



Current Status of Hydrogen Mobility in Poland

1st October 2025

New Mobility Association (PSNM)

interreg-baltic.eu/project/HyTruck



HRS Spatial Development Concept for Wielkopolskie Voivodeship

→ HyTruck Pilot Project in Poland

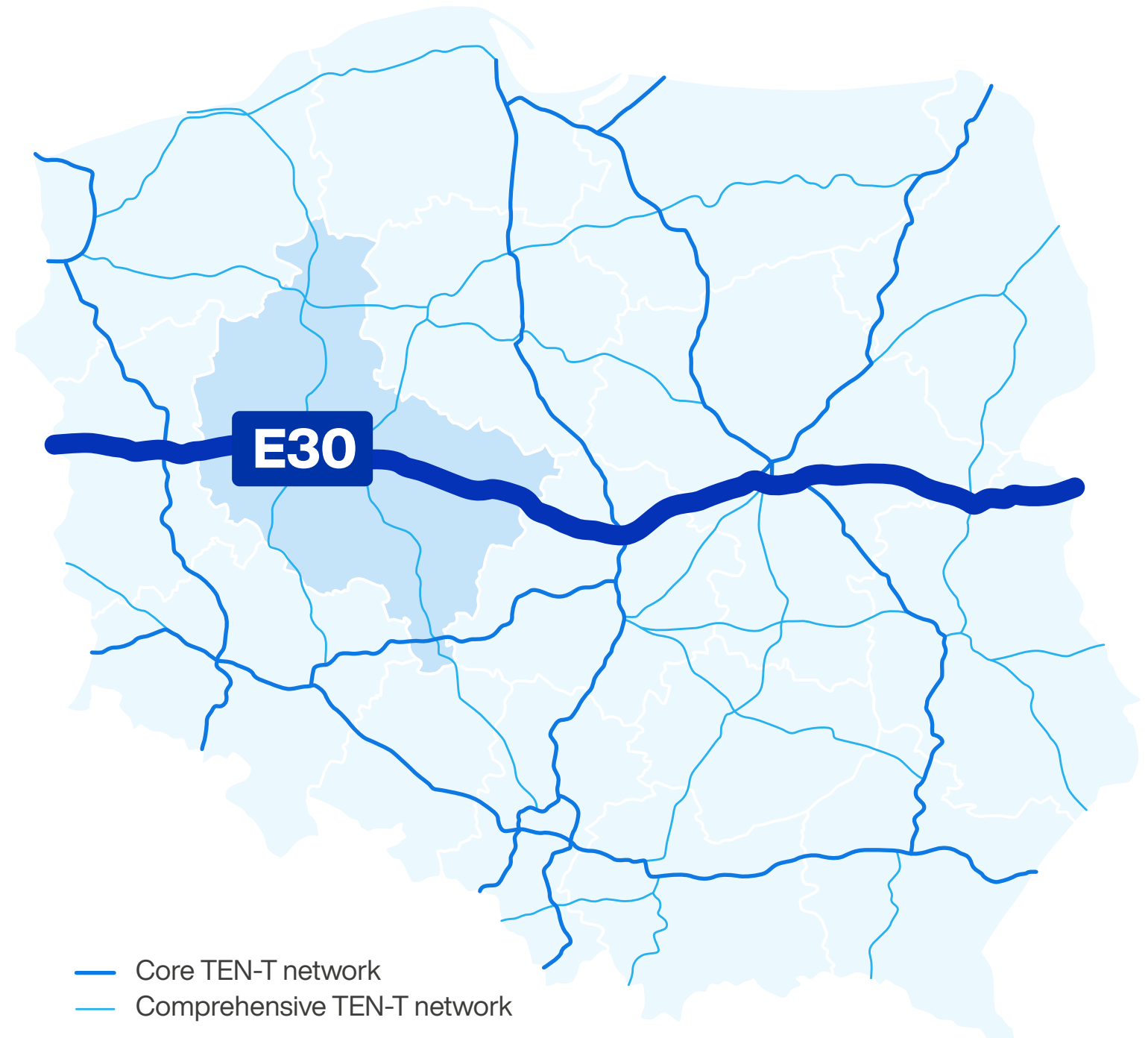
Developing hydrogen refueling infrastructure for heavy-duty transport in Wielkopolska Region

→ Strategic location

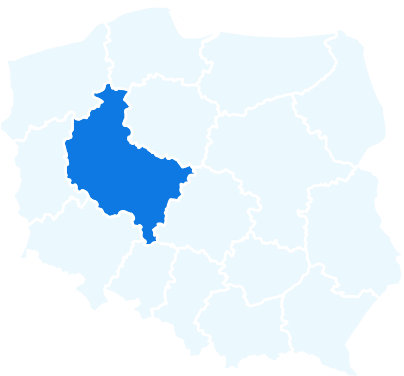
3.5M residents, major transport hub, along TEN-T corridor (A2/E30)

→ Strong potential

190–270k tons/year of green hydrogen, underground storage options, leading academic support (Poznań University of Technology)



Recommendations for HRS Development – Wielkopolska



The rollout of hydrogen refueling infrastructure should follow a phased, strategic approach:

→ Stakeholder engagement

involve regional authorities, producers (ZE PAK, ORLEN), and operators (MPK Poznań).

→ Technical planning

ensure AFIR compliance and integrate local green H₂ production (Konin).

→ Phased rollout

start with primary hubs (Poznań, Konin), expand to secondary nodes (Gniezno, Września, Leszno).

Optimal Locations

- > **Primary hubs:**
Poznań (strategic crossroads, logistics hub), Konin (hydrogen production hub – ZE PAK facility)
- > **Secondary hubs:**
Września, Gniezno, Leszno – supportive nodes for regional coverage
- > **Balanced network:**
centralized refueling + equitable access across the region

Strategic Location Attributes

- > **TEN-T integration:**
seamless cross-border & interregional connectivity
- > **Urban/logistics nodes:**
high-demand areas (e.g. Poznań) anchor the network
- > **Hydrogen production access:**
Konin ensures local green H₂ supply & efficiency

Technical Specifications (aligned with AFIR & PSNM standards)

- > **Pressure levels:**
700 bar mandatory; recommend dual 350/700 bar options
- > **Capacity requirement:**
≥ 1 ton/day per public HRS

HyTruck – Recommendations for Wielkopolska



- **Smart planning**
real-time data for optimal HRS locations
- **Aligned incentives**
link funding, CO₂ tolls & vehicle support
- **Early uptake**
raise awareness & involve local industry

Legal Framework & Strategies

- › **Electromobility Act**
– standards for H₂ vehicles & HRS
- › **Hydrogen Strategy 2030/2040**
– focus on corridors, urban & logistics hubs
- › **Green license plates (2020)**
– for BEV & FCEV
- › **KPO Plan** – 25 HRS by 2026, zero-emission fleets >100k cities by 2025
- › **Renewable Energy Act (2023)**
– defines renewable hydrogen (electrolysis)
- › **Excise Act (2023)**
– H₂ vehicles exempt from excise tax
- › **Climate Regulation (2024)**
– monitoring/reporting rules for renewable H₂
- › **Energy Law (2024)** – hydrogen integrated into national energy system

Financial Instruments

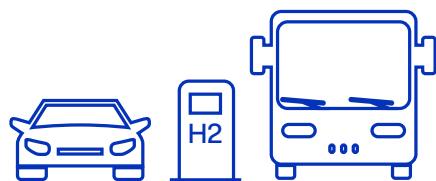
- › **Excise tax exemption** – lowers the total cost of ownership for hydrogen vehicles.
- › **NFOŚiGW** – support program for zero-emission vehicle purchases, including hydrogen-powered vehicles (planned launch in 2025).
- › **HRS infrastructure support**
– e.g., the program “*Support for Electric Vehicle Charging and Hydrogen Refueling Infrastructure*” (PLN 100 million allocated for HRS development).



**A catalog of technical standards
and norms for hydrogen refueling
stations dedicated for heavy duty
transportation in the BSR**



1. Refueling infrastructure



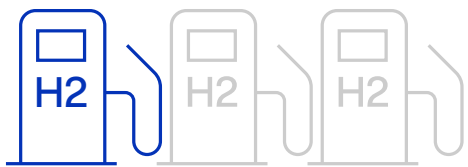
ACCOMMODATION OF DIFFERENT VEHICLE SEGMENTS

It is recommended to construct hydrogen refueling stations with dispensers for both light-duty and heavy-duty vehicles



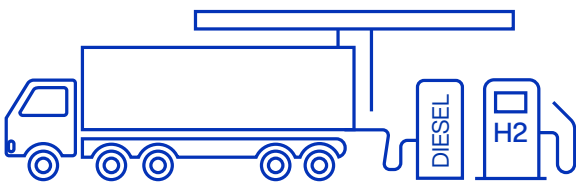
FUTURE FUEL TECHNOLOGIES

leading hydrogen storage technology in vehicles is CGH₂, but the roll out of the infrastructure should also take into account the emergence of new technologies, such as liquid hydrogen or cryo-compressed H₂



SCALABLE DESIGN

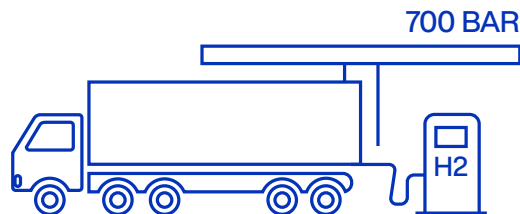
refueling stations should be designed to be easily scalable. Modular components can be added as needed to increase capacity without significant disruptions



INTEGRATION WITH EXISTING INFRASTRUCTURE

integrating hydrogen refueling infrastructure with existing fuel stations or industrial sites

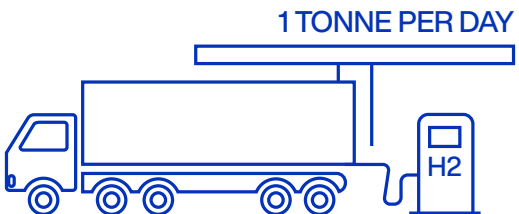
2. Technical parameters



PRESSURE LEVEL

AFIR requirements for interoperability, publicly accessible hydrogen stations shall at least provide gaseous hydrogen at 700 bar. Provision of both 350 bar and 700 bar options is advised.

Hydrogen truck manufacturers are researching different storage technologies (350 and 700 bar CGH₂, sLH₂, cCGH₂) and it is difficult to predict which one will be the future standard.



HYDROGEN CAPACITY

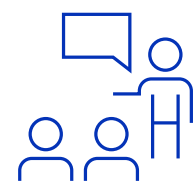
It is recommended to follow AFIR requirements, according to which publicly accessible hydrogen refuelling stations should be designed for a minimum cumulative capacity of 1 tonne per day



HYDROGEN STORAGE

New storage methods, such as Liquid Organic Hydrogen Carriers (LOHC) and liquid hydrogen, are recommended to be researched for their potential in enhancing storage efficiency at refueling stations

3. Miscellaneous



**OPERATOR
TRAINING**

The introduction of comprehensive training programs for operators of hydrogen refueling stations is strongly recommended, ensuring safe and efficient operation



**CONTINUAL MONITORING
OF REGULATIONS**

Regular updates on evolving EU regulations and standards related to hydrogen fueling infrastructure are recommended to be monitored for compliance and adaptability

Interreg
Baltic Sea Region



Co-funded by
the European Union



SMART GREEN MOBILITY

HyTruck

Thank you for listening!

More info: interreg-baltic.eu/project/HyTruck

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