



Security of Natural Gas Supply and Regional Infrastructure

The role of NET4GAS securing gas supplies for CEE

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NET4GAS turns a consistent strategy into sustainable results

NET4GAS Connecting Markets

1 Asset Development

- Building of new Gazelle pipeline
- Optimisation of compressor station fleet and headcount
- Develop North-South Corridor, e.g. with Moravian Loop and connection to Operkappel

2 Innovative Solutions

- Capacity products
 - Cooperation with neighbouring TSOs with vision of creating a regional 'wholesale gas market area'
- Non-capacity products
 - Provision of services internally and to 3rd parties

3 Market Design

- Integrate NET4GAS into a Central European trading region
- Potential for new product development, increase liquidity and diversification of gas supply
- Optimal utilisation of existing pipeline infrastructure within region

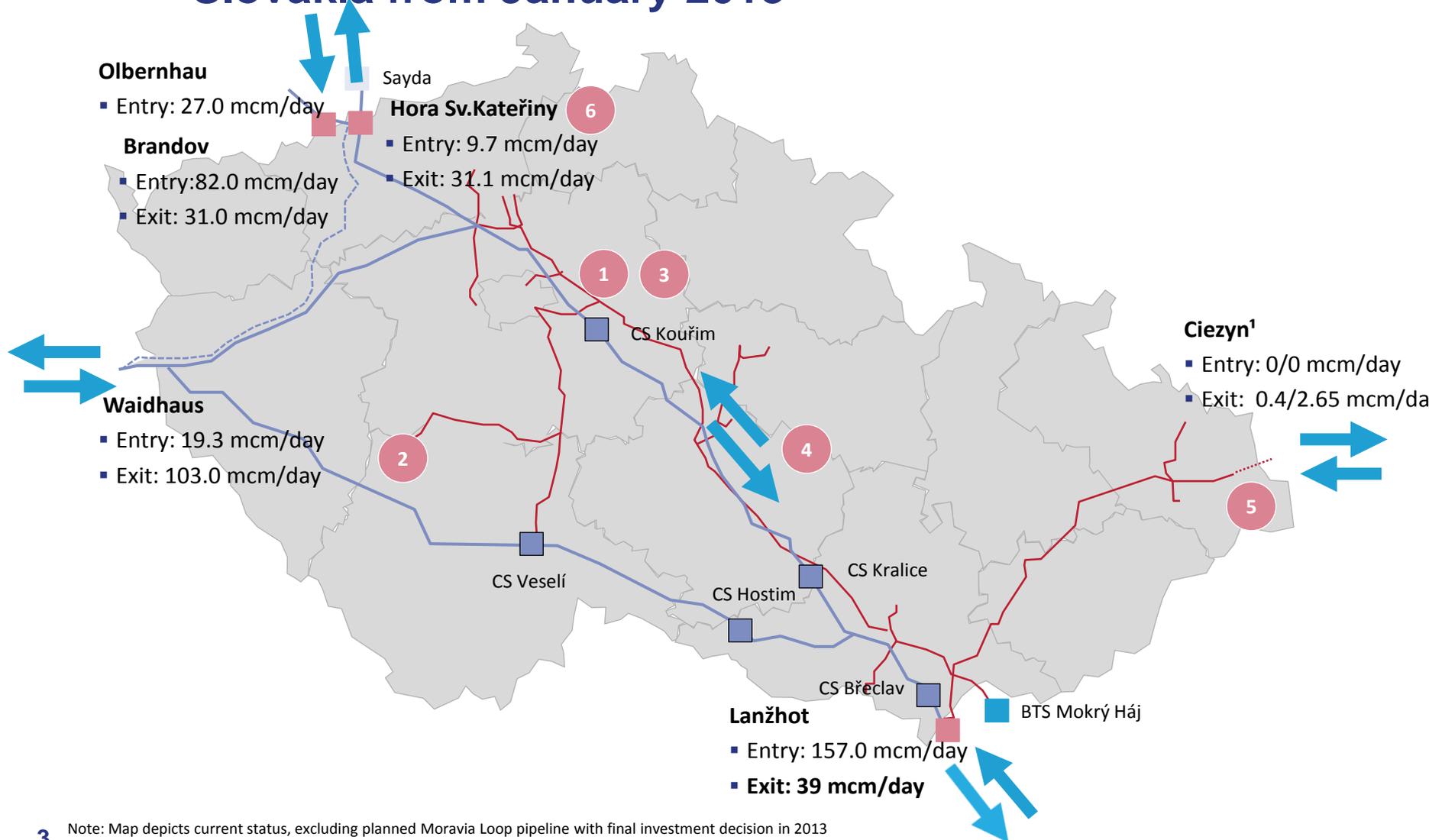
Future gas flows

- Utilise strategic positioning within region
- Explore and exploit upside potential from future transit gas flows

Operational and commercial excellence for a safe, reliable and environmentally friendly gas transport



Six additional investments complete the turn table of gas for Central Europe with capacities of 39 mcm/d to Slovakia from January 2013



3 Note: Map depicts current status, excluding planned Moravia Loop pipeline with final investment decision in 2013
¹ From May to October / from September to April



Security of supply was increased through successful delivery of three projects – 50% funded by the EU with in total €7mm

Reverse flow



- Commissioned in June 2011
- Total EU subsidy of **€2.3mm** covering c.40% of overall costs
- Strengthens transmission capacity and infrastructure for the reverse flow of gas
- Diversification of gas supplies to Slovakia, Austria, Hungary, and South Germany

Stork interconnector

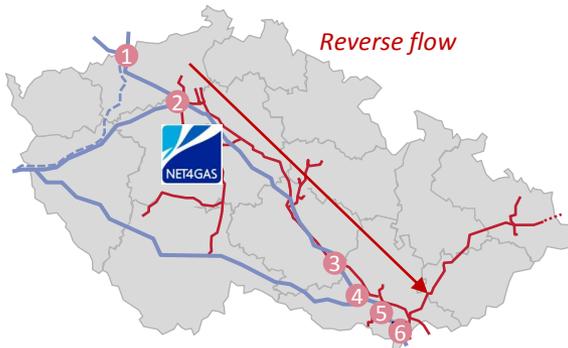


- Commissioned in September 2011
- Total EU subsidy of **€2.6mm** covering c.50% of overall costs¹
- High-pressure interconnector between Poland and the Czech Republic
- Increased integration of the regional gas market

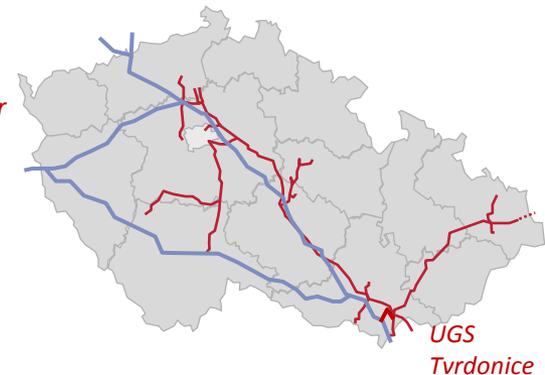
Connection to UGS Tvrdonice



- Planned commissioning in November 2012
- Total EU subsidy projected at **€2.3mm** covering c.34% of budgeted costs
- 2.7km of DN1000 pipeline connecting UGS Tvrdonice to the NET4GAS grid
- Strengthens reverse flow capability and increases security of supplies



● Project sub-actions

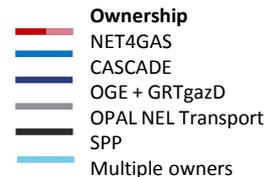
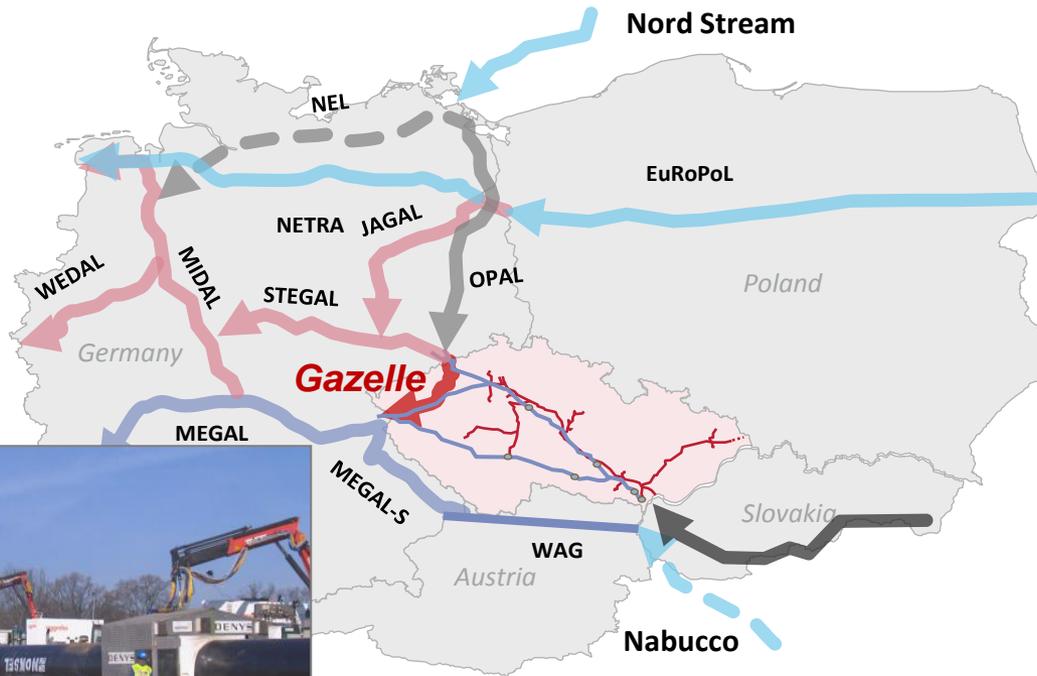




The Gazelle Project will improve the SoS for CEE significantly

Gazelle Project

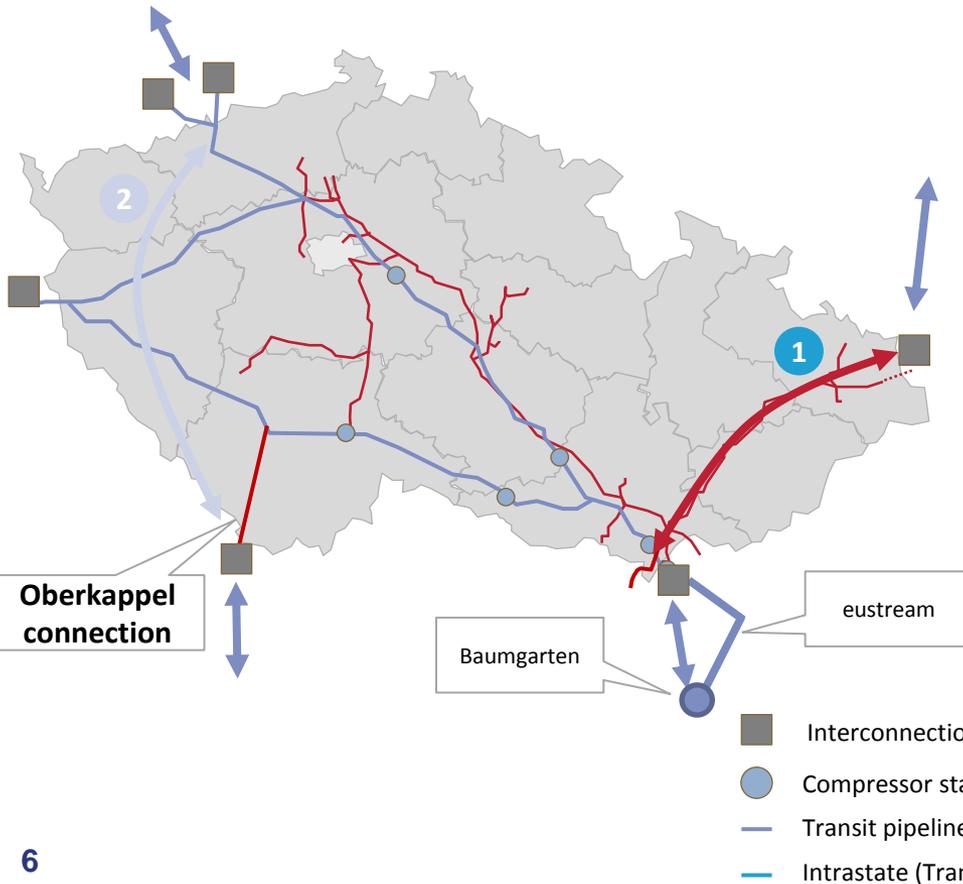
- Capacity **30 bcm/y**
- Length 166km, size DN 1400, pressure PN 84
- Budget **€377mm** (CZK 9,378mm)
- Prime example to deliver projects on time and within budget:
 - 1,035 easement contracts negotiated and signed
 - Transfer station in Brandov started-up in October 2011
 - First 20km were completed and are operated since November 1st 2012
- **Start-up date January 2013**



NET4GAS' investments are demand driven and support market integration incl. security of supply

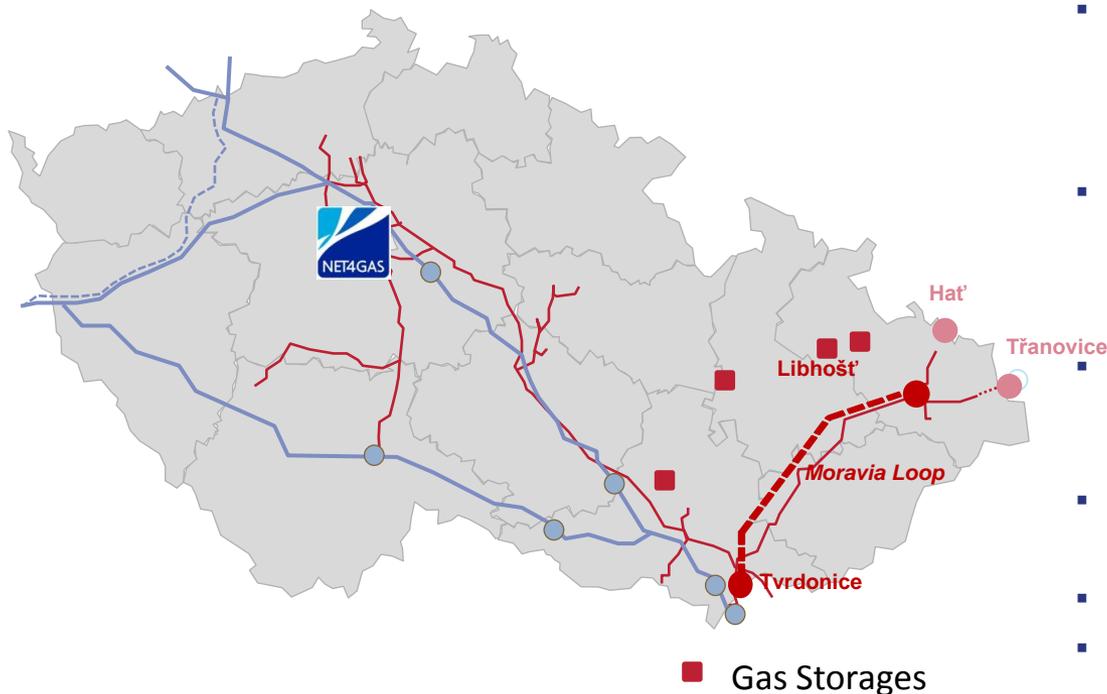
Oberkappel connection

Commentary



- 1** NET4GAS North-South-corridor to Poland (Moravian Loop) is already reflected in the European Investment plans
- 2** NET4GAS currently attempts to also establish another North-South-Corridor by building the Oberkappel connection to be implemented in the regional and European investment plans

The Moravian Loop strengthens the existing network in CZ and provides the basis for further cross-border integration



Commentary

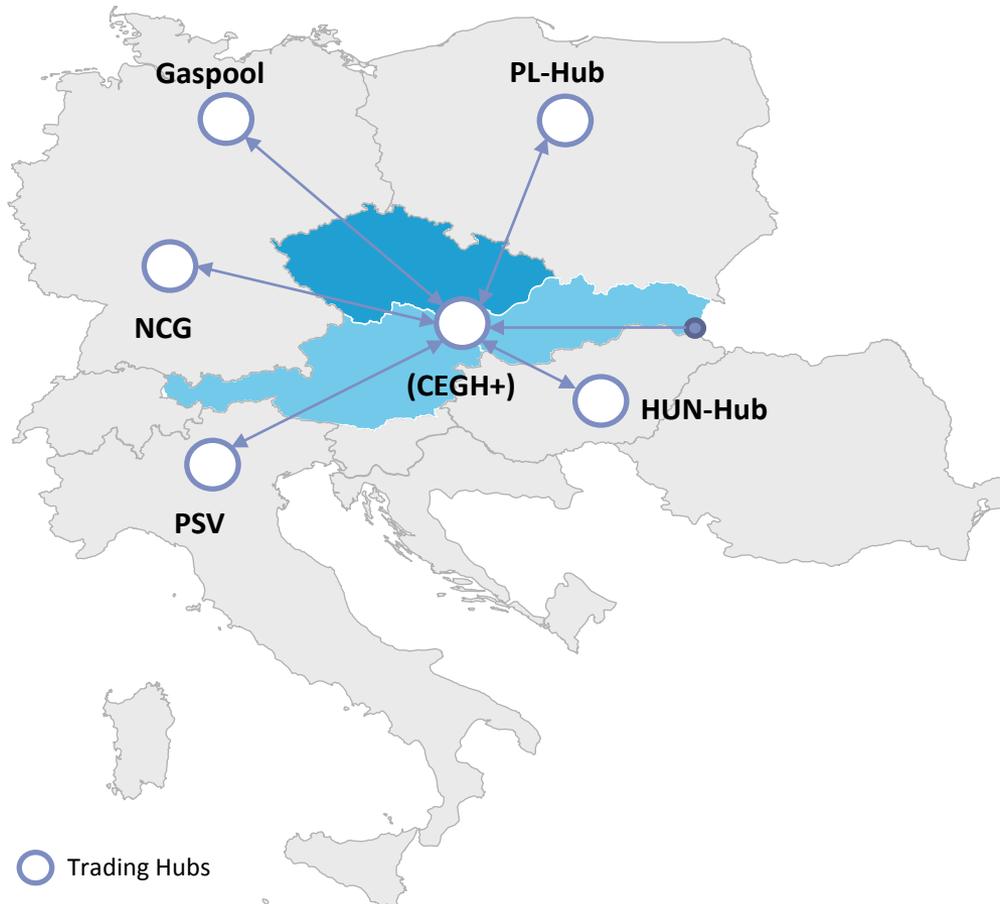
- Moravia Loop planned between the section Tvrdonice – Libhošť with an overall length of 157km and planned **commissioning in 2017**
- The purpose of the new interconnection is to increase capacity in the direction to North Moravia and secure this over the long-term
- Moravia Loop has the optionality to be prolonged to the border of Poland and Czech Republic (PL-CZ)
- The total investment budget estimated at **€215mm**
- Security of supply for the Czech Republic
- Approx. 2.5bcm gas storage capacity in Moravia

¹ The diameter is to be specified after finalization of studies and Open Season process for evaluation of capacity requirements in 2013



The pilot project of “Trading Region Austria-Czech Republic-Slovakia” is a first step towards implementation of the Gas Target Model

Trading Region in Central Europe

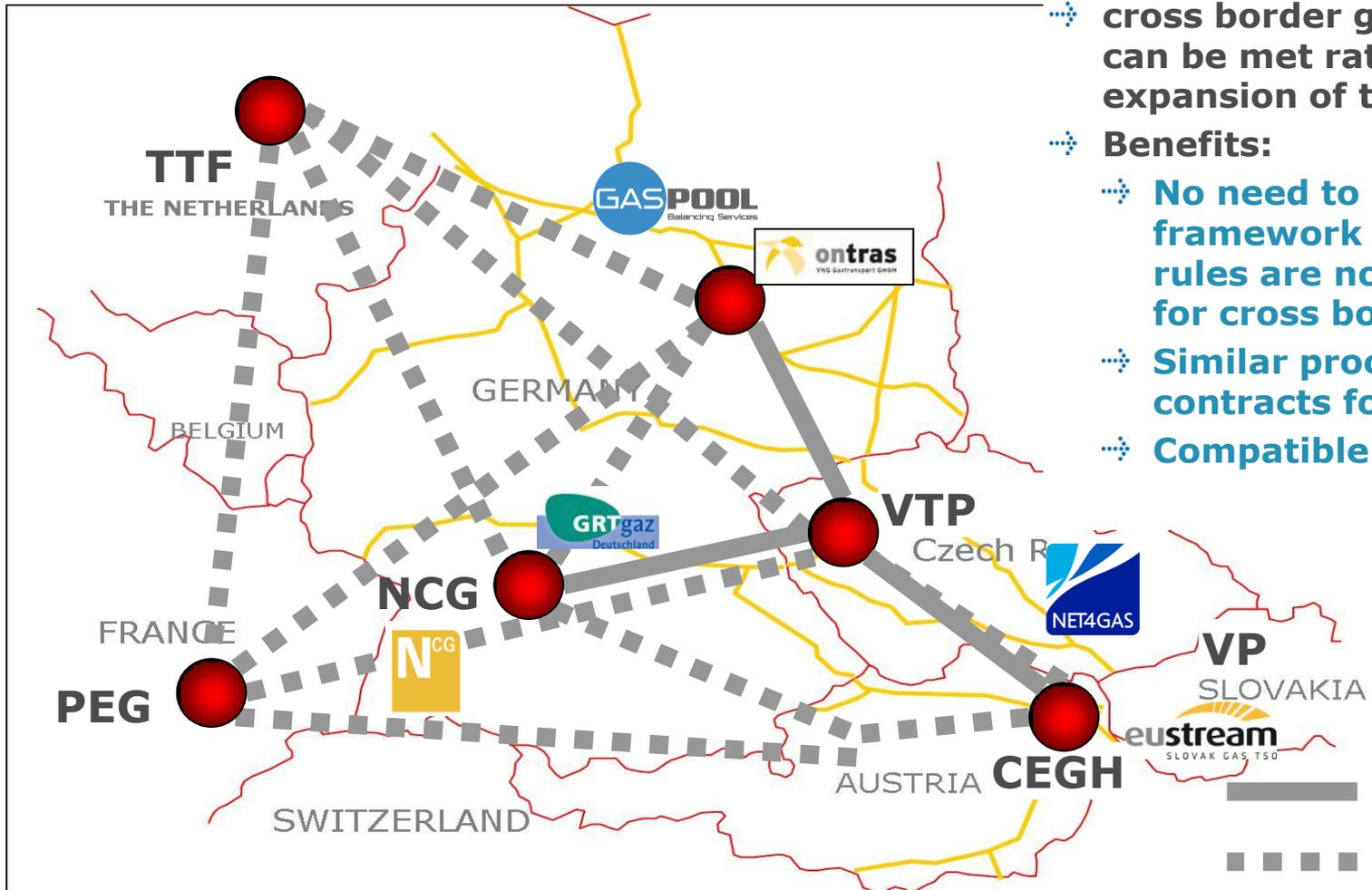


Commentary

- A Central European trading region would facilitate the creation of one common virtual trading point and the establishment of a single gas exchange, the benefits of which are:
 - ✓ Establishing a functioning gas market with hub-to-hub capacity products to all neighbouring markets and potentially beyond
 - ✓ Cross-regional arbitrage opportunities and diversification of gas suppliers
 - ✓ Increasing liquidity and pricing competition
 - ✓ Shift of idle transit capacities to required intra-market capacities
 - ✓ Reduction of pipe-to-pipe competition and optimal application of existing pipeline infrastructure within region



“GATRAC” Bundled Hub-to-Hub products with a single contract



- ❖ cross border gas transports can be met rather quickly by expansion of the GATRAC
- ❖ Benefits:
 - ❖ No need to amend legal framework if national legal rules are not mandatory for cross border capacities
 - ❖ Similar procedures and contracts for all routes
 - ❖ Compatible with TRAC X

current scope of cooperation
possible future routes



Connecting Markets

Thank you for your attention!



Bratislava, November 26th 2012