



Košice region, Slovakia

H2 capacity building in CEE countries

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NARRATIVE: **Green steel** from Košice for the EU & UA recovery

Potential off-take
100,000 t H₂/a

Savings
3,000,000 t CO₂/a

Green steel could become the
accelerator of the European
Hydrogen Backbone development



Source: USS Košice



CEHC

Central European Hydrogen Corridor

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Countries:	UA, SK, CZ, DE
Capacity:	120 GWh per day 1.3 million tonnes per year
Length:	1225 kilometres*
Investment:	1000 – 1500 million EUR*
Transport cost:	0.10 - 0.15 EUR/kg/1000 km
Implementation:	2030

* Investment cost of the part of CEHC from the Ukrainian/Slovak border to large hydrogen demand areas in Southern Germany (without residual value of repurposed assets)

Source:

<https://www.cehc.eu/en/news/initial-analysis-supports-feasibility-central-european-hydrogen-corridor.html>





Košice Hydrogen Valley

Development in 2 stages

Potential of the hydrogen use in the first stage, by 2027, 1,500 t/a:

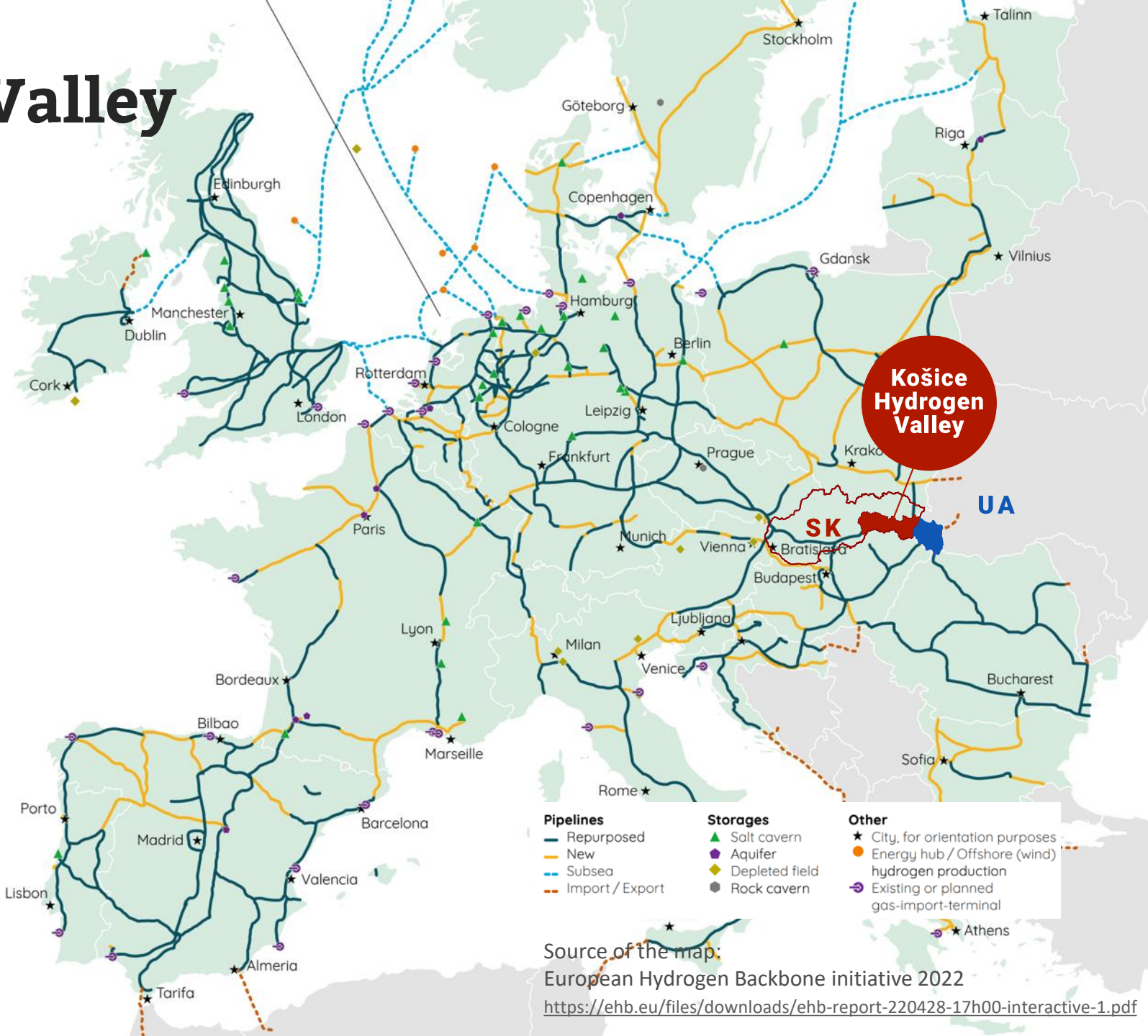
Local H2 production for:

- replacing hydrogen in the current steelmaking process,
- deploying the bus and truck fleets

Potential of the hydrogen use in the second stage by 2030, 100,000 t/a:

Large scale domestic and cross border H2 production:

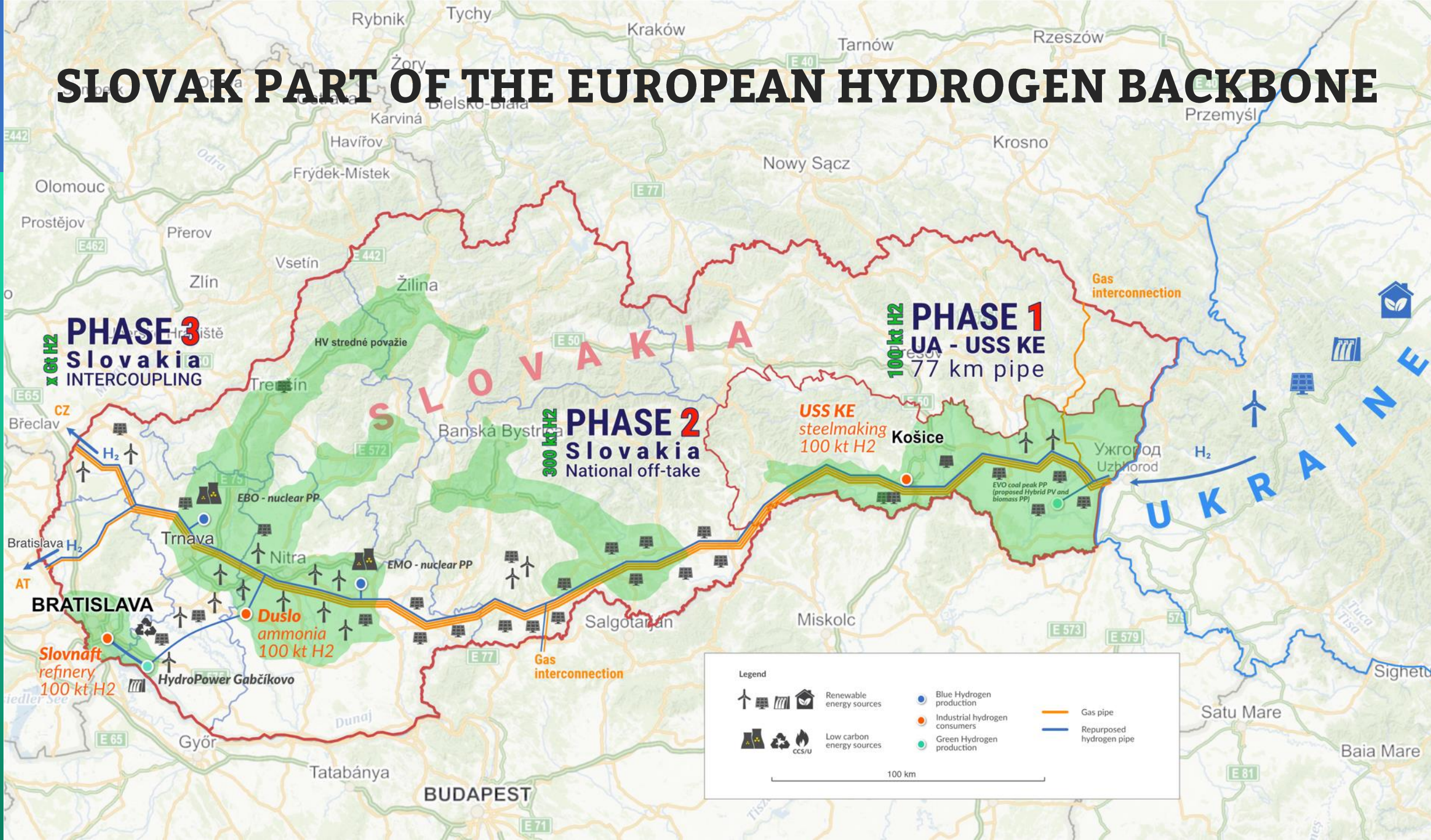
- gas pipeline repurposing
- potential off-take in DRI,
- scaling-up the heavy duty transport, aviation



Source of the map:
 European Hydrogen Backbone initiative 2022
<https://ehb.eu/files/downloads/ehb-report-220428-17h00-interactive-1.pdf>



SLOVAK PART OF THE EUROPEAN HYDROGEN BACKBONE





BRINGING TOGETHER THE NECESSARY STAKEHOLDERS

Making the consortium

Košice Hydrogen Valley Workshop 23.2.2023



INSTITUTIONS



PRODUCTION



H2 TRANSPORT



INDUSTRY



TRANSPORT SECTOR



RESEARCH



WWW.NVAS.SK



“The quicker we switch to renewables and hydrogen, combined with more energy efficiency, the quicker we will be truly independent and master our energy system”

European Commission President Ursula von der Leyen,

Thank you!

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