



Menschlich.  
Natürlich.  
Verbunden.

Providing Hydrogen Infrastructure to Enable Decarbonization in Hamburg  
- One of Europe's Largest Industrial Hubs

**GASNETZ**  
HAMBURG

June 2021, 2nd Annual Conference of the Global Alliance Powerfuels "Connecting Powerfuel Hubs"

# Hydrogen Network Hamburg: covering the whole hydrogen value chain

Production of  
green hydrogen



Infrastructure to  
connect supply and  
demand



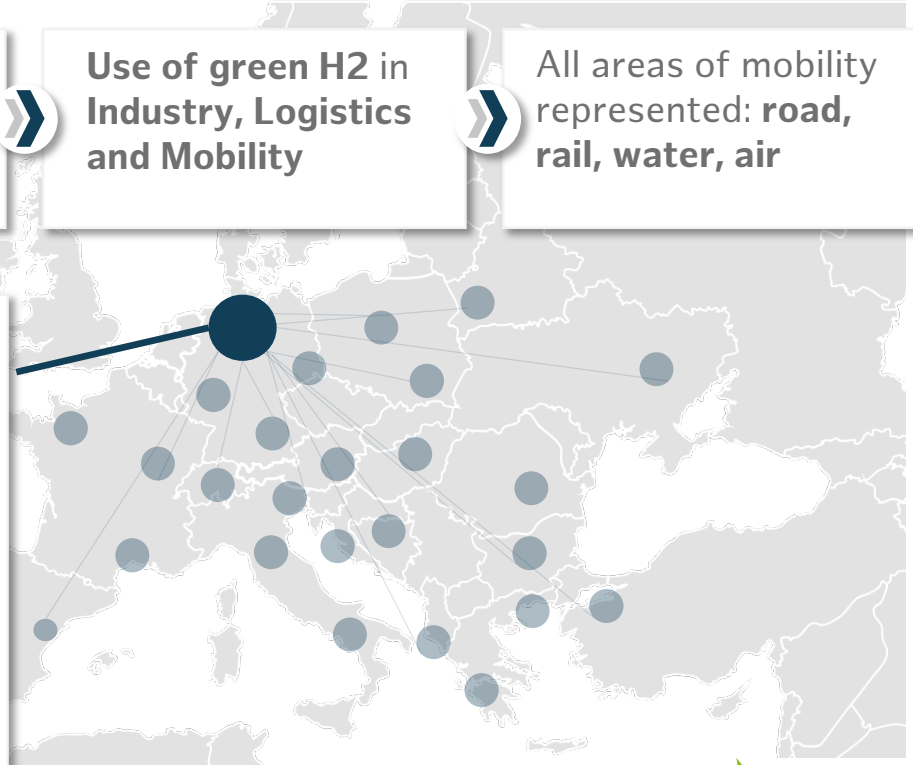
Use of green H2 in  
Industry, Logistics  
and Mobility



All areas of mobility  
represented: road,  
rail, water, air

Grafik: Wärme Hamburg GmbH

## Preparing Scale-up in European context



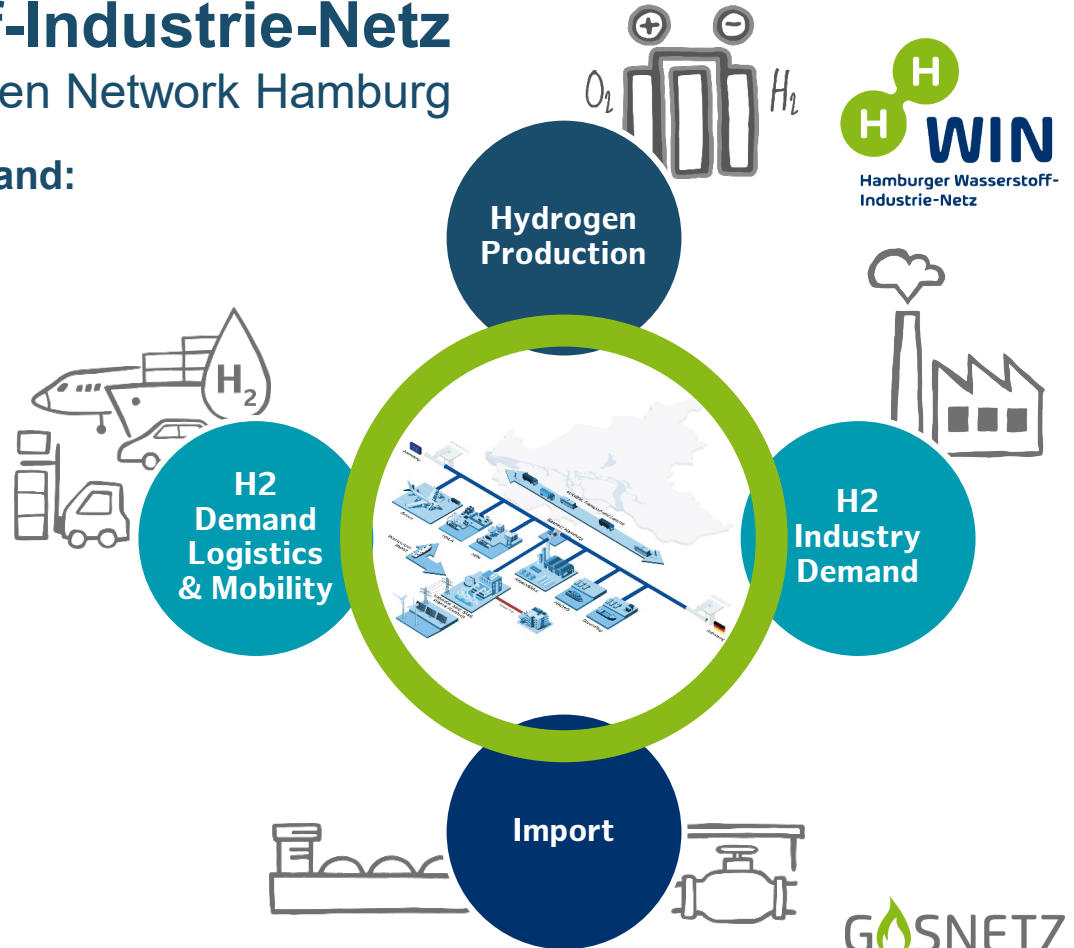
# Hamburger Wasserstoff-Industrie-Netz

Combining Element of the Hydrogen Network Hamburg

**HH-WIN** connects H<sub>2</sub> supply and demand:

- **Industrial Sector**  
e.g. ArcelorMittal, Airbus
- **Local Production**  
at former coal power plant site
- **H<sub>2</sub> Import via Sea**
- **H<sub>2</sub> Import via Pipeline**  
European Hydrogen Backbone
- **Logistics and Mobility Sector**
- **further IPCEI projects**

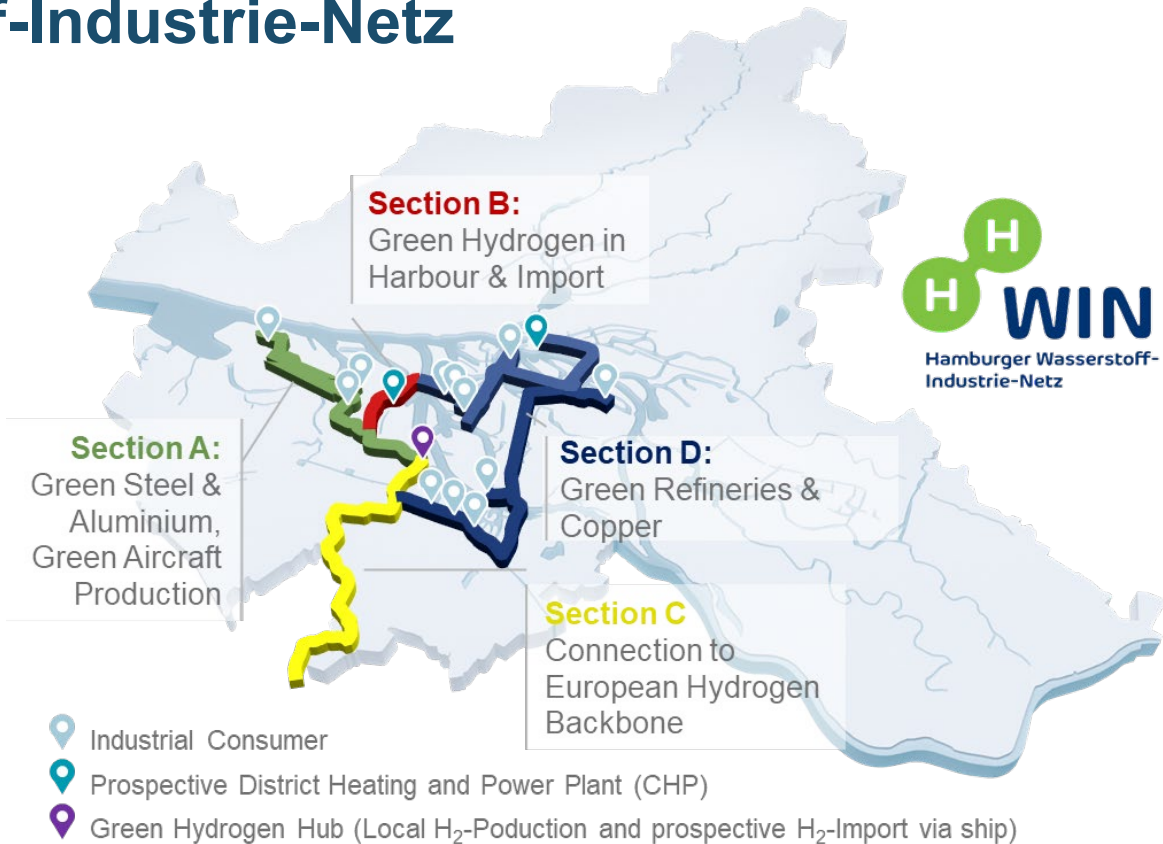
Hydrogen Infrastructure enables **scale-up**  
of a true and flexible **hydrogen ecosystem**



# HH-WIN : Wasserstoff-Industrie-Netz

## Sections A - D

- New **Hydrogen Distribution Network** for **Industry**, heavy haulage and port logistics (>200 customers with 7,6 TWh)
- with **60 km hydrogen pipeline** around one third of Hamburg's natural gas consumption can be replaced, i.e. **570 Mio. m<sup>3</sup> natural gas p.a.** (6,4 TWh at 14 industrial sites)
- **yearly CO<sub>2</sub> reduction potential** approx. **1,2 Mio. tons of CO<sub>2</sub>** at 14 industrial sites over **1,4 Mio. tons of CO<sub>2</sub>** for all segments > 200 customers



## Further Information

<https://future.hamburg/en/environment-friendly-hydrogen-region>

**HyHamburg  
Green Hydrogen  
Hub Hamburg**  
A complete  
hydrogen ecosystem  
in close proximity

**The port:  
central hub**  
One of the largest  
seaports in Europe  
100 MW electrolyser  
45 km of H2 pipeline  
380 kV connection

**Growing  
demand**  
Energy-intensive  
large-scale customers  
from the basic material  
and petroleum industry and  
the maritime sector

**Visionaries  
and doers**  
Already 60  
hydrogen projects  
in the fields of aviation,  
maritime, logistics, mobility,  
renewable energies

**HAMBURG**

Logos: Arcelor Mittal, HADAG, Flotte Hamburg, Airport Hamburg, Commercial vehicles, HUSUM, Bio, V, Wind to Gas, 0 kV

<https://www.gasnetz-hamburg.de/fuer-die-zukunft/wasserstoff/hh-win>

Für eine  
klimafreundliche Stadt

**GASNETZ**  
HAMBURG