InfraEconomy Group

Reveal
Shift
Apply

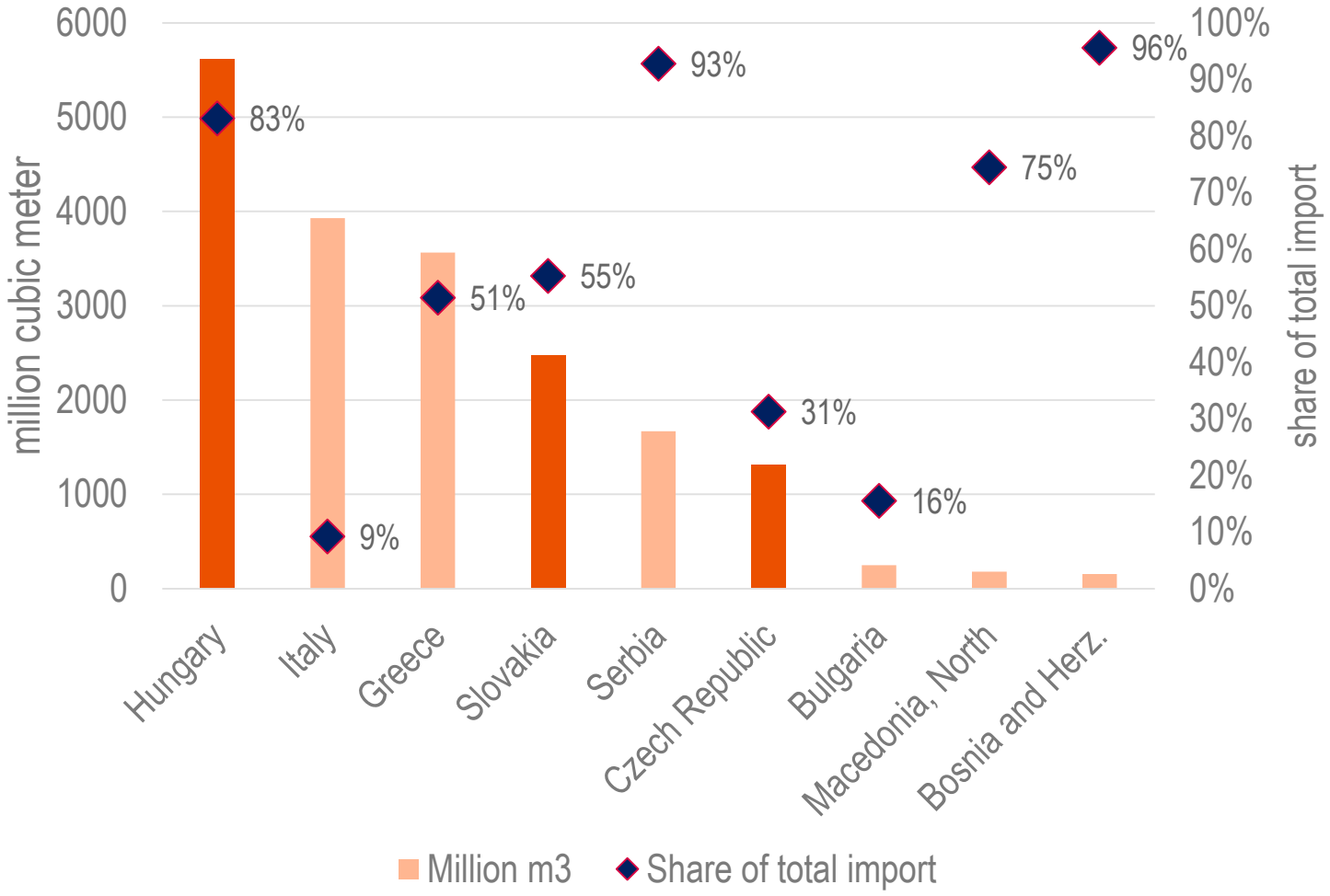
THE STREAMS OF FUTURE

NEW ROUTES FOR GAS TRANSPORTATION TO EUROPE

PAVEL CHISTYAKOV, DR, DMITRY SCHULZ

For Brussels Energy Club

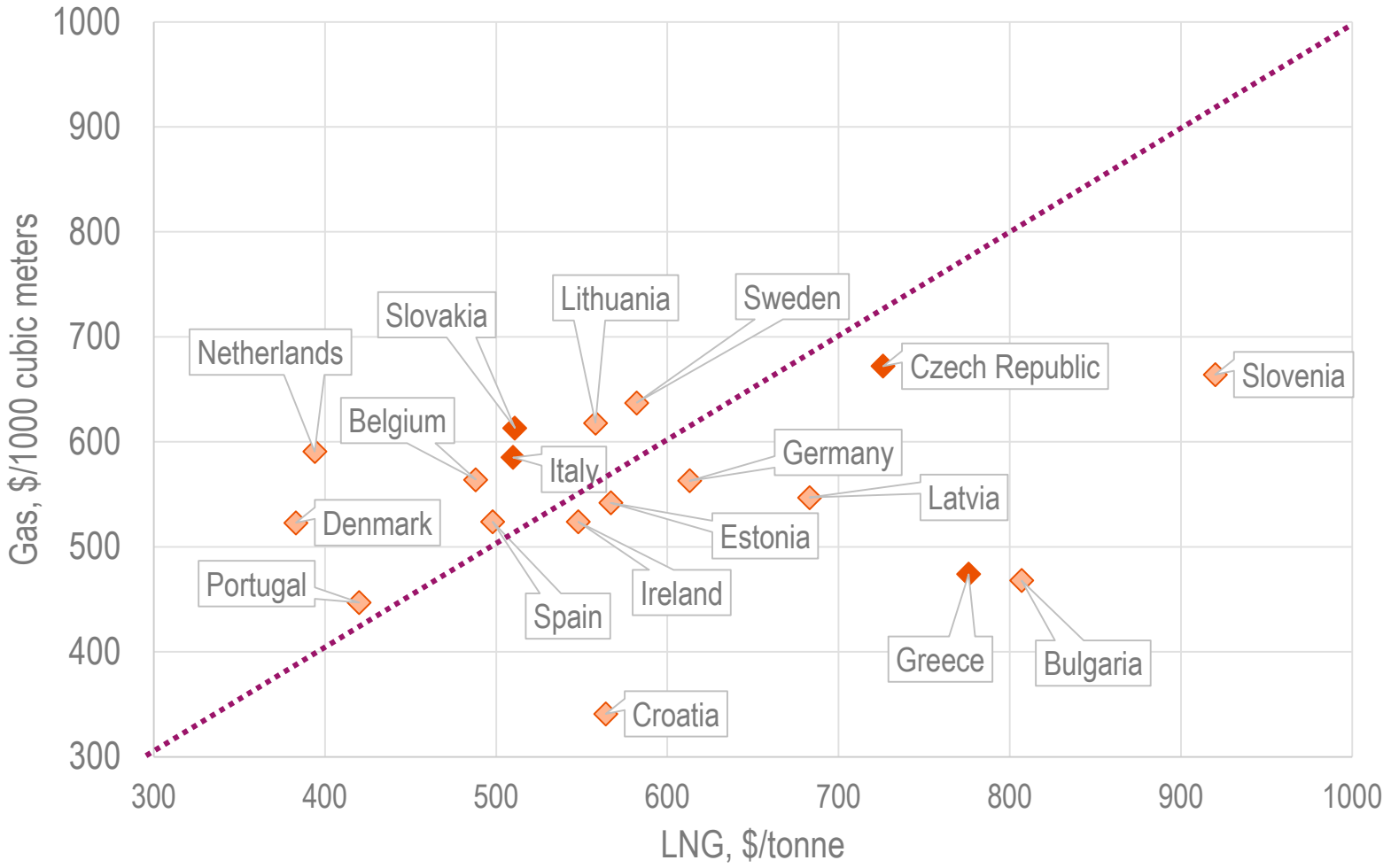
WHO IS STILL BUYING RUSSIAN GAS?



- **Hungary, Slovakia and Czech Republic** don't have a viable alternative for Russian Gas now and have several strategic options for the future
- **Italy and Greece** can replace Russian gas if TANAP pipeline's capacity is expanded
- **Austria and Germany** doesn't import natural gas from Russia since 2024 but Germany imports regasified LNG via France
- **Europe's dependence on Russian gas has been nearly solved, but three landlocked countries still face challenges in long-term perspective**

Source: InfraEconomy's calculation on UN Comtrade data

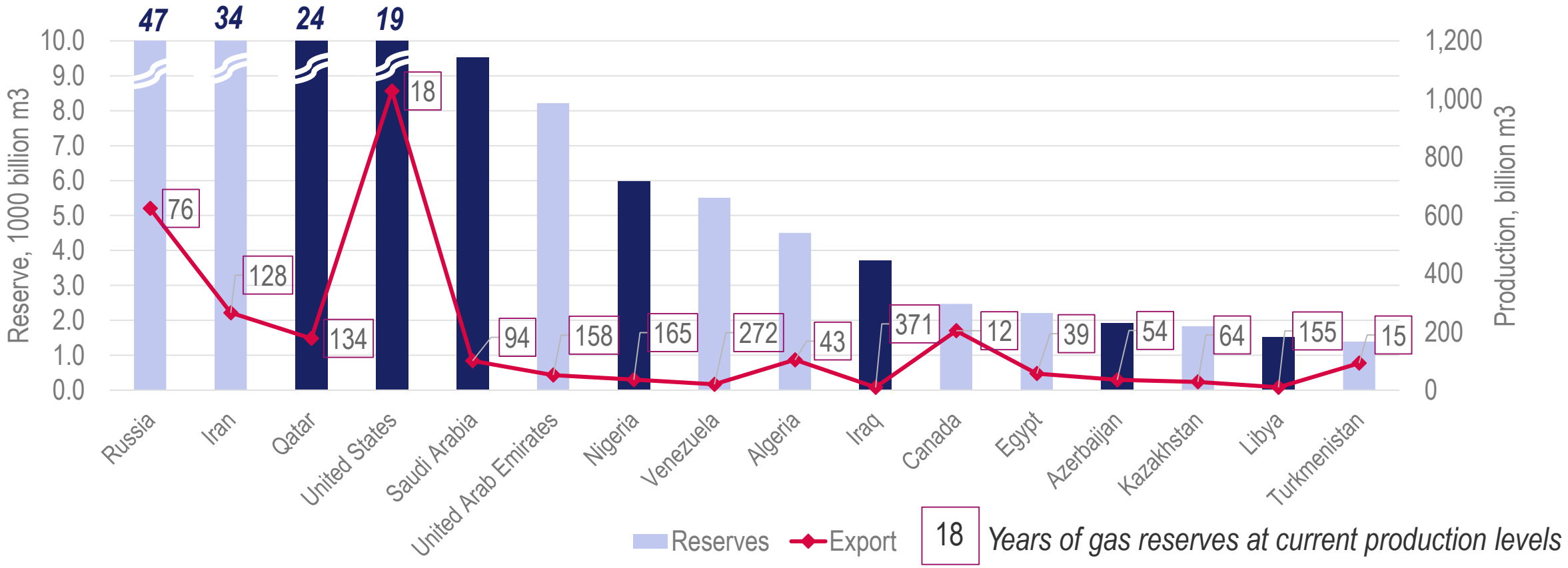
NATURAL GAS VS LNG IMPORT PRICES IN 2024



- LNG and gas prices have converged significantly since 2022, assuming the imported volumes are comparable.
- This means that the primary concern for landlocked European countries is the cost of intra-European transportation

Source: InfraEconomy's calculation on UN Comtrade data

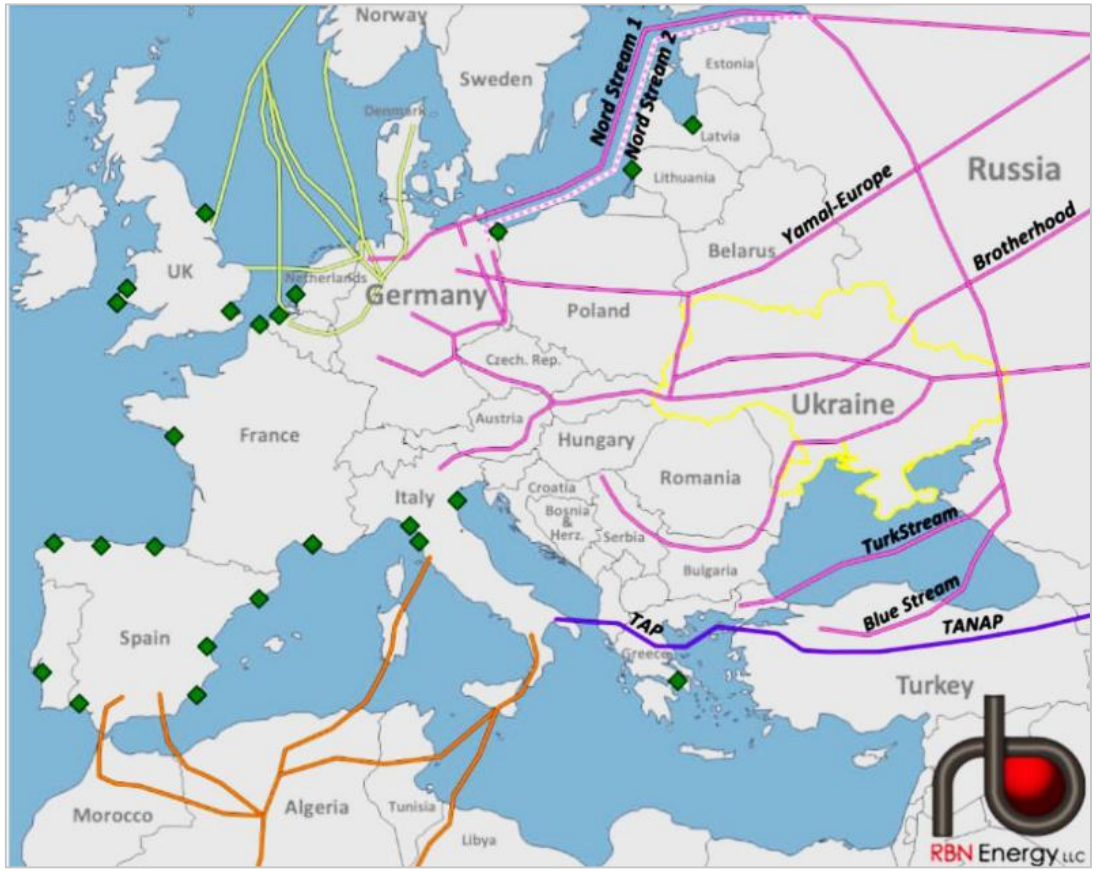
WHO CAN SUPPLY MORE GAS TO EUROPE IN A LONG-TERM PERSPECTIVE



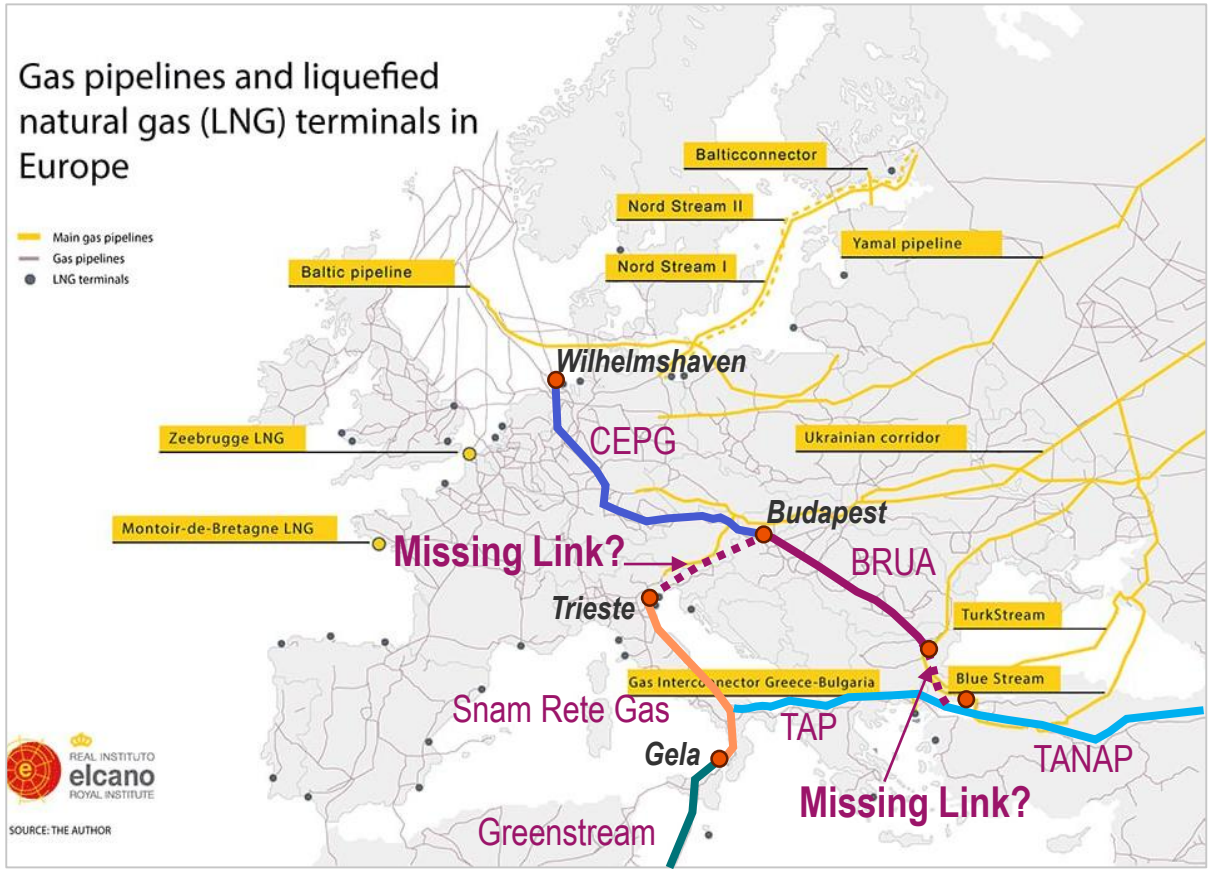
Source: World Energy Review, 2024 by ENI

PIPELINE SYSTEM TO BRING GAS TO THE LANDLOCKED COUNTRIES

Major external pipelines and LNG terminals



Major intra-European pipelines and its missing links



Connecting mediterranean LNG terminals to the intra-European pipeline network: A sustainable, cost-efficient alternative to Russian gas for landlocked countries like Trieste-Budapest and TANAP-BRUA links

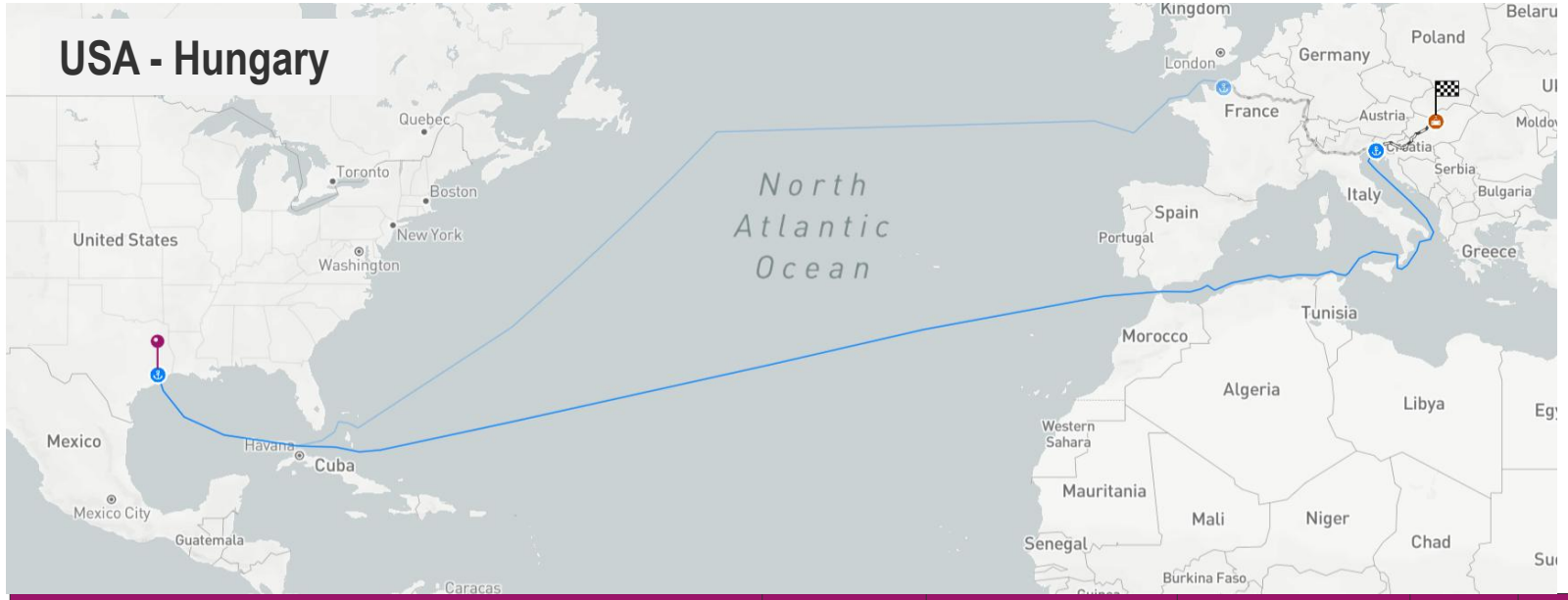
Potential Routes for Gas Delivery to Central Europe (1)

Routes calculated using

InfraForecast™ Platform

ROUTE, $/MMBtu	**Total gas cost**	Gas price (Ex works)	Transportation Cost	Sea	Transloading sea-to-rail	Rail	Regasification	Pipeline
Qatar - Trieste - Budapest (by rail)	**14.3**	8.0	6.3	3.4	0.4	1.3	1.2	0.0
Qatar - Trieste - Budapest (by proposed pipeline)	**13.2**	8.0	5.2	3.4	0.0	0.0	1.2	0.6
Nigeria - Trieste - Budapest (by rail)	**18.2**	11.0	7.2	4.3	0.4	1.3	1.2	0.0
Nigeria - Trieste - Budapest (by proposed pipeline)	**17.1**	11.0	6.1	4.3	0.0	0.0	1.2	0.6
Nigeria - Wilhelmshaven - Budapest (by CEPG)	**17.8**	11.0	6.8	4.3	0.0	0.0	1.2	1.3

Potential Routes for Gas Delivery to Central Europe (2)



Routes calculated using

InfraForecast™ Platform

ROUTE, $/MMBtu	**Total gas cost**	Gas price (Ex works)	Transportation Cost	Sea	Transloading sea-to-rail	Rail	Regasification	Pipeline
USA (Texas) - Trieste - Budapest (by rail)	**13.5**	7.1	6.4	3.5	0.4	1.3	1.2	0.0
USA (Texas) - Wilhelmshaven - Budapest (by CEPG)	**13.0**	7.1	5.9	3.4	0.0	0.0	1.2	1.3
USA (Texas) - Trieste - Budapest (by proposed pipeline)	**12.4**	7.1	5.3	3.5	0.0	0.0	1.2	0.6
Azerbaijan - Turkiye - Romania (by proposed TANAP - BRUA connection)- Budapest (by BRUA)	**11.3**	8.5	2.8	0.0	0.0	0.0	0.0	2.8
Libya - Sicily (by Greenstream) - Triest (by Snam Rete Gas) - Budapest (by hypothetic								

CONCLUSIONS

In the short term, Europe's dependence on Russian gas is nearly resolved, but it is advisable to develop a long-term strategy considering the potential return of Russian gas in the future, to avoid renewed dependence and ensure competitive price pressure.

Routes, $/MMBtu	Total gas cost	Gas price (Ex works)	Transportation Cost
Russia (Yamal) - Budapest (pipeline)	**13.4**	**8.5**	**5.0**
Qatar - Trieste - Budapest (by rail)	14.3	8.0	6.3
Qatar - Trieste - Budapest (by hypothetic direct pipeline)	13.2	8.0	5.2
USA (Texas) - Trieste - Budapest (by rail)	13.5	7.1	6.4
USA (Texas) - Wilhelmshaven - Budapest (by CEPG)	13.0	7.1	5.9
USA (Texas) - Trieste - Budapest (by hypothetic direct pipeline)	12.4	7.1	5.3
Nigeria - Trieste - Budapest (by rail)	18.2	11.0	7.2
Nigeria - Trieste - Budapest (by hypothetic direct pipeline)	17.1	11.0	6.1
Nigeria - Wilhelmshaven - Budapest (by CEPG)	17.8	11.0	6.8
Azerbaijan - Turkiye (by TANAP) - Romania (by hypothetic TANAP - BRUA connection)- Budapest (by BRUA)	11.3	8.5	2.8
Libya - Sicily (by Greenstream) - Triest (by Snam Rete Gas) - Budapest (by hypothetic direct pipeline)	9.8	7.1	2.6

- **Germany route** (existing pipeline system via Austria) comparable in price to Russian gas only for American LNG.
- **New pipeline from Trieste to Hungary** (extending to Slovakia and Czech Republic): can offer gas at prices lower than current Russian gas, from multiple sources (LNG from Qatar and USA, or Libyan gas via Greenstream). High capital costs involved, but strategically valuable for diversifying supply and reducing Gazprom's dominance in Eastern Europe.
- **TANAP and BRUA connection can become a cost-efficient alternative.** Direct delivery of Azerbaijani gas to Eastern Europe without liquefaction, but the need for TANAP expansion—requiring significant investment.
- **Northern Iraq-Turkey pipeline as a strategic consideration** connecting to TANAP, offering diversification of gas supply in the future.

InfraEconomy Group

Reveal
Shift
Apply

THANK YOU FOR ATTENTION!

CONTACT US