

Ready4H2

Can Europe reach its decarbonisation targets without using gas grids?

1 October | HIL Hydrogen Scotland | Glasgow

Barbara Jinks, Director Ready4H2



Ready4H2 - the European initiative focused on hydrogen distribution

The Ready4H2 project consists of more than 60 European gas utilities and national organisations in 10 countries in Europe collaborating to support a hydrogen market for future energy delivery.



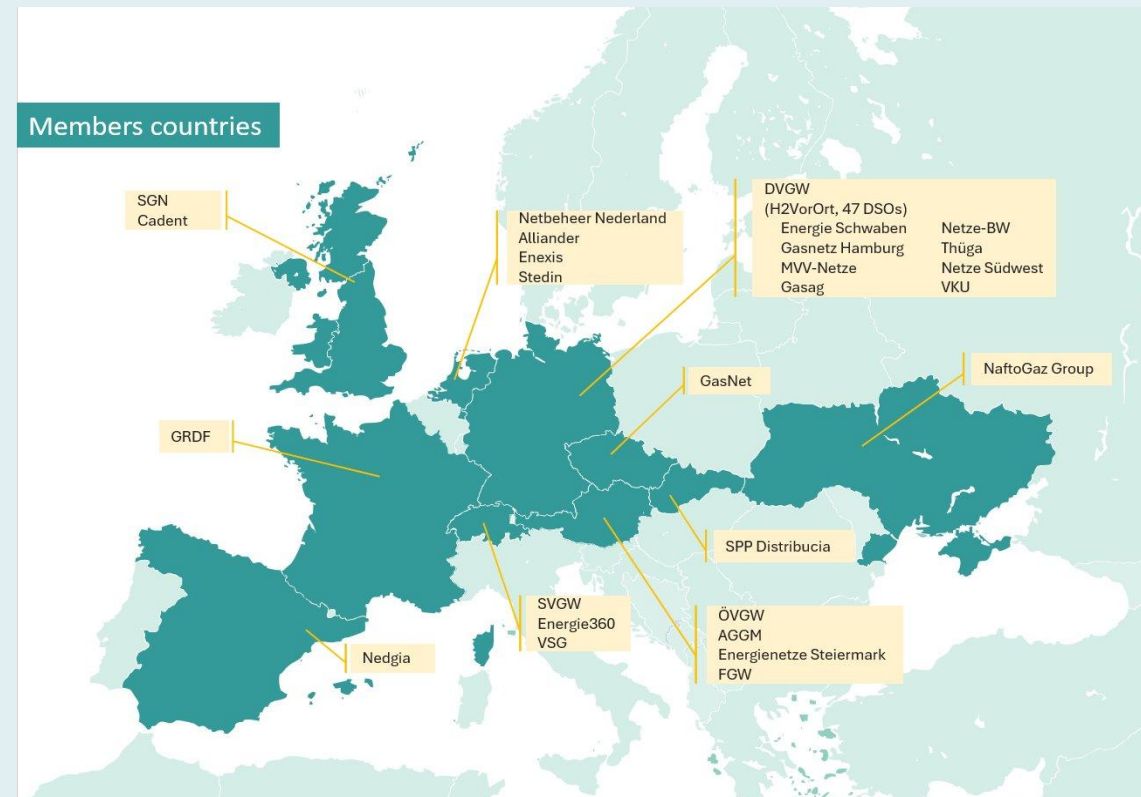
We operate 1.6 M km distribution pipelines (including 55% of EU27 total).



We serve 90 M gas consumers in all sectors including power generation, industry, transportation and heating, which need hydrogen to decarbonise.



We are getting ready to deliver hydrogen, with over 50 projects underway.



	Eurogas	GD4S	Marcogaz	ERIG	HE	GERG	GEODE
Common membership with Ready4H2	DVGW	Cadent	DVGW (Board)	DVGW (Pres)	DVGW		
	GRDF	GRDF (President)			GRDF	GRDF	
	Thüga (Chair Distr)	Nedgia	Nedgia	SVGW (Vice Pres)	SVGW (Board)	Thüga	Nedgia
	Enxiss	Naftogaz	Enxiss	ÖVGW	ÖVGW (Board)	AGGM	SGN
	SPPD	E.ON	Alliander (Chair H2 WG)	SPPD (SK GasOil Asso)	VSG	E.ON	
	CGA/Gasnet (Chair Distr)	Netze BW	Stedin				



Research and activities

WG1 Advocacy & Comms

- Raise visibility of DSOs
- Liaise with key stakeholders
- Policy talks in Brussels

WG2 Technical knowledge sharing

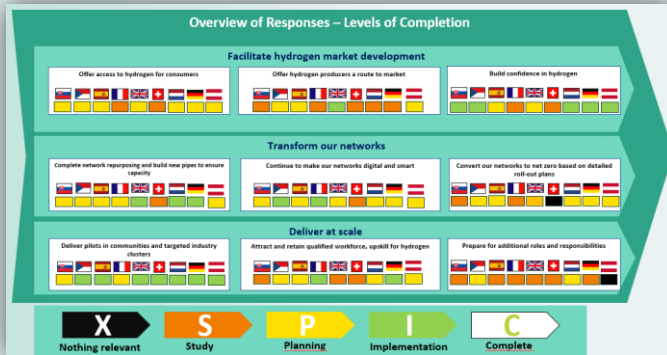
- **Deep dives and webinars**
- Site visits
- Gather and share lessons learned from projects

WG3 Business case for H2 distribution

- Conduct member feedback on EU Gas Package
- **Develop Guide to Planning Gas Distribution Grids for Hydrogen**
- Track **best practice govt initiatives**



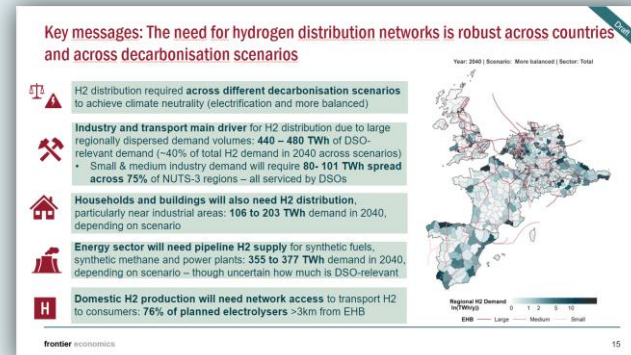
Four studies concluded in 2025 on role of gas DSOs in the energy transition



1 Transformation Survey

Evaluating progress along the Ready4H2 Transformation Roadmap and identifying key successes and challenges.

DSOs are well underway in transforming/expanding their grids to hydrogen.



2 Geospatial study

(Frontier Economics)

Mapping the role of gas utilities in delivering hydrogen to HTDS across Europe.

By 2040 at least 50% of H2 demand in industry, transport, household & buildings sectors needs to be supplied by DSOs.

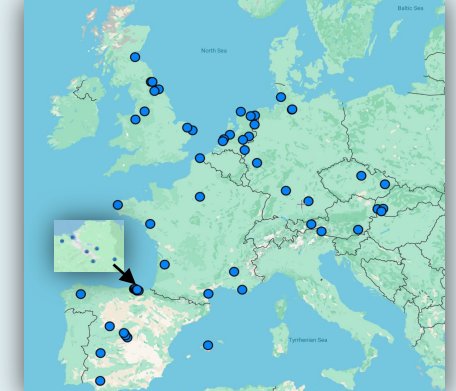


3 Cost

study (DBI)

Estimating the cost to convert gas distribution grids to hydrogen.

Repurposing pipelines cost 7% and GPRMS 52% compared to cost of new-build.



4 Project database

Captures member projects that test feasibility of utilities delivering H2 at scale.

Demonstrating the feasibility to deliver hydrogen at scale.



Ready4H2 Transformation Roadmap

Ready4H2 members actively support the transition to hydrogen and preparations for the transformation of grids for hydrogen is well underway.

Despite the Ready4H2 community having **common values and united vision for hydrogen**, members in different countries have **different profiles and drivers** - hydrogen supply and demand profiles, variable seasonal demand, end users, government support, financial environments, industry development and public support.

We are looking at critical issues to assist DSOs



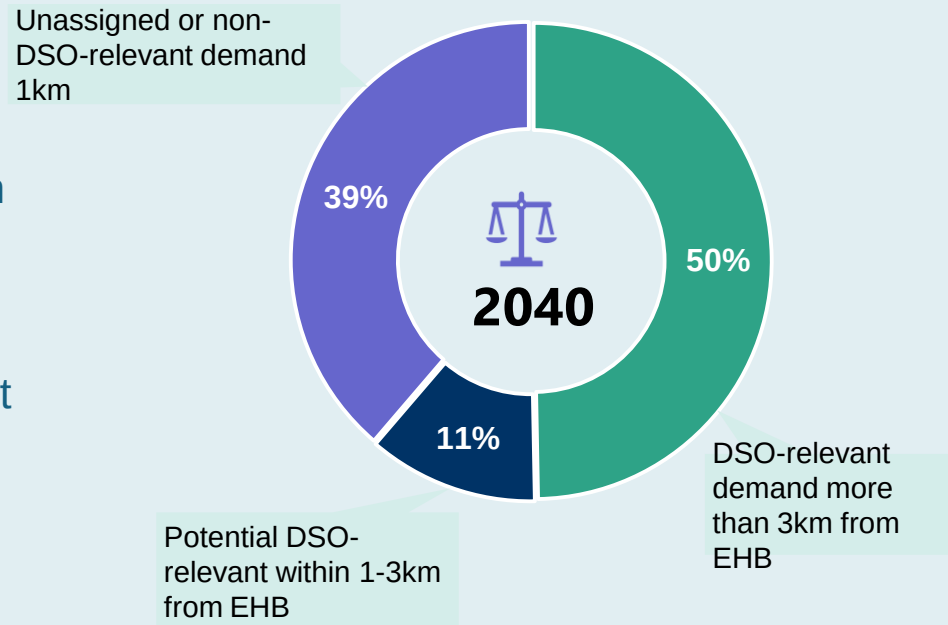
Geospatial study shows the energy transition cannot be achieved without the use of distribution grids

The need for H2 supplied by utilities grows strongly over time, driven by geographical dispersion of consumers

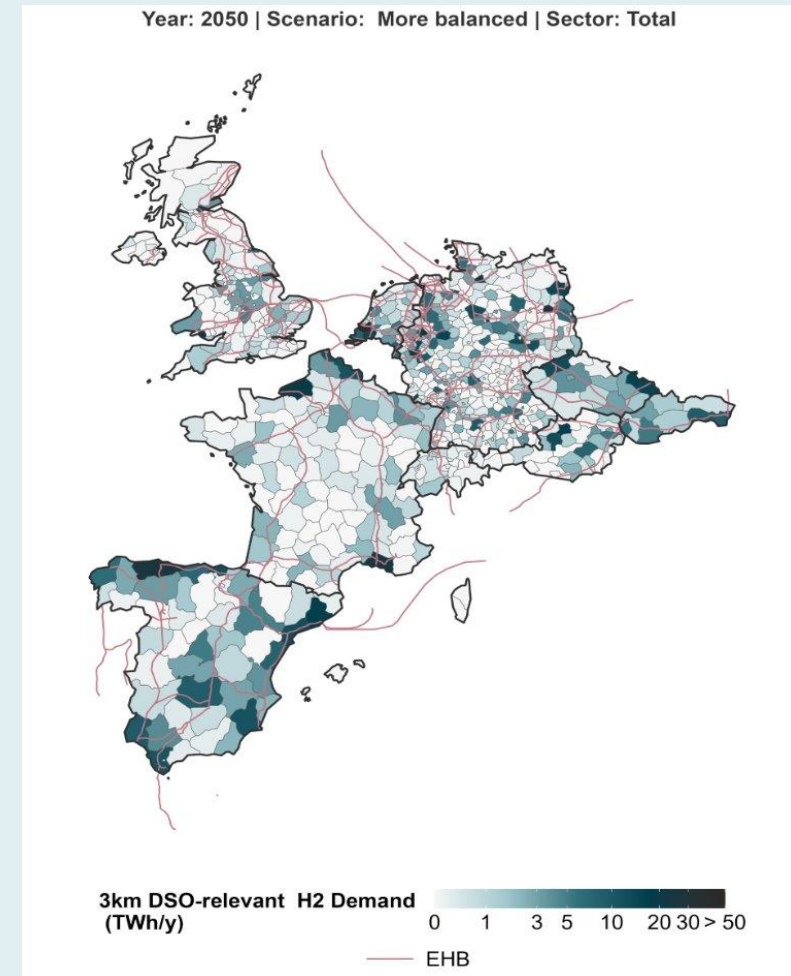
At least 50% of H2 demand in all industry, transport, household & buildings sectors will be supplied by a distribution pipeline in 2040.

Gas utilities needed will connect **100% buildings connections, 71% industry, 32% transportation.**

Gas utilities enable **faster regional development** through remote H2 production. >75% electrolyzers more than 3km from EHB



More Balanced scenario, volumes based on TYNDP Global Ambition (exceptions: France source GRDF, Spain source New Deal)

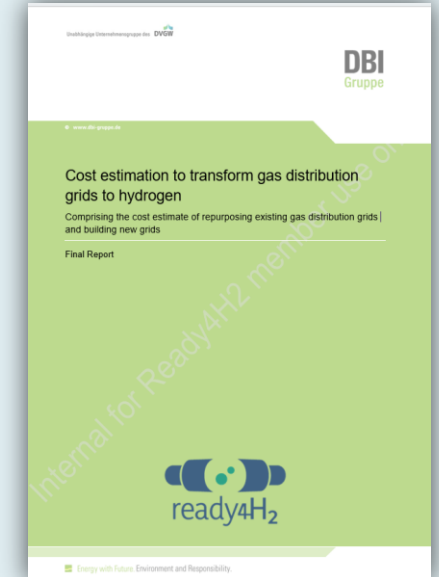


H2 demand by 2050 > 3km from EHB. Based on TYNDP scenarios, national H2 plans and assumptions in Ready4H2 Phase 3 Report.

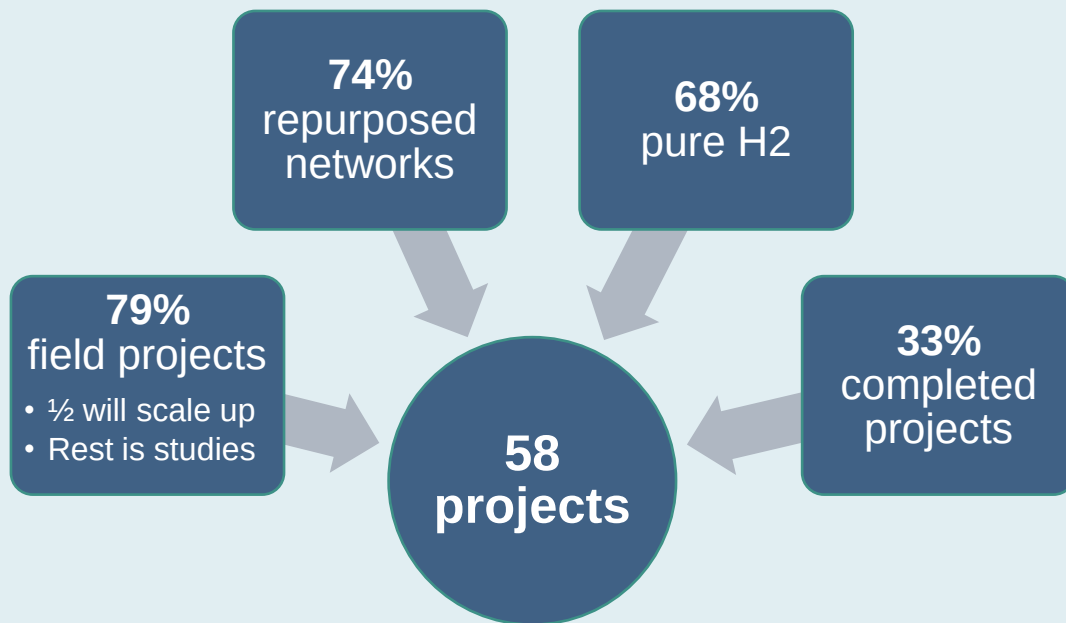
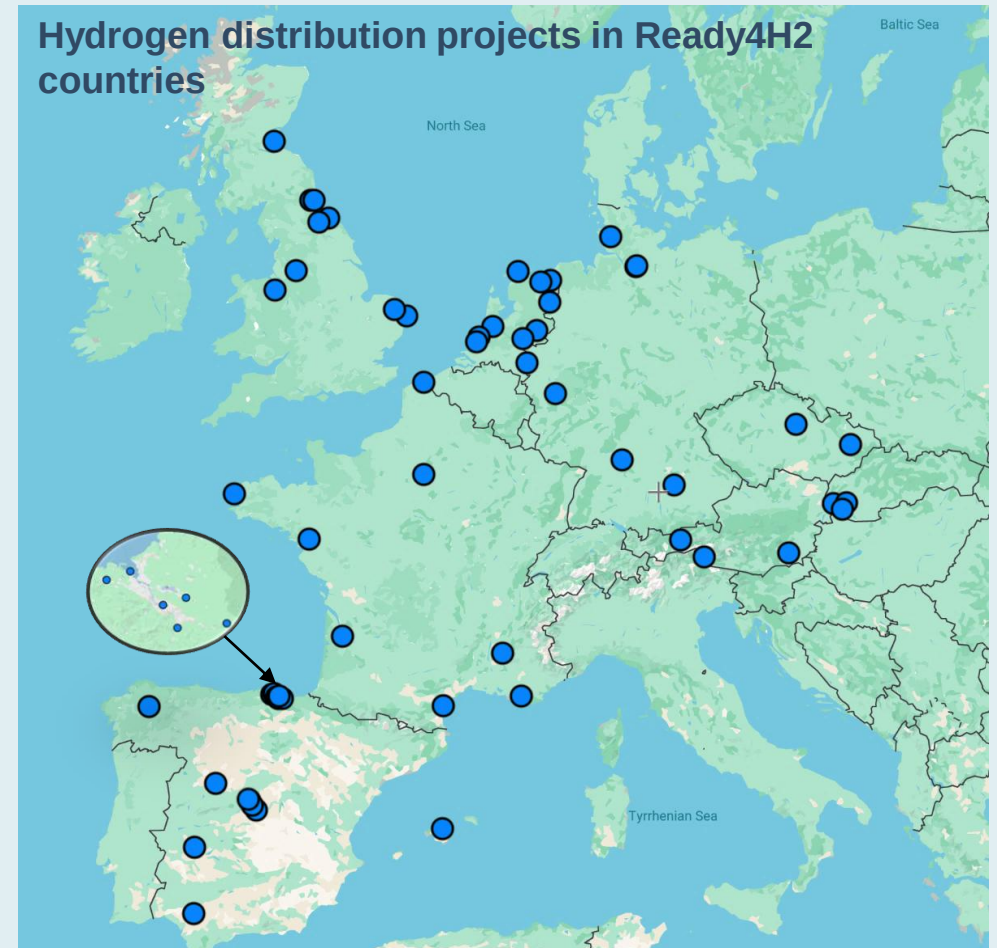
Cost study - reusing gas distribution grids for hydrogen is financially attractive

A revision to the 2023 Marcogas study was made with current data on assets, materials and costs:

- **Repurposing distribution pipelines** costs **7%** compared to the cost of building new
- **Repurposing a gas pressure reduction stroke metering station** costs **52%**
- The total estimated cost of re purposing a gas grid is split 60-40 pipelines - stations



Ready4H2 Project Database - demonstrating the feasibility to deliver hydrogen at scale and sharing lessons learned



Members are transforming faster through collaboration

All 250 German gas standards have been reviewed and **171** have been turned into **hydrogen standards covering the entire gas grid value chain**.

DVGW has initiated a governmentally-funded industrial standardisation program (20 Million €) with **1,200 experts**.



The entire set:
171 standards

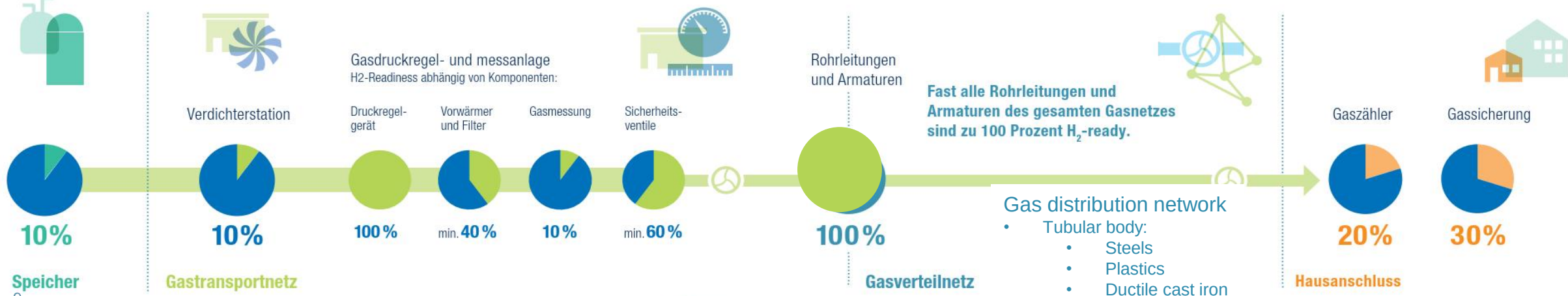


Module Industrie:
61 DVGW + 4 DIN standards



Module Generation:
35 DVGW + 1 DIN standards

Marcogaz studied H₂-readiness across gas chain.



Key messages – please share

Hydrogen distribution through distribution grids is feasible and necessary for Europe to reach its decarbonisation targets.

Ready4H2 members actively support the transition to hydrogen and preparations for the transformation of grids for hydrogen is well underway.

Gas utilities need to be more visible and part of planning an integrated DSO-TSO network to enable demand to be met.

Significant savings can be made by repurposing the gas grids for hydrogen and expanding grids for all green gases.

Repurposing gas distribution grids in areas where biomethane is not foreseen offers flexible delivery of renewable and low carbon gases throughout Europe.

Gas utilities offer faster development in remote regions by connecting green hydrogen production sites.

The prerequisites for gas distribution grid transformation to hydrogen are in place but supporting regulatory & financial frameworks are needed.



See our report
www.ready4h2.com



ready4H₂

www.ready4h2.com

Thank you
Questions
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