

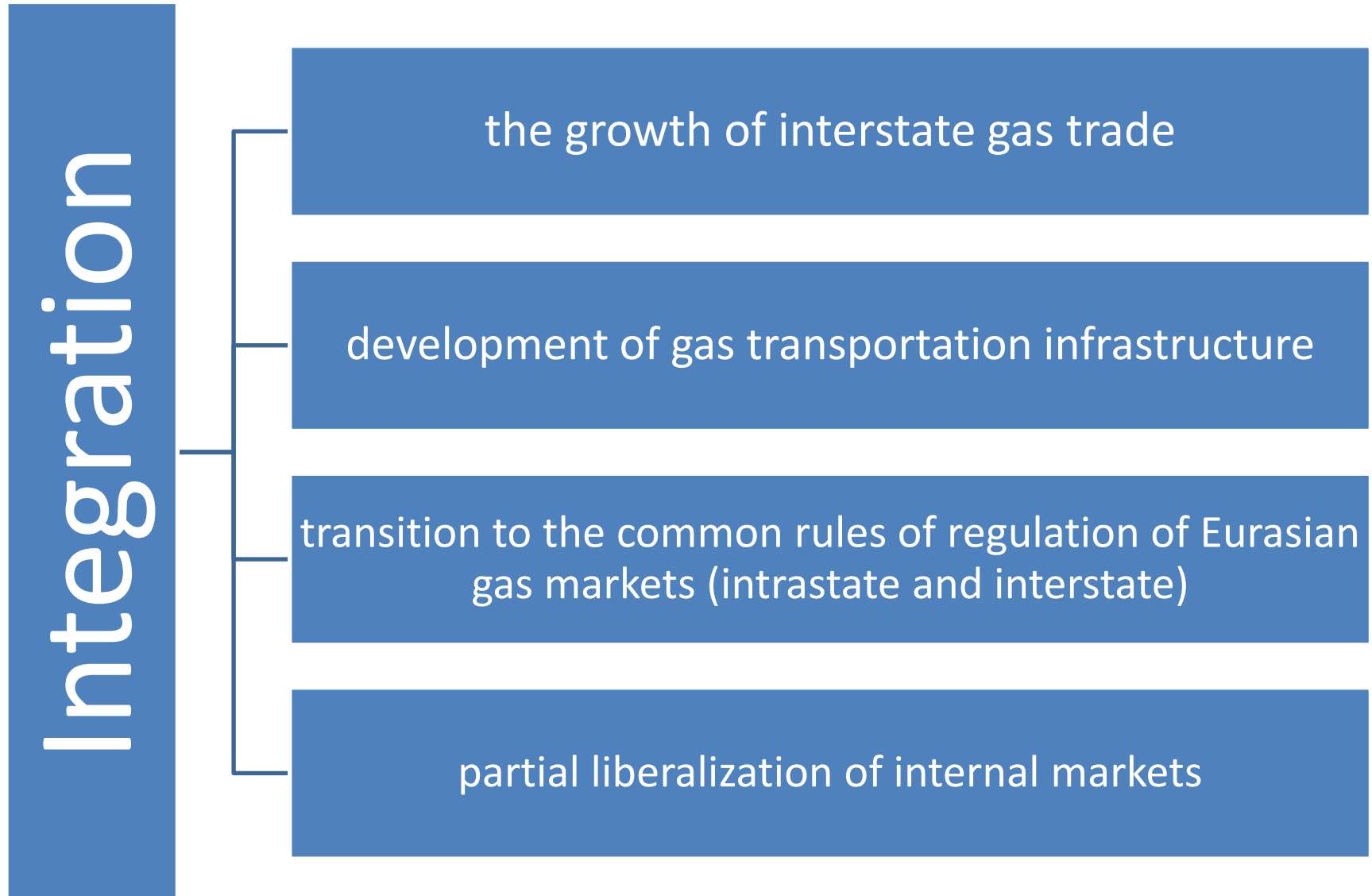


RUSSIAN GAS FOR EURASIA

**Alexey GROMOV,
PhD, Principal Director on Energy Studies
Institute for Energy and Finance**

**ENERGETIKA XXI: Economy. Policy. Ecology
Saint Petersburg, 12 November 2015**

Integration - one of the main trends in the Eurasian gas markets



Regional structure of the Eurasian gas market

Net importers of natural gas:



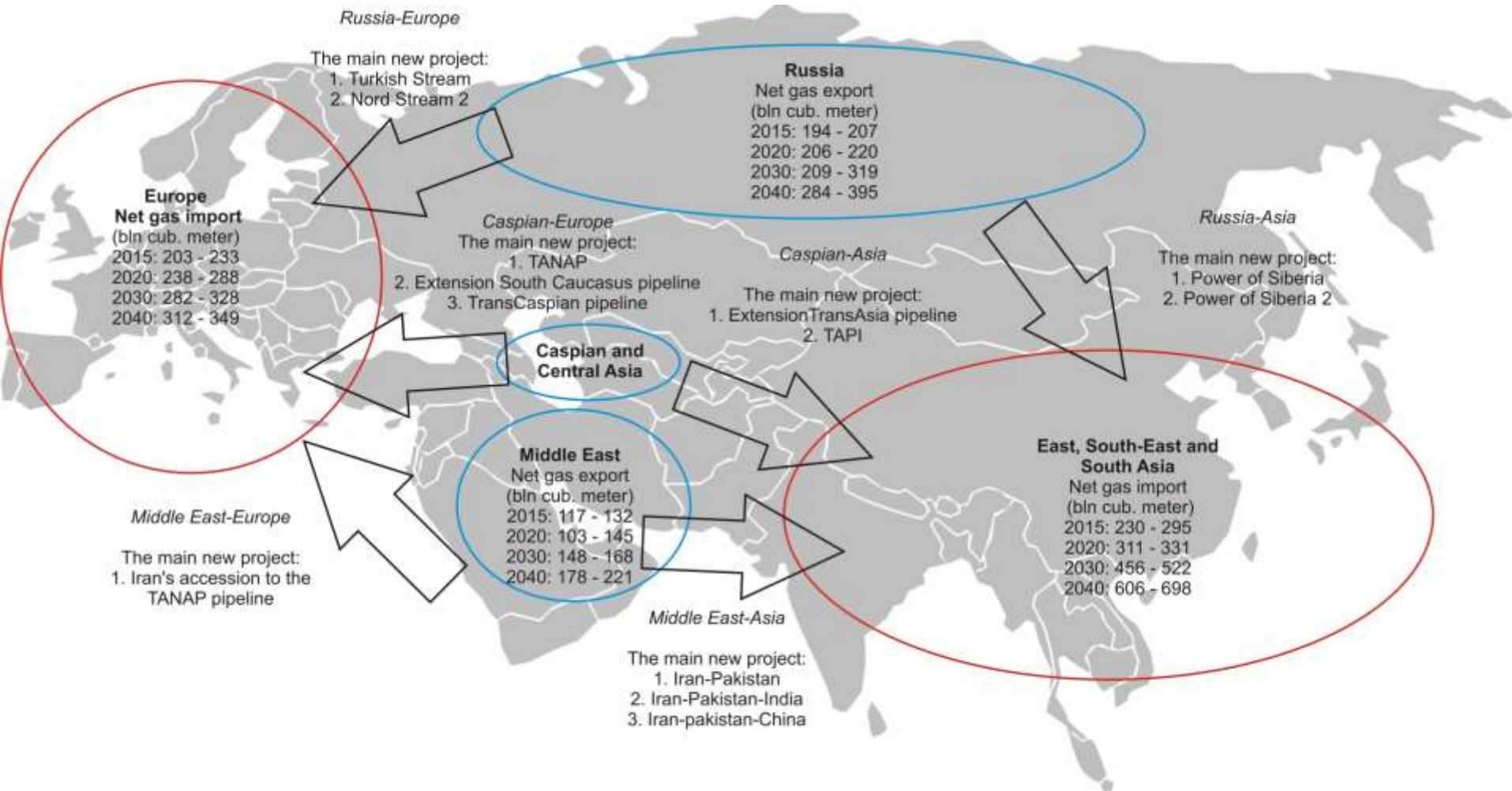
- 1. Europe** (including Turkey)
- 2. East, South-East and South Asia** (China, Japan, South Korea and India)

Net exporters of natural gas:

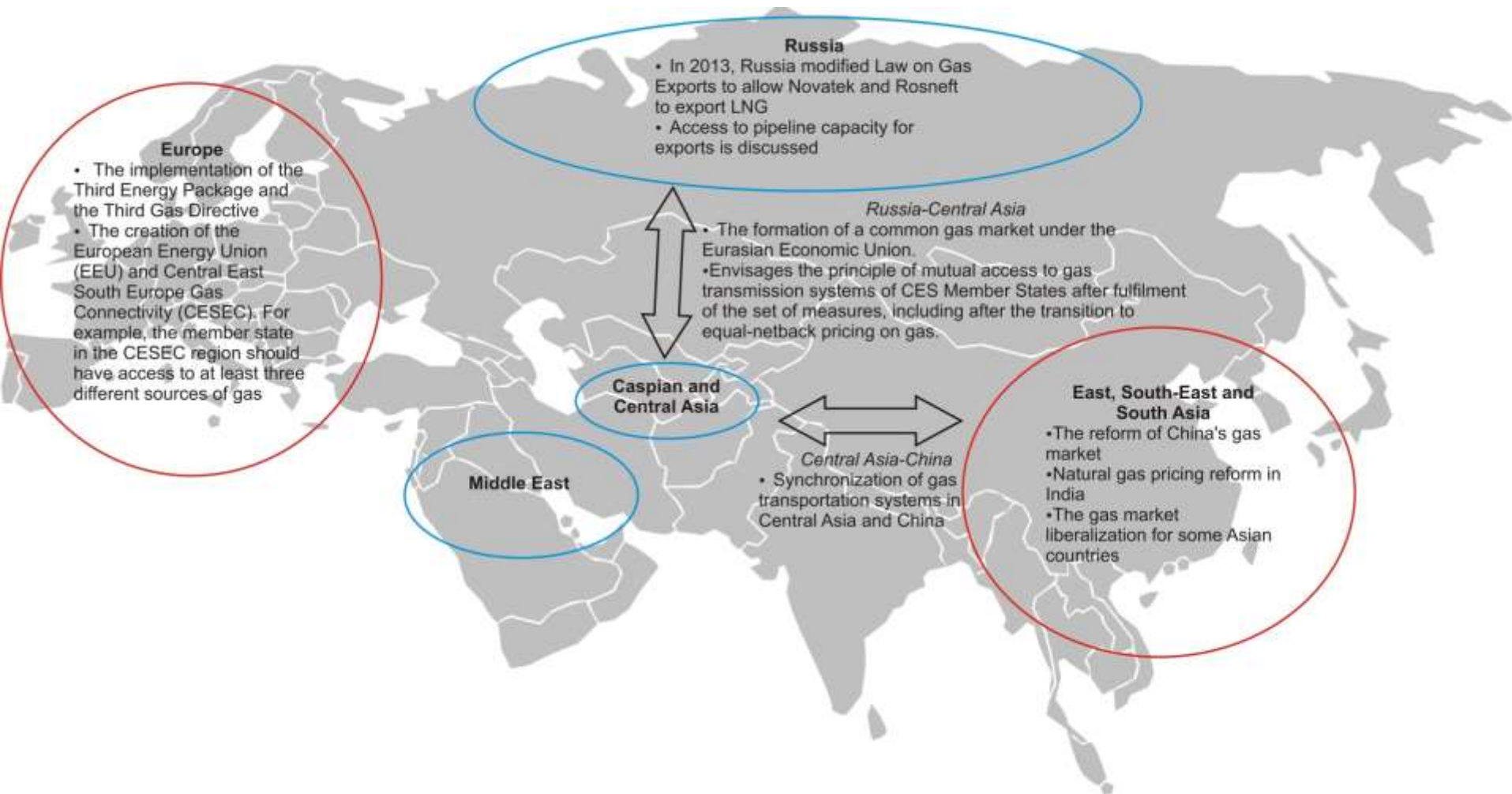
- 1. Russia**
- 2. Caspian and Central Asia** (Turkmenistan, Azerbaijan, Kazakhstan, Uzbekistan)
- 3. Middle East** (Qatar and Iran*)



Integration: the construction of new cross-regional gas infrastructure



Integration: the transition to the common rules of regulation and the liberalization

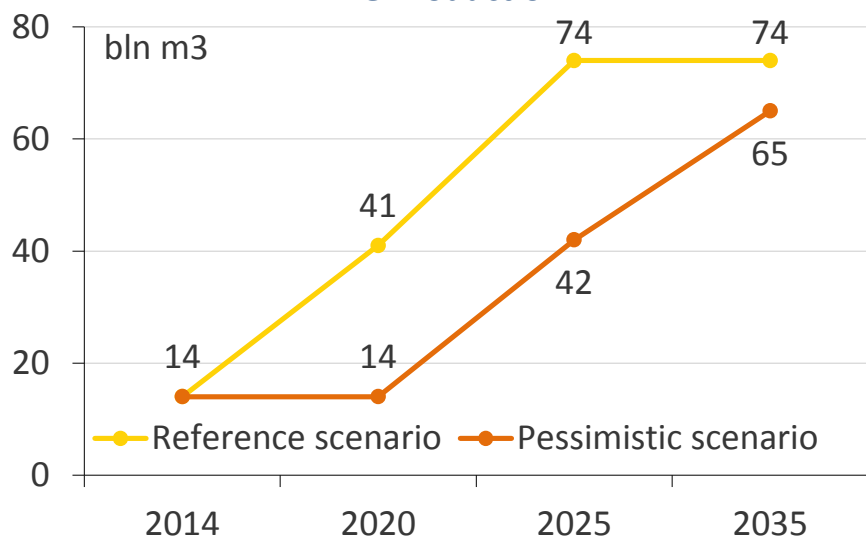


Russia plays an active role in the integration of the Eurasian gas market

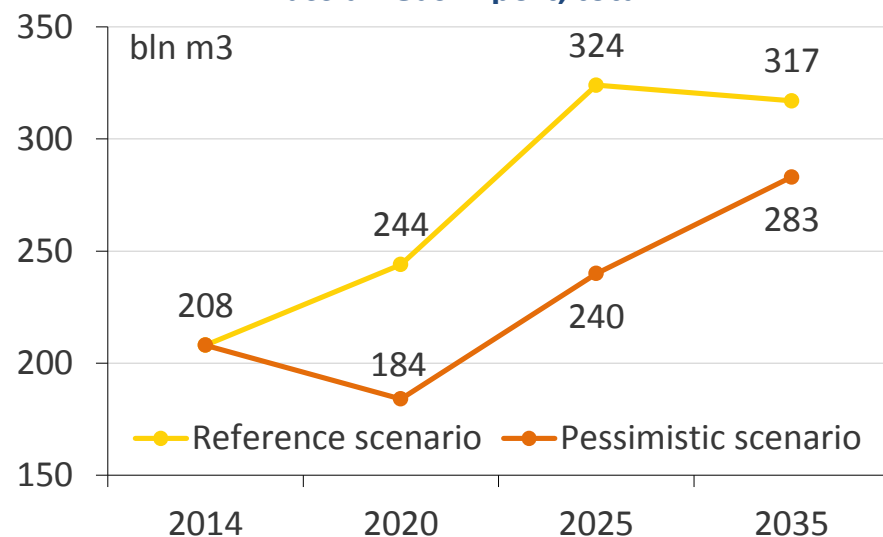
- Significant interconnection between Russian and European gas markets through long-term contracts, the existing gas transportation infrastructure and joint investment projects
- Russia plays an active role in the formation of a common gas market under the Eurasian Economic Union
- Russia is actively pursuing a strategy of diversification of gas exports, reinforcing the Eastern Vector (Asian-Pacific Market)

Diversification of the Russian gas export (incl. LNG) is presented in the Russia's Energy Strategy

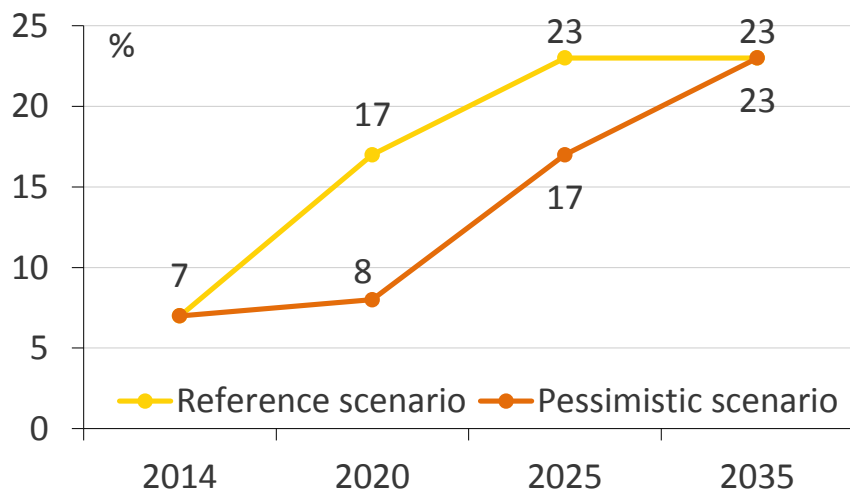
LNG Production



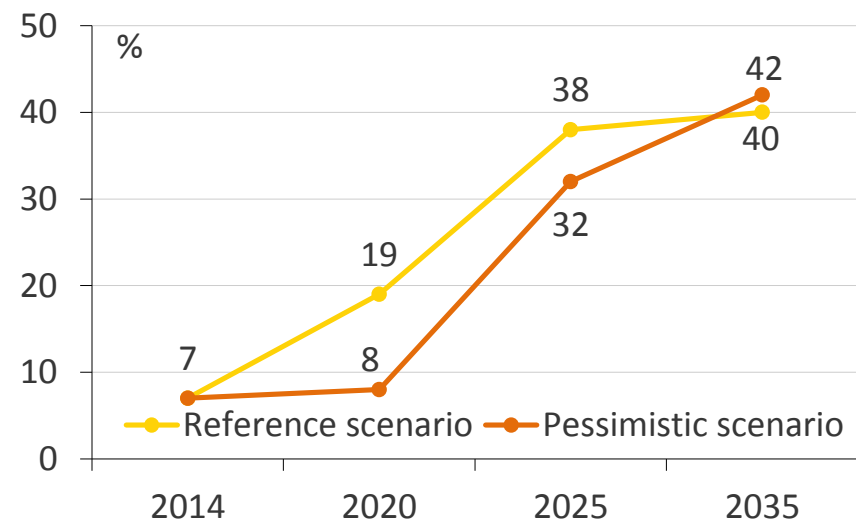
Russian Gas Export, total



LNG Share of Russian Gas Export

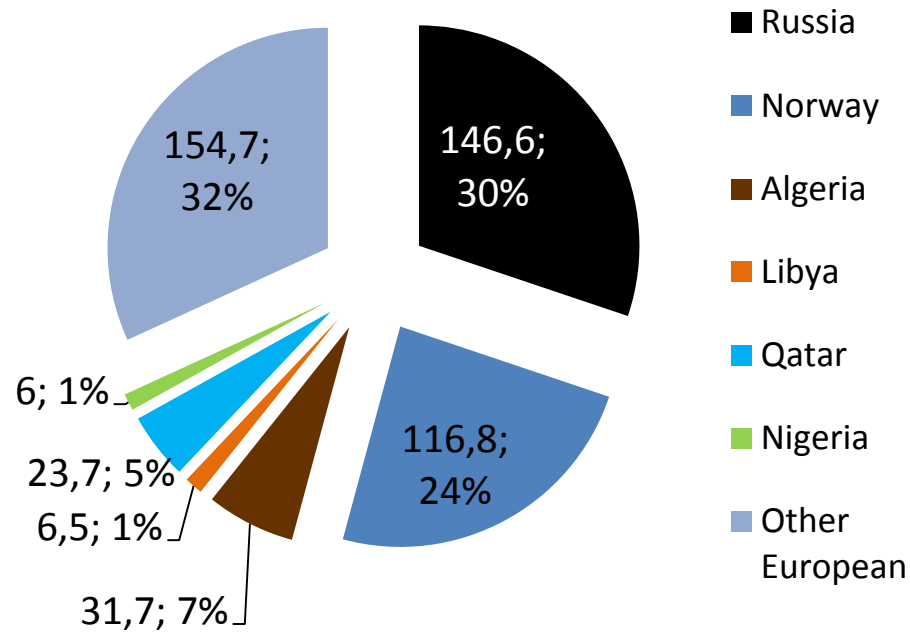


Asia-Pacific Share of Russian Gas Export



Russian and European gas market significantly interconnected

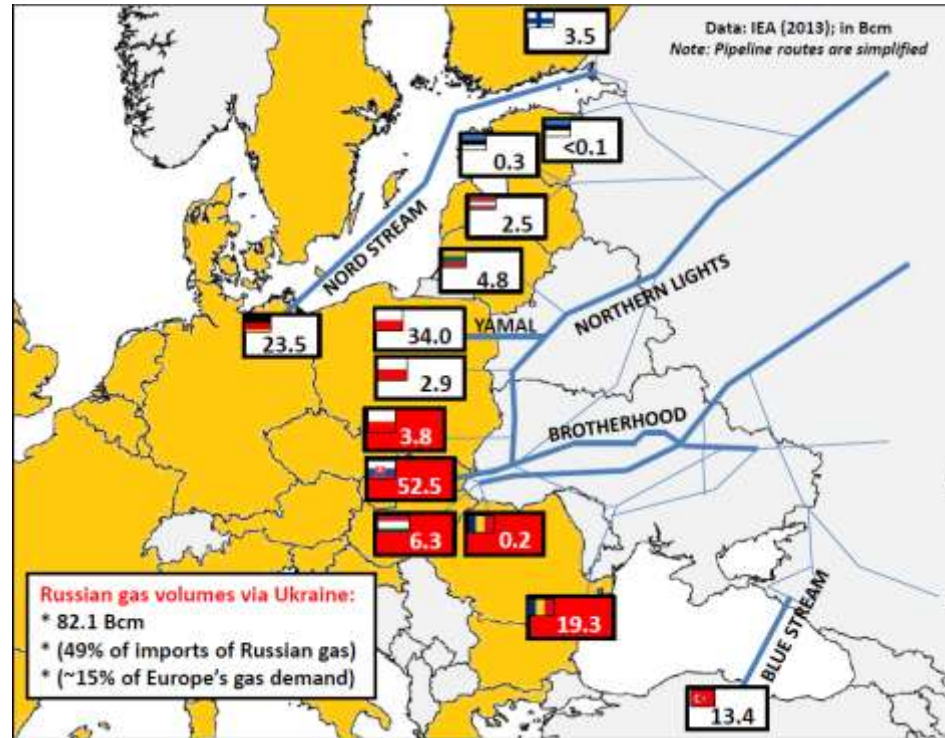
Natural gas supplies to Europe



Source: Gazprom Annual Report 2014

- Europe is one of Russia's three core gas markets
- The share of Russian gas in European consumption, including Turkey, was 30.2% and in imports — 64.1% (excl. Norway).

Key Russian pipeline routes and imports in 2013



- Russia and Europe are connected significant natural gas pipeline capacity.
- At the same time Russia is planning the construction of new gas transportation capacities: Nord Stream-2 and Turkish Stream.

The common gas market in the Eurasian Economic Union

- The Eurasian Economic Union (EAEU) began its operation since January 1, 2015.
- Member States: Armenia, Belarus, Kazakhstan, Kyrgyzstan and Russia.
- The formation of a common gas market includes a following phase:

I phase (2018-2019)

Target: The harmonization of the institutional environment of national gas markets functioning in **gas pricing and technical regulation**

II phase (2020-2021)

Target: The harmonization of the institutional environment of national gas markets functioning in **implementing common approaches to the functioning of the main gas transport infrastructure and storage**

III phase (2022-2023)

Target: The harmonization of the institutional environment of national gas markets functioning in **eliminating cross-border barriers between national gas markets of the Member States.**

Russian gas: turning to East



- The state-run Development Program for an integrated gas production, transportation and supply system in Eastern Siberia and the Far East, taking into account potential gas exports to China and other Asia-Pacific countries (**Eastern Gas Program**) was approved by the September 2007.
- In May 2014 Gazprom finalized a deal to supply China. The 30-year contract stipulates that 38 billion cubic meters of Russian gas will be annually supplied to China.

Russian LNG Projects



- 6 Russian LNG projects (planned or under construction) with total capacity is about 60 mln t
- 2018 is the start point for the first LNG project (Yamal LNG)
- Most part of these projects is oriented to the Asian LNG market





Risks of Russian LNG projects in conditions of sanctions and low oil prices

	LNG Project	Year of launch	Key Risks
1.	Vladivostok LNG (up to 10 mln t)	?	<ul style="list-style-type: none"> • The high cost of realization • Insufficient resource base • Possible cancelation in favor of gas pipeline projects
2.	Sakhalin-2 (increase up to 15 mln t from current 10 mln t)	?	<ul style="list-style-type: none"> • The lack of gas resources
3.	Far East LNG by Rosneft (up to 5 mln t)	2019	<ul style="list-style-type: none"> • The lack of investment • The conflict with Gazprom • The uncertainty of further cooperation with ExxonMobil
4.	Yamal LNG (up to 16,5 mln t)	2018	<ul style="list-style-type: none"> • Difficulties with the supply of foreign equipment (the effect of sanctions)
5.	Pechora LNG (up to 2,6 mln t)	?	<ul style="list-style-type: none"> • The uncertainty with the owner • The high cost of realization
6.	Baltic LNG (up to 10 mln t)	2020	<ul style="list-style-type: none"> • Focusing on the "overstocked" EU market



Key Conclusions

- Gas Market Integration is one of the key trend in Eurasia
- Russia plays an important role in the integration's processes
- Russian gas infrastructure can be the bridge between Europe and Asia
- Russia plays an active role in the formation of a common gas market under the Eurasian Economic Union
- Russia's new LNG projects can improve the role of Russia as an integrator of Eurasian gas market
- Low oil prices and technological sanctions (even though they are not imposed on the gas industry) create potential risks for Russian LNG projects that are 80% dependent on foreign technologies and equipment
- Pipeline projects of Russian gas exports will be a priority