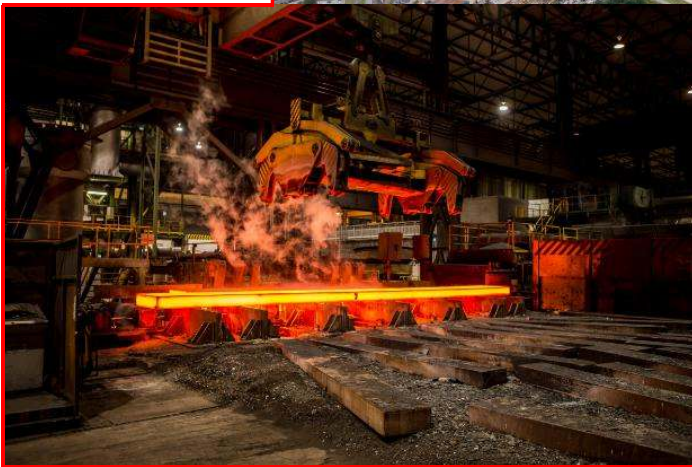


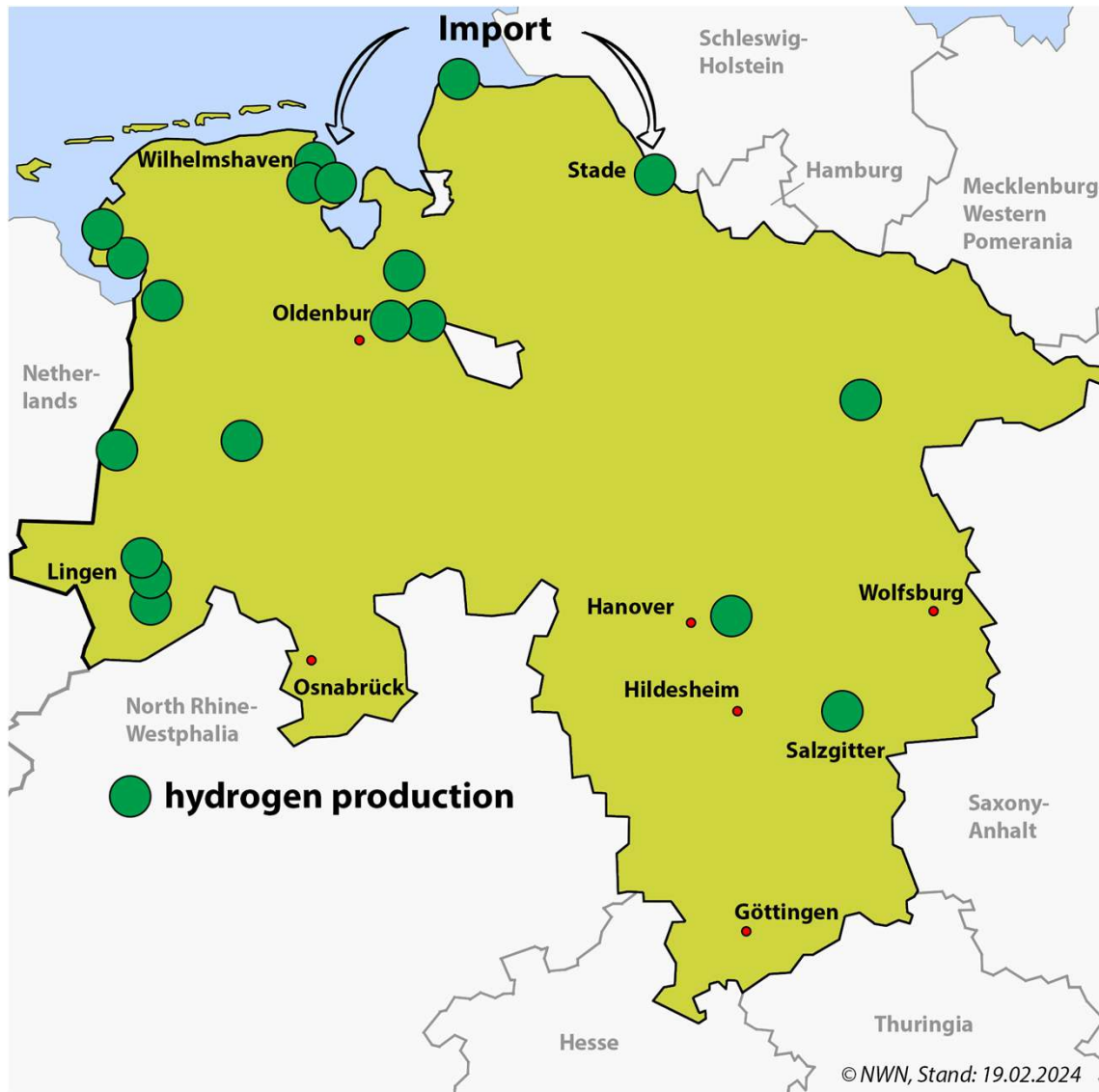
Storage of hydrogen in salt caverns etc.

scientific and technological expertise



SALCOS

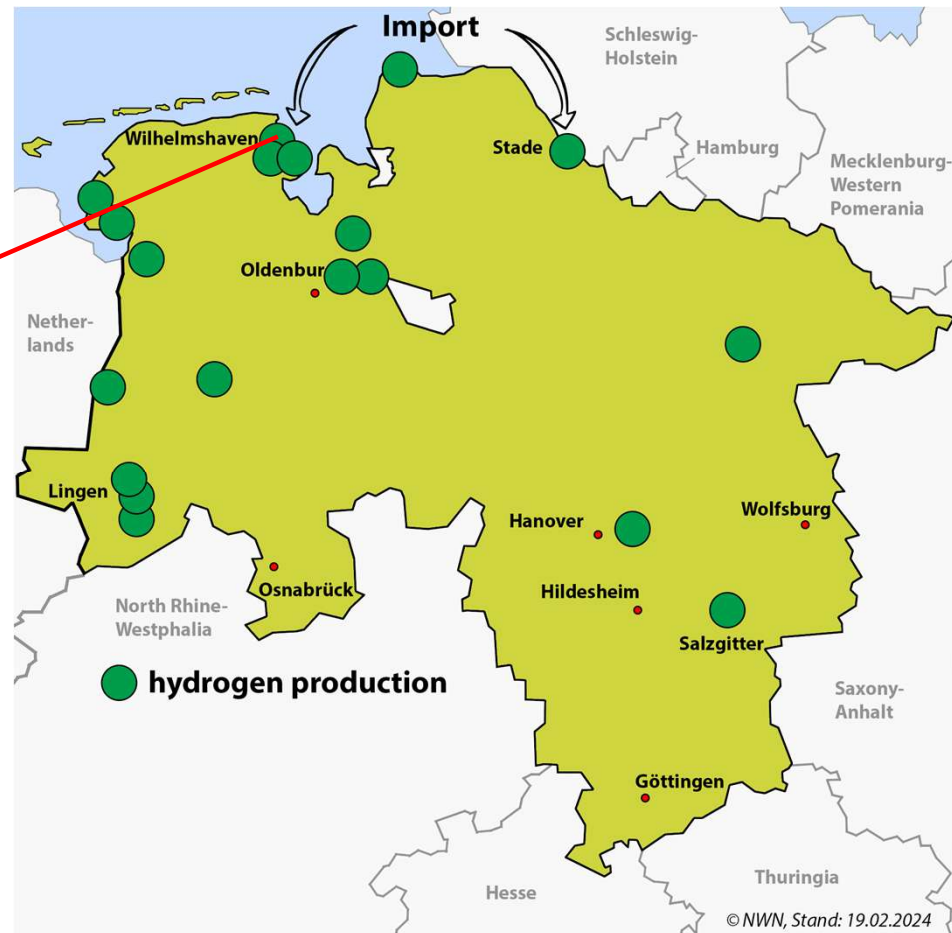




Green Wilhelmshaven



© uniper



H₂ from Bio-methane plasmalysis



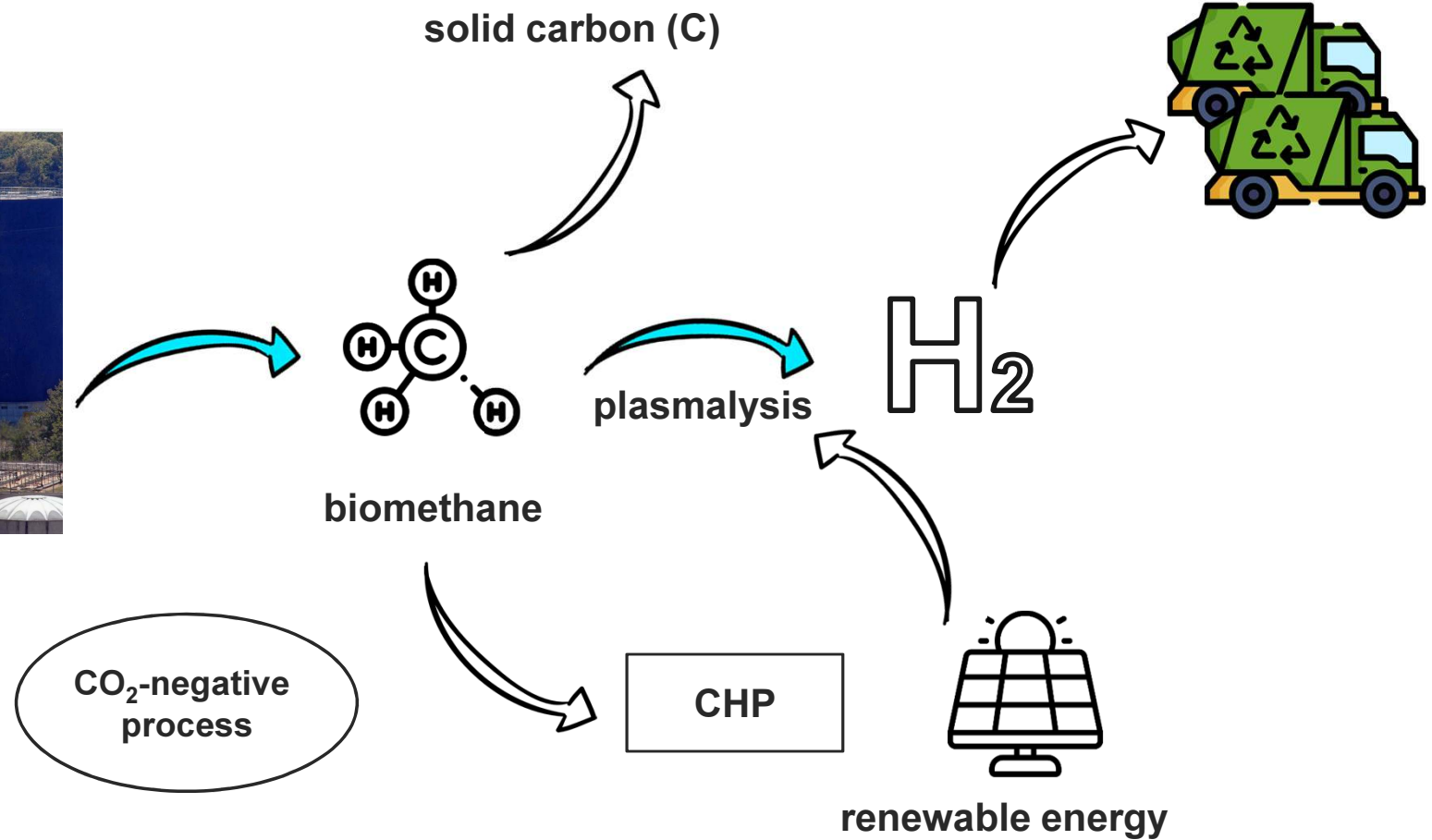
© aha

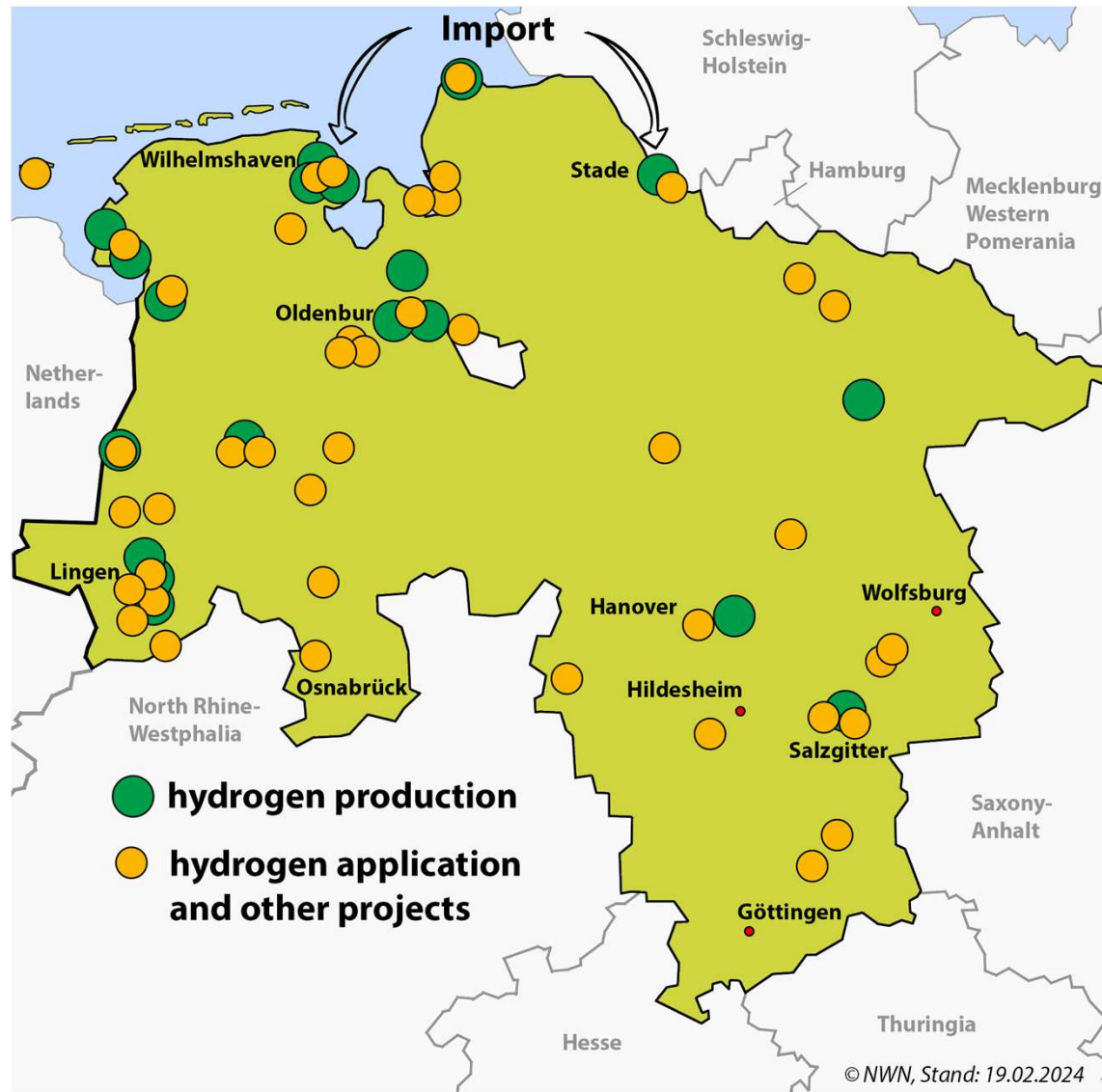


H₂ from Bio-methane plasmalysis

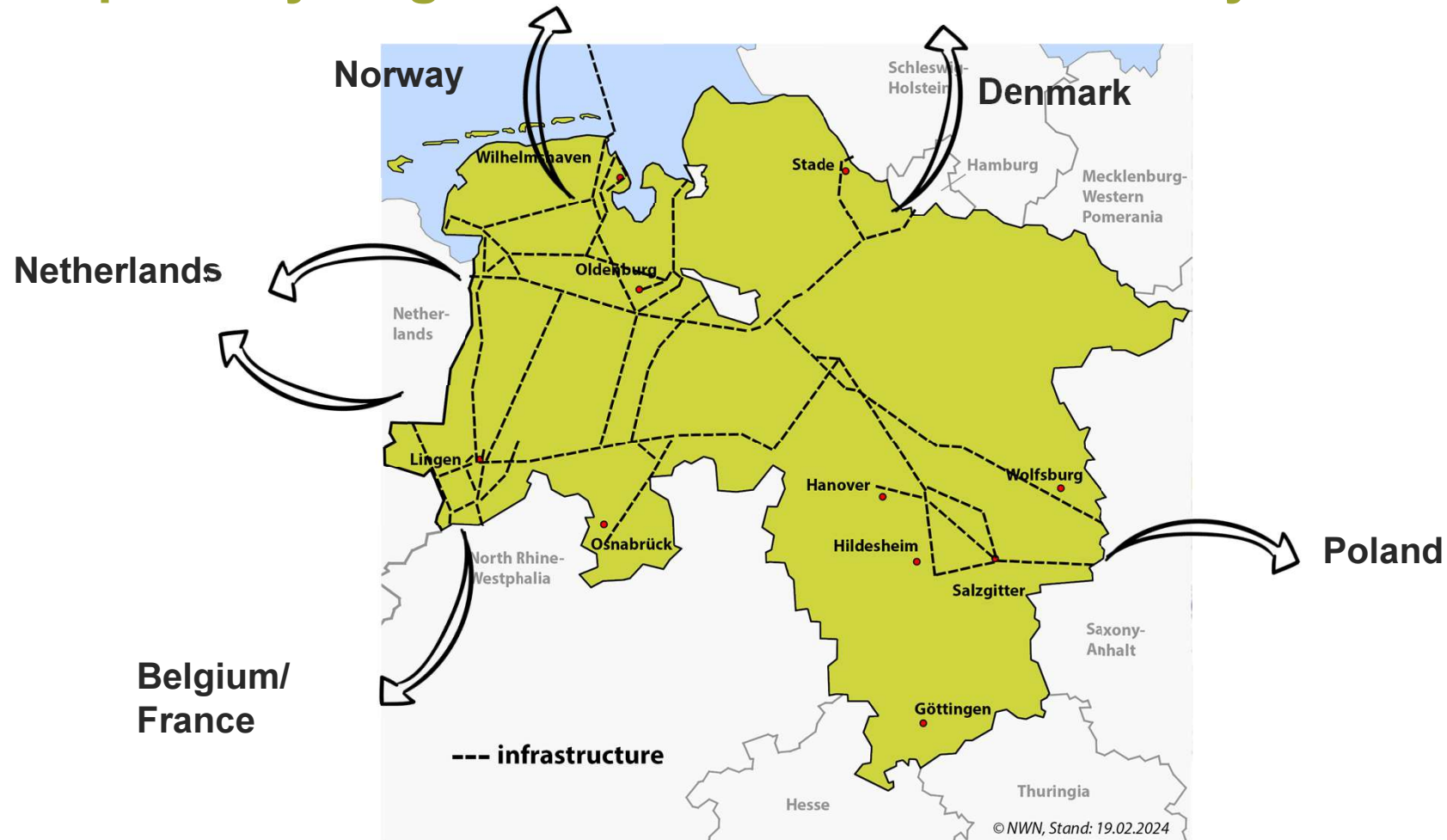


© aha fermentation towers

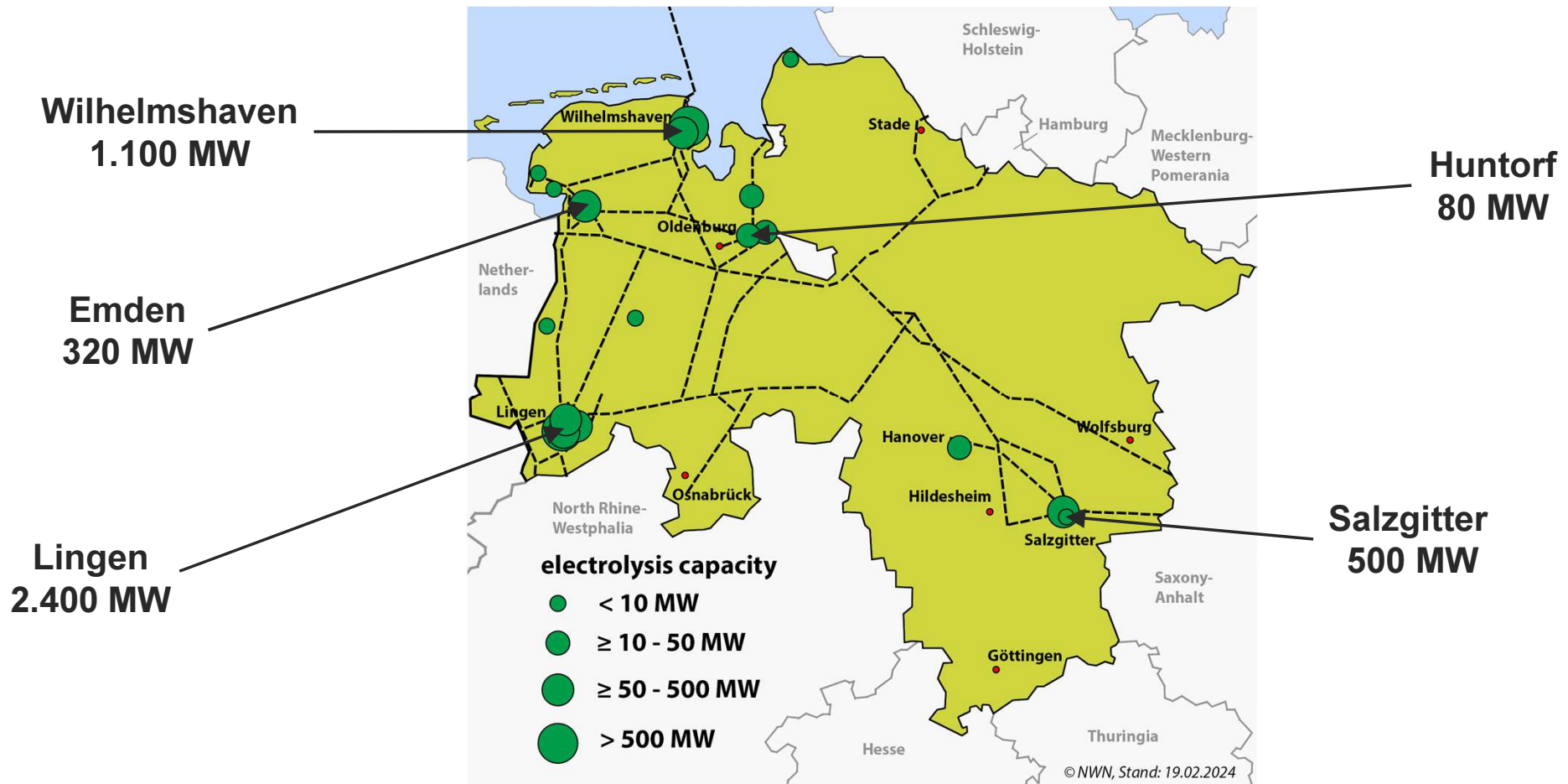


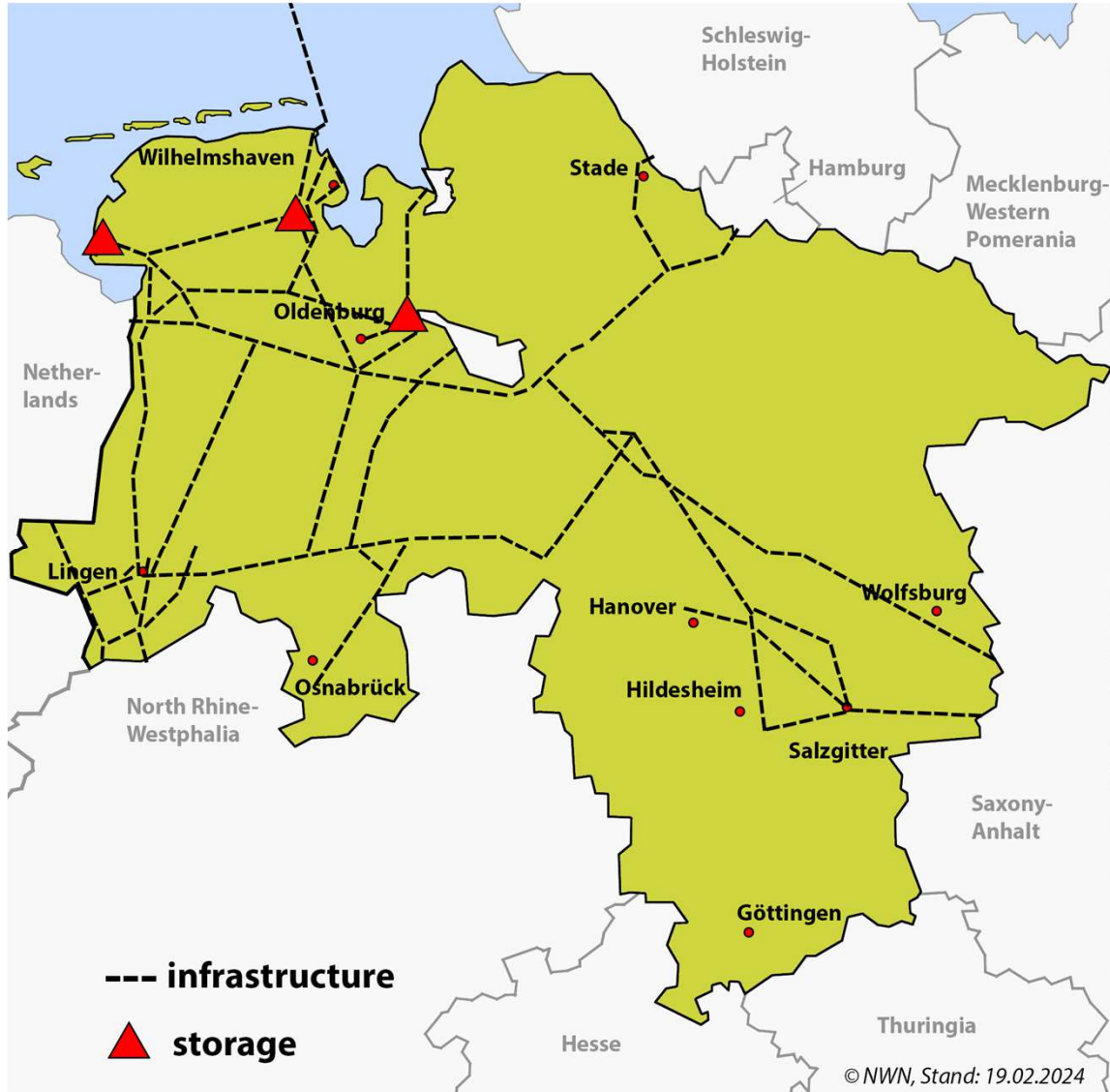


European Hydrogen Backbone in Lower Saxony

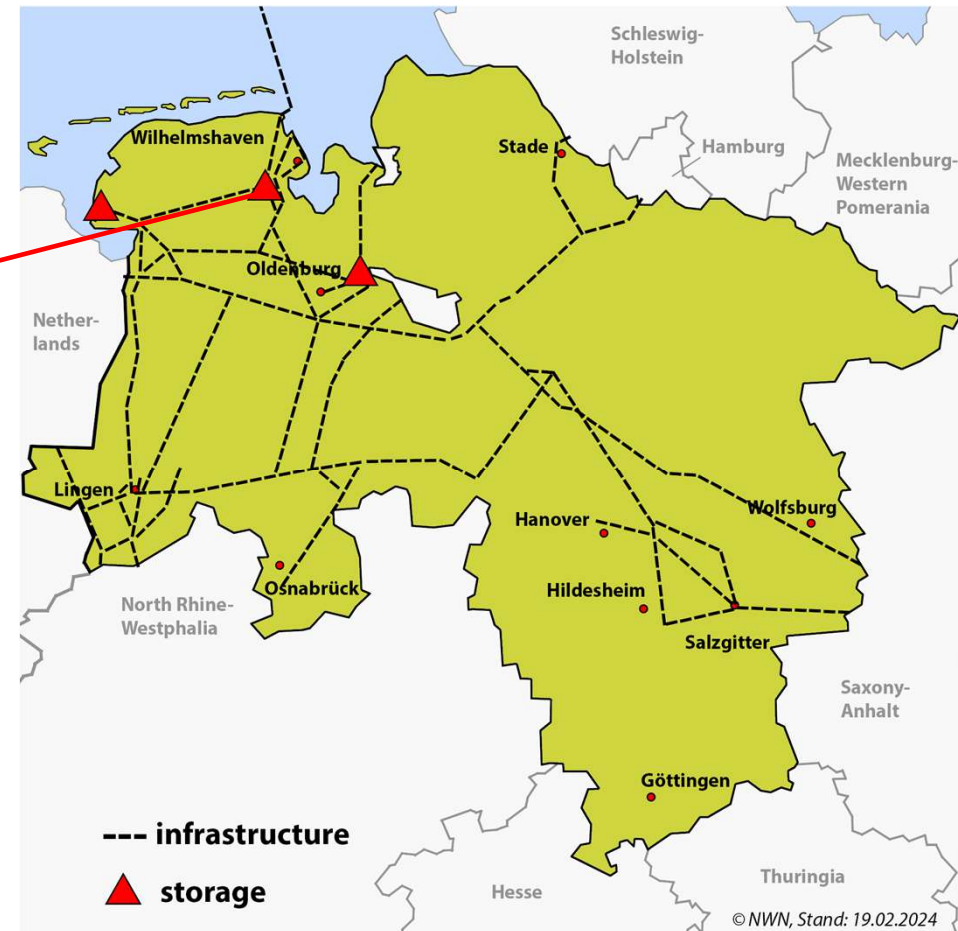
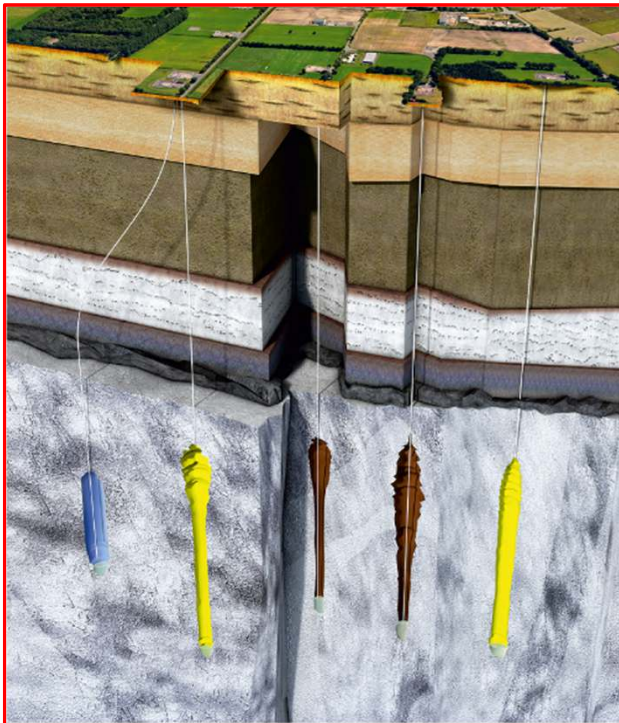


Electrolysis Capacity in Lower Saxony (2030)



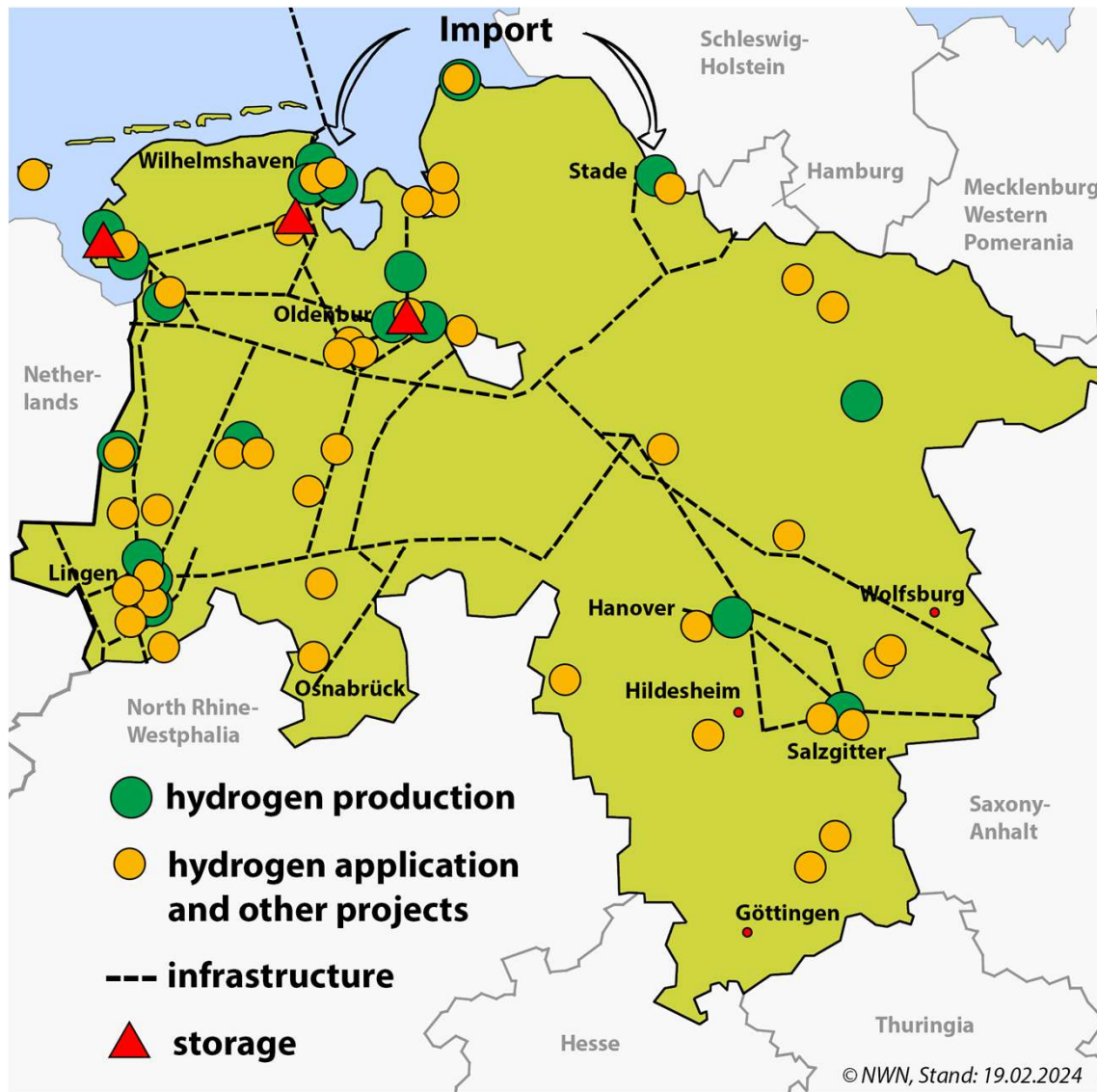


H2CAST

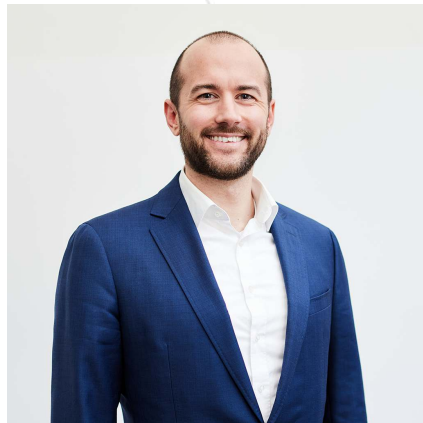


STORAG ETZEL

Energy Storage Solutions ©STORAG ETZEL



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**Niedersächsisches
Wasserstoff-Netzwerk**

Thank you for your attention!