

Implementation on the ground – perspectives of energy utilities on systems integration, market design and the energy transition

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EUFORES Inter-Parliamentary Meeting, 27 October 2023

Climate
Neutral
by 2035

2022

EUR 8.6 billion
Sales

EUR 463.5 million
Result

Ø 10,185
Employees

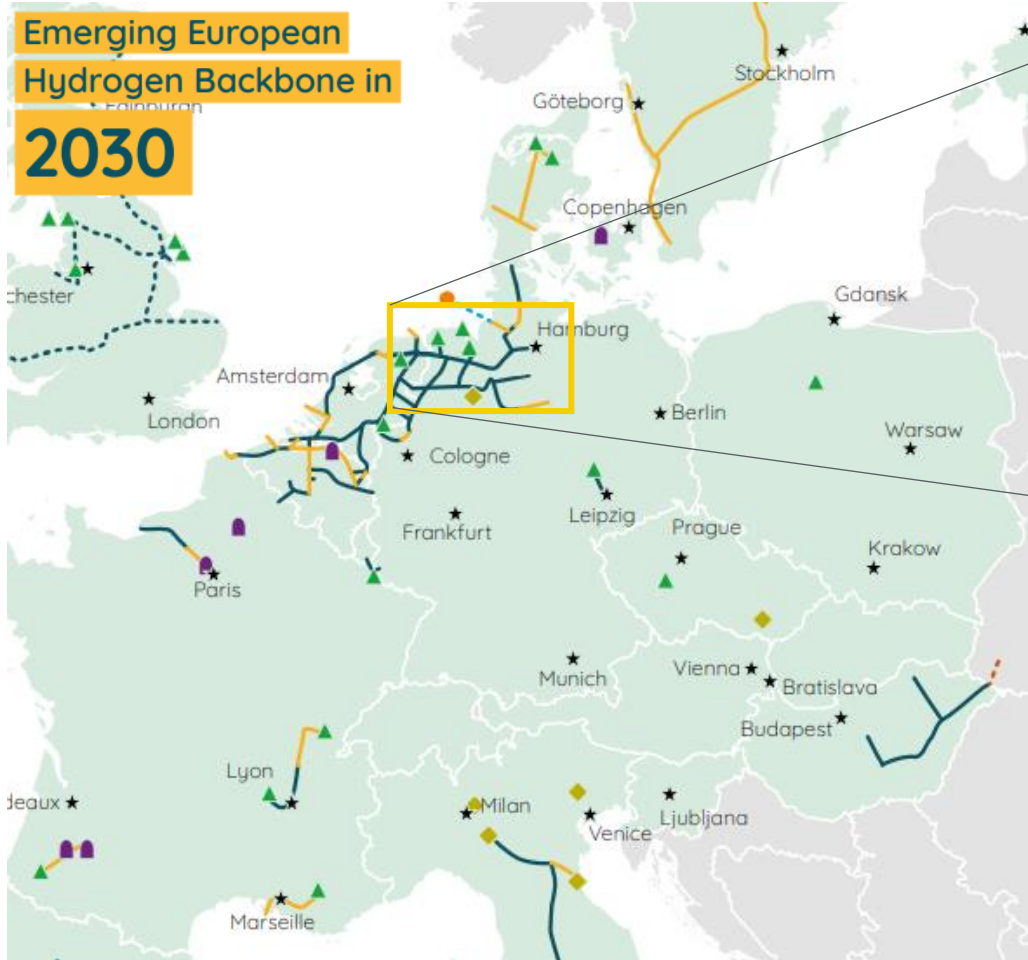
1.4 million
Customers (Electricity)

0.7 million
Customers (Natural Gas)

0.7 million
Customers (Telecommunication)



Northwest Europe: the cornerstone for a H2 pipeline grid



Northwest Europe as starting point

- Transforming existing pipelines for the transport of Hydrogen
- Initial pipeline grid HyPerLink by Gasunie
- Connecting the Netherlands, Lower-Saxony, Bremen and Hamburg

Extending the Hydrogen Backbone, April 2021

The development of an integrated hydrogen economy



Pictures: EWE AG / swb AG



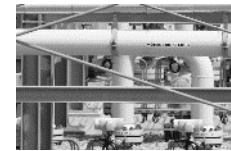
6 Market in industry sector
Usage of green hydrogen for industry applications like steel production



5 Market in transport sector
Usage of green hydrogen for heavy duty and other transport applications



1 Renewable energies
On- and offshore capacity with additional potential for deployment



2 Initial pipeline grid
Connecting production, storage and usage of hydrogen via pipelines

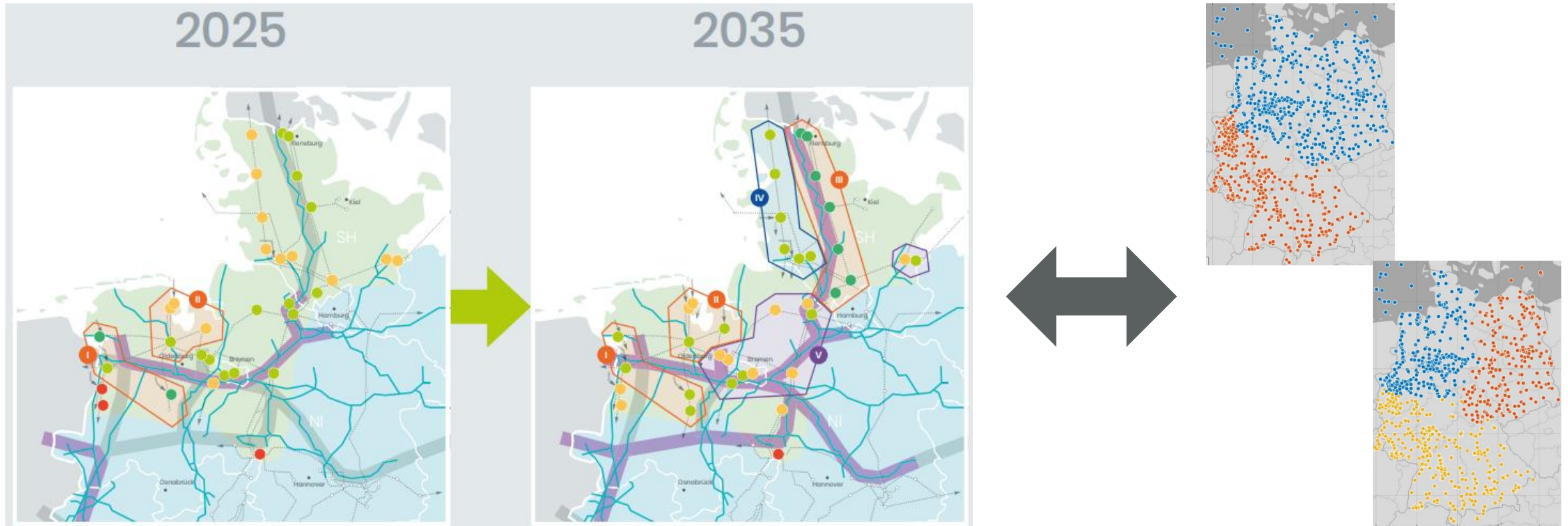


3 Sea and inland ports
Important logistic hubs with potential for import of hydrogen



4 Large scale storage facilities
Introducing flexibility to an energy system based on renewables

H2 electrolysis: Locations close to power generation reduces network extension needs



Gasunie/Thyssengas/TenneT: Quo Vadis Elektrolyse, July 2022 / ACER's decision on alternative bidding zone configurations, Annex I, August 2022

EWE NETZ operates one of Europe's most stable electricity grids



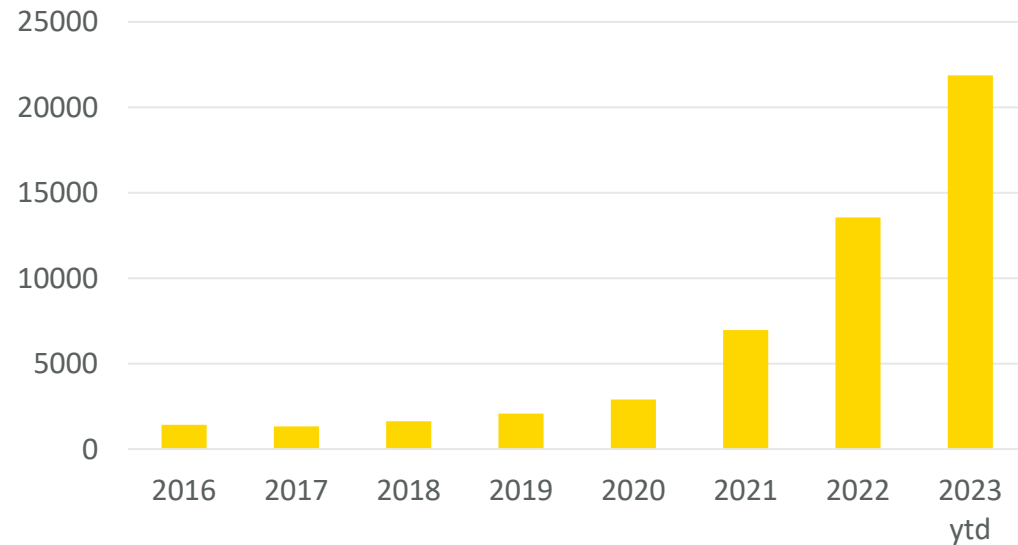
≈62,500 km
low voltage grid

Over
95%
of electricity in the network
comes from renewable energies

≈21,000 km
Medium voltage grid

Outstanding
grid reliability in
Europe

New solar PV installations connected to the grid



- Exponential growth is a challenge
- Traditionally, all PV installations were registered to receive subsidy payments
- Dark number of unregistered units for a range of technologies (e.g. plug-in PV, heat pumps, battery storage, EV charging)
- Focused network reinforcement requires relevant data

Alterric: The leading on-shore wind power generator in Germany is part of the EWE group



- Onshore wind is the generation backbone of the future energy system
- Due to the cubic wind/generation curve, site-specific CfD remuneration schemes remain necessary

EWE

Thank you!