



Picture courtesy of Gas Connect Austria

H2: The role of the natural gas network with regard to hydrogen transport and imports

UNECE Group of Experts on Gas – 23 March 2023

Piotr Kus, General Director

Our Members: From Across Europe



44 TSO Members



1 Associated Partner



10 Observers

A Selection of Our Activities

TYNDP

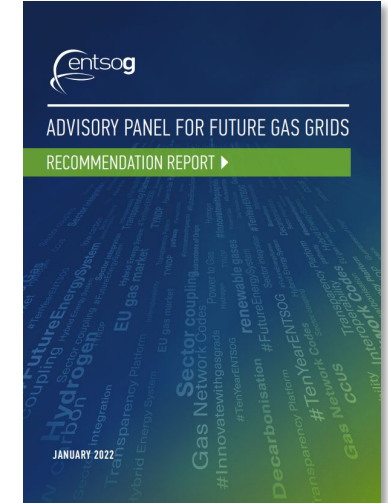
Outlooks

Network Codes

Monitoring

Platforms

Future Energy System



We think long-term and short-term

REPowerEU: Gas and Hydrogen



- Potential hydrogen corridors laid out by REPowerEU
- ENTSOG supports this objective by mapping the hydrogen infrastructure
- Existing pipelines will be the base for the hydrogen infrastructure— via repurposing
- Direction West-to-East: flows changed. Infrastructure will be futureproofed as much as possible.

Network Development: Today's Work For The Future



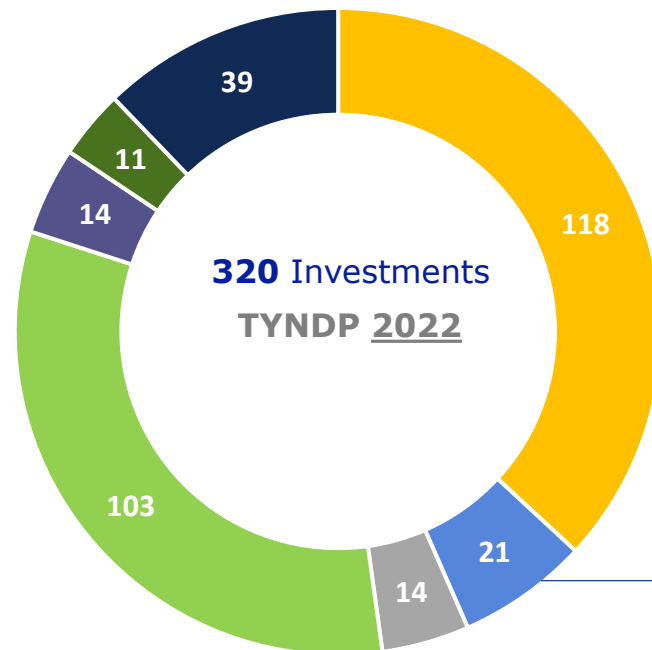
Ten-Year Network Development Plan (TYNDP)

- Assessment of needs: Connections, Security of Supply, scenarios
 - Process is public and involves European Commission, ACER. Open to all stakeholders.
 - TYNDP2022 includes hydrogen
- ### Integrated planning
- Joint scenarios with ENTSO-E
 - Energy System Integration

TYNDP 2022 - Overview of projects

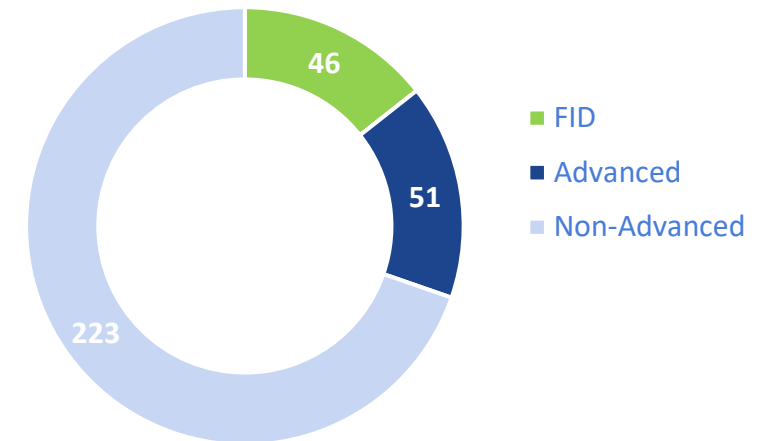
> Total number submitted investments

■ TRA ■ LNG ■ UGS ■ HYD ■ RET ■ BIO ■ OTH



109 investments are directly referring to the development of a dedicated hydrogen system

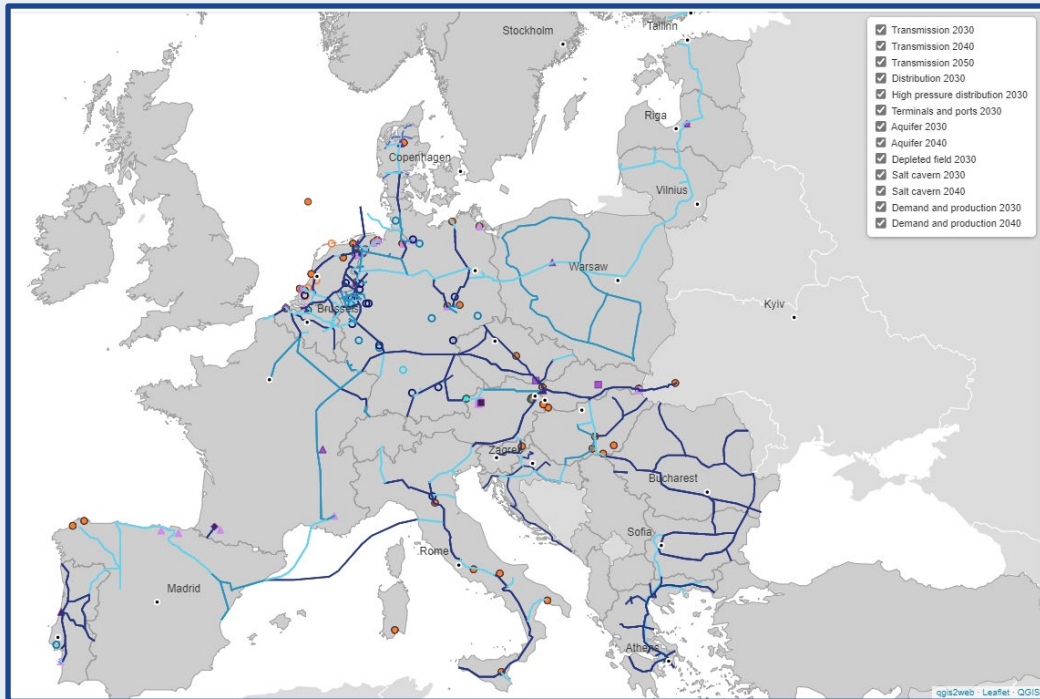
> By maturity status



(*) Total number of submitted investments including investments currently not complying with inclusion criteria submitted during ad hoc project collection + investments already included in initial list of projects for TYNDP 2022

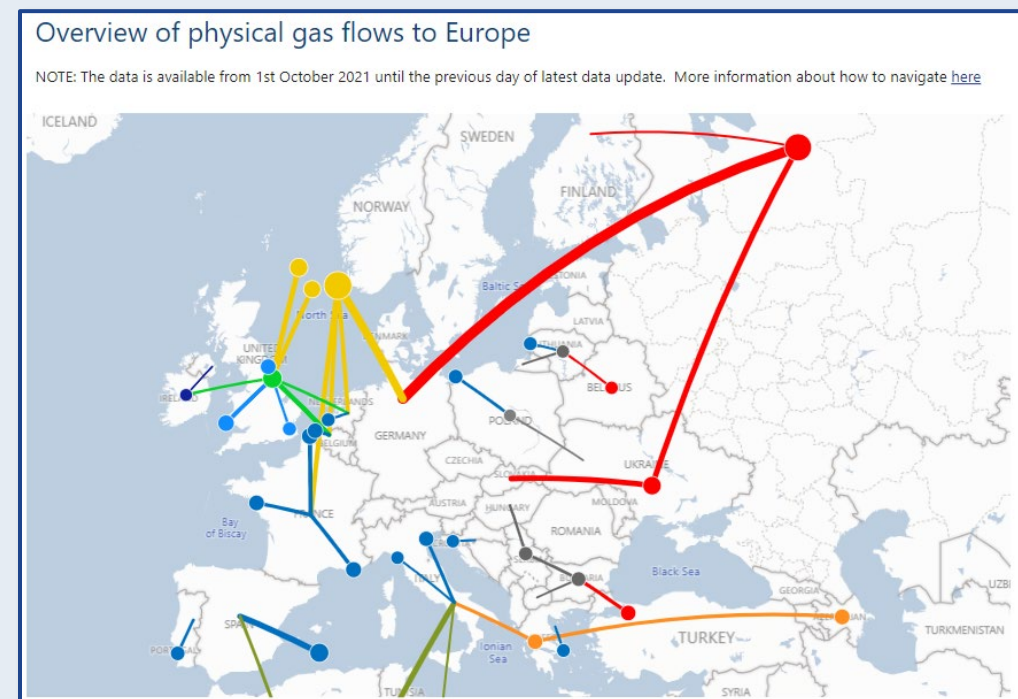
(**) Projects are advanced when commission date is expected at the latest by 31st December 2028, and permitting phase or FEED phase started ahead of the project collection

Hydrogen Infrastructure Map // Gas Flow Dashboard



- > 220 hydrogen projects
- > 120 H2 transmission & distribution projects
- > 40 H2 storage projects
- > 10 H2 terminals & port projects
- > 40 H2 production/demand projects

<https://www.h2inframap.eu/>



- Daily gas flows
- Supply routes
- Maps & filters

<https://gasdashboard.entsog.eu/>

- **Infrastructure is key**
 - Connecting production and consumption, enabling imports
 - Ensuring access to the hydrogen network and the commodity
 - Developing a hydrogen backbone to make REPowerEU targets possible
- **Create a clear regulatory framework**
 - Investments need to be taken now. Support investment decisions with a clear, robust framework.
- **Think efficiently. Think together.**
 - Use synergies to speed up the process. Plan together.



Thank you for your attention

Piotr Kus

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