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Kick-starting the EU Hydrogen Industry to achieve the EU climate goals

Business Forum on Ukraine Renewable Gases

Hydrogen Supply Corridors

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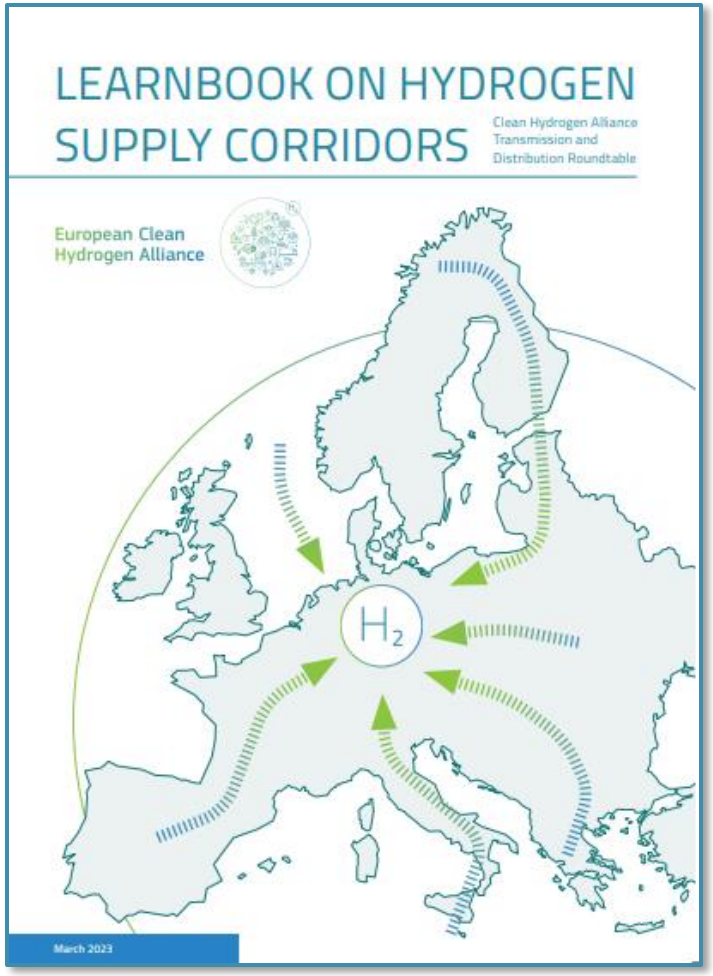

- Transmission & Distribution round table published the Hydrogen Supply Corridor Learnbook at the beginning of 2023
- Six corridors looked into:
  - South Central H_2 supply corridor
  - Iberian H_2 supply corridor
  - North Sea H_2 supply corridor
  - Nordic Baltic H_2 supply corridor
  - Eastern H_2 supply corridor
  - Southeastern H_2 corridor

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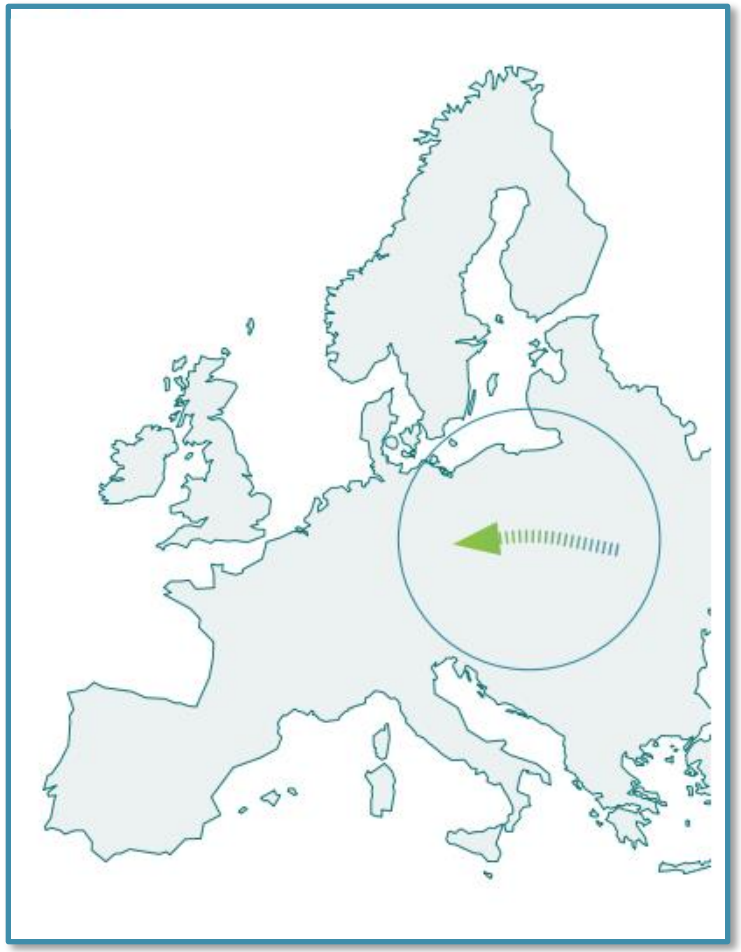
Eastern H2 Corridor



Eastern H2 corridor

- Major driver for the development of the Eastern corridor is to utilise the potential of renewable hydrogen production in Ukraine
- Ukraine is a very promising future major supplier of renewable hydrogen with excellent conditions for large-scale, green hydrogen production development
- Repurposing existing pipelines in countries along the route allows for fast and efficient development of needed infrastructure
- Hydrogen storages along the route will be used to secure and structure (seasonal) demand of hydrogen consumers
- The corridor can connect high hydrogen supply potential in Ukraine with off takers in Central Europe and southern Germany by 2030

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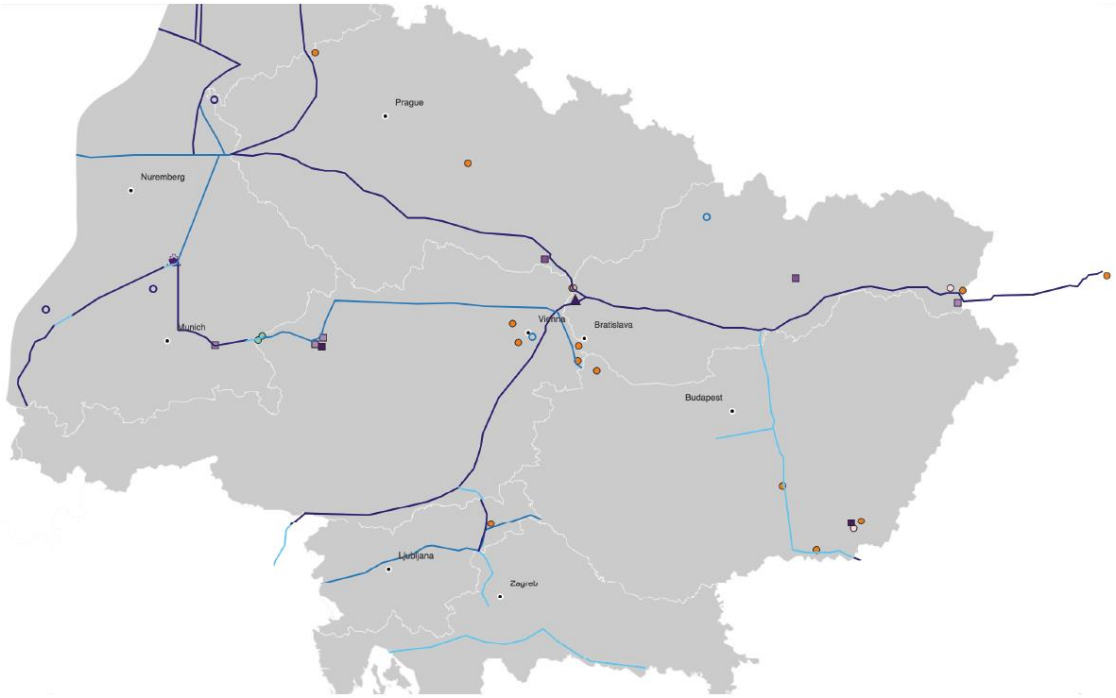
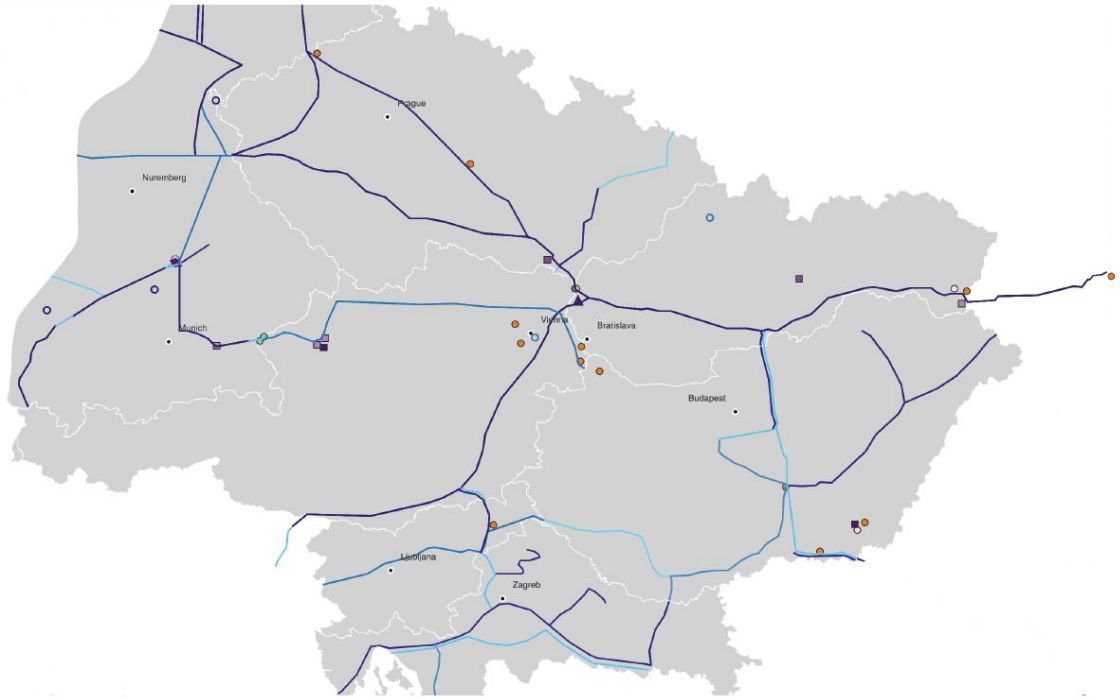
Eastern H2 Corridor - Infrastructure



Eastern H2 corridor - Infrastructure 2030



Eastern H2 corridor - Infrastructure 2050

Transmission
- New
- New and conversion
- Conversion of existing infrastructure

Distribution
- New
- New and conversion
- Conversion of existing infrastructure
- Completed
- High pressure distribution

Storage
- New and converted aquifer
- Conversion of existing aquifer
- New depleted field
- New and converted depleted field
- Conversion of existing depleted field
- New salt cavern
- New and converted salt cavern
- Conversion of existing depleted salt cavern
- New surface storage

Terminals and ports
- New
- New and conversion
- Conversion of existing infrastructure

Demand
- Demand

Production
- Electrolyser
- Methane Reforming (SMR/ATR)
- Other/no data available

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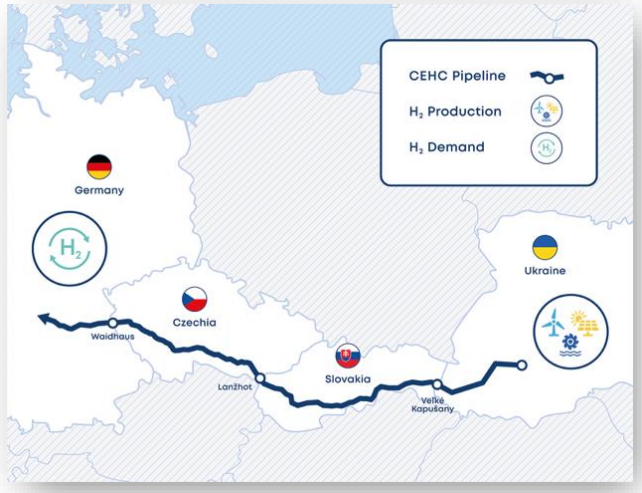
Eastern H2 Corridor

- Three streams under analysis for connection with Ukraine
  - H2EU+Store
  - Central European Hydrogen Corridor



CEHC:	
Capacity:	**52.6 TWh/a**
Implementation:	**2030**
Length:	**1,225 km**
Major characteristic:	**100 % repurposed**
H2EU+Store:	
Capacity 2030:	**2.5 TWh/a**
Capacity 2040:	**40TWh/a**
Capacity 2050:	**80TWh/a**
Major characteristic:	**partly new-built**

- Eastern H2 corridor is key to Ukraine
- Robust corridors are needed to supply Europe with clean hydrogen and to connect Europe
  - Different sources help to supply and lend Security of Supply
  - Routes are in preparation and allow different transport options

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Nordic Baltic H2 Corridor

- Bi-directional, cross-border hydrogen pipeline infrastructure project from Finland to Germany.
- Enabling connection of regional supply, demand and storage along the infrastructure.
- Enabling the transport of hydrogen produced in the Baltic Sea region to supply consumption points and industrial clusters along the corridor and in Central Europe.
- Integrating the Nordic, Baltic, Polish and German hydrogen infrastructure and to trigger further infrastructure developments to connect additional hydrogen suppliers and consumers (demand centres) in the concerned countries.
- Fostering market processes between producers, consumers and trading companies that may enter the hydrogen markets in Finland, Estonia, Latvia, Lithuania, Poland, Germany and beyond.
- Potential for future connection of Ukraine to Nordic Baltic H2 Corridor via Polish Hydrogen Backbone

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Thank you for your attention

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